Getting Things Done: Bureaucratic and Entrepreneurial Approaches to the Practice of Participatory Water Management Reforms in Brazil and India

Sunil Tankha  
Institute of Social Studies  
Erasmus University Rotterdam

Boyd Fuller  
LKY School of Public Policy  
National University of Singapore

ABSTRACT

Based on field investigations of initiatives to increase stakeholder participation in water management in Brazil and India, this paper provides insights into the practice of water sector reforms. Looking at the pace of reforms across both countries, we find that the process of creating institutions to facilitate stakeholder participation is proceeding rapidly, but greater attention is required on administrative reforms and capacity building. We find that the supply and demand of participation opportunities is often mismatched, and that participation reforms in the water sector may follow two very different paths: the bureaucratic and the entrepreneurial.

1. INTRODUCTION

The institutional approach to analyzing social and development problems provides useful insights into the causes and consequences of bad institutional environments on policy reform. However, the distribution of transactions costs and benefits acts against the socially optimal transformations that institutional analysis suggests (Saleth & Dinar 2004). As a result, systems can become trapped in low-level equilibria from which escape is difficult (Savedoff & Spiller 1999).

When creating the ideal institutional environment seems impossible, how then can governments practically implement effective, if partial and imperfect, reforms? If we let go of our demand for the theoretically “optimal” policy and implementation, what can we learn from the practice of reform? How are entrepreneurial agents and government agencies “getting reforms done”?

We address these questions within the framework of decentralization and participatory reforms, two durable ideas guiding water policy reforms. They enjoy broad support from both the left and right of the spectrum of political ideologies as they can accommodate two distinct discourses simultaneously: fairness and efficiency. Fairness is enhanced, the first discourse says, because participatory approaches help overcome power asymmetries...
and allow marginalized communities to exert more influence on water management. The efficiency discourse claims, on the other hand, that participatory and decentralized administrative structures lead to better resource utilization by overcoming information asymmetries and incentive problems between the centers and the peripheries and between service providers and project beneficiaries or consumers.

These reform ideas have garnered support from a wide range of political voices, from the World Bank to the World Social Forum. Unfortunately, adopting participation reforms has often not produced the active and effective involvement by targeted stakeholders in spite of broad political and financial support. For example, a recent in-depth review of river basin organizations (RBOs) reveals that (a) many RBOs have not yet yielded radically improved water management and (b) those that did make significant gains had pre-established, favorable institutional underpinnings even before the participatory approaches were implemented (see Blomquist, et.al. 2004, Formiga-Johansson & Kemper 2005).

Our aim is to provide insights about “getting reforms done” when institutions are imperfect and likely to remain so. We do so by examining the dynamics that produced challenges and surprising successes for both countries as they adopted and implemented participation reforms.

Water reform in Brazil and India has been studied extensively. Previous studies include micro-level intra-community power dynamics such as in gendered relations in local-level water management institutions (Meinzen-Dick & Zwartveen 2004), the institutional determinants of outcomes for community-based water infrastructure development (Isham & Kahkonen 2002), the effectiveness of participatory reform initiatives (Manikutty 2003), the political economy of water sector reforms (Lemos & de Oliveira 2004), the analysis of legal frameworks for participation (Porto 1998), and the politics of decentralized water pricing initiatives (Formiga-Johnson, Kumler & Lemos 2007). Our paper contributes to this comprehensive effort through examining in greater detail the practice of these reforms by the public agencies charged with their implementation, paying attention to how progress is achieved in institutionally-challenging environments.

There are few studies comparing Brazil and India. The two countries have striking similarities and some important differences. The similarities include a federal system governing a continental-scale country that is undergoing a transition from an agricultural to industrial economy with high levels of socio-economic inequality, fragmented political systems with fuzzy ideological boundaries, and high levels of corruption. On the other hand, Brazil is much farther along the growth trajectory than India—and these provide important, but in themselves insufficient clues to help understand the adoption and implementation of water sector reforms (see Table 1).

[[Table 1 here]]
Table 1: Brazil & India: Some Comparative Figures

<table>
<thead>
<tr>
<th></th>
<th>Land Area (1000 ha)</th>
<th>Population (millions)</th>
<th>GNI per capita real/PPP (US $)</th>
<th>Annual Availability of Renewable Freshwater per Capita (m3/year)</th>
<th>Total Use of Available Renewable Freshwater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>851,488</td>
<td>192</td>
<td>7,350/10,070</td>
<td>43,487</td>
<td>&gt; 1%</td>
</tr>
<tr>
<td>India</td>
<td>328,726</td>
<td>1,140</td>
<td>1,070/2,960</td>
<td>1,647</td>
<td>34%</td>
</tr>
</tbody>
</table>


Our paper is based on data assembled through interviews and archival research. We performed field evaluations of a convenience sample of projects through focus group sessions, interviews with a wide range of stakeholders, and by observing nodal agency behavior and practices. Our research was focused in two states: Rio de Janeiro in Brazil and Uttar Pradesh in India. Neither of these states are outliers, in the sense that they do not stand out as particularly well-performing states; they are neither pioneers nor laggards.¹

Our choice of using otherwise “unremarkable” cases is deliberate. Instead of identifying a set of ideal conditions, we instead study the smaller victories and more gradual progress of cases which are more representative of the vast majority of normal administrative environments in developing countries within which reforms must be conducted. Our paper’s structure is based on Grindle and Thomas’ (1991) advice to look at the many and successive arenas through which reforms wind their way, paying attention to the politics of reforms—including the interests and strategies of stakeholders. This approach rejects the assumption that a good analysis of the problem automatically results in wise decision-making and then fruitful implementation. Thus, we address the legislative and implementation phases separately (in sections 2 and 3 respectively). Grindle and Thomas’ interactive model emphasizes that an accurate understanding of the policy process requires a more rigorous analysis of stakeholders (including the location, strength and stakes involved for the whole range of stakeholders) and their actions to promote, alter or reverse the policy process. As such, we presume that shortcomings and disagreements in designing and implementing “good” institutions and processes are to be expected in many cases, and then ask how practitioners and government agencies still make progress in implementing reforms and making them part of daily business in imperfect environments.

In the section which follows, we analyze how water policy reform legislation was shaped in Brazil and India. In section 3, we classify and explain institutional responses to the legislative mandates for reform that we describe in section 2. In section 4, we identify the

¹ The field research was conducted in Brazil during the fall of 2008 and in India during the spring and summer of 2009. We visited nodal agencies and project sites and spoke with a wide variety of stakeholders. The primary method of data collection consisted of numerous individual and semi-structured interviews and a few focus group discussions with key informants from the central and state governments, water management agencies, civil society organizations, users, and academia in both countries.
actions and actors which carry forward the reform agenda in institutionally imperfect environments. In section 5 we conclude with a few policy-relevant observations.

2. THE EVOLUTION OF LEGISLATIVE REFORMS IN THE BRAZILIAN AND INDIAN WATER SECTORS

The overarching water policy frameworks of Brazil and India are quite similar. Both the Brazilian and the Indian laws adhere to the principles of decentralized and participatory water management. They both state that water is a public good, is limited in supply, has multiple uses, and that these uses should be allocated, more or less according to the following priorities: human and animal consumption, followed by irrigation, hydropower, ecology, industries and navigation (Brazil Law 9,433, article 1; Indian National Water Policy 2002, paragraph 5).

In 1997, Brazil adopted a new Water Law to replace its 1934 Water Code. The 1997 Law adheres substantially to the conventional policy advice. It is based on the Dublin Principles, the French system of river-basin committees and several other international influences such as Agenda 21 from the 1992 UN Conference on Environment and Development. The Law commits to an economic instruments-based approach to water management (Brazil Law 9,433, Part 1, Chapter IV, section 4). At the same time, the Law reaffirms the 1988 Constitution’s definition of water as a public good and discards ideas about privatizing or creating property rights to water. The law also requires a decentralized and participatory approach to water resources management (Brazil Law 9,433, Part 2, Chapter III).

In 1987, India adopted a National Water Policy. A new version of the National Water Policy was adopted in 2002, but incorporated only a few minor modifications on the 1987 policy. The policies stress the need for better commercial management of water resources infrastructure and instituting increased water use charges (National Water Policy 2002, paragraph 11). In addition to statements supporting greater commercialization of water, they acknowledge the need to decentralize water management by creating basin level management institutions (National Water Policy 2002, paragraph 4.2) and to invoke stakeholder participation in the management of water resources (National Water Policy 2002, paragraph 12), or perhaps more accurately stated, of water infrastructures. They also call for integrated water resources management (National Water Policy, 2002, paragraph 3.3).

While the commonalities are important, so are also some important differences that stem from administrative priorities, historical politics as well as the operational guidelines issued by the laws and policies. We first describe the different politics behind the water law reforms in Brazil and India and then discuss their operational impacts.

2.1 Brazil

In Brazil, the new Water Law marks a significant departure, politically, from the 1934 Water Code. The latter had been written by the republican administration of Getulio
Vargas to gain national control over hydropower development from the North American corporations which dominated it. The 1934 Code accorded dominance to the federal hydropower sector in the management of the country’s rivers by formalizing a system whereby authority over all rivers which either ran through two or more states or formed the boundary between them would rest with the federal government. This guaranteed centralized decision-making power over all the major river systems in the country, giving the federal government developmental and co-ordination authority over the hydropower sector through the water-use authorizations process. Over the following decades, the hydropower sector and its massive investments in large multipurpose dams practically dictated water policy. There was an increasing centralization in the hydropower industry itself during this period. Power companies, which used to be organized around river basins, were consolidated under a federal holding company, Eletrobrás, in 1962 (Tankha 2008). A similar consolidation occurred at the state government level. These centralizing tendencies reached their apex under the military governments which ruled Brazil from 1964 to 1984.

Re-democratization in Brazil led to a new Constitution with decentralizing tendencies being adopted in 1988. At the same time, a movement emerged from the academic and technical epistemic communities to democratize decision making over water resources by taking powers away from the hydropower sector and vesting them in local government and civil society organizations (Barth 2002). Opposition from the traditionally dominant interests was strong, and negotiations over a new water law languished in the Brazilian legislature for almost a decade.²

It was only in the mid-1990s that the political equations, modified by macroeconomic conditions, shifted definitively in favor of the de-monopolization movement for water policy. Having succeeded in controlling inflation through the introduction of a new currency, President Fernando Henrique Cardoso committed Brazil to a program of price-stabilization and privatization. As part of this program, he pushed the sale of state-owned infrastructure companies, including the federal hydropower companies (Tankha 2009). To proceed with privatization, the federal government needed to de-link water policy and administration from the hydropower sector. Meanwhile, the industry interests which favored its pre-eminent status in water resources management shifted the focus of their political efforts to combating privatization and so it finally became possible to enact the new Water Law in April 1997.

The law, along with the official discourse, established the river basin as the unit of water management and required the formation of multi-stakeholder river basin-based committees to make basin level plans balancing concerns about water use, water quality, environmental protection, infrastructure projects, etc. The law broadly categorizes stakeholders, which include hydropower companies, water & sanitation concessionaires, state water management and environmental agencies, municipalities, and civil society organizations, into three groups—civil society, state, and users—and requires roughly equal representation amongst the three groups in the river basin committees. The committees themselves are instructed to function as water “parliaments”.

² Several key informants confirmed this claim.
The separation of “users” and “civil society” is based on two beliefs. First, that many users (e.g. hydropower companies) are much more powerful and have different interests from civil society groups. Second, civil society groups can represent environmental interests more effectively than the environmental ministries at the federal or state levels.\(^3\)

The Brazilian Water Law also calls for the creation of a basin agency associated with each basin committee which, in conjunction with other appropriate government organs, is charged with executing the decisions taken by the river basin committees. It also requires the issuance of water use permits (not rights) for most large scale uses of water. Basin committees are supposed to have oversight over the issue of these permits, although so far the state water management agencies usually execute this function.

### 2.2 India

Catalyzed by a severe drought, India adopted a new Water Policy rather quickly in 1987 (Saleth 2004). The policy did not tinker much with existing water rights or substantially change the policymaking structure. Instead, it focused on addressing water infrastructure management issues, especially the financial straitjacket in which almost all state irrigation departments found themselves. Ostensibly pro-poor policies had rendered public services cheap, and often free, to citizens; the trade-off was inefficiency and an inability to build up infrastructure to keep pace with the needs of India’s rapidly growing population. Reforming pricing policies was identified as the basic solution: increasing user-charges would provide needed financial resources and incentivize users to properly operate and maintain water infrastructure. Expectedly, given the populist political pressures in India, few have tried to implement this approach. Participation was seen as a means of moving pricing and other efficiency-oriented reforms forward.

Despite, or perhaps because of, the fact that water resources in India are much more stressed than those in Brazil, water politics and policies are greatly fragmented in India, a condition which often precludes co-operative behavior (Bardhan 2000). The constitutional and political underpinnings of water laws in India are also quite different from those in Brazil. Water, according to the Indian Constitution, is primarily a state subject; the central government exercises only an indirect role, though often this role is enhanced through (a) water and environmental policy formulation and regulation, (b) co-ordination of inter-state water sharing and the adjudication of its disputes, and (c) the direct\(^4\) and indirect\(^5\) funding of major and minor water infrastructure works for both drinking water and irrigation.

---

\(^3\) Again, this was indicated to us by several key informants.

\(^4\) For example, six of the nine categories of permissible works under the National Rural Employment Guarantee Scheme (India’s flagship social safety and poverty alleviation program) relate to the construction and maintenance of water infrastructure.

\(^5\) Central transfers to state governments for water-related infrastructures and services are quite substantial. Between 1996 and 2007, for example, around Rs. 25,000 crores (over US$ 5 billion) were provided to the states under just one program, the Accelerated Irrigation Benefits Program.
India’s water politics have traditionally focused on inter-state water allocation disputes, which were generally referred to tribunals constituted under the Inter-State River Water Disputes Act of 1956. These tribunals have the legal status of a Supreme Court judgment. Unfortunately, the tribunals usually took decades to reach a final ruling. In 2003, India passed an amendment to the 1956 Act to include a time limit to the tribunals’ deliberations.

A few well-publicized disputes over water resources in India, such as the involuntary resettlement question raised by the Narmada dams, have prompted a broad civil society push for more public participation in water management. Environmental activists have also organized against large and wasteful government expenditure on typical water infrastructure schemes by arguing that indigenous water infrastructures and management schemes are cheaper and more sustainable alternatives. Despite these flagship protests, there has been little sustained pressure for increasing participation, save perhaps by donor agencies such as the World Bank and the Asian Development Bank who see public participation as a cure to administrative inefficiency, corruption, and inadequate finances. The Banks’ influenced the Law’s content such that it states that public participation is needed for administrative and economic efficiency. Unlike Brazil, the Law does not concern itself much with distinguishing an environmental set of stakeholders.

Regarding the institutional architecture for the new water management, the 2002 Water Policy states that:

> Appropriate river basin organizations should be established for the planned development and management of a river basin as a whole or sub-basins, wherever necessary. Special multi-disciplinary units should be set up to prepare comprehensive plans taking into account not only the needs of irrigation but also harmonizing various other water uses…The scope and powers of the river basin organizations shall be decided by the states themselves. (National Water Policy 2002, para. 4.2, emphasis ours)

With regards to public participation, however, the policy only mentions it mostly for maintenance. The policy does not delegate substantial decision-making power, but rather calls upon users to assume direct financing and maintenance responsibilities for water infrastructures, in both rural drinking water and in irrigation.

Summarizing, the Brazilian Water Law had the specific aim of redistributing policy-making powers while the Indian law is more aptly characterized as a technicist attempt to improve management motivated mostly by administrative reform considerations. Brazil’s policy is more concerned with water-use management while India’s focuses much more on infrastructure development and maintenance. Both subscribe to the creation of local level committees, but for different reasons and using different approaches. While both countries’ reforms call for some kind of river basin organization, in India the main implementation has focused on irrigation-based water users associations at the catchment level.

---

level whose focal objectives and scale are quite different from basin level organizations being established in Brazil (see Table 2).

[[Table 2 here]]

**Table 2. Brazil and India: An Overview of Water Politics and Policies**

<table>
<thead>
<tr>
<th>Politics of Reform</th>
<th>Brazil</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major advocates for participation reforms</td>
<td>Academic and technical epistemic communities</td>
<td>Donor agencies</td>
</tr>
<tr>
<td>Primary rationale of reform proponents</td>
<td>Reallocating power away from dominant hydroelectric companies; democratic ideals</td>
<td>Leveraging resources for irrigation from communities.</td>
</tr>
<tr>
<td>Sources of Opposition</td>
<td>Hydroelectric companies</td>
<td>Populist politicians; centralizing bureaucrats</td>
</tr>
<tr>
<td>Catalyst for policy adoption</td>
<td>Changes in macro-economic conditions</td>
<td>Drought</td>
</tr>
<tr>
<td></td>
<td>Move of government to privatize water utilities</td>
<td></td>
</tr>
</tbody>
</table>

**Characteristics of Policies**

<table>
<thead>
<tr>
<th>Level of organization</th>
<th>Brazil</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>River basin</td>
<td>Catchments for irrigation districts</td>
</tr>
<tr>
<td>Major stakeholders involved</td>
<td>Water &amp; Sanitation companies, hydropower companies, bureaucracies, local government, civil society organizations.</td>
<td>Irrigation users, NGOs, politicians, donor agencies, bureaucracies, local government, civil society organizations.</td>
</tr>
<tr>
<td>Primary focus of activities</td>
<td>Deliberative decision-making on resource allocation</td>
<td>Participatory maintenance of irrigation infrastructure</td>
</tr>
<tr>
<td>Kinds of government involvement at different levels</td>
<td>State, Federal: policy, regulation, providing forums for participation</td>
<td>Federal: funding and regulation. State: regulations, funding, capacity building of communities</td>
</tr>
</tbody>
</table>
3. IMPLEMENTING PARTICIPATORY WATER REFORMS: INSTITUTIONAL RESPONSES TO LEGISLATIVE MANDATES

This section examines the next stages of the participation reform efforts in Brazil and India. Modifications in the legislative requirements in both countries represented a discontinuous change in the operational environments of the concerned government agencies. These agencies, which we refer to as nodal agencies because they occupy a critical place within the networks of local-level policy making and implementation, are being required not only to cede space to other organizations for managing water resources, but also to help create these organizations and to assist in making them effective partners in this endeavor. The implementation of the initial reforms as proposed by the legislatures in Brazil and India can best be analyzed by looking at three separate but interconnected arenas of activities being carried out within and around the nodal agencies: Administrative reforms, institution creation and capacity building. Progress in implementing reforms across these three arenas has been uneven. Institutional creation by the nodal agencies has made the most progress so far in both countries but the needed capacity building across all stakeholders and broader administration reforms lag behind, negatively impacting the effectiveness of the participation reforms.

3.1 Water Sector Reforms as Administrative Reforms

In Brazil and India, administrative reforms are being designed and implemented at the same time as the mandated participation reforms. Some of these are aimed specifically at the water sector; most are cross-sectoral in scope. Administrative reforms are important in that they often determine how effective nodal agencies are in “getting things done”. The centrality of nodal agencies to implementing participation reforms is, to some extent, ironic. In developing countries the components of water sector reform such as decentralization and participation are often pursued to compensate for weak public administration, but administrative reforms are a critical element in facilitating other reform efforts.

Grindle and Thomas (1991) have argued that the reactions of the bureaucracy are critical elements in determining the outcomes of reforms programs, especially when the costs of reforms are concentrated in government and the benefits are widely dispersed and where the implementation of the reforms program requires a long term effort, as is the case with participation reforms. Broader experience certainly supports Grindle and Thomas’ argument. The results of recent efforts to privatize and otherwise outsource public services have demonstrated that the absence of a concurrent and successful program of administrative reforms handicaps all other reforms. Scholars now understand the orthodox paradox: reform strategies requiring the scaling back of the (incapable) state ironically need a strong and capable state to ensure their proper execution (see Haggard & Kaufman 1992).

Reforms in water management agencies tend to follow trends set by the national administrative reforms agendas. To a large extent, however, broader administrative reforms pursued in India and Brazil do not dovetail with the requirements of the
concurrent water sector participation reforms. In Brazil, administrative reforms during the Cardoso administration’s first term (1995-1998) were managerial in scope and heavily influenced by New Public Management (NPM) ideas. During his first term, the Cardoso administration introduced privatization of public services, new organizational designs and entities such as independent regulatory agencies, and flexible employment opportunities in the public sector such as short-term contracts and other non-career options for consultants. Overall, the Cardoso administration’s vision of a regulatory state hewed substantially to the orthodox prescription of a technical and independent regulatory agency, rather than one influenced and constrained by other social actors.

Administrative reforms lost momentum during Cardoso’s second term (1999-2002) because a return of economic instability derailed more ambitious reforms and privatization plans (Tankha 2009). Subsequently, President Lula of the Brazilian Workers Party abandoned the Cardoso administration’s privatization and managerial reforms in favor of a re-invigorated role for the state in infrastructure and public services and a reliance on participatory and consultative decision-making forums which favor participation reforms. Despite this, some NPM-style reform measures persist, such as in the frequent use of performance contracting within the public sector, and these impact the implementation of participation reform. For example, in Rio de Janeiro, river basin committees have to sign management contracts with the state’s water management agency and state water regulators sign performance contracts with ANA. However, these contracts are symbolic efforts and do not really capture the NPM vision of introducing unbroken chains of explicitly contractual relationships, linking principals to their agents.

Administrative reforms are even more urgent in India. Since independence, the government has set up numerous committees and commissions to strengthen its administrative capabilities, yet most observers conclude that these have yielded few satisfactory outcomes. The most recently concluded exercise, the Second Administrative Reforms Commission (2005), established four priority goals in the first phase of their activities: effective implementation of the Right to Information (RTI) Act, crisis management, public order, and implementation of the national rural employment guarantee scheme. Of these reforms, the RTI Act, passed by the Indian Parliament in 2005, is seen as having the most potential to combat administrative corruption and autocracy. While citizens already had access to various means of influencing government using information—e.g. litigation, media campaigns, and lobbying—each method required citizens to use their own resources. The RTI Act facilitates easier, but not costless, access to information and thus reduces the costs of citizen oversight. According

---

7 The difficulties in properly implementing NPM style reforms are not unique to Brazil. Manning (2001) contends that NPM has had very limited success in developing countries and that the core NPM agenda is unsuitable for them.

8 This emphasis on consultative decision making forums derives no doubt from the Brazilian Workers Party’s successful and popular participatory budgeting exercises in the city of Porto Alegre.

9 They are mostly symbolic because they do not really capture the NPM vision of introducing unbroken chains of explicitly contractual relationships, linking principals to their agents.
To a transaction costs perspective, this means that citizens should initiate more cases as those with smaller benefits are now desirable to pursue because of the reduced costs.

To better understand the link between national level administration reforms and the more specific, water-sector participation reforms, consider the following example from India. An NGO, Parivartan, used the RTI Act to bolster a campaign against the privatization of the Delhi Water Board (Delhi Jal Board or DJB). Using the Act, Parivartan was able to obtain the release of correspondence they claimed showed the World Bank’s intervention in DJB’s selection process for consultants to advise it on reform and restructuring. Parivartan argued the World Bank wanted to ensure the selection of a compliant consultant who would recommend privatization. In this instance, the RTI facilitated Parivartan’s access to information, making participation possible although it did not result in the outcomes the NGO sought. While the use of RTI in such high-profile cases can promote accountability by making available information from insular institutions, further progress depends upon the supply of social activists that (a) have the resources to use the information and (b) are willing to pursue the more mundane cases of abuses of authority and of rent-seeking.

To conclude, participation reforms in India and Brazil are occurring concurrently with broader administrative reforms that emphasize increased efficiency in government operations. The latter are works in progress: delayed, partial, and largely un-coordinated with participation reform efforts. Some of these administration reforms, like the RTI in India, encourage the creation of participation opportunities indirectly while others have very little influence on participation reform, like New Public Management in Brazil. In either case, national administrative reforms need to be complimented with the creation and modifications of institutions at and around the nodal institutions implementing participation reforms and delivering related services.

3.2 Water Sector Reforms as the Creation of Institutions and Spaces

The legislative mandates formalizing participatory approaches in Brazil and India required the creation of new institutions, by which we mean organizations as well as the rules and norms that influence behavior. In Brazil, this is evident from reading the new Water Laws of 1997 and 2000, which call for the establishment of a national water regulatory agency and river basin committees. In India, the new water policy and the water laws of the various states also require the establishment of regulatory agencies and water users associations.


11 For example, see the Uttar Pradesh Water Management and Regulatory Commission Act, 2008 (which superseded the Northern India Canal and Drainage Act 1873 and the Uttar Pradesh Water Supply and Sewerage Act 1975) and the Uttar Pradesh Participatory Irrigation Management Act 2009.
Institutions set up by governments to conduct participatory exercises, such as river basin committees, are characterized by political theorists as “invited spaces”. Participation can also stem from “popular spaces” in which civil society entrepreneurs have taken the initiative to mobilize and organize citizens to interact with government. In both India and Brazil, the supply of spaces for participation in water policy and management has increased significantly. Till 2008, 13 states in India have enacted legislation on participatory irrigation management, and over 50,000 water users associations have been created covering 12.32 million hectares of land. Meanwhile, in Brazil, all states have passed new water legislation in response to the 1997 Water Law and over 100 river basin committees have been formed.

However, an increased supply of spaces for participation does not guarantee that such spaces will be effective, durable, or vibrant. Some are optimistic about the potential of new spaces for promoting a new “deliberative democracy” (e.g., Fung & Wright 2003). Others are pessimistic, citing concerns about the abilities of marginalized groups to use these spaces effectively in the face of elite opposition, their own lack of capacity for collective action, or differences between the culture of deliberation (usually based on the mainstream models) and those of the other groups from which participants come (Amy 1990; Corburn 2005; Young 1990).

Furthermore, even where significant efforts are made in Brazil and India to create the appropriate institutions, community involvement is still often less than expected by the government. Targeted stakeholders often do not believe that participating in the new “invited spaces” would help them solve the problems they faced productively. They regularly ignore or decline participation opportunities because the costs in time and resources seem greater than the benefits. For example, in a survey of seven central Indian states, farmers were asked about how much responsibility they would be willing to undertake in operating and maintaining irrigation canals. The survey revealed that in five of the seven states, about half of the farmers were unwilling to undertake any responsibilities. In the other two states, about half the respondents were willing to undertake only up to 25 percent of the responsibilities. This lack of willingness to participate is in large part due to stakeholders’ belief that the participation opportunities will not bring benefits worth the work (talking and then maintaining the infrastructure) they expect they will have to do.

Socio-cultural barriers to participation are also frequently encountered. In Rio de Janeiro, a government agent tasked with establishing river basin committees throughout the state observed that in the more remote regions of the state, local elected representatives displayed little enthusiasm for participating in river basin committees and, instead, treated her patronizingly as an idealistic child from the city (she was over 40 years old).

---

Overall, there is little evidence from either Brazil or India that civil society is actively demanding and populating participatory spaces in more than a few well-publicized cases.

This lack of demand has been studied before, though previous studies have generally focused on community-specific characteristics as explanatory variables for participation demand by communities. However, we were more interested in how other actors spurred community-driven demand where it was initially lacking. Since the operationalization of participation reforms usually falls upon nodal agencies, we explored the actions of nodal agencies and other entrepreneurial actors, using the basic framework of people and organizations learning and adapting through entrepreneurial actions and experimentation. We also delved into the balance of influences on and interests in the nodal agencies. How closely would they follow the intention of and instructions from the legislature? And finally, we also looked for other actors who were able to create demand for participation.

Through our observations of the government agencies and interviews with personnel tasked with operationalizing decentralization and participation we noted a particular dualism in their approaches. To some extent, nodal agencies in both countries were certainly jealous of their privileges and reluctant to abandon them, either because they wish to preserve their access to rents or because they perceive the participatory alternative to be insufficiently-developed and risky for institutional stability. Nodal agencies at times also appeared impatient with participatory approaches, which can often be slow and plodding. For example, the state water management agency in Rio de Janeiro (SERLA) unilaterally imposed bulk water use charges before establishing river basin committees even though the law intended that the basin committees would themselves decide whether and at what level to set these charges. SERLA’s aim was to catalyze the process of setting up river basin committees by using the charges to fund the river basin committees’ operations.

Nevertheless, in both countries our research uncovered a significant set of actors within the bureaucracy who were genuinely motivated to create effective participatory mechanisms. For example, consider the following two examples. First, a state government bureaucrat deputed to a participatory forum funded by the World Wildlife Fund to protect the habitat of a small primate in Rio de Janeiro’s lakes region leveraged this organization to initiate a wider stakeholder movement to enable local stakeholders interface with each other to (a) mobilize a cooperative effort by citizens and the privatized water and sanitation concessionaire of the region to clean up the local environment and (b) to help the stakeholder group negotiate with water regulators to set service charges and gain an exemption in how the sewage system was operated (see Pereira 2007 for details).

Similarly, in India, a political party worker from one village convinced his panchayat to eschew the traditional community tap water supply scheme and experiment with a more capital-intensive scheme of private metered home connections. While broader participation reforms were important for creating the initial space for local stakeholder input into water management, this Indian entrepreneur stood out in terms of how he

---

13 In 2009, SERLA was incorporated into the Instituto Estadual de Ambiente of the State of Rio de Janeiro.
organized his community, helped them influence officials, and participate effectively in the participation mechanisms in place.

We found that participation reform entrepreneurs like the ones described above were motivated by a variety of factors including belief, professionalism, careerism, and pragmatism. In many cases, these actors believed in the intrinsic value of participatory processes. Others supported participation reform because they recognized the limits of state action, especially in fiscally-constrained environments, and believed civil society participation was necessary for the government to get access to needed resources for water management. In other cases, civil servants’ professionalism led them to push the reforms. They viewed the mandate as an intrinsic part of their jobs and pursued it as a valid organizational objective with a bureaucratic detachment. Careerism combined with genuine and sustained pressure from above also sometimes motivated civil servants to exert themselves. They were concerned that a lack of efforts and results reflected badly on their official and unofficial performance evaluations.\textsuperscript{14}

Whatever their motivation, we found that these agents were most successful in creating demand when they were able to show communities how participation directly help stakeholders address the problems they were facing. In this sense, they were like the policy entrepreneurs described in Kingdon’s (1995) model of agenda-setting, save that for participation reform these entrepreneurs had to influence civil society instead of the government to respond to the other’s mood and put participation on their agenda.\textsuperscript{15}

While motivated parties can make a difference, experience has shown that willingness is not enough to make participation work well. Capacity and competence are also required, and early attempts in both countries have struggled as the players learn more about participatory decision-making and what it can (and cannot) provide, and how one can best to make it work using limited available resources (Susskind and Cruikshank 2006; Fuller and Vu 2009). In the next section, we look at how the interested parties began to build capacity within and across organizational boundaries.

\section*{3.3. Water Sector Reforms as the Building of Capacity}

New organizational forms and processes require new capacities. We noted above the difficulties inherent in mobilizing communities. Most observers and participants, including those from the nodal agencies, believe that progress in implementing water sector reforms, especially those related to participation, has been slow and unsatisfactory. Both the Brazilian and the Indian water policies are over a decade old, yet effective participatory arrangements are only now emerging, and still sporadically. Initial delays in

\textsuperscript{14} These observations are based on interviews with water agency personnel in both Brazil and India.

\textsuperscript{15} Briefly, Kingdon proposed that issues moved onto decision-makers official agenda when policy entrepreneurs were able to show them how problems that the government was facing could be solved using one or more particular solutions and that the political environment promoted action on this issue. This linking of problem, solution, and politics is necessary because decision-makers have limited resources and time, and need help in choosing which of the many issues surrounding them they ought to engage in. The same was the case for community and NGO actors in Brazil and India.
operationalizing participation stemmed largely from a lack of sufficient financial and programmatic resources being allocated to it. Now, as these resources are being allocated and implementation picking up pace, personnel from nodal agencies are recounting problems with the lack of capacity within civil society to assume the responsibilities implied by decentralized and participatory management.

Inasmuch as spaces for community participation are being mandated by national and state-level policy changes, they are invited spaces. In some cases, a pre-existing organized civil society can contribute to populating this invited space effectively. For example, in the case of the Rio das Velhas in the Brazilian state of Minas Gerais, Abers (2007) recounts how an environmental movement initiated at the Federal University of Minas Gerais took hold, expanded throughout the state and eventually displaced the “paper committee” officially established by the state government. However, where such pre-existing popular participatory organizations are missing new policy reorientations on water resources management must recruit members and actively create their capacities so that they are capable of populating invited spaces.

However, creating effective capacities in communities requires first building the requisite capacities in the nodal agencies themselves. This is not always easy. Nodal agencies in both countries have typically had a long history as bureaucratic-engineering organizations and have been staffed accordingly. In Rio de Janeiro, Brazil, the required capacity was created in SERLA by recruiting new skills from outside the bureaucracy to populate and manage a new cell specifically tasked with setting-up river basin committees. This provided the nodal agency not only with the skills necessary to promote community capacity building and organizing but also with the attitudinal changes necessary to approach the issue professionally. In Uttar Pradesh, India, there has been much less of cross-pollination in the nodal agencies. A participation management unit—Project Action Core Team or PACT—has been created in the state water agency; however, a much larger part of the task to preparing the ground for participation in India has been reserved for NGOs, which have been contracted to "ensure the involvement of the farmers."16

Although accessing outside talent has helped the nodal agencies in both Brazil and India, our interviews with these actors revealed that they often occupy an organizational ghetto. Their mission and efforts are often not appreciated by the core engineering staff of the agencies, indicating that the task of sensitization is yet incomplete.

Despite contextual differences, in both Brazil and India, capacity in stakeholder communities is the second major hurdle nodal agencies have to overcome. In a few select cases, where talent and motivation already exist, this hurdle has been overcome swiftly. In most others, capacity building has generally been an intricate and drawn-out process. The scope of the task is broad. Consider participation reform in Uttar Pradesh, for example. Here, the nodal agency contracted local NGOs to provide needed capacity. The

16 PACT is staffed with engineers from the state water agency who, no matter how motivated, lacked the requisite skills to facilitate the creation of civil society counterpart organizations. Moreover, these front-line bureaucrats are frequently transferred and spend little time in their assignments. Finally, allocating the task to NGOs allowed a greater amount of man-hours being allocated to community organization.
terms-of-reference for the NGOs require them to provide five community organizers (CO) for every 10 minors, one each specialized in (1) social sciences, (2) agriculture, (3) horticulture, (4) technical, and (5) wetlands. They also mandated that at least 20 percent (and preferably 30 percent) of them be female in order to facilitate women empowerment activities. The training period envisaged in the program extends 40 months. Another agency in the state, the Water and Land Management Institute (WALMI) hired an additional five NGOs to train the executive committees of water users association and do capacity building in the same areas. Doing the math, this indicates that each minor requires almost two person-years of training and assistance!

The needs of nodal agencies and civil society are extensive, but the widespread involvement of NGOs in India also raises questions about dependency, in which the various risk-adverse stakeholders rely on outsiders rather than developing their own independent capacity, thus forsaking the attendant learning which accrues to trial and error. For example, in the Uttar Pradesh example discussed above, community members interviewed commented that although the training was satisfactory, they were not sure if they could handle any “new problems.” These members also expressed great concern about the impending withdrawal of their CO.

Beyond participation capacity, new technical capabilities are also often required. When multiple stakeholders need to engage the technical matters of water management, many of them lack the appropriate training and capabilities. Usually, nodal agencies in Brazil and India turn to engineering consultancy firms when they lack the capacities internally. For example, the irrigation planning in the Uttar Pradesh case was performed by an Israeli firm while in Rio de Janeiro all of the river basin committee comprehensive and technical plans are prepared by local engineering consultancies. Communities are also reluctant or unable to engage in the technical matters. In Uttar Pradesh, for example, farmers responded to our questions about their participation in planning by pointing out that they would have preferred to participate more in the mapping of the outlets done by the consulting firm but could not argue their points against the technical explanations provided by the consulting firm. That does not mean that these stakeholders do not realize the consequences of differentiated technical expertise. In Brazil, for example, a survey of the members of over 100 river basin committees revealed that a majority (71 percent) of them felt that inequalities in technical knowledge prejudiced democratic decision making in the committees (Projecto Marca da Água 2007).

This differentiation in technical capacity can also encourage nodal agencies to return to decide-announce-defend policies, even if the announcements are now made in participatory forums. Progress on countering this lack of technical capacity has been slow, not only in water management but across most of global development practice. Local knowledge is often given great weight in government and academic documents and many believe access to such knowledge is essential if participation is to produce the context-sensitive interventions the participation reforms were intended to produce. Local

---

17 A minor is an irrigation canal whose designated head discharge is not more than 20 cusec.
18 This information was gathered from the Terms of References for NGOs under Uttar Pradesh Water Sector Restructuring Project (UPWSRP), which is being financed by the World Bank.
knowledge, if brought productively into the conversation, can not only provide context-specific data, but also new questions and answers for technical analysis. However, there are still significant challenges about how to bring local knowledge into the conversation and the capacity to do so is often lacking in government. (Corburn 2005; Fischer 2000; Fuller 2009).

Despite increasing recognition of the centrality of these different capacities to successful developmental interventions, the allocation of funds to capacity building is limited and often misused. The literature in the field is also pessimistic of capacity building outcomes, though the participation literature as a whole is less so. Either way, it is clear that academicians, aid agencies, government departments and civil society itself need to do more to build up knowledge about practice and about how to help nodal agencies and other stakeholders to more systematically and rapidly develop their own capacities as they experiment with participation reforms.

4. PATHWAYS TO PROGRESS

In section 2 we described how two quite different dynamics pushed for water sector reforms in Brazil and India. Both countries, however, had an element in common. The powerful and capable actors most involved in pushing the necessary legislative agendas—scholars and activists in Brazil and aid agencies in India—are quite removed from the actual implementation of those policies, which necessarily falls upon bureaucratic agencies and actors.

We have also discussed how the creation of institutions and concurrent national administrative reforms have been supplying imperfect participation opportunities, which have not resulted in effective participation because both demand and capacity for participation has been lacking. On the community side, participation opportunities were often met with skepticism and reluctance, especially in cases where low levels of capacities hampered effective and equal participation by stakeholders. On the government side, agencies often lacked the capacity to convene such processes or to train civil society. Furthermore, nodal agencies are often not very motivated to implement participation reforms for reasons that include perceptions about the resource and prestige losses suffered by the agency and the apparent lack of technical and organizational capacity in the communities.

Of course, the governments of both countries could scale back participatory opportunities so that their supply matches current, genuine grassroots demand for them—i.e., the government responds to popular spaces rather than offering invited spaces—but this is against the policy intention of both countries. So what can governments do given the real constraints that participation reforms face in terms of administrative reforms, institution creation, and capacity building?

As the examples we have shown here indicate, nodal agency staff and outside actors can play an important role in overcoming this skepticism and creating the demand for participation, especially when non-government stakeholders are relatively inexperienced...
and unorganized. In both Brazil and India, nodal agencies did not adopt a proactive stance at the beginning of the reforms and it soon became apparent that the supposed beneficiaries of the reform, non-government stakeholders, (especially those previously less present in water management), were not getting involved in the various participation spaces being created for them. In only a few “remarkable” cases did nodal agency or civil society actors such as NGOs create popular spaces or assist in the population of invited spaces. Participatory reforms in themselves do not excuse governments from self-improvement, though they do require capacities from government and those may be more or less accessible to nodal agencies than those required by traditional services.

We began this paper by asking how reforms can be undertaken when the institutional environment is not good. A “good” institutional environment is characterized by high levels of both capabilities and motivation but countries attempting reform usually start with low levels of capabilities and motivation (Manning 2001). The issue we address in this section is how reforms can increase motivation and capability. Motivation and capability are neither synonymous nor correlated. Looking at Figure 1, we can see that there are two paths to move from weak motivation-weak capability environments to strong-strong ones. One path starts with nodal agencies building motivation first and then its capabilities. This riskier path is based on active stakeholder and government involvement in experimentation—e.g. trial and error. The second, more risk-adverse, path begins with capacity building and expects that motivation will follow from an enhanced recognition of one’s powers and abilities.

We call the first path (the black arrow) the entrepreneurial path as it is propelled by motivated, risk-tolerant participation entrepreneurs who cajole, encourage, push, and other influence others to experiment with innovative approaches even when those actors are unsure whether they have the appropriate capacities for them. What these actors do is create higher levels of demand for participation opportunities by helping others (a) identify, link, and articulate what benefits or costs they are concerned about, and (b) reduce the transactions costs and uncertainties of participating. Their success depends partly upon their personal skills and partly upon their location at the boundaries between different stakeholder groups, in this latter sense serving as the crucial “weak ties” (Granovetter 1973) which make the systems they connect more capable of accomplishing their individual and shared goals.

[[Figure 1 here]]

**Figure 1: Reform Implementation: The Bureaucratic and Entrepreneurial Paths**

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak</td>
<td>Weak</td>
</tr>
<tr>
<td></td>
<td>Strong</td>
</tr>
<tr>
<td>Strong</td>
<td>Weak</td>
</tr>
<tr>
<td></td>
<td>Strong</td>
</tr>
</tbody>
</table>

18
These entrepreneurial actors expend much effort in pointing out the benefits which can be obtained if stakeholders choose to participate. But, as these entrepreneurial interventions are ad-hoc by nature, pursuing the entrepreneurial path can neither be planned nor standardized. It will depend almost exclusively on initiative-taking entrepreneurial actors, especially in the initial stages of reforms during which (a) the uncertainties make calculating costs and benefits difficult and (b) most decision-making spaces remain closed to them, meaning that there will be few points of access.

Given that risk-taking entrepreneurs are necessary for the entrepreneurial path, participation reform need to look at ways of increasing the supply of such actors. Increasing the number of points and means by which actors can enter the system is possibly the most promising means to increase the likelihood for entrepreneurial talent to emerge, because it both taps into a wider population of possible entrepreneurs and decreases the costs and uncertainties of entering by allowing entrepreneurs to select how they will engage. This can be facilitated by recognizing that flexible and redundant institutional responsibilities may provide entrepreneurs multiple avenues, opportunities, and modes for of mobilizing and bringing together stakeholders. Thus for example, a senior bureaucrat in the Indian Ministry of Water Resources commented that there are actually three different institutions which may take the lead in managing water resources at the local level: “If the GP [gram panchayat] does not do it, then perhaps the ID [irrigation department] will, or if even they fail, then we still have the WUAs [water users associations].” For this reason, although the standard recommendation is to have clearly defined institutional boundaries with separated roles and responsibilities, in low capacity-low motivation environments, most substantive work often gets done by entrepreneurs exceeding their mandates.

The second path, which we term the bureaucratic path, will tend to be both more prevalent and less innovative. It is characterized by a wide application of standard procedures (often imported from elsewhere) to provide invited spaces and stakeholder “education” about potential but unrealized gains which would accrue to participation and may or may not correspond to the particularities of the community’s situation. The agents involved in these efforts do not tailor solutions to individual communities as entrepreneurs do. What they do instead is offer a standardized program, which may or may not include capacity building, aimed at enabling stakeholders to articulate their interests as a group. In some cases, they may also facilitate the development of skills of “leaders” from within local communities to, hopefully, enable them to become articulators of community interests in the future. These leaders may or may not be entrepreneurs.

While this process of capacity building and routinization of invited spaces is on-going and as long as there is no uptake from the communities, the nodal agencies continue to manage the public tasks in more traditional bureaucratic ways, which many will no doubt find attractive. In our observations, the nodal agencies mostly followed the bureaucratic path.
In this sense, the entrepreneurial path leads by creating excitement and risk-taking around ad hoc participation opportunities while the bureaucratic path starts by supplying more standardized participation opportunities that evolve slowly as government capacities are built through training and technical transfer. In fact, real reform trajectories take both paths simultaneously. Some, new innovative participation opportunities arise through entrepreneurial action even as the government uses formal methods to meet more run-of-the-mill policy situations. The formal methods allow nodal agencies to meet existing demand while the ad hoc arise unexpectedly but can spur more radical learning and adjustment. Taken together, these two paths represent a composite movement along reform trajectories, adjusting the supply and demand of institutions and participants to support shared policymaking responsibilities among stakeholders.

5. CONCLUSIONS

The practice of participation reform, and other reforms as well, can be productively analyzed by accepting incomplete and imperfect outcomes as the norm and then exploring how progress is made. This requires using the lens of process and actions rather than outcomes and structures. Through this lens, we looked at three arenas of concurrent activities that influence participation reform implementation: broader administrative reforms, institution creation, and capacity building. We found that legislative mandates push often-reluctant nodal agencies to create a supply of participation opportunities, but neglect the task of creating the related demand, in part because governments assume the demand is already there and organized and capable enough to participate. Indeed, given the strong actions of policy entrepreneurs and activists in the legislative arena, one may even come to believe that such commitment has percolated to the local arena also, but this is only rarely the case.

As the institutions required by legislative mandate are created, they force the system to accommodate to their presence, forcing actors to confront new challenges and explore new capabilities. All these changes open the door for new actors to insert themselves into the water management process. But, more importantly, in creating a supply of participation opportunities, participation reforms also create new points of access where participation entrepreneurs can enter, mobilize demand on the part of non-government stakeholders, build bridges between different groups, and otherwise make participation happen more often and more effectively.

In examining the implementation of participation reforms, with their attendant administrative reforms, institution creation, and capacity building, we can see that their contribution in terms of creating new points of access for a greater number of stakeholders to engage with the policy process is an important one. By increasing the number of access points to the policymaking and implementation processes, they create more opportunities for entrepreneurial actors to enter the field. Participation entrepreneurs are important because they (a) dare to engage with these opportunities despite the slow, uneven, and uncertain implementation of the reforms, (b) push those reforms along at a faster pace, reducing perceived uncertainties for the other stakeholders.
and (c) make reforms more viable in many other ways. In other words, the relationship between reform and entrepreneurs can be synergistic, a positive move forward by one increasing the potential of the other. Participation reforms can and should create a virtuous cycle in which participation opportunities invite capacity builders and entrepreneurs who, respectively, build the talent and create the demand for participation among others, who in turn create, participate in, and train others for, future participation opportunities.

Currently in Brazil and India, the situation is dynamic and uncertain. This uncertainty is reduced by bureaucracies following the bureaucratic path and providing standardized participation opportunities. The needed innovation, on the other hand, comes from entrepreneurs who allow motivation to take them into largely uncharted waters, and then discover and seek to build the capacities needed to manage water better.

Finally, greater policy attention needs to be paid to capacity and motivation building. Part of the reason why demand lags behind supply is due to the lack of capacity and motivation among government and non-government stakeholders. Few people have experience in building participatory institutions, convening and manage multi-stakeholder discussions, and participating effectively as a representative of one’s community while working towards a solution that works for all. Much of this capacity has to be built through innovative practice, in which the required capabilities can only be identified after motivated stakeholders engage each other in problem-solving. Capacity building can also help provide communities greater access to technical resources, consolidate their own local knowledge, and build the confidence that they need to meet their counterparts effectively and, consequently, to demand to engage in more meaningful participation.

REFERENCES


Projeto Marca da Água. 2007. Comitês de Bacia sob o Olhar dos seus Membros.


### Table 1: Brazil & India: Some Comparative Figures

<table>
<thead>
<tr>
<th></th>
<th>Land Area (1000 ha)</th>
<th>Population (millions)</th>
<th>GNI per capita real/PPP (US $)</th>
<th>Annual Availability of Renewable Freshwater per Capita (m3/year)</th>
<th>Total Use of Available Renewable Freshwater</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>851,488</td>
<td>192</td>
<td>7,350/10,070</td>
<td>43,487</td>
<td>&gt;1%</td>
</tr>
<tr>
<td>India</td>
<td>328,726</td>
<td>1,140</td>
<td>1,070/2,960</td>
<td>1,647</td>
<td>34%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Politics of Reform</th>
<th>Brazil</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major advocates for participation reforms</td>
<td>Academic and technical epistemic communities</td>
<td>Donor agencies</td>
</tr>
<tr>
<td>Primary rationale of reform proponents</td>
<td>Reallocating power away from dominant hydroelectric companies; democratic ideals</td>
<td>Leveraging resources for irrigation from communities.</td>
</tr>
<tr>
<td>Sources of Opposition</td>
<td>Hydroelectric companies</td>
<td>Populist politicians; centralizing bureaucrats</td>
</tr>
<tr>
<td>Catalyst for policy adoption</td>
<td>Changes in macro-economic conditions</td>
<td>Drought</td>
</tr>
<tr>
<td></td>
<td>Move of government to privatize water utilities</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Characteristics of Policies</th>
<th>Brazil</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of organization</td>
<td>River basin</td>
<td>Catchments for irrigation districts</td>
</tr>
<tr>
<td>Major stakeholders involved</td>
<td>Water &amp; Sanitation companies, hydropower companies, bureaucracies, local government, civil society organizations.</td>
<td>Irrigation users, NGOs, politicians, donor agencies, bureaucracies, local government, civil society organizations.</td>
</tr>
<tr>
<td>Primary focus of activities</td>
<td>Deliberative decision-making on resource allocation</td>
<td>Participatory maintenance of irrigation infrastructure</td>
</tr>
<tr>
<td>Kinds of government involvement at different levels</td>
<td>State, Federal: policy, regulation, providing forums for participation</td>
<td>Federal: funding and regulation. State: regulations, funding, capacity building of communities</td>
</tr>
</tbody>
</table>
**Figure 2: Reform Implementation: The Bureaucratic and Entrepreneurial Paths**

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>Motivation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weak</td>
<td>Weak</td>
<td></td>
</tr>
<tr>
<td>Strong</td>
<td>Strong</td>
<td></td>
</tr>
</tbody>
</table>