Water Sector IRAs and Institutional Reforms in India

Proceedings of the National Workshop on

Independent Regulatory Authorities (IRA) and Related Institutional Reforms in the Water Sector in India

Mumbai, August 28, 2009

Centre for Technology Alternatives for Rural Areas, IIT-Bombay

आरोग्य, ऊर्जा, शिक्षण आणि पालकत्व या विषयातील विशेष प्रयत्न

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Contents

Abbreviations

APWRRC	—	Andhra Pradesh Water Resources Regulatory Commission
ATREE	—	Ashoka Trust for Research in Ecology and the Environment
CBRs	—	Conduct of Business Regulations
CISED	—	Centre for Interdisciplinary Studies in Environment and Development
CPHEEO	—	Centre for Public Health and Environmental Engineering Organization
CSOs	—	Civil Society Organizations
CSSSC	—	Center for Studies in Social Sciences
CTARA	—	Centre for Technology Alternatives for Rural Areas
DPRs	—	Detailed Project Reports
FCR	—	Full Cost Recovery
IAS	—	Indian Administrative Service
IIM	—	Indian Institute of Management
IIT	—	Indian Institute of Technology
ILERC	—	International Environmental Law Research Centre
IRA	—	Independent Regulatory Authority
IRMA	—	Institute of Rural Management Anand
ISWP	—	Integrated State Water Plan
IWMI	—	International Water Management Institute
LPG	—	Liberalization, Politicization, Globalization
Mah./Maha.	—	Maharashtra
MWRRA	—	Maharashtra Water Resources Regulatory Authority
MWSSB	—	Maharashtra Water Supply and Sanitation Board
NCAS	—	National Centre for Advocacy Studies
NLSIU	—	National Law School of India University
O&M	—	Operations and Maintenance Costs
PCG	—	Public Control on Governance
ReLi	—	Resources and Livelihoods Group
SANDRP	—	South Asia Network of Dams, Rivers and people
SoHS	—	School of Habitat Studies
SOPPECOM	—	Society for Promoting Participative Eco-system Management
SPWD	—	Society for Promotion of Wastelands Development
S/Ss	—	Section / Sections of Law
SWaRA	—	State Water Resources Agency
SWaRDAC	—	State Water Resources Data and Analysis Center
SWP	—	State Water Policy
TAP	—	Transparency, Accountability, and Participation
TISS	—	Tata Institute of Social Sciences
u/s	—	under section
ULBs	—	Urban Local Bodies
UP	—	Uttar Pradesh
UPWMRC/ UPWaMReC	—	Uttar Pradesh Water Management and Regulatory Commission
WALMI	—	Water and Land Management Institute
WB	—	World Bank
WUA	—	Water User Association

Introduction to the Proceedings

The National Workshop on 'Independent Regulatory Authorities (IRA) & Related Institutional Reforms in the Water Sector in India' was held in context of the establishment of water sector IRAs in various states in India. The workshop was organized jointly by the Resources and Livelihoods Group, PRAYAS (Pune); School of Habitat Studies, TISS; and Centre for Technology Alternatives for Rural Areas (CTARA), IIT Bombay.

Five states in India, viz., Maharashtra, Uttar Pradesh, Andhra Pradesh, Arunachal Pradesh, and Madhya Pradesh, have taken concrete steps towards the process of establishment of state-level IRAs in the water sector. Any move towards independent regulation of the sector could be seen as harbinger of some of the most crucial and fundamental changes in the policies and the overall structure of the sector. Infrastructure sectors like electricity or telecom have already gone through such changes over the past decade. Though the water sector is significantly different from these other infrastructure sectors, there are crucial similarities in the reform policies that are being implemented or proposed in the water sector. Similar to the other sectors, Liberalization, Globalization, and Privatization have emerged as cross-cutting themes underlying reform measures in the water sector.

The move towards independent regulation in the water sector needs to be understood and discussed in this context. The Workshop was organized with an objective to engage in a collective process of sharing and deliberating on various issues and concerns surrounding this newly-evolving theme of 'IRAs in water sector'.

The Resources and Livelihoods Group (ReLi) of PRAYAS (Pune) conducted various activities around the theme of water regulation for the last three years, especially in the context of the enactment of 'Maharashtra Water Resources Regulatory Authority (MWRRA) Act' in 2005. The MWRRA Act laid down a basic framework for a state-level IRA in the water sector, which is now being held as a model by the government and other mainstream agencies for replication in the other states. The law included some very critical provisions that, if implemented, would have far-reaching impact on the sector as a whole. For example, the law, for the first time in the history of any water legislation in India, provided legal basis for 'water entitlements' as well as 'water markets' based on trading of such entitlements. Hence, in the light of this critical legislation, the ReLi group undertook activities aimed at critical analysis and awareness generation (through development and dissemination of relevant literature), and conducted regional-level workshops in Maharashtra.

Following up with the first official process initiated by MWRRA for determination of bulk-water tariff regulations, the ReLi group undertook regulatory-level interventions and advocacy, independently as well as in collaboration with various civil society organizations (CSOs), in the state. A regulatory intervention was also undertaken regarding public interest issues pertaining to the first major initiative of the Government of Maharashtra to privatize an irrigation project in the state. All these efforts provided basic analysis and grounding required for conducting the national-level Workshop.

This particular report is an attempt to document the deliberations and discussions held in the workshop in order to make them available to researchers, activists, media, and the general public. It presents, in brief, the major information and analysis points put forth by participants in the workshop on the new phenomena of emerging 'IRAs' in the Indian water sector. The report attempts to capture diverse view-points emerging from the participants, representing different stakeholder groups such as NGOs, activists, government officials, consultants, and academic institutions. The report is organized into sections, which correspond to the different sessions conducted in the workshop. The first section of the report gives the overall background to the workshop. A base-note was prepared for every session of the workshop, which provided mainly the background

information, analysis on the theme of the session, the latest debates around the theme, and tentative areas for discussions during the session. Each of the sections in this report, subsequent to the first section, contains: (a) base-note for the respective session and (b) a brief report of the substantive discussions held in the respective session.

More particularly, Section Two of the report comprises the base note for the session and substantive discussions held on the theme of 'Organizational Changes due to the IRA Laws'. There are crucial changes other than the organization changes that formed the focus of the remaining sessions of the workshop. Among these changes, the workshop focused on changes brought in by introduction of two new instruments: (a) 'Water Entitlement System' and (b) 'Water Tariff System'. These two are the core components of reform built in the IRA laws in the water sector. Section Three and Section Four of the report include base-notes and substantive discussions held on these two respective themes. Section Five of the report comprises the base-note and substantive discussions held in the last session titled 'Drawing Lessons for the Future'.

Apart from active participation in different sessions, various participants also contributed to the workshop by sharing their thoughts and analysis in the form of written notes and powerpoint presentations. All these notes and presentations are also included in the last section of the report. A list of workshop participants along with their contact details is included in the annexure of the report.

As the reader would find, the workshop was able to generate valuable discussion and debate around the issues and concerns surrounding water regulation in general, and those surrounding independent water regulation in particular. An attempt has been made in this report to capture the wealth of knowledge generated and contributed by the esteemed participants during the workshop. It is hoped that this valuable information will be useful for policy makers and policy advocates in pursuing the objective of promotion and protection of public interest in the water sector.

Section 1

Background Session:

What is the IRA Framework in the Water Sector?

Contents

Introduction

The background session started with a short introduction to the conceptual basis of the workshop, given by Subodh Wagle. The conceptual basis of the workshop is articulated in the concept note, which is included at the beginning of this section. The conceptual introduction was followed by a presentation by Navroz Dubash on the theoretical foundations of Independent Regulatory Authorities (IRAs). The session concluded by a presentation by Sachin Warghade, focusing on the introduction to the IRA laws (Maharashtra and Uttar Pradesh). Both theses presentations are included in the last section of the report. The session was useful in creating the background relevant for facilitating discussions in the following sessions of the workshop.

1.1 Concept Note and Agenda

1.1.1 Rationale for IRA and Its Claimed Benefits

Regulatory reforms in the infrastructure sector in India have the context of the diverse crises including financial, performance, and governance faced by the sectors managed and governed by state agencies. The need for the establishment of IRAs is felt for many reasons. The most prominent reason cited in the mainstream literature for this is the need for 'separation of the roles of the implementer from that of the regulator'. It is argued that in the conventional governance structure, while the government-owned utilities played the role of the 'implementer,' the government acted as the 'regulator'. This situation, involving a conflict of interests, is seen as problematic because an implementer is regulating its own actions. This necessitated separation of these two roles, and handing over the regulatory function to an agency independent of the government.

Further, the diagnostic analysis presented in this regard traces the roots of the failure of government-owned utilities largely to the interference of vested interests acting through the political and administrative authorities. The irrational decisions and inefficient implementation seen as the result of this interference by vested interest shave to be eliminated, in order to deal with the crises in the sectors. It is further argued that the sectors need consistency with regards to the decisions, policies and programs, and that there should not be any compromise on the techno-economic rationality of such crucial decisions. This could be achieved only through a decision-making body comprising experts, and that is protected from the extraneous and undue pressures from vested interests acting through political as well as administrative authorities.

Thus, the IRA, a body of techno-economic experts, independent of the influence and control of the governmental authorities, is seen as appropriate for handling the responsibility of regulation as well as decision making, pertaining to key aspects of the sectors. To give teeth to this body and to ensure the 'rule of law', it was found to be necessary to accord quasi-judicial status to this body.

In the theoretical perspective, establishment of IRA is also seen as a 'substitute for market competition'. Infrastructure sectors like water, electricity are considered as 'natural monopolies' where the very nature of the sector makes it infeasible to have two or more service providers serving the same set of consumers. In such a situation, there is a need for an external mechanism to control and regulate the monopoly service provider and to address market imperfections that could creep in. In this situation, the IRA is supposed to protect other players in the sector, including consumers.

The role played by IRA in insulating the sector from vested interests as well as in ensuring consistent, predictable, and techno-economically rational decisions and smooth implementation is seen as conducive for attracting private investment in the sector. For example, through the mechanism of tariff regulation, the IRA would ensure valid profit margins on the investments made by the private actors.

The role given to IRAs also require them to bring in transparency in the hitherto opaque governance, increase accountability of the sector agencies, and establish a mandatory system for intensive and informed participation.

1.1.2 Criticisms of IRA

The IRAs have been criticized on many grounds. In case of the water sector, at a more general level, it is argued that water is a dispersed resource and under a variety of decentralized governance regimes and, hence is far different from electricity and other public services. Electricity, telecom, and other such service sectors have reached a point where they are identified and accepted as 'commercial' sectors and hence, warrant management and regulation on a commercial basis. Contrary to this, the water sector is very much linked to the fundamental rights to life and livelihood. Hence, the governance model like IRAs based on the commercial and market-oriented principles evolved for the other sectors cannot be replicated in the water sector.

The current IRA model for the water sector (as can be seen from the IRA Laws in Maharashtra and UP) has all the elements that are typical of any commercial, market-oriented sector. The new system of awarding a certain share of the available water resources to users as their 'entitlements' (use-rights) and then linking these

entitlements to a formal, legally approved 'market' system, is seen as a step towards making water like other 'marketable' public services. Similarly, the mandatory provisions of charging tariff based on the principle of 'full-cost recovery' is also seen as the step towards further commercialization of water sector. Moreover, absence of any explicit and mandatory measures for protection of users who cannot afford the full-cost-based tariff is interpreted as a complete neglect of the equity considerations in governance of the sector. This commercialization is also seen as a prelude to the privatization of the sector as well as privatization of the life-serving resource such as water. Such commercialization and privatization are said to lead automatically to large-scale erosion of fundamental rights as well as effective access to water, especially of the marginalized and disadvantaged sections of society for whom it matters the most.

From the lens of political economy, the IRA in water sector is seen as an instrument of 'de-politicization' of the sector governance, leading to higher dominance of powerful groups over the crucial resource. This aspect brings in the light the lack of 'accountability' of IRAs authorized to make crucial decisions in water sector affecting the citizens to common users and citizens. Such a lack of accountability, it is feared, would eventually lead to total neglect by IRAs of 'socio-political' considerations such as water for sustainable livelihoods of the vulnerable and marginalized groups.

Though, in some cases, the IRAs are required to adopt participatory processes while making decisions, it is argued that, in these "participatory" processes, the dominant groups have an edge over the vulnerable groups. This is because the dominant groups are said to possess higher capacity to effectively participate and influence the 'expertocratic' and 'judicial' nature of the proceedings of the IRA. The situation is further aggravated due to lack of inclination, aptitude, and legitimacy to address socio-political considerations on the part of techno-economic experts who monopolize IRAs. These factors give rise to the danger of the 'regulatory capture', wherein the dominant groups are able to in a disproportionate manner influence the proceedings and hence, the decisions of the IRA in their favour at the cost of the larger public interest, as well as of the interest of the vulnerable and marginalized sections.

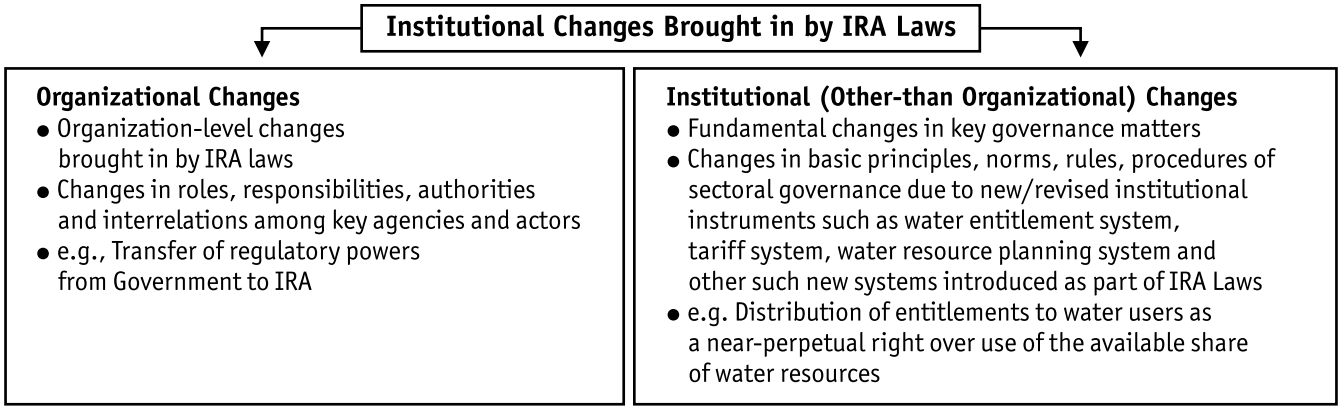
Thus, in effect, the IRA model would not only lead to widespread 'inequity' but also lead to total 'disempowerment' of the common water users and the poor sections of the society. Apart from these criticisms, it is also argued that water due to its dispersed and decentralized nature cannot be practically regulated through centralized model like IRAs.

1.1.3 Institutional Changes Due to IRA in Water Sector

In the light of this background, the focus of the workshop will be on the institutional reforms or changes that will be brought in by the laws that establish IRAs in the water sector. (These laws are referred to hereafter as IRA laws.)

Institutional reforms referred to here involve fundamental changes in policies, organizational structures, regulations, rules, norms as well as changes in basic principles governing the sector as a whole. For the sake of clarity and ease of communication, we categorize the institutional changes that would be brought in by the IRA laws into two broad groups: (i) Organizational Changes, i.e., changes in roles, responsibilities, authority, and powers of different key organizations and actors and their interrelationships in the water sector; and, (ii) Institutional (Other-than Organizational) Changes, i.e., changes in basic principles, norms as well as rules, procedures related to key governance matters in water sector such as water rights or entitlement, and water pricing or tariff. The above categories are depicted in the diagram below (refer Diagram 1).

Diagram 1: Categories of Institutional Changes Brought in by IRA Laws



The IRA laws that are being introduced in various states in India focus on these two types of institutional changes. The laws do not just bring in organizational changes but they are also accompanied with changes in key institutional matters like water rights or water tariff defining the water sector governance. Hence, it is necessary to look at IRAs not only to examine the organizational aspects but also to examine these new systems related to key institutional matters such as water rights and pricing.

1.1.4 Framework for Discussions in the Workshop

The status of IRA Laws in India and operationalization of IRAs suggests that this phenomenon is still in its evolutionary stage, but certainly has gathered initial momentum demanding our attention. For example, there are three states in India (viz., Maharashtra, Uttar Pradesh and Arunachal Pradesh) where the IRA laws have been enacted. There are two states where concrete developments have taken place for enactment of IRA Laws (viz., Madhya Pradesh and Andhra Pradesh). Moreover, there are other states where the proposals for establishment of IRA-like regulatory framework are being discussed among the key government officials (Karnataka, Gujarat, and other states).

The central government has recently proposed 'Draft Regulatory Reform Bill', which suggests an overarching law for giving effect to the agreed principles of regulation and for guiding the next stage of regulatory development. This bill is under discussion and, once enacted, will lead to adoption of a consistent approach to regulation across various sectors including water and sanitation. The key provisions of the Draft Bill include an institutional framework for setting up independent regulatory commissions in various sectors.

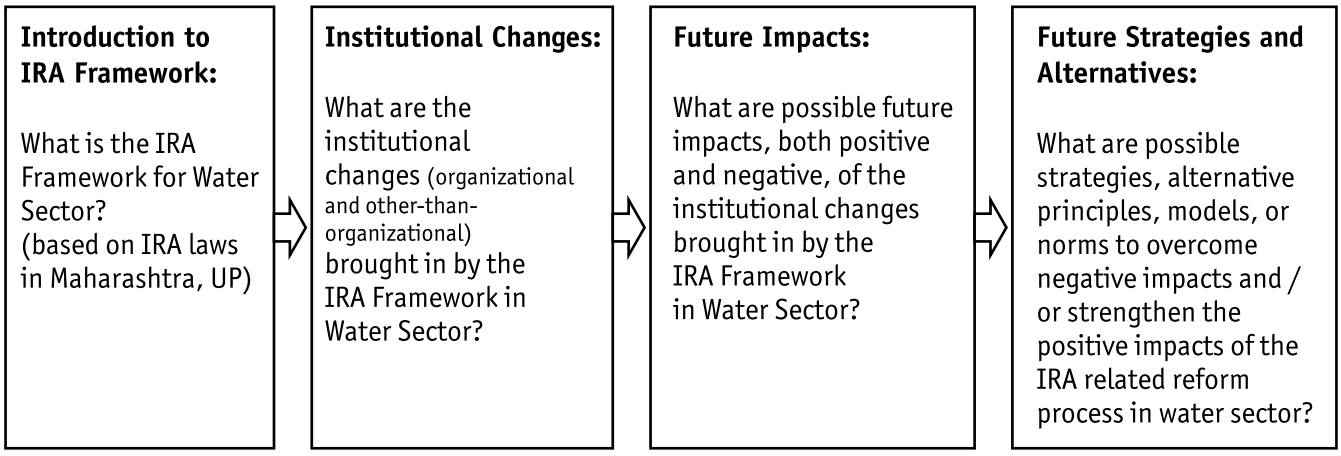
Thus, the phenomenon of introducing an IRA in the water sector is gaining momentum, though at present, it is in the initial stages of evolution.

On the basis of this context, the workshop tried to achieve the following objectives:

1. To evolve understanding of the IRA Framework proposed in the water sector (lessons from laws in Maharashtra and UP)
2. To share understanding of the organizational changes brought about by the establishment of the IRA in water sector, & their possible future impacts
3. To share understanding of the (other-than-organizational) institutional changes like changes in the water rights system and tariff system (brought in as part of IRA laws) and their possible future impacts
4. To share understanding of the possible strategies, alternative principles, models, or norms to overcome the negative impacts and / or strengthen the positive impacts of the IRA related reform process in water sector

The substantive framework for sharing and discussion during the workshop revolved around the four objectives mentioned above. The framework is depicted in the diagram given below (refer Diagram 2).

Diagram 2: Substantive Framework of Sharing and Discussion in Workshop



1.1.5 Workshop Sessions

Based on the above discussions, five sessions were planned in the workshop. The sessions are briefly discussed below.

Session 1: Background Session (What is IRA Framework in Water Sector?)

This short session provided introduction to the theoretical foundations underlying IRAs and to the specific policy and legal frameworks of IRAs in the Indian water sector. The policy and legal frameworks were presented drawing from the two specific legal instruments (i.e., Maharashtra and UP Laws) existing in India for establishment and operations of IRAs in the water sector. This was an introductory session with some space for, mainly clarificatory, questions and answers.

Session 2: Strengths, Weaknesses, and Implications of the Organizational Changes

This session initiated the main proceedings of the workshop. The topic under discussion in this session was the relevance of IRAs as an organizational innovation: (a) to protect public interest, especially the interests of the poor, and (b) to resolve sectoral problems. Thus, this session focused on the organizational aspects of the changes brought in by IRA Laws. This covered the impacts of aspects like distribution of roles, responsibilities, authority, and accountability relationships as envisaged in IRA laws. The session included, apart from two to three invited presentations, open sharing and discussion.

Session 3: New Water Entitlement System: Is it warranted, what would be its impacts and how to address the impacts? (focused on institutional changes due to IRA Law)

This session initiated discussion on the institutional (other-than-organizational) changes proposed as part of the IRA Law. It focused on the new 'water entitlement system', which is considered as the key reform component of the IRA laws in water sector. The presentations, followed by sharing and discussion, facilitated examination of this new system of water regulation and evolve various scenarios of its impacts on the public interest, especially the interest of the poor and the marginalized sections of the society. Further, the session is expected to bring out ideas for addressing the possible impacts.

Session 4: New Water Pricing and Tariff System: Is it warranted, what would be its impacts, and how to address them? (focused on institutional changes due to IRA Law)

This session continued with the discussion on the institutional (other-than-organizational) changes brought in by IRA law. Here, the focus was on the new water pricing and tariff system, another critical regulatory reform proposed in IRA law in water sector. The session brought out key concerns related to the new tariff system and also evolved scenarios of future impacts, and ways to address the impacts.

Session 5: Drawing Lessons for Future: Making IRAs People-Friendly OR Going for Alternatives? (focused on evolving future strategies)

This concluding session was aimed at drawing lessons for the future. It addressed the key questions: (a) whether IRA and the accompanied institutional changes can become instruments for protecting and promoting public interest (b) will we have to find alternative pathways and models to deal with the current crises in the water sector? By analyzing these questions, the session was expected to help evolve future strategies and principles for alternative mechanisms or for strengthening the existing mechanisms.

▪▪▪

1.2 Program Schedule

10:00 to 10:15	Registration
10:15 to 11:00	**Session 1- Background Session: What is the IRA Framework in the Water Sector?**
10:15-10:20	Introduction to the Workshop and Its Concept: Subodh Wagle
10:20-10:40	Theoretical Foundations of IRAs: Navroz Dubhash
10:40-10:50	Introduction to IRA Laws (Maharashtra & UP): Sachin Warghade
10.50-11.00	Q & A/ Discussions
11:00 to 12:00	**Session 2- Organizational Changes Due to IRA Laws: Strengths, Weaknesses, and Implications**
11:00-11:10	Base Note Recap: Subodh Wagle
11:10-11:30	Presentations by Discussants: Shripad Dharmadhikari, Balwant Joshi
11:30-12:00	Invited Comments and Open Discussions
12:00 to 01:30	**Session 3- New Water Entitlement System: Is it warranted, what would be its impacts and how to address the impacts?**
12:00-12:10	Base Note Recap: Sachin Warghade
12:10-12:40	Presentations by Discussants: Joy K. J., Philippe Cullet
12:40-01:30	Invited Comments and Open Discussions
01:30 to 02:30	Lunch
02:30 to 03:45	**Session 4- New Water Pricing and Tariff System: Is it warranted, what would be its impacts and how to address the impacts?**
02:30-02:40	Base Note Recap: Sachin Warghade
02:40-03:00	Presentations by Discussants: Sebastian Morris, Bharat Patankar
03:00-03:45	Invited Comments and Open Discussions
03:45 to 04:15	Tea / Coffee
04:15 to 05:45	**Session 5- Drawing Lessons for Future: Making IRAs People-Friendly OR Going for Alternatives? (Panel Session)**
04:15-04:55	Presentations by Panelists: Ajit Nimbalkar, Tushar Shah, Ajit Ranade, Suhas Paranjpe
04:55-05:20	Views and Comments by Participants
05:20-05:35	Brief Responses from the Participants
05:35-05:45	Concluding Remarks by the Chairperson
05:45-06:00	Vote of Thanks: N.C. Narayanan

Section 2

Organizational Changes Due to IRA Laws:

Strengths, Weaknesses, and Implications

Contents

Introduction

The session started with a brief recap of the base note sent to all participants prior to the workshop. The substantive discussion in the workshop was initiated through presentations by two invited discussants, namely, Shripad Dharmadhikari and Balwant Joshi. The presentations were followed by open discussions. The session was chaired by M. K. Ramesh. The issues covered in the discussion were: larger reform framework, de-politicization, autonomy, cultural dimensions, regulatory scope, and constitutional aspects of independent regulation in water sectors.

2.1 Base Note: Session On Organizational Changes Due to IRA Laws

2.1.1 Introduction to the Theme

Establishment of Independent Regulatory Authorities (IRA) in the water sector is the main organizational change, brought in through the water regulatory laws, enacted or under consideration in different states in India (hereafter referred as IRA Laws)[1]. Here, the focus is on the nature of organizational changes due to the introduction of IRAs in the water sector and the implications of these changes in the overall governance of the sector. The organizational changes refer to changes in the roles, responsibilities, authority, powers, and in the interrelationships among different key organizations and actors.

Establishment of IRAs in the water sector, at a very broad-level, brings in change in the roles of and the interrelationships among three key stakeholders, viz., the state government, water utilities, and water users. Apart from the changes in the roles of key stakeholders, the organizational changes also highlight various organizational issues within the IRAs such as accountability of IRAs, autonomy to IRAs, transparency in the functioning of IRAs and openness of IRAs to public scrutiny and participation.

The focus of Session 2 will be on such organizational aspects and it will not cover the substantive content related to regulatory mechanisms. Such substantive content of regulatory mechanisms (e.g., water entitlements, water tariff) will be discussed in other sessions planned in the workshop. Some relevant background information for the session on organizational aspects of IRA is presented in this note.

2.1.2 Organizational Features of IRAs

An IRA is considered as an expert agency of quasi-judicial nature, with powers adequate to take decisions on certain regulatory and governance issues, and to work independent of any direct operational control, influence, or intrusion by the State. An IRA typically comprises 3 or 4 members who make decisions by a majority of vote. The members generally possess expertise in technical and economic aspects of the sector.

The preambles of the IRA Laws in Maharashtra and UP clearly state the following roles for the IRAs in the water sector *(content below in italics is specific to the UP Law, and not included in the Maharashtra Law):*

- To regulate water resources within the state
- Facilitate and ensure judicious, equitable and sustainable management, allocation and optimal utilization of water resources for environmentally and economically sustainable development of the state
- To fix the rates for water use for agriculture, industrial, drinking, *power* and other purposes and *cess on lands benefited by flood protection and drainage works from the owners of lands benefited through appropriate regulatory instruments according to State Water Policy* and matters connected therewith or incidental thereto

The legal status of the IRA specified in these laws is as follows *(content below in italics is specific to the Maharashtra Law that is not included in the UP Law):*

- Authority established....shall be a body corporate... *having perpetual succession and a common seal, with power to contract, acquire, hold and dispose of property, both movable and immovable, and to do all things necessary for the purposes of this Act, and may sue or be sued by its corporate name.* [Section 3(2) of MWRRA & UPWMRC Act]
- The Authority... shall for the purposes of making any inquiry or initiating any proceedings under this Act, have the powers as are vested in a civil court, under the Code of Civil Procedure, 1908 ...[Section 13 of MWRRA Act & Section 14(1) of UPWMRC Act]
- The Commission shall, while performing its adjudicatory functions under this Act, have all the powers of a civil court trying a suit... [Section 14(1) of MWRRA Act & UPWMRC Act]

In the case of the IRA Law in Maharashtra, though the government will have influence on recommending the names for selection of the chair and members of the IRA,

[1]Maharashtra Water Resources Regulatory Authority Act, 2005 (MWRRA); Uttar Pradesh Water Management and Regulatory Commission Act, 2008 (UPWMRC); Arunachal Pradesh Water Resources Management Authority Act, 2006. The Act in Arunachal is complete copy of the Act in Maharashtra and hence it is not separately referred in further sections of the base note.

it is the governor who has the final powers of selection. Thus, the government will not have direct powers in deciding the chair and members of the IRA. But, in the case of the IRA Law in UP, the government has retained powers of final selection of the chair and members. The selection committee in the case of UP comprises, apart from state government officials, government officers from the central government and one non-governmental member (viz., the Director, IIM-Lucknow). There is no representative of the central government or a non-government member in the Selection Committee in Maharashtra.

Apart from the selection process, the state government would be able to exert influence on the IRA, through other mechanisms like State Water Policy, funds allocations, Audit and Annual Reports, 'policy directions' by the state government to IRA (IRA laws provide for this), and rules for the Act.

Overall, it can be observed that there is a certain level of autonomy given to the IRA with some mechanisms to ensure accountability to the state government, as well as in some cases to the state legislatures.

2.1.3 Crucial Issues and Debates on Organizational Aspects of IRAs

An attempt has been made in the following paragraphs to map different crucial issues and debates surrounding the organizational aspects of IRAs. This will help in outlining the major themes and issues in discussion which could be taken up during the particular session in the workshop.

Change in Roles of Stakeholders

The first critical issue pertains to the changes that the IRAs will bring about in the roles of different stakeholders, and whether these changes are desirable and feasible. The following is a summary of the potential changes in the roles of key stakeholders:

- *Roles of the State*
  - Pre-IRA Stage: Policy making, implementation and regulation
  - Post-IRA Stage: Policy making, implementation by public or private utilities, regulation by IRAs
- *Roles of Water Utilities*
  - Pre-IRA Stage: Implementation and regulation
  - Post-IRA Stage: Implementation under IRAs' regulatory purview
- *Roles of Water Users:*
  - Pre-IRA Stage: A stakeholder who could influence the sector as a voter (via government) using indirect political route.
  - Post-IRA Stage: Mainly a consumer to be protected by IRA, a sounding board to the regulators, free to play proactive role as a 'petitioner' or 'public-interest litigator' (at own costs)

This is an illustrative and not an exhaustive list of 'organizational' changes brought about by the IRA laws. These changes need to be discussed at a much deeper level, so as to derive their implications and impacts and evolve the strategies to deal with the adverse implications and to strengthen the positive impacts.

De-politicization of Water Sector

As per one of the main justifications for IRA, it is needed to protect key decisions (and also the processes to make those decisions) from "undue" influence of political and economic vested interests that work through government functionaries both political and administrative. This is to be achieved by divesting these responsibilities from the government functionaries and handing it over to the 'non-political' IRAs, which are independent of government's influence. This transfer of governance authority from a political agency to a "non-political" agency is often termed as 'de-politicization.'

IRAs are supposed to be autonomous and quasi-judicial decision-making bodies with powers to make decisions and ensure compliance of their decisions by various stakeholders. IRAs are also said to be dominated by officials from the state bureaucracies and 'technocracies', without any representation from political or civil society organizations. These members are expected to give top priority to 'techno-economic rationality,' but have no obligation to treat 'socio-political rationality' with such importance. Further, it is feared that IRA member strained in technical and economic disciplines might not be able to understand and be sensitive towards 'social' and 'political' considerations underlying regulatory decisions. Thus, the decisions pertaining to patently political matters like water distribution or water tariff would be made without due cognizance of social or political considerations; this is said to be another dimension of 'de-politicization' of the water sector governance.

There are concerns about the negative impacts of this 'de-politicisation', which give rise to the debate on 'de-politicisation' of governance of the sector due to the IRA laws. One of the major concerns is about

'disempowerment' of water users and citizens caused by de-politicization of the water sector. It is argued that handing over the authority of making key sectoral decisions to IRAs, which are not directly accountable to public, would lead to severe erosion of influence of people, especially the marginalized sections of society, on governance of the sector due to several factors. This is, first, because the IRAs would be immune to hitherto used political mechanisms to exert influence on government agencies such as petitioning, picketing, media-campaigns, demonstrations. Second, it is feared that, once the IRAs are established, the government ministry and elected representatives would be able to declare themselves as helpless in addressing adverse impact of various key decisions such as water tariff or water distribution. This would be an excuse for politicians to escape the responsibility and accountability for unpopular decisions. Third, it is also feared that, the dominant vested interests would still continue to exert their influence through politicians in power and senior bureaucrats who would continue to control IRAs using the lacunae in their structures. Thus, with continued sway of vested interests and severe erosion in the abilities of civil society, the common water users would be disempowered in significant proportion.

Another concern is over the 'regulatory capture' by dominant sections through legitimate means, which is facilitated by 'depoliticization'. It is argued that the mechanisms/ proceedings of IRAs are characterized by legalistic, technocratic, and expertocratic processes. Common citizens, especially the poor and the other vulnerable groups, do not have capacities, space, or respite to fight for their demands by influencing such processes; neither do they have financial resources to hire lawyers or experts. This provides significant advantage to the resourceful and dominant vested-interest groups who can employ 'top-notch' experts and lawyers to argue their cases before IRAs. Thus, IRAs can easily fall prey to such 'regulatory capture' by such vested-interest groups. Further, suo-moto actions by the IRAs to protect public interest, especially the interests of the poor, are also found to be rare and discretionary.

Overall, it can be seen that the debate on 'de-politicization' and its impact on sector governance due to introduction of IRAs has several complexities and concerns to be addressed.

Accountability vs. Autonomy Debate

It is argued that, for better functioning of the IRAs (i.e., without interference of vested-interest groups), it is necessary that the IRAs be given the status of autonomous bodies empowered to make decisions without any control or direct influence of the government. But, this raises the question that, if IRA, which is not a body elected by public, is given autonomy in making crucial decisions, how can we ensure that this autonomous body is accountable towards the public, which is at the receiving end of decisions by the IRA? This gives rise to the 'Accountability vs. Autonomy' debate which prompts us to assess impacts of introduction of IRAs, in view of the interplay between accountability and autonomy.

The XIth Five Year Plan document of Government of India has discussed the issue of accountability and autonomy in its chapter on 'Governance' (Chapter 10). Under the heading of 'Democratic Accountability' (pg. 243), the Plan document states the following ***(edited excerpts from paragraphs 10.96 & 10.97 of the Plan document):***

- In the earlier model... the Ministry was responsible for setting policy and for various aspects of delivery of services by the suppliers and was accountable to Parliament for all these functions.
- With emergence of private suppliers...the Ministry is responsible for policy but the regulator is responsible for many of the functions earlier performed by the Ministry, especially on issues such as price caps, quality of service, etc. The Ministry... is also not responsible for balancing the competition between suppliers, which is left to the regulator. This raises the question of the regulator's accountability.
- To be truly independent, the regulator must not be accountable to the Ministry. However, if it is not accountable to the Ministry, then perhaps it should be made responsible to the Legislature. This raises the issue of how precisely such accountability can be established.
- Legislative oversight cannot be absolute. In particular, it must be limited in one significant respect: those decisions of a regulator which are open to appeal before an appellate tribunal or court should be exempt from legislative scrutiny to avoid a clash of jurisdictions. However, it would remain open to the Legislature to review the regulations or policies underlying such decisions.
- Second, the regulator needs to be made responsible to the people at large. This is possible by adopting processes and systems whereby the interested citizens or groups of citizens may seek and acquire information, make representations and be accorded full process and participation rights. This capacity of citizens must be extended to both the rule making and quasi-judicial aspects of regulatory functions. The role of CSOs should also be recognized and enhanced.

- Requiring the regulator to rest the decision-making on publicly articulated rationale and persistently making them engaged with the people at large, is the most effective way for regulatory institutions to earn democratic legitimacy. Further, this is an effective safeguard against regulatory capture by special interest groups.
- However, it should be recognized that the requirement of engaging with CSOs would by itself fail to achieve the desired results unless the regulators are themselves made accountable to the Legislature.

The above discussion on the issue of accountability and autonomy of IRAs gives insights to the complications that arise due to the introduction of IRAs in any sector. Thus, it is important to understand the interplay between accountability and autonomy of IRAs in the water sector. Based on such understanding, there is also a need to assess the strategies for addressing major difficulties in effectively extracting accountability of IRAs and ensuring their autonomy. It is also necessary to evolve strategies to deal with failures in ensuring autonomy and accountability. A special attention needs to be given to accountability of IRAs towards the disadvantaged and vulnerable sections of society, realizing that they may be rendered 'voiceless' in the new scenario.

Indirect vs. Direct Public Control on Governance (PCG)

Since IRA is not a body directly elected by the public, it cannot be held accountable by the public through direct mechanisms. Through the mechanism of legislative oversight or through some government control, the IRA could be made indirectly accountable to the public. This debate of 'Direct Vs. Indirect Accountability' is of crucial importance because of the wide powers given to the IRA, which have direct impact on the wellbeing of the public at large.

As argued in the XIth Five Year Plan document, it is found necessary to make the regulator 'directly accountable' to the people, along with measures to make the IRA accountable to the Legislature. This direct public control of IRAs and hence of governance (PCG) of the sector could be achieved only if there were adequate opportunities for public to extract accountability in a direct manner. The experience in the electricity sector provides some critical insights to these aspects. First, the legal and policy framework that create IRAs should itself have adequate provisions (mandatory and not discretionary) and mechanisms that would effectively make operational the principles of transparency, accountability, and participation (TAP) that would facilitate 'direct public accountability'. The comparative analysis of MWRRA Act 2005 and Electricity Act 2003 clearly shows that MWRRA Act is far too weak on these three counts (i.e. TAP)[2]. The same is the case with UPWMRC Act 2008. It is difficult to explain why these laws that came after Electricity Act 2003 are so deficient with regard to TAP. While these two laws need to be strengthened on these counts, the new IRA laws should not carry these deficiencies.

Experience from the electricity sector suggests that the existence of spaces (in terms of legal provisions and mechanism) for TAP by itself is not adequate for success in achieving PCG. It was found that the IRAs need to make special efforts to provide human and financial resources to CSOs to facilitate effective interventions in order to promote public interest. The IRAs also need to take efforts for enhancing capabilities (in diverse senses) of CSOs to effectively use TAP provisions for extracting accountability out of the IRAs and, thus, avoid 'regulatory capture' of IRAs by dominant vested-interest groups.

Central vs. State-Level Regulatory Authority

This issue has come into picture due to the recent 'Regulatory Reform Bill' proposed by the Planning Commission for bringing uniformity in the regulatory frameworks across various sectors at the national level. The bill proposes setting-up of uniform central IRA in coordination with the state IRAs. Along with electricity, transport, communication and other sectors, the bill also proposes bringing 'water and sanitation' sector in the ambit of such a uniform, centralized, independent regulatory framework.

This not only brings in the issue of decentralization of powers to the state and the level of central control over the sector, but it also questions the constitutional validity of the proposal to bring 'water' under the ambit of such a centralized IRA framework.

Ground Water Regulation

Regulatory mechanism for groundwater is a more complex issue which requires separate treatment with regard to the organizational aspects of IRAs being discussed here. In IRA laws, both Maharashtra as well as UP laws, there are some crucial references to groundwater regulation, though the exact mechanisms

[2]Source: Submission made by PRAYAS to MWRRA titled 'Suggestions for the Process of Preparing Regulations' dated 14th May 2007.

of regulation and their modalities are not clearly spelt out. Preliminary assessment suggests that the UP law is relatively more elaborate and explicit about groundwater regulation than the Maharashtra law.

The Government of Maharashtra has undertaken the initiative of drafting a new bill specifically on groundwater regulation. It is proposed in this bill that the existing IRA should also be given the powers of regulating groundwater. To manage this responsibility, the IRA would be strengthened by inclusion of a member with expertise in groundwater as well as by bringing in the director of state groundwater agency as an advisor. Thus, the debate on the organizational model suitable for effective regulation of groundwater is equally important.

IRA laws of Maharashtra as well as those of UP provide a legal definition of the term called 'sub-surface or groundwater entitlement'. Hence, it implies that the regulatory approach focused on determination, distribution, and monitoring of surface water entitlements would also be applicable to groundwater (e.g., both laws provide for criteria to be fixed by IRAs for modifications of entitlements of surface as well as sub-surface water).

Apart from the approach of regulation based on 'entitlements', the UP law also seems to be taking the approach of regulation through 'licensing system'. The definition of a 'licensee' given in the UP law also includes ground water users, apart from the water service operators/ providers, who would be regulated through the licenses granted by the IRA.

Unlike the Maharashtra law, the UP law makes specific inclusion of ground water plan as one of the component of Integrated State Water Plan. Expertise in groundwater development is also included as one of the criteria for selection of the Member (Technical) of the IRA in UP. The UP law also empowers the IRA to penalize the groundwater polluter and to enforce rainwater harvesting for augmenting groundwater recharge.

It is clear from the above observations on the laws, that the organizational model of IRA is also being applied for groundwater regulation. Hence, there is a need to discuss various issues related to desirability and feasibility of such an organizational model for regulation of groundwater.

2.1.4 Issues for Discussion

The crucial issues and debates surrounding introduction of IRAs as an organizational reform (discussed in the earlier paragraphs) can be helpful in identifying the issues that are proposed for discussion during the relevant session in the workshop.

The following are some issues that were considered for discussion during the workshop:

i. **IRA as an Organizational Instrument for Water Sector Improvement:** Whether IRA is an appropriate organizational instrument for water sector improvement or not. Whether changes in roles of major actors due to introduction of IRA can lead to sector improvement or not. What are the implications of such changes? Is there a need for alternative to the IRA model of organizational reform? What could be the alternative?

ii. **Achieving Sectoral Improvement through De-politicization:** Whether 'de-politicization' is warranted for achieving sectoral improvement or not. Whether or not the positive impacts expected from de-politicization could be achieved by introduction of IRAs. Whether or not the concerns surrounding disempowerment of marginalized sections and erosion of socio-political rationality could actually be addressed. What are possible pathways for future in this regard?

iii. **Balancing Autonomy with Accountability:** Whether it is possible to achieve desirable balance in autonomy and accountability structures within IRA or not. If yes, how? If no, why and what should be the alternative? Can the mechanisms for ensuring proper composition and selection of members, for adequate government control, for legislative oversight, and other such measures be used to ensure the desirable balance between autonomy and accountability of IRAs? Whether the current structures of autonomy and accountability as provided in the IRA laws (Maharashtra & UP) could be improved and how?

iv. **Evolving Public Control on Governance (PCG):** In absence of any alternative framework, whether or not bringing in effective public control on governance (PCG) of IRAs would be an effective strategy for (a) establishing public control on governance of the sector, and (b) countering the possibility of 'regulatory capture' of the IRA. Are the current mechanisms (in UP & Maharashtra laws) adequate enough for PCG of IRAs? Would transparency, accountability, participation and capacity-building (TAP-C) actually benefit and further the objective of PCG of IRA and/or of the sector? What could be the other mechanisms to bring PCG over the functioning of the IRA and the sector as a whole?

v. **Moving towards Uniform Centralized Regulatory:** What are the pros and cons of the proposal for uniform regulatory framework at the level of central government? Is this required?

vi. **Groundwater Regulation by IRA:** Considering the peculiarities of groundwater, can the IRA model be effective in regulating groundwater? If yes, how? If no, what improvements are needed? or what could be the alternatives? Is there a need to have a common organizational framework for regulating groundwater and surface water?

Session discussants (presenters), invited commentators, and other participants were requested to prepare points for sharing during the workshop based on the above-mentioned issues. Participants were also requested to share new issues that are critical but not covered in the above list, for inclusion in the discussion.

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2.2 Substantive Presentations and Discussions in the Workshop:
Session On Organizational Changes Due to IRA Laws

The main substantive issues and concerns that emerged from the presentations and discussions on organizational changes due to IRA laws are presented in paragraphs below.

2.2.1 Attention to the Larger Framework of Reforms

The discussion session began with the caution raised about the possibility of losing the larger reform picture while analyzing the organizational changes and impacts of IRAs. It was argued that the establishment of IRAs in the water sector is very much a component of the larger reform processes that are underway in the water sector in India. Hence, the IRAs, whether created in the water or in any other sector, are supposed to work within the framework of the larger reform policies existing in the sector. This will determine the organizational changes and the impacts due to the IRA laws.

More specifically, there are three key components of the reform policies that shall determine these changes: (i) Commercial and market-based mechanisms for bringing in financial sustainability and viability, (ii) Privatization of the sector by allowing private players to operate, and (iii) De-politicization of the sector by eliminating politics from the sector. The IRAs are meant to take up implementation of these three key components of the reforms. These basic components of the larger reform process should be taken into consideration while analyzing the organizational and other changes due to the IRA laws. Further, it was shared that, though separation of the implementation and regulation functions is desirable in governance, the IRA model located in the given reform framework creates a different set of adverse impacts emanating from the undesirable reform framework. In this sense, the IRA model embedded in the given reform framework will yield very limited benefits.

2.2.2 De-politicization and Socio-Political Considerations

The workshop generated intense discussion and debate around the issue of 'de-politicization' due to the establishment of IRAs. On one hand, de-politicization due to the IRA model was seen as an attempt towards reduction of accountability of the government pertaining to its responsibility towards public interest protection, especially protection of interests of the poor and marginalized sections. This is seen as manifesting through the process wherein the government tends to hide behind the IRA and tends to evade responsibility on unpopular decisions such as tariff hike.

On the other hand, IRA was seen as an essential instrument of de-politicization by virtue of its very design. It was argued that the IRA is not a body of elected representatives. It works within the framework given by the legislature by way of either the state water policy or the provisions of the relevant act. These framework legislations or policies are outcomes of the political process. Thus, once the political process produces the policy or the law, it is the IRA that has to work for implementation of the law in an apolitical fashion within the given policy and the legal framework.

Assuming that the political process is able to produce good legislations and policies, the implementation of the same by technocrats in the IRA should lead to decisions that are in the interest of the public. Overall, the argument suggests that the depoliticization debate is relevant mainly at the level of policies and the law-making function of government and less important at the IRA-level functioning. It was suggested that the government can always issue a policy directive to the IRA, if the IRA is found to be neglecting any particular socio-political issue.

A different observation made in this regard in the workshop was that the IRA is not truly independent and certainly a part of the government. In this sense it is not fully autonomous. It should be understood that the government has accorded relative autonomy to IRA. Hence, an IRA cannot be called a depoliticized or politicized body. It could be seen as free from being answerable to the people. This nuanced difference is important to understand the exact nature of the IRA.

2.2.3 Importance of Public Opinion and Participation

It was argued that an IRA is supposed to be an apolitical body that makes decisions purely on techno-economic considerations. But, at the same time, there was a realization in the workshop that not all decisions made by an IRA are expected to be purely based on 'mathematical' logic. There are occasions when the IRA is supposed to make a judgement. In the process,

de-politicization occurs to some extent, but issues such as tariff setting or access to the resource are such that, even if IRA works within the given legal and policy framework, the IRA has to, at some point or other, exercise its own judgment. At this juncture, the IRA has to respond to political factors and forces that may be active not just in the form of policy directive from the government but also in the form of opinions of the dominant sections. Thus, despite this situation, if the IRA overlooks socio-political issues while making these judgments, there is a possibility of erosion of public interest. In this case, civil society participation and interventions could play an important role in protecting public interest.

In such situation, all stakeholders, including citizens, are expected to influence not only the policy and laws (that shape the structure and functioning of the IRA), but also the actual functioning of the IRA. Regulators cannot forget that there is public opinion involved and that they have to take due cognizance of the same in making decisions. They cannot remain purely techno-economic-legalistic bodies at all, though they are constructed in that manner.

An important point raised in this regard was that the substantive values, that guide the decisions by the IRAs, and that are expected to take care of socio-political considerations, may not necessarily come from government policies and laws. They could also emerge from the judgements that an IRA takes on various issues. Thus, if the IRA neglects socio-political considerations in its judgement and in the process of creating new substantive values for its own decisions and future functioning, then the IRA is certainly contributing to de-politicization of the issue under consideration.

2.2.4 Autonomy and De-politicization

The other dimension of the de-politicization debate which surfaced during the workshop was about the level of autonomy actually given to or achieved by, the IRAs to work in a truly apolitical environment. It was found that, though by design IRAs are supposed to work in an apolitical manner, this assumption does not hold true in practice due to the political interference in the functioning of the IRAs.

The process of selection of members of IRAs was seen as one of the important processes that needs to be considered while discussing autonomy of the IRAs. Examples of IRA laws in Maharashtra and UP were cited in this regard. The government has the powers of selection of members in the case of UP law; whereas, in the case of Maharashtra law, it is the Governor, who, based on the names recommended by the government, selects the members. It was found that, even in the case where the Governor has the final selection power, quite often the Governor has to act in consultation with the government. So, the process of selection of the IRA members may get politically influenced. Once the selection of members is through political influence, the future functioning of the IRA also naturally gets influenced by undue political interventions. This makes it difficult for the IRA to function in a truly apolitical manner.

The other aspect of autonomy is the mechanism for allocation of budget for the IRA. The higher the reliance on the government budget and approvals, higher is the possibility of politicization of the IRA's functioning. As per the IRA law in Maharashtra, the MWRRA is solely dependent upon the government, not only for budget sanction, but also for the release of funds. In this case, there may be a situation wherein the IRA can determine the staff requirements but the same is not approved by the government. In this context, it should be noted that the IRA law in UP makes provision for the salaries of atleast the members and Chairman to be drawn from the consolidated funds of the state and not from annual grants that need periodic approval of the state.

The purely techno-economic considerations that an IRA is supposed to work with are also not devoid of political influence. The techno-economic considerations such as financial sustainability or efficiency are politically constructed and have patently political implications, but get embedded in the techno-economic considerations as apolitical concepts.

2.2.5 Water Sector is Different from Electricity

It was observed that the IRA model in the water sector is based on the assumptions that may hold true in the electricity sector but not in the water sector. The IRA models established in the water sector are based on the model evolved in the electricity sector. The presumption is that there is a producer, a supplier, and a consumer operating in a unified but imperfect market, and hence interactions among them have to be regulated. But this presumption does not always hold good in the water sector. Many a times, water is not produced or supplied by anyone. There is no one-or-given supplier. It is extracted independently. There is also situation wherein people have customary rights to water. Thus, the regulation model evolved for the electricity sector cannot be replicated in the water sector as it is.

2.2.6 Cultural Dimension of Regulation and Dispute Resolution in Water

An important observation made in the workshop was that the current IRA model implemented in the water sector demands fundamental changes in ways in which people approach water and its governance. These changes are difficult to come about due to the lack of an appropriate culture among the people who are stakeholders in the regulatory and dispute resolution process. An example was cited to elaborate this point. After the emergence of courts in the British Raj in India, it was found that there were no land dispute cases in the Dhule district, especially, in the tribal dominated Shahada block. But, at the same time, the Bheel agent (appointed by British to look after Bheel tribals) who visited the villages was flooded with complaints by tribal communities about land issues.

It should be noted that the Bheel agent was a person to whom the tribals could go and talk, while the Court is an abstract and impersonal agency where one has to file a case before it. This represented the oral culture existing in many parts of India. Thus, the culture of going to the court or a regulator for disputes or problems has been lacking, especially, among the weaker sections of society. The IRA model in the water sector requires that the stakeholders approach or participate in the proceedings of the IRA in a formal way for being heard. This is a difficult cultural shift, which all people can not make. In this case, the key question raised in the workshop was how IRAs in water sector will help such people to get justice. The people who are ill-equipped in this respect will always remain neglected.

2.2.7 Scope of Regulatory Functions of IRAs is too Ambitious

It was shared in the workshop that the regulatory functions expected from a particular IRA in the water sector should match the capacities and resources of the regulatory agency. An IRA cannot be successful if it is burdened with responsibility of all the five regulatory functions, viz., economic, resource, market, competition, and environmental regulation. Examples of IRAs from other sector were cited to show that the regulators can work efficiently only when the scope of regulatory functions shouldered by them is focussed and limited, and commensurate with the strengths of the regulators.

In the case of the water sector IRAs in Maharashtra and UP, it was observed that the IRA is expected to take so many responsibilities that it may not be possible to deliver results in all the areas of responsibilities. For example, as per the IRA laws in the water sector (in UP and Maharashtra) there are almost eight major areas of responsibilities of the IRA. Among other things, these include tariff regulation, water distribution and use regulation, project review and approvals, dispute resolution, pollution control, approving state water plans, licensing of operators (last two functions are specific to UP IRA law) and so on. Over and above these, there are certain state-specific issues such as irrigation backlog (in Maharashtra) and charging farmers benefited by flood control measures (in UP) that the IRA has to look into. Given the limited capacities and resources in hand, the IRAs will not be able to deliver results in all these areas. Trying to address all the regulatory requirements through a single regulatory institution will not be effective.

In this context, questions were raised on whether it is appropriate to give the responsibility of groundwater regulation to the same IRA. A view on this was that it is better to try an alternate regulatory mechanism in the form of a lower-level institution accessible to the people, considering the nature of ground water and its use. But, at the same time, it was observed that, for achieving integrated water resource management, separation of surface water regulation from ground water regulation may not be desirable. It was found necessary to think systematically and work out the synergies that may be required between such separate mechanisms, if adopted.

It was further argued that the experiences from the electricity and other sectors show that ultimately the IRA starts focussing on one or two issues, such as tariff determination. In this process, though the IRA is given a host of responsibilities, non-core and at times problematic functions such as resource allocations may get neglected. Such functions which look apparently non-core for the government, could be of utmost importance to general public along with the poor and vulnerable sections of the society. In this situation, an IRA tends to do what it is comfortable with, in the given socio-political context. Many times, basic and most fundamental issues, such as efficiency, also get sidelined under the pretext of the IRA being overburdened. So, the point made in this regard was that the regulators should not be given excessive responsibility which they ultimately do not carry out, or just do hand waving or just go through motions but deliver nothing.

2.2.8 Mismatch of Roles and Functions of IRAs

It was found that, many times, there is a mismatch between roles and functions of IRAs. For example, the IRA in UP is supposed to approve the 'Integrated State Water Plan' (ISWP). Such planning exercise requires

'integration' of various demands and requirements. Such integration requires 'negotiations' among various stakeholders, who, at times, are in positions conflicting with each other. An IRA, being a regulator, is not ideally supposed to engage in negotiations. So, there is a clear mismatch between roles and functions of the IRA.

2.2.9 Possible Benefits of IRAs

Experiences related to the decade-old electricity regulation were shared, to assess the possible benefits that IRAs in the water sector can achieve. It was noted, that the IRAs in the electricity sector have certainly fallen short of expectation. Nevertheless, the IRAs have played an important role in improving the overall situation of the sector to a certain extent. The IRAs have been able to identify the sources of inefficiencies in the sector and also mark the stakeholders responsible for such inefficiencies. It will take some time to completely eradicate these inefficiencies. In this sense, considering the huge inefficiencies in the water sector, an IRA is certainly required to identify inefficiencies, mark those inefficiencies, and alleviate them.

2.2.10 Constitution as the Touchstone for IRA

It was suggested in the conference that the Constitution of India should be considered as the touchstone for analysing the IRA laws in the water sector for their legality. The Constitution is the fundamental law of the land that is the touchstone for mobilizing, accessing, using, managing, and allocating the resources including water. The Directive Principles of State Policy [Article 39 clause (b) and (c)] accommodate different interests and make allocation and ensure equity. Hence, it should really be the touchstone to determine access or evaluate the need for institution of this kind. The other important directive principle in this regard is the public trust doctrine (Article 48A), which has been glorified by M.C. Mehta Vs. Union of India or the Kamalnath Case. This clarifies the role of the state as regards to natural resources such as water that is held in public trust by the state.

2.2.11 Dangers of Post-Planning and Post-Implementation Level Regulation

A crucial contradiction was raised with regard to the stage at which independent regulation is introduced. Even if the IRA is required to look at techno-economic considerations such as financial sustainability and efficiency, it is difficult to obtain due results from the regulatory action, if the original planner has done inefficient planning of the project and that project has been implemented as per that plan. Such post-planning and post-implementation level regulation will not lead to any positive results even if techno-economic considerations are to be addressed.

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Section 3

New Water Entitlement System:

Is it warranted, what would be its impacts and how to address the impacts?

Contents

Introduction

The session started with a brief recap of the base note sent to all participants prior to the workshop. The substantive discussions in the workshop were initiated by presentation by two invited discussants, namely, K. J. Joy and Philippe Cullet. The presentations were followed by open discussion. The session was chaired by Priya Sangameswaran.

The presentations and discussions raised crucial issues and dimensions of entitlement system, including the incorrect positioning of entitlements as right to water, incorrect interpretation of the 'equity' principle included in the preamble of the IRA laws, possibility of freezing the existing inequities through entitlements, ignorance to public trust or common heritage principle, technological dimensions of entitlements, and need for alternative framework for entitlements. A different view was also presented in favour of the entitlement system, especially, elaborating its benefits regarding accrual of scarcity value of water.

3.1 Base Note: Session On New Water Entitlement System

3.1.1 Introduction to the Theme

Creation and management of the water entitlement system is at the heart of the IRA laws in the water sector. Water entitlements are considered as 'usufructuary right' to water to be held by a group or individual water users. Both the IRA laws, Maharashtra as well as Uttar Pradesh, include significant number of provisions regarding the water entitlement system, including those that give relevant powers to the respective IRAs to determine, distribute, and regulate water entitlements among different water users. The entitlements determined by IRAs shall become the basis for allocation of the critical resource like water and also for pricing and trading of water. Thus, the approach that these IRA laws take towards regulation of water resources, is based on 'water entitlements'.

This is the first time in the history of the water sector that such a 'right-based' systemin the form of 'water entitlements'is being institutionalized in different states in India. This institutionalization process is backed by very strong laws which not only make it mandatory to implement such a system but also provide the organizational mechanism (in the form of IRA) to establish and make operational such a system. Considering this concrete and fundamental development in the water sector, it becomes absolutely necessary to understand this development and assess its impacts on water users and, especially, on the poor and marginalized sections of the society.

This base-note provides some relevant and basic information on the subject matter. The note is aimed at generating an informed and focused discussion in the workshop. A special session is organised on this topic to assess the relevance and possible impacts of the new entitlement system and suggest strategies to address these impacts.

3.1.2 Key Features of the New Entitlement System

Some important features of the new water entitlement system are presented in brief in the paragraphs below. These key features of the new system are mainly drawn from the IRA laws enacted in Maharashtra and UP.

Distinctive Features of the Entitlement System (vis-à-vis the Conventional System)

The different provisions in the IRA laws (Maharashtra and UP) show that water entitlements are usufructuary rights (i.e. rights for use) of near-perpetual nature. To understand implications of this new water entitlement system, it will be important to look at the distinctive features of 'water entitlement system' vis-à-vis the current conventional system. The current conventional system is restricted to providing 'permissions' or 'licenses' to water users for using a particular amount of water. Following are some of the distinctive features of the new water entitlement system:

- The conventional practice of granting 'permissions' for a particular amount of water use can be considered as the procedure for provision of public service by the government to the water users. But the new entitlement system goes beyond just the provision of public service and actually grants certain rights over the critical resource, in this case, water.
- The new system also goes beyond the local, tradition-based, informal rights and creates a new regime of legalized rights (backed by a special, full-scale law, not by some executive order) over water use. These are formal rights granted by the state-level, legally empowered, special body, in this case, IRAs in water sector.
- The official permissions for water use given by the governmentas per the conventional practiceare restricted to a specific period, and hence, are time-bound. In contrast to this, water entitlements will be near-perpetual rights, to be reviewed only in extreme situations when the very sustainability of the system or the resource is at threat. This is the reason there are no provisions in the IRA laws, both Maharashtra and UP, for a mandatory time-bound review of the water entitlement system. It needs to be noted that water tariff, which is the second most important regulatory tool created by the same laws, has a provision for mandatory time-bound review. It could be said that such near-perpetuity of the entitlements is necessary for establishing a stable market for water entitlements.
- In the conventional system, the permissions are granted based on the requisitions received from water

users, that in turn, are based on users' own (perceived) needs. But, in the case of the entitlement system, the water users will be given the right over the resource automatically, if the user fulfills the criteria set for distribution of entitlements. Thus, inclusion in the entitlement system depends on the criteria-based eligibility, and not the actual perceived need. For example, if land-ownership is the criterion for distribution of entitlements in a particular geographic region demarcated as the beneficiary (or command) area of a certain pool of resource, then all those having land in that region automatically become entitlement holders.

Eligibility Criteria for Determining Entitlements

Both the IRA laws, UP as well as Maharashtra, provide for 'equitable' and 'just' distribution of water entitlements as a broad and overarching guideline included in the preambles and also in some of the provisions of the laws. It should be noted, that the IRA law in Maharashtra includes the principle of equitable water entitlements, not only in the preamble, but also in the operational provisions given in the law. But, the UP IRA law does not include 'equity' in any of its operational provisions, apart from its mention in the preamble.

The Maharashtra law also includes provisions giving specific details of the criteria-based eligibility for granting of water entitlements, which the IRA law in UP does not have.

As per the Maharashtra law, farmers having land in a pre-defined command (beneficiary) area of a particular water reservoir (pool of resource) are endowed with water entitlements for agricultural use in the proportion of their land holding. Thus, the law refers to 'proportion of land-ownership' in the command area as the criterion for water entitlements.

Within the command area, the IRA law in Maharashtra also directs the IRA to ensure that the principle of 'tail to head' irrigation is implemented.

Apart from the criteria for entitlements for agricultural water use, the Maharashtra IRA law (including UP), does not include any specific criteria for distribution of water entitlements between users that fall under the other categories of uses such a domestic, industrial, and others.

Both the IRA laws are silent on implementation of 'equitable water entitlements' among the different categories of uses. Equitable distribution of entitlements among categories is important considering the competing uses of water among these categories (e.g. water distribution among agriculture and industry). But as per the law, the Maharashtra IRA as well as UP IRA is required to work according to the framework of the State Water Policy. Hence, the IRA will make use of, the order of priority of water distribution among different categories given in the water policy, as one of the criteria for determining the water entitlements of domestic, industrial and other users. Contrary to UP and many other states (including National Policy), the water policy in Maharashtra provides higher priority to industrial use than to the agricultural water use. The IRA shall make use of such policy guidelines to determine the water entitlements of different categories of users.

Groundwater Regulation and Entitlements

IRA laws in Maharashtra as well as in UP provide a legal definition for the term 'sub-surface or groundwater entitlement'. Hence, it implies that the approach of regulating through determination, distribution and monitoring of surface water entitlements would also be applicable to groundwater (e.g., both laws provide for criteria to be fixed by the IRA for modifications of entitlements of surface as well as sub-surface water). If this is found to be true, then all provisions related to water entitlements (like the criteria for entitlements) will also be applicable to groundwater.

Apart from the approach of regulation through 'entitlement system', the UP law also seems to be taking the approach of regulation through 'licensing system'. The definition of a 'licensee' given in the UP law also includes a ground water user, apart from the water service operator/ provider, who would be regulated through licenses granted by the IRA.

Entitlements for Environmental Purposes

Both the IRA laws, also provide indirect reference to 'water entitlement for environmental purposes' by including 'environment' as one of the 'category of use' (along with domestic, agriculture, industry) for which the IRAs are supposed to determine water entitlements.

Types of Resources Regulated through Entitlements

It is difficult to discern from the IRA laws the types of water resources that shall fall out of the ambit of the regulatory mechanism of water entitlement. The UP law does not provide any details of the types of water resources that are excluded from this regulatory mechanism. But the Maharashtra law does include a provision where it is clearly spelt that, from the date of commencement of the said Act, no person shall use any water from any water source without obtaining the Entitlement (Section 14(1), MWRRA Act). The provision further elaborates that, no Entitlement shall be required in case of, (a) any bore well, tube well or other wells which are being used for domestic purposes; and

(b) tanks, small reservoirs or catchments of rainwater harvesting with an annual yield capacity as may be decided by the IRA.

Looking at the reference to groundwater (wells) made in this provision, it seems that all wellsother than those used for domestic purposeswould be regulated under the law through the mechanism of water entitlements.

Entitlements During Scarcity Periods

A crucial aspect related to water entitlements is the criteria for distribution of available water (water allocation) during periods of scarcity. The Maharashtra law specifically empowers the IRA to determine the priority of equitable distribution of water available at the water resource project, sub-basin and river basin levels during periods of scarcity [Section 11 (c), MWRRA Act]. The IRA is empowered to adjust the actual water availability to entitlement holders and also, if required, allow temporary transfer of entitlements within users or category of users [Section 11 (m), MWRRA Act]. In the case of agricultural entitlements, the law specifies that, during the water scarcity period, each landholder shall, as far as possible, be given water adequate to irrigate at least one acre of land [Section 12 (6) (b), MWRRA Act]. The UP law is silent on regulatory mechanisms during scarcity period.

It is noteworthy here that both the states are experiencing acute scarcity of water this year. It would be worthwhile to see what roles the IRA would play in such a situation.

Trading of Entitlements

Unlike the UP law, Maharashtra law provides specific reference to 'system of market for buying and selling water entitlements'. The law mandates the IRA to fix criteria for trading of water entitlements on annual or seasonal basis by entitlement holder. Among the various other criteria mentioned, the law specifically states that entitlements shall be deemed to be usufructuary rights which can be transferred, bartered, bought or sold on an annual or a seasonal basis within a market system and as regulated by the IRA. Further, the law also states that, bulk water entitlements shall be transferable within the respective category of use.

Permanent Transfer of Entitlements

Apart from trading of entitlements in an open market system, the Maharashtra law also includes provision for permanent transfer of entitlements through mediation and regulation of the IRA. As per the law, permanent transfer of entitlements will be allowed by IRA on demand by any water user association or individual users only in extreme cases and on the basis of mandated priority awarded to different category of users and only when the user (demanding such transfer) demonstrates in a public hearing that all the alternative options of securing water (water saving, market transfer) are exhausted. Such transfers shall be done if the IRA deems such a transfer to be legal and necessary in the interest of the people of the state. The law also states that, such permanent transfers shall be done after a fair and just compensation is paid to the original entitlement holder. Further, the compensation shall be determined by the market value of the water resource. The UP law does include provision for empowering IRA to lay down criteria for modifications in the entitlements, but it does not include elaborative mechanisms for changes in entitlements.

Entitlement System and Water Conservation

The IRA law in UP has a very strong provision that empowers the IRA to penalize the water user group that pollutes water resources by withdrawing the entitlement of that group or to take any other action as deemed necessary. The Maharashtra law does not include such strong penalizing powers. Instead, the law provides for a supportive role to be played by the IRA for pollution control and specifies application of 'polluters pay' principle in this process.

One of the distinctive features of the Maharashtra law is that its takes the approach of defining the 'reasonable use criteria' for each category of use. Thus, while awarding the entitlements to a particular category of use (domestic, agriculture, industry, and others) the IRA could also impose specific use-related conditions on the entitlement holder, thus, enabling conservation of water.

3.1.3 Critical Issues and Debates Related to the Entitlement System

Some of the relevant issues and debates surrounding development of the new entitlement system, as part of the IRA laws, are briefly presented in the subsequent paragraphs. These and other such crucial issues were taken up for discussion during the session on 'entitlements' in the workshop.

Water Entitlements as a Tool for Ensuring Right to Water

Water entitlements are seen by many as a tool that furthers the cause of 'right to water'. It is argued that the water entitlement system is a mechanism that will strengthen the rights of every common water user over the available pool of water resources. Once such a rights regime (of use-right) is established, in the form of 'entitlements', it could become a strong deterrent to the ongoing widespread diversion of water resources from

rural users to urban-industrial users. Thus, the entitlement system will actually lead to promotion and protection of public interest.

On the issue of the tradable entitlements, it is argued that 'trading of entitlements' will allow the poor, landless, and marginalized sections of the society to avail water on the basis of different mutually suitable arrangements with legal entitlement holders, such as cash payments or share cropping. Through these means, it is argued, that the landless will be able to come into the mainstream of rural-agro-based economy.

Equitable Water Distribution and Exclusionary Tendencies in the New System

As described earlier, entitlements have the nature of being 'near-perpetual rights'. Once the entitlements are distributed, it would be very difficult to revert the decisions and secure the water rights of the marginalized and poor. This makes it necessary to pay due attention to the possible exclusionary tendencies that would affect the distribution of entitlements at the initial stage. These possibilities arise primarily because of some lacunae and gaps in the present laws. These factors are discussed in the following paragraphs.

- *Land-based Entitlements:* The IRA law in Maharashtra clearly states that, for achieving equitable distribution of water, the criterion of 'land ownership (i.e. holding)' will be used while determining water entitlements in a command area of a particular pool of water resource. So, higher the land holding, higher will be the entitlement of the user. Such a criterion is seen as detrimental and counter productive to the achievement of the objective of 'equitable water rights'. This is because a majority of the marginalized and rural poor who are landless will be denied the right to use water in the foreseeable future.

  Thus, it is feared that such a system will reinforce and aggravate the already existing inequity rooted in the skewed land ownership or holding. So, an alternative proposition is to distribute water entitlements equitably among all citizens in the particular basin or sub-basin irrespective of their land-ownership or holding. This was the principle advocated by the famed 'Pani-Panchayat' movement in Maharashtra. There are grassroots struggles and movements in Maharashtra that are instrumental in not only raising such a demand but also developing pilot projects on the field (e.g., Chikotra Valley in Kolhapur District, Atpadi and Tasgoan Block in Sangli District).

- *Tail to Head Irrigation:* It has been the experience that the land-owners at the head of the irrigation system get maximum benefit of the available water and the tail-enders hardly benefit from the same. This inequity is being addressed in the Maharashtra IRA law, where the IRA is mandated to ensure that the principle of 'tail to head' irrigation is implemented. This is a positive provision for ensuring 'equity' among the people within the command area. Such a provision is not included in the UP IRA law.

- *Command and Non-Command:* There is also an issue of equity between the 'command' and 'non-command' area. There has been a demand for extension of the command area and providing water to people outside the currently defined command area. Similarly, the movement of farmers in Maharashtra have been successful in securing acceptance of the principle that people from submergence and even catchment areas should also get water from the reservoir. But as per the entitlement system currently specified in the Maharashtra Law, water entitlements will be given only to those who own land within the command area. Such exclusion of people outside the command from usufructuary rights to water for the foreseeable future is seen as detrimental to the overall 'equity' in the given river basin.

- *Urban vs. Rural Divide:* There is a long-standing debate that sometimes aggravates into a conflict around the issue of distribution of water between 'urban-industrial water users' and 'rural-agro-based water users'. Both the IRA laws, UP and Maharashtra, do not provide any guideline about how to achieve 'equity', at operational level, among these two broad categories of water users. Hence, the IRAs are expected to rely on the priority of water distribution given in the state water policies. Contrary to the National Water Policy and UP State Water Policy, Maharashtra State Water Policy provides higher priority to industry compared to agriculture in distribution of water resources. This is considered by many as grave injustice to the agriculture sector in Maharashtra, especially, when the National Policy as well as policies of other states give higher priority to the agriculture sector. This also raises the issue of the possibility of application of such 'inequitable priority' even during periods of scarcity.

- *Operationalizing the Priority:* As mentioned before, Maharashtra and UP laws do not provide any specific provisions related to criteria about distribution of water entitlements across the different categories of water users. Hence, the IRAs would rely on the priority specified in the State Water Policy. This makes the issue of operationalization of priority very critical for agricultural water users. The IRA could take the view that the demands for higher priority users (e.g. industry in case of Maharashtra policy) would be

exhausted before giving any water to the low priority users (e.g. agriculture in case of Maharashtra policy). This will be highly controversial and generate internal conflict. An alternative approach could involve giving higher proportion of water to high priority categories. This will be no less contradictory, as there are no guideline or standard norms to decide the proportion of distribution. Whatever be the approach, this issue of operationalization of priorities would have serious implications on entitlement.

- *Non-Agriculture Rural Livelihoods:* In many states, the water policies either do not recognize, in their priority listing, the water needs of rural livelihood activities other than agriculture or they give less priority to the same. In the absence of specific provisions in IRA laws for water entitlements to such livelihood needs, the IRA will follow the state water policy which ignores the needs of such livelihoods. Thus, water-dependent rural livelihood activities other than agriculture (such as animal husbandry, fishing) would not get its due share in the new water entitlement system.
- *Baseline for Entitlement Distribution:* If the new entitlement system relies on the existing distribution and use of water while determining initial entitlements, then there is possibility that all existing 'inequities' will be carried over in the new system. This makes the issue of the 'baseline' for the initial distribution of entitlements an extremely critical one. This issue is critical, especially because ad-hoc decisions by government to divert large amount of agricultural water to urban-industrial users. So, if the current water distribution is accepted as the 'baseline' for determination of the new entitlement system, then these ad-hoc and often 'irregular' (because they are often in violation of project designs and DPRs) diversions of water will be converted into legally recognized near-perpetual water entitlements.

Overall, it is argued that there are possibilities that the new entitlement system, in diverse ways, will exclude, especially, the marginalized and poor sections of the society while distributing water entitlements.

Water Entitlements and Full-Scale Commercialized Water Markets

At a broader level, emergence of the water entitlement system gives rise to concerns related to the possible emergence of full-fledged water markets operating on completely commercial principles. The concern is rooted in the role played by the World Bank in the emergence of IRA laws in these two States complying with the advocacy by the World Bank for use of water reflecting its economic value.

The official documents of the 'Water Sector Improvement/ Restructuring Projects' funded by the World Bank (WB) (and being implemented in various states) specify 'establishment of IRA in the water sector' as one of the institutional reform required to fulfill the objectives of the project. Such a reform is included as a part of the covenants (conditions) in the project documents. The enactment of IRA Laws in Maharashtra and UP has its origins in these sector improvement/ restructuring projects.

The available literature on 'water entitlement system' also suggests that WB has been at the forefront in recommending the setting-up of such system (e.g., documents titled 'India's Water Economy: Bracing for a Turbulent Future' and 'Handbook of Water Resources'). Further, the literature emanating from the WB on 'water entitlement' is also very focused on 'creating water markets based on the distribution of entitlements'. One of the key objectives of such a market as cited in the WB literature is to 'allow transfer of water from low-value use to high-value use'.

Considering the WB discourse and its role in establishing IRAs in the Indian States, the emergence of water entitlement system brings with it the concerns related to commercial water markets in which richer the water user, higher will be the capacity of the user to gain control over water resources. The WB literature also cites the examples of Chile and Australia, where such a system is operational. While citing the example of Chile, the literature suggests that in such a system, the government determines the entitlements initially and market redistributes the entitlements. However, critical studies of such a market-linked water entitlement system in Chile, suggest a negative trend in net water entitlements of farmers and resulting deterioration of livelihoods of farmers due to such market operations[3].

Protected, Restricted and Regulated Water Markets

The IRA law in Maharashtra puts some conditionalities pertaining to tradability of entitlements. For example, the law states that bulk water entitlements or quotas shall be transferable within the respective category of use. This implies that bulk water entitlements shall not be transferred across different category of users. For example, agricultural bulk water entitlements cannot be transferred to industrial entitlements and so on. Similarly, the IRA law provides for trading of

[3]Source: Romano D, Leporati M. (undated). The Distributive Impact Of The Water Market In Chile: A Case Study In Limarí Province, 1981-1997

entitlements with a market system on an annual or seasonal basis, restricting trading to a specified period.

However, there is a need to check whether the restrictions on transferability of entitlements (mentioned in above paragraph) could also be applied to other situations such as trading of individual entitlements (if any) or bartering of entitlements. This is because the terms such as 'transferability', 'barter', 'buying and selling' are not defined in the law.

Thus, one argument could be that, well-protected and restrictive water markets could be deterrent to domination of the rich in water markets. Thus, it would protect the interest of the poor and the marginalized sections of the society. However, the long-term sustainability of such protected and restricted water markets is also doubted by some, citing the possibility that stakeholders themselves, would gradually start demanding removal of restrictions, in order to a get better price for their entitlements in open market.

Water Entitlements and Contract Farming

Another issue that needs attention is related to the combined effect of the market of tradable entitlements and contract farming. It needs to be noted that the Maharashtra law will not restrict individual farmers or their groups from trading their entitlements for agricultural water use to contract farming companies. In fact, it is often said that the water market will boost prospects for contract farming, by making available adequate water. The combined effect of both these market mechanisms may open up new business avenues for companies and investors in the agriculture sector. However, there are broader concerns about the adverse impacts on the farming community, which neither has capacities to negotiate strongly with companies for a favourable contract farming mechanisms nor are they in a position to move out of agriculture sector and get easily assimilated in the urban-industrial work force. The more specific concern is over the possibility that the farmers would be in a disadvantaged position in the market for trading of water entitlements as compared to the resourceful contract farming companies.

This also raises a crucial question: will the poor and landless, who could be a few of the potential beneficiaries of the system of tradable entitlements, actually be able to stand in competition with big contract farming companies or cash-rich individuals for buying water from holders of water entitlements?

Water Entitlements for Environmental Purposes

As described in the earlier part of the note, the IRA Laws recognize the need for providing water for environmental purposes. However, the laws do not provide concrete provisions on prioritizing and operationalizing the same (e.g., norms, methodology). Here again, the IRA is left to derive those from the priority of water distribution given in the state water policies. It is argued that, in the state water policies, 'environment' does not get the required higher priority. Hence, it brings into question the effectiveness of such an entitlement system with respect to the environmental concerns and, hence the impact of entitlement system on the long-term sustainability of the source of water resources.

Groundwater Entitlements and Licensing

Inclusion of 'groundwater entitlements' in IRA laws in UP and Maharashtra raises a very crucial issue of the desirability and feasibility of such a regulatory mechanism in the groundwater sector. Referring to the distinctive characteristics of groundwater as against surface water, it is argued by many that the regulatory mechanisms applied to surface water cannot be replicated for groundwater.

The provision of licensing for groundwater in the UP law also requires a similar debate about the desirability and feasibility of 'licensing' as a regulatory mechanism for groundwater. The licensing provision in the UP law also gives rise to tension between two regulatory approaches: (a) regulating through 'entitlements' and (b) regulation through 'licensing'. While entitlement-based regulatory approaches is based primarily on giving near-perpetual rights (of use), the 'licensing' based regulatory approach primarily relies on the conventional 'permission' to use water for specified period. It is not clear how these two different approaches would be integrated during implementation of the UP law.

Feasibility of the Entitlement System

A very different view point is shared by many technical experts on entitlement system. It says that it is not feasible to implement such techno-intensive system of entitlement at a wider scale in India. Lack of water measurement equipment and systems, deteriorating quality of infrastructure, poor maintenance, and other such technical lacunas in the current system will not allow full-fledged implementation of the proposed entitlement system.

The severe constraints on government spending in the water sector would mean that these technical problems

would remain unresolved for a long period. Feasibility of widespread use of external funding for refurbishment of infrastructure, especially at field-level, is doubted by many. In fact, the demands for decreasing performance norms for the current externally-funded projects raises concerns over the quality of refurbished infrastructure.

In such a situation, there are apprehensions that the new entitlement system would never be implemented widely as promised. Rather, it would be selectively implemented and primarily used for appropriation of existing water resources by the dominant and vested interest groups by gaining maximum water entitlements either through distribution by IRA or through redistribution using market mechanisms. Thus, it is feared that technical constraints and related financial constraints would not allow the actual benefits of such a system to reach the marginalized and poor sections of society, especially those located in geographically disadvantaged regions.

Public Participation, Transparency and Accountability (TAP) in the Entitlement System

It is found that the IRA laws (both Maharashtra and UP) do not provide adequate provisions regarding TAP in entitlement system. For example, none of the laws includes any provision for consultation and other forms of public participation in the process of determining and regulating the entitlement system. Thus, the IRA is not at all made accountable to the public in various decision making processes related to water entitlements.

It should be noted that, t he IRA law in Maharashtra does provide for public participation in the process of water tariff determination, but the same is completely absent while it comes to determination and regulation of entitlements. Hence, it opens the possibility of keeping the public in dark about the processes and decisions being made by the IRAs in crucial aspects such as water entitlements. Since, IRA being an autonomous body, cannot be held accountable by the public through any other mechanisms (like electoral mechanisms), there is a genuine need for other forms of accountability mechanisms. There should have been at least attempts to provide adequate mechanisms in the form of TAP for ensuring some amount of accountability of IRA towards the public. The same has not been thought out in the IRA laws in the water sector.

3.1.4 Issues for Discussion

The various issues and debates surrounding the 'entitlements' as a regulatory mechanism for water resources briefly presented (in the earlier part of this note) throw questions that need to be discussed in detail. The discussion during the session on 'the New Water Entitlement System' in the workshop focused on the following issues:

i. **Entitlement System as a Tool for Effective Regulation of the Water Sector:** Whether or not the entitlement system can be an effective tool for regulating water sector. What are the pros and cons of such a system as far as the overall improvement of the sector is concerned? Is there any alternative equivalent regulatory mechanism?

ii. **Entitlements as Tool for Ensuring Water Rights:** Is the entitlement system an effective mechanism for the promotion and protection of water rights? Are there any alternatives?

iii. **Water Markets:** Should water markets be created based on tradable water entitlements? Will it lead to efficient use of water resources or will it lead to appropriation of water resources by the dominant groups? Whether or not the current water market system existing in the IRA Laws in water sector (Maharashtra) gives adequate protection to the middle and lower sections of society. Is the regulated, restricted form of water markets as proposed in the Maharashtra law a better alternative to a full-scale commercial market? Will the rural poor and landless benefit from the water markets? Will such markets remain regulated in the long-run? Do we need to evolve an alternative to water markets for ensuring efficient and productive water use?

iv. **Making the Entitlement System Beneficial to the Marginalized and Poor:** If the entitlement system is warranted, how can it be made beneficial to the marginalized and poor? Could the current system, as per the IRA laws, benefit the poor? How could the current system be improved? What should be the criteria of distribution of entitlements so as to benefit the public at large and, especially the marginalized and poor?

v. **Criteria for Determining the Entitlements:** What are the implications of 'land-ownership' based criteria? What could be the alternative criteria (e.g., population-based criteria) for determining entitlement among users with same category of use? What should be the criteria for determining the entitlements among different categories of uses? Whether criteria for determining the water entitlements among different (and not within) categories of uses (agriculture, domestic, industry, and others) should be included in the IRA law or it should be left to be decided as per the priority given in state water policies.

vi. **Priority of Water Distribution among Different Category of Users:** Is the current procedure of listing the priority among different categories, especially, industry and agriculture, beneficial in the larger public interest and interest of the marginalized sections? How to approach the issue of 'equitable distribution' among these categories? How to include the category of 'other than agriculture rural livelihoods'? What can be the approach to address the issue of sharing of water during distress or scarcity?

vii. **Water Entitlements for Environmental Purposes:** How to define the priority of water for environment vis-à-vis other competing uses? What are the merits and demerits of giving higher priority to environment vis-à-vis other non-drinking purposes? Whether higher priority to environmental purpose lead to operational malpractices (such as hiding losses and theft in the name of unmeasured environmental flows)?

viii. **Groundwater Entitlements and Licensing:** What are the merits and demerits of applying the entitlement system to groundwater? What will be the implications of licensing mechanisms for groundwater? Considering the differences between two regulatory approaches based respectively on 'entitlements' and 'licensing', how could we interpret the provisions in the UP IRA law? What are the alternative groundwater regulatory mechanisms?

ix. **Efficacy of IRA during Periods of Water Scarcity:** Considering the current situation of acute scarcity of water in both the States of UP and Maharashtra, what role could the two IRAs play? How to make them effective, especially, in Maharashtra where IRA is almost four year old and the state assembly elections are due?

x. **Transparency, Accountability and Participation (TAP) in Water Entitlement System:** What would be the implications of the weak TAP related provisions in IRA laws with regard to the water entitlement system? What should be the mechanisms for TAP that should be integrated in the IRA laws and their future functioning?

Session discussants (presenters), invited commentators, and other participants were requested to prepare points for sharing during the workshop based on the above-mentioned questions and underlying debates issues. Participants were also requested to share new issues that are critical but not covered in the above list, for inclusion in the discussion.

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3.2 Substantive Presentations and Discussions in the Workshop:

Session On New Water Entitlement System

The main substantive issues and concerns that emerged from the presentations and discussions in this session are presented in paragraphs below.

3.2.1 Distinction between 'Right to Water' and 'Water Rights'

In the discussion on this theme, it was noted at the outset that the entitlement system as envisaged in the IRA laws (Maharashtra and UP) is a 'water right' and not the 'right to water'. Thus, it was found necessary to make a clear distinction between these two concepts.

Discussion on 'water right' could be seen as a subset of the larger discourse of the 'right to water'. But 'water right' in the form of entitlements should not be positioned as comprising the 'right to water'. 'Right to water' is a part of the broader concept of the right to development or the right to resources discourse, which is irrespective of the present ownership or access to property, but emanates from concerns like human dignity, human rights, and equity. Thus, the thrust of the right to water is “ensuring a social minimum to all”. As against this, 'water rights' are nothing but clear title to the right holder so that the holder can use, sell, or exchange the title like a market commodity. So, it was suggested that 'entitlements' as a standalone mechanism of 'water right' should not be equated with the broader demand of the 'right to water'.

3.2.2 Contradictions between Preamble and Provisions of IRA Laws

Some of the stark contradictions with regard to the principle of 'equity' in the entitlement system were presented in the workshop. It was noted that the preamble of the water IRA laws (both UP and Maharashtra) mention 'equitable', 'judicious', and 'sustainable' management, allocation, and utilization of water resources. Thus, the laws not only recognize the need but also provide the legal basis for equitable and judicious distribution of water and entitlements. But the provisions in the laws are contradictory to these broader principles accepted in preamble of the laws.

In the Maharashtra IRA law, there are certain provisions pertaining to application of 'equity' principle for determining water distribution and entitlements. For example, as per Section 11 of the Maharashtra IRA law, the IRA is empowered to determine the priority of equitable distribution during scarcity period. Also, the IRA is empowered to decide quota at the project and sub-basin level. The basic principle for quota determination is that equitable distribution of water should be achieved within the command area of the project by giving quota to every landholder. Through this provision all landless people are excluded from their due water rights. The Maharashtra IRA law further mentions that each landholder in the command area will get quota of water in proportion to the landholding. Thus, the provision benefits the large landholders who can corner most of the water resources due to their higher entitlements.

It is specified in the law that the IRA has to work as per the framework given in the State Water Policy (SWP). This means that the order of priority of water distribution as mentioned in the policy may be made applicable in the process of determination of entitlements. The particular order of priority in the Maharashtra Water Policy is itself inequitable, and it does not even adhere to order of the priority accepted in the National Water Policy. At the national-level, it is accepted that agriculture should get higher priority than the industry in water allocation. But, this equitable framework is not followed in the Maharashtra policy, where agriculture has been awarded lower priority than industry. Thus, provisions in the IRA laws, in combination with those of SWP, are counter productive to the principle of equity and judicious allocations accepted in the preamble of the law and also it is contradictory to the national-level policy.

In accordance with the letter and spirit of the 'equity' principle in preamble of IRA law, it was suggested that the distribution of water entitlements should actually be done on the basis of the population in the given river basin. In this scheme, each person would be entitled to his due share of water. This would also benefit the agriculture labourers and other landless communities.

3.2.3 De-linking Water Rights from Land Rights: Paradoxical Situation

It was noted that the various socio-political movements around equitable water distribution of water raised the demand for de-linking of water rights from land rights, mainly to break away from existing land-based inequities. But in the current context it was found that

World Bank documents also promote such demand for de-linking of rights, especially, to make water a free commodity that can be bought and sold irrespective of land ownership. Thus, there exists a paradoxical situation.

Though the IRA law in Maharashtra provide for trading of water entitlements, there are certain restrictions put on the trading mechanism. However, the directions is towards making water a commodity that can be freely traded in market.

In this situation, it was suggested that we need to emphasise on three critical issues pertaining to this paradox. First, the possible exclusion of marginalised and poor sections of society in the current entitlement system. Concern was raised that, in the current system, landless communities, people whose livelihoods depend on water for non-irrigation purposes, and people who have land outside the command area will be excluded from the water right (entitlement) system. The second issue raised in this regard was the possibility of freezing of existing inequities in the process of determination of entitlements. The third aspect raised during this discussion was that the tradability of entitlements and water markets may create problems for the resource-poor communities, especially, due to their low purchasing power, and, hence their near-absence in the water markets of future.

3.2.4 Freezing of Appropriation Rights and Existing Inequities

It was noted that, historically, there have been 'use-rights' established by various users, which can be termed as appropriation rights. For example, in a basin where water is originally reserved for agriculture, there could be cities and industries which has been drawing water in large amounts and which can afford to pay high tariff or invest heavily for drawing more water from the common pool.

In this situation, such cities and industries acquires appropriation rights over a period of time. A major concern raised in this context was that such appropriation rights would get frozen in the new entitlement system. This would happen if the new system does not recognize the need to look at the past inequities in distribution, access, and control of water resources. This would negate the possibility of re-appropriation or re-distribution of water to people who have been historically denied of their due share of water. For example, it would negate the possibility of extension or restructuring of command areas (area benefited by project) of a particular water resource project. Hence, it was suggested that there is a need to give due considerations to the adverse impacts of such appropriation rights in the light of the new entitlement system.

3.2.5 Inequities in Agriculture Entitlements

It was shared that, currently, the distribution of water within agriculture sector is very inequitable. At present, farmers are getting water as per their land ownership. But, in many instances, the water drawn is more than proportional to their land ownership or their agriculture output. This means that larger farmers draw water more than proportional to their respective landownership.

In this situation, it was suggested that proportionality may be contingent on the use of the water. Up to certain maximum area of land it could be proportional (contingent to use) but beyond that it could be made non-proportional to land-ownership. This could lead to more equity in distribution of water.

Also the legal provisions for empowering the WUAs to decide individual entitlements were seen as useful. This is mainly because, at the micro-level, information can be made available more freely and easily. In this way information asymmetry can be overcome by farmers who would come to know how much water each farmer is going to draw and how much has been actually drawn. This system of entitlements could then become less inequitable and practically feasible.

3.2.6 Need to Consider Supreme Court Interventions

It was shared that Supreme Court has done several interventions related to water rights. Though, water is a state subject, it was noted that that we cannot overlook the judgements by the apex court in the country. These judgements emphasise the need to implement the principle of 'public trust' in determining distribution of benefits of various natural resources including water. Currently there has been no action on these judgements and the principles emanating from these judgement. But these judgments could become influential, once we start challenging the legal instruments like IRA laws in light of these judgements.

3.2.7 Public Trust: Main Legal and Operative Principle for Water Rights

It was argued that, considering the state and union laws surrounding right to water, there is actually no space for introduction of entitlements (seen as title to right holder for to use, sell or exchange). Entitlements would lead to strengthening of the principle of 'private property rights'. But the main operative and legal principle that guides water rights today in India is the principle of 'public trust' or 'common heritage'. This should be the starting point of our analysis of entitlements.

We need to emphasise on implementation of the legal principles such as 'public trust' that are always acknowledged and determined even by the Supreme Court. Due cognizance has not been taken of these principles while assessing legislative instruments that are being adopted. There has been a disconnect between the general principles adopted and endorsed by higher Courts and the kind of legal instruments that are introduced at the state or central level.

In this regard, it was stated that there is no comprehensive legislation for human rights to water. It was suggested that the first step should be legislation for right to drinking water. Though there are strings of Supreme Court judgements which can be used as guideline, there is a gap related to comprehensive content of the human right to water.

It was observed that in the current entitlement system, there is serious negligence of the principle of public trust as well as of the human right to water. Entitlement based on property rights and trading of such entitlements was found completely in contrast to the principles of public trust and human right. The land-based access was also found incapable of addressing the challenges faced in water sector. Hence, it was suggested that we move away from the access and control over water based on property rights. Under the framework of 'public trust' and 'common heritage', there should not be any space for defining rights in terms of property rights, which is being done in the form of individual entitlements and trading of these entitlements.

3.2.8 Need to Define Water Rights and Entitlements

A different view was presented with regards to the discussion on the right to water. It was argued that, world over, there have been attempts to define the right to water. But, in India, we have not defined rights. Though they are currently defined in implicit way, the same is incorrect wrong due to inequities involved in access and control over water. The IRA laws in the water sector were seen as an appropriate attempt to define rights to water in terms of entitlements or use rights.

Such use rights can be vested with everybody irrespective of landholding. In this way community rights could also be defined for WUAs and other community groups. Rights could also be defined in terms of priority to survival and subsistence needs. In any case rights should be defined without any ambiguity.

3.2.9 Trading of Entitlements given to Landless and Others

It was argued that in case entitlements are given to landless, the benefits of these entitlements can be actualized by the landless and other marginalized sections only if they are allowed to trade the same with other water users. Since, land-based entitlements would create inequity, entitlements could be given on the basis of the population that lives in particular basin or sub-basin. In this way, if entitlements are given to landless or landholders outside the command, then there would be the need for trading of entitlements. It will only mean that the landless and landholders outside command will be compensated through trading and that the land owners will use it for irrigation because of the higher efficiency of using the same in command area. It was shared that defining of rights and trading of rights is beneficial, particularly to poor who can benefit from the rights vested with them and also benefit from the option of trading.

3.2.10 Accrual of Scarcity Value of Water through Entitlements

Entitlements were also seen as a tool to separate the scarcity value of water and the cost value of water. The cost value of water may be collected by utility in form of tariff. But the scarcity value of water can be extracted by the entitlement holder, whether landholder or landless, through trading of these entitlements at higher prices. So this will benefit the entitlement holders.

3.2.11 Water not Amenable to Solutions applied to a Classic Private Property

An argument was made on the basis of the peculiarities of water as a natural resource to counter the justifications made for having private tradable entitlements. It was argued that water is different from other classical items of private property. Hence, solutions like private (property) rights and trading of the same (through entitlements), which is applied to other classical items of private property, cannot be applied in case of water resources.

Apparently, due to the piped water system, water appears to be private property that can be owned, bought, or sold like any other commodity. But actually one of the main distinction of water from other private properties is that it fits the definition of a 'merit' good. This is because, water being a life-sustaining resource and fundamental need of all, one cannot exclude people from access and use of water on the basis of their paying capacity. Hence, water resources are seen as common pool resources to be shared by everyone in equitable

manner and not through commercial market mechanisms. Water as a resource has various peculiarities such as its dependability on vagaries of nature, its linkages with other elements of the ecosystem, and its limited quantum in nature. All these and other such characteristics make it impossible for treating water as any other item of private property, which can be owned, sold, or bought.

3.2.12 Need for Alternative Framework for Entitlements

A need was felt in the workshop for evolving alternative framework for the water entitlement system. First, it was observed that water rights, entitlements, allocations are all issues which are part of the political processes. De-politicization of the entitlement system is not desirable and hence, it should not be left to be decided by IRA.

In this context, serious concerns were raised on the role of IRA in developing the entitlement system. It was suggested that IRA can play role of operational oversight on the system but the normative framework and other guidelines should be evolved through a political process, which gives adequate space for the demands of the vulnerable sections of the society. Various elements of the normative framework were shared including the consideration of water as human right for satisfying basic needs, priority to livelihoods needs over profit-making needs, prime importance to ecosystem needs, and so on.

3.2.13 Innovations and Technological Thrust for Overcoming Water Scarcity

It was suggested that the conflicts around water distribution and, hence, entitlements should also be seen from the context of possibility of innovations in distribution and technological thrust to increase water-use efficiency. Through integrated approaches to water management and water saving technologies, some of the problems due to conflicting demands on water may be reduced. This is possible wherever bulk water supply is given to industrial complexes, urban centres, or to agriculture water users' associations. Modern technologies of water saving, recycling, irrigation could be explored to reduce the tensions created due to multiple demands on the scarce supply of water. This aspects could be integrated as part of the system (entitlement or otherwise) that is created for regulation of water distribution.

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Section 4

New Water Pricing and Tariff System:

Is it warranted, what would be its impacts and how to address the impacts?

Contents

Introduction

After a brief recap of the base note, the session began with presentations by two invited discussants, namely, Sebastian Morris and Bharat Patankar. The presentations were followed by open discussions. The session was chaired by Vijay Paranjpye.

The issues covered in the presentations and discussions were: diverse options regarding objectives of the tariff system, pitfalls of the cost recovery principle, linking tariff to affordability and livelihood requirements, loss reduction and cost efficiency through tariff system, linkages of tariff and entitlement system, and the problems with subsidy.

4.1 Base Note: Session On New Water Pricing and Tariff System

4.1.1 Introduction to the Theme

The laws for establishment of Independent Regulatory Authorities (or IRA laws) in the water sector provide for institutionalization of a new system for determining and regulating water tariff. Thus, along with the '(water) entitlement system,' the IRA laws in Maharashtra and UP also bring in the '(water) tariff system' as another crucial tool for regulation of the water sector.

Unlike the water entitlements system, however, a system for water pricing and levying of water charges is not an altogether new tool in the water sector governance. Different mechanisms have been evolved in different states for water pricing and tariff. However, until now, the governance functions of water pricing and tariff regulation did not have a separate institutional mechanism within or outside the government. Neither did they have any legal specifications (i.e., specifications provided in the law) including clearly defined principles like the principle of 'full cost-recovery.' This is being attempted for the first time in the water sector in India through the IRA laws.

The IRA laws in the water sector, both in UP and Maharashtra, empower the respective IRA to determine and regulate water tariff for various water users. Thus, henceforth, it is the respective IRA and not the state government, which will determine and regulate the water tariff. This is a major change in the water sector governance; and its implications need to be discussed in detail. This is necessary for evolving the future strategies to ensure promotion and protection of public interest at large.

The focus of Session 3 of the workshop was on the aspects of IRA laws that are related to 'water tariff'. Some relevant background information that was useful for the discussion during the session is presented in this base note.

4.1.2 Key Features of the New Water Tariff System

The powers and functions of the respective IRA pertaining to water tariff, as defined in the respective IRA law (UP and Maharashtra), are as follows:

- MWRRA Act: 'to establish a water tariff system, and to fix the criteria for water charges at sub-basin, river basin, and state levels, after ascertaining the views of the beneficiary public, based on the principle that the water charges shall reflect the full recovery of the costs of irrigation management, administration, operation, and maintenance of water resources project' [Section 11(d), MWRRA Act 2005]
- UPWMRC Act: 'to fix and regulate the water tariff system and charges for use of water, after due consideration to all costs, including administration, operation, maintenance, depreciation, and subsidies.' [Section 12(n), UPWMRC Act 2008]

This makes it clear that the respective IRAs have been empowered to fix and regulate the water tariff.

The IRA in Maharashtra (MWRRA) has already initiated the process for determining water tariff regulations. As per the Approach Paper prepared on the subject matter, MWRRA has restricted itself to determination of tariff for 'Bulk Water Supply', i.e., the water supplied by the state government department to large-quantity (i.e., bulk) users or to utilities supplying water to retail users (such as urban/rural local bodies, industrial complexes, farmers' associations).

It is not clear from the UPWMRC Act, whether the UP IRA will restrict itself only to determining 'bulk water tariff' or also determine the 'retail water tariff'. The provisions empowering the IRA in UP to 'license' water service providers suggest that the UP IRA will also bring 'retail water tariff' under its regulatory ambit. Apart from regulating the charges to be paid by the licensees, the UP IRA is also empowered to regulate the revenues earned by the licensees and the water charges to be paid by water users to the licensee [UPWMRC Act, Section 35(2)(f)]. Hence, it seems that IRA in UP will also look into the tariff charged to the end-user of water, i.e., retail tariff.

Both the IRA laws rely primarily on the principle of 'cost-recovery' as the basis for determining water tariff. There are certain differences in the two laws over the definitions of the costs to be recovered. MWRRA Act limits recovery of costs mainly to the operations and maintenance costs (O&M), thus, eliminating the possibility of recovery of the capital costs through water tariff. UPWMRC Act has a longer list of costs to be recovered, including 'depreciation' and 'subsidies' in addition to the O&M costs .

Both the IRA laws provide for the periodic review of the water tariff system by the respective IRA. MWRRA Act specifically requires the IRA to review the tariff after three years. No specific period is mentioned for review in the UPWMRC Act.

The IRA law in Maharashtra includes a very peculiar criterion that attempts to link the issue of 'population control' with 'water tariff'. The law specifies that a person having more than two children shall be required to pay one and half times of the normal rates of water charges fixed by the IRA. The IRA law in UP does not include such a provision.

The law in Maharashtra also refers to water charges at three levels, including sub-basin, river basin, and state-level (refer to Section 11-d of the law, quoted in the beginning of this section of the note). This makes it possible to have different tariff for different regions within the state.

Apart from charges for water use, the IRA law in UP also empowers the IRA to determine charges for flood protection to be levied on landowners who benefit from flood protection measures undertaken by government.

The Maharashtra IRA law specifically states that tariff be determined only after ascertaining the views of beneficiary public. Such a specific and mandatory provision for public participation is not included in the UP law.

4.1.3 Crucial Issues and Debates on the New Water Tariff System

An attempt has been made in the following paragraphs to map different crucial issues and debates on the new tariff system. Most of the issues were identified during the public consultation process conducted by MWRRA in Maharashtra for deciding regulations for tariff determination.

Affordability vs. Cost Recovery

The new tariff system puts heavy emphasis on the principle of 'cost recovery' as the key principle for determination of water tariff. Due to the specific provisions in this regard in the IRA laws, this principle does not remain a mere 'discretionary' guideline, but it becomes a mandatory requirement backed by a law that the IRAs will have to adhere to while determining water tariff in the future. There, however, is an apprehension that the implementation of this principle will cause steep increase in tariff over a period of time, making water unaffordable for common water users, especially, the poor and marginalized. This leads to the debate around the theme of 'affordability vs. cost recovery'. It is argued that the IRA laws overemphasize the 'recovery' principle without giving due consideration to or linking it with the principle of 'affordability'.

For example, the UP IRA law, among other things, also includes 'subsidy' as one of the cost component that should be recovered from the water tariff. In effect, the UP law seems to emphasize that the cost of government subsidy should be recovered from water tariff. Though, the law may suggest that the IRA can resort to 'cross-subsidies', there seems to be a complete withdrawal of the state from providing subsidy to the poor and marginalized. Considering the limited funds that can be recovered through cross-subsidy, this particular provision in the UP law is found to be burdensome on the poor and marginalized sections.

There is another crucial difference in the two IRA laws. The law in UP requires the IRA to "consider" the different costs mentioned before while determining tariff. As against this, the relevant provision from the Maharashtra law states that tariff "shall reflect" the principle of 'cost-recovery'. Hence, it seems that the IRA in Maharashtra does not have any space to waver from implementation of the principle. As compared to this, its counterpart in UP has more freedom in making decision on applicability of the principle; although, this issue needs to be studied more in depth.

The legal provisions pertaining to the application of the principle of 'cost-recovery' are justified by the argument that, the overall failure of public utilities in the water sector is rooted in the severe financial crunch and crisis faced by the sector. Further, the severe financial crisis is a result of failure to collect revenue against the water distributed. One of the main reasons underlying this failure to collect revenue, it is argued, is the absence of a specific requirement to explicitly link tariff to the costs involved.

Different Levels of Recovery of Costs

The provisions related to cost-recovery in the two laws could be seen as prescribing the recovery of costs in different degrees or at different levels. The IRA law in Maharashtra pegs the level of recovery at the 'O&M' costs; whereas the UP law raises the level of recovery to include 'depreciation' and 'subsidy' costs, in addition to the 'O&M' costs. Thus, the UP law provides for a higher level of recovery. Such differences in recovery levels have vital implications for water tariff as well as for the operation of mechanisms for regulation of cost to be used by the IRA.

The issue of increase in the level of recovery acquires crucial importance when the level is raised or heightened to recover the capital costs. It is often argued that recovery of capital costs from tariff would

make water tariffs unaffordable to common people. Though none of the two laws, in their current form, prescribe recovery of capital costs, the State Water Policy in Maharashtra explicitly recommends recovery of "all or part of the capital cost of infrastructure" and adds that "with interest subsequently". The Maharashtra law explicitly mentions that the implementation of the law would be guided by the State Water Policy.

All this has given rise to the apprehension that the current restrictions on the level of recovery are temporary and the levels would be gradually raised to recover capital costs, interest, and profits. It is argued that once the principle of recovery of costs is accepted as the main guiding principle for determination of tariff, the recovery of capital investment and profits remains just a matter of adjusting the levels of recovery. Once this stage is reached, the doors will be open for full-scale privatization of water sector, which is said to bring with it oft-discussed adverse impacts. It is also pointed out that inclusion (in the UP law) of 'depreciation' in the costs to be recovered is seen as a way to recover a part of capital expenses. These apprehensions make the issue of levels of recovery an important issue for the debate on the new water tariff system brought in by the IRA laws.

Cost and Service Regulations

One of the crucial dimensions of the proposed water tariff system is its linkages with regulation of the costs incurred and the services delivered. It is expected that the IRA would establish a comprehensive system of water tariff which would include not just the determination of tariff (based on the recovery principle), but also the mechanisms for improving efficiency and effectiveness in different areas of operation, which would significantly reduce different types of costs (including O&M and capital costs) as well as substantively improve different parameters of service outputs. It is argued that, in the current situation, there is a huge scope for reducing different types of inefficiencies (e.g., reduction in losses/theft, including corruption) and increasing effectiveness in different dimensions, which, if achieved, would substantially reduce the tariff burden on water users. Thus, there is an urgent need to pay due attention to the regulatory mechanisms that would reduce such inefficiencies and increase effectiveness in the system as a whole.

Design of the Process and Criteria for Making Decisions

An IRA, being an autonomous body making crucial decisions, has the responsibility to ensure 'procedural correctness' in all its functioning and proceedings, including, in the process adopted for evolving tariff regulations. The IRA is not directly accountable to public (through electoral or other mechanisms). It is also expected to be immune to the pressures of political activities. In this situation, the only way through which an IRA could be accountable for its legal responsibilities and functions is by ensuring strict adherence to a decision-making process which is comprehensive, systematic, completely transparent, and meaningfully participatory process, and which is articulated and shared with all apriori. Unless it discharges and demonstrates its accountability by adopting and strictly adhering to such a process, the IRA would not enjoy credibility as well as legitimacy (that comes from the accountability) among the stakeholders in the water sector. It is also argued that, as a body independent of the state, the most effective armour that the IRA could have to protect itself from machinations of vested interests especially those operating through the stateis this legitimacy, credibility, and support from a wide range of stakeholders.

The situation is further aggravated because of the particular focus on the current design of the regulatory process in the IRA laws. The new regulatory process, largely due to the diagnosis underlying its creation, is focused on ensuring techno-economic and financial rationality in the sector, especially at the level of the utility. However, the provisions pertaining to ensuring socio-political rationality are less in number and also weak. Further, the IRAs, in their current design, have very little scope for earning credibility and acceptance among the actors and sections whose prime concerns are over socio-political issues. This is because, first, there are no mechanisms to ensure their accountability based on the socio-economic criteria; nor are they expected to work to ensure socio-political rationality. Second, they are bodies appointed through a selection process which is not participatory. Third, the members of the IRA are not expected to have expertise in any of the areas considered as related to the socio-political concerns. However, despite these lacunas and neglect of socio-political rationality in their design, the decisions that would be made by the IRA do involve serious socio-political issues and have equally serious socio-political implications. This mismatch between, on one hand, their impact on socio-political issues and, on the other hand, their accountability, legitimacy, and capabilities in socio-political aspects, makes the IRAs not only deficient but also vulnerable.

In this context, there are concerns over both the laws, especially in comparison of the design and performance of IRAs in the Indian electricity sector. The Electricity Act 2003 requires transparency and participation in all the proceedings before the IRAs. Many state IRAs in the

electricity sector have come out with an elaborate articulations of such a process in their Conduct of Business Regulations (CBRs), which is the first thing they did. Many state IRAs have established log track records of conducting such processes to the satisfaction of all its stakeholders.

However, coming to the water sector, the situation is far from satisfactory. The Maharashtra law requires consultation (only and not participation) of water users only in the process for determining the tariff. Thus, if we stick to the letter of the law, the IRA is not required to engage in such a process, while making decisions on other equally critical issues (such as entitlement or project review). The Maharashtra IRA, after four years of its existence, is yet to prepare the CBRs. Coming to the UP law, unlike the Maharashtra IRA law, the UP law does not have any concrete provision that requires the IRA to undertake participatory processes while making decisions on any crucial issue. These factors not only severely affect (or would affect) the acceptance, credibility, or legitimacy of the water IRAs, but also make them susceptible to the pressures and enticements from the vested interests, especially those operating through the State.

4.1.4 Issues for Discussion

The crucial issues and debates about the new tariff system (discussed in the earlier paragraphs) were helpful in identifying the issues that are proposed for discussion during the relevant session in the workshop.

The following are some issues that were considered for discussion during the workshop:

i. **Water Tariff as a Tool for Water Regulation:** Whether or not the new water tariff system could prove as an effective tool for regulating the water sector. What objectives should and could be achieved through tariff regulations? What are the limitations of tariff as a tool for regulation of the water sector? What other focus areas or factors should be alternatively considered, while designing the water tariff system?

ii. **Principles of Tariff Determination:** Whether or not 'cost-recovery' should be considered as the primary principle for tariff determination. What are the implications of the same? What are the other principles that should be considered for tariff regulations? Whether or not the principle of 'affordability' still holds ground and is relevant in the water sector in India. How should this principle be treated while designing the tariff system? Whether it should be considered as the primary principle or not? How could it be integrated with the 'cost recovery' principle? How can other principles be considered and integrated into the water tariff system?

iii. **Levels of Cost Recovery:** If cost recovery is one of the principles of tariff regulations, then what should be the appropriate level of recovery? Whether or not there should be any upper limit (cap) on the level of recovery, e.g., no return on investment, only O&M recovery etc. Whether or not such a limit should be articulated in the legislation itself. If the upper limit is fixed, then how to address the issue of recovery of capital investments in the current situation when all governments have openly declared their inability to invest in the sector?

iv. **Costs and Service Regulations:** What should be the mechanisms for regulating different elements contributing to costs and quality of service? Whether or not, and how should they be linked or integrated into the water tariff system? Should the capital and other costs also be regulated, even if there is a cap on the level of recovery (e.g., O&M recovery only)? Whether tariff should be linked with preconditions related to efficiencies in costs and service or not? What can be the mechanisms of monitoring and penalizing (disincentives and incentives) for non-adherence to such preconditions?

v. **Process Design and Criteria for Making Decisions:** Considering the argument that the decisions made by IRAs involve socio-political decisions and have serious socio-political implications, how to ensure the socio-political rationality in the decisions of IRAs in the water sector? How to develop capabilities of water sector IRAs in socio-political spheres? How to ensure acceptance, credibility, legitimacy among stakeholders emphasizing socio-political concerns?

Session discussants (presenters), invited commentators, and other participants were requested to prepare points for sharing during the workshop based on the above-mentioned issues.

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4.2 Substantive Presentations and Discussions in Workshop: Session on New Water Pricing and Tariff System

The main substantive issues and concerns that emerged from the presentations and discussions in this session are presented in paragraphs below.

4.2.1 Objectives of Full Cost Recovery and Tariff System

The discussion began by sharing the concerns related to the objective of 'full cost recovery' (FCR) principle for tariff determination that has been accepted in the IRA laws for water sector in Maharashtra and UP. It was found that the levels of cost recovery in the FCR principle depend on the ways in which the objectives of the tariff system are selected and decided upon. The following were some of the questions that were raised with regard to the levels of FCR and the objectives of the tariff system:

- Full cost recovery (FCR) of which elements of cost? Is it FCR of infrastructure, of replacement cost of water, or of scarcity value of water?
- If FCR is being used for commercialization of the water sector, why should the full cost of rehabilitation of project affected people should also not be recovered from commercial water users?
- Are we concerned about 'cost of water' or 'cost of infrastructure'?
- Are we concerned about 'water pricing' or just 'water tariff'?
- Are we using pricing or tariff to address the problem of scarcity of water? (Examples of agriculture and food pricing were shared to elaborate the issue of pricing being used to address the concerns of food security and availability)
- Should there be zero pricing for water required for basic survival needs?

Apparently, the IRA laws talk about cost of infrastructure or service utility costs. But this would be a narrow interpretation or understanding of 'water tariffs' as a tool for water regulation. Hence, it was found necessary that the IRAs give due consideration to the broader objectives of tariff regulation.

It was shared that, in India, regulation has been equated with 'cost-plus' tariff system. But, such narrow interpretation has not been able to deliver the expected results in terms of the efficiency and efficacy. Example of the telecom sector was cited to argue that it is in this sector that regulation was interpreted correctly and it has worked successfully. It was suggested that there are various other modes of tariff regulation which should be explored and the best is 'price cap' or 'norms-based' type of tariff regulation.

4.2.2 Tariffs based on Type of Use of Water

It was suggested in the workshop that water tariff should be determined based on the type of the activity for which water is used. For instance, tariff for water used for drinking and basic livelihoods or subsistence needs should be different from the tariff for water that is used for commercial purposes.

4.2.3 Linking Affordability with Livelihood Requirements

It was emphasized in the workshop that affordability should be the key consideration in determining water tariff. The same should be seen from the perspective of livelihood security. People who cannot fulfil basic livelihoods needs should be given water adequate to satisfy these needs and at affordable rates.

It was pointed out that in the case of agriculture tariff, affordability is crucial, because the prices of agriculture produce are purposefully 'maintained' at a lower level as against those of other commercial products in the market. Affordability of certain water users is also lowered due to external factors such as economic policies and priorities of government with respect to public investments and other programs. So, it is the responsibility of the society to ensure that the water tariffs are affordable to these water users and that they get adequate water to satisfy their basic livelihood needs.

4.2.4 Linking Tariff with Loss Reductions and Cost Efficiency

Theft and losses lead to extra tariff burden on the regular water users. Thus, the tariff system should impose strict regulations on the utility to reduce losses and increase the water use-efficiency. It was also pointed out in the workshop that a majority of the costs of the utility includes expense on salaries and office. The actual expenses on maintenance and repairs are very low. So these establishment costs should also be controlled through regulations for water tariff.

It was observed that there are hardly any efforts to measure and monitor various water losses. On the front of financial costs, there are no serious efforts for measurement and estimation of prudent costs. Hence, this needs to be seriously considered while determining regulations for tariff. It was suggested that an analysis of different kinds of expenditure should be undertaken in order to determine which expenditure could or should be maintained or reduced, as well as to understand the equity implications of cutting certain forms of expenditure.

4.2.5 Economic and Technical Inefficiencies in Infrastructure Planning

A crucial question was raised in the workshop related to the cost burden imposed on water users due to the inefficient infrastructure planning and execution. It was argued that substandard planning and bad execution of infrastructure projects leads to higher costs of running and maintaining the project. In this case, who will be responsible for the additional costs due to inefficient capital investments? This issue was raised, especially, in anticipation of the possibility of passing of this cost on to the water users in the form of water tariffs. This brings into light the issue of regulation of capital investments, even if tariffs are not based on recovery of such capital costs.

4.2.6 Integration of Water Sources for Economic Efficiency

The issue of non-integration of various water resources, leading to limitations on the overall productivity of the available water was raised in the workshop. For example, the treated effluent water from urban-industrial sources should be integrated with the needs of agriculture water demands. Instead of the narrow focus on controlling water pollution, the focus should be on such regulations which ensure re-use of treated effluent water for productive uses like agriculture. If polluters do not adhere to such regulations, they should not only be fined but their water supply also should be stopped.

4.2.7 Linking Tariffs with the Quality of Service

It was argued that people are often asked to pay higher tariffs but without any guarantee of adequate, timely, and good quality water supply, especially for irrigation and drinking purposes. Examples were cited from different states, where water tariff for irrigation water were suddenly raised but farmers resisted because they did not received water when they needed it the most. Thus, regulations for water tariffs should also involve regulation of service of water supply. The water charges should be based on the levels of the quality of the service.

4.2.8 Tendency of Higher Water Allocations to High Paying User Segments

It was observed that, when pressure is exerted on the utility for ensuring 'cost recovery' the utility tends to favour higher water allocations to high paying user segments such as industrial and other commercial users. Thus, allocations start getting determined by market forces. This is termed as 'increasing allocation efficiency', which is as per the market-logic. But a caution was raised in this regard that water allocations cannot be solely driven by market considerations and the key principle should be the social priorities. These aspects were found necessary for integration in the tariff principles.

4.2.9 Tariffs for Resource Mobilization or Economic Regulation

It was observed that the water IRA laws refer to determination of tariff for the sole reason of mobilization of the financial resources required for water resource management. The laws do not necessarily refer to economic regulation. Counter arguments were made to this observation that an IRA is supposed to regulate the sector by using tariff as one of the regulatory tool. Hence, the IRA cannot ignore the broader economic and social aspects of tariff regulation.

4.2.10 Integrating Water Rights and Tariff: Entitlements for Separation of Scarcity Value from Cost Value of Water

It was argued that tariffs should be embedded in the scarcity value of water. One approach of doing this is through separation of the scarcity value and cost value of water. It was observed that the IRA laws in the water sector (in UP and Maharashtra) lay the basis for doing this, by creating two separate systems each for entitlements and tariffs. In this mechanism, a particular cost is awarded to the utility and the utility recovers the same from the users in the form of tariff. However, the user is given certain water entitlements, which the user can trade at a very high cost reflecting the scarcity value of water. Thus, entitlements take care of scarcity value and tariffs take care of cost or price of water and therefore efficiency is ensured.

It was further argued that, in this way, through the tariff and entitlement system, farmers can extract the scarcity value of water, which is better than no one doing it and allowing water to go waste. Since scarcity value is not extracted there is about 40% wastage of water. This can be reduced by separation of the scarcity value and cost of water infrastrucure through the systems of water entitlements and water tariff.

A different argument related to scarcity value of water was presented. It was suggested that the function of ensuring efficient irrigation or water conservation may be more achievable through enforceable allocation rules (such as a per-hectare rationed quota) that would make the scarcity value of water immediately obvious. So there may not be any need for resorting to trading of entitlement as a means of extracting the scarcity value of water.

A different dimension of the linkage between right to water and water pricing was presented, whereby it was suggested that pricing would have to take into account the 'right to water' (which has judicial support in India). Emphasis on the 'right to water' would explicitly link pricing to the question of affordability or ability to pay. It was noted in this regard that the question of willingness and ability to pay cannot just be considered in the context of a single sector such as water; and the costs of the other basic goods and services that people may have to bear would also need to be considered.

4.2.11 Problems in Tariff Subsidy

It was argued by the participants that subsidies, both government as well as cross-subsidy, should be an integral part of the tariff system. At the same time, some crucial problems regarding subsidy were also raised. Examples of badly worked out subsidies leading to inequitable development and poverty in areas such as north Gujarat and central Rajasthan were cited. It was shared that, due to heavy electricity subsidies, dry land areas have started growing water intensive crops, thus leading to inequitable distribution of water.

Examples from the electricity sector were cited to show that large farmers draw power more than the share proportional to their land holding and hence, they capture most of the benefits of the subsidy. Hence, this leads to inequitable distribution of the benefits that farmers get from subsidies. The same can happen in water tariff, where large farmers drawing higher water would be benefited the most from tariff subsidies. It was suggested that the best method of subsidy is the mechanism of direct subsidy. Overall, it was emphasized that there should be careful attention paid to the targeting of subsidies.

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Section 5

Drawing Lessons for the Future:

Making IRAs Sector-Relevant and People-Friendly OR
Going for Alternatives?

Contents

Introduction

The concluding session of the workshop was a panel session comprising members representing different stakeholder groups. E.A.S. Sarma (Former Secretary, Power Ministry, Government of India) chaired the panel. The other panel members were Ajit Nimbalkar (Chairman, MWRRA), Tushar Shah (IWMI), Suhas Paranjpe (SOPPECOM), Ajit Ranade (Chief Economist, Aditya Birla Group).

The panel members presented crucial viewpoints related to the future lessons on IRAs in the water sector. The key issues raised and discussed in this session were: feasibility of regulatory control in water sector, possible areas of performance for the IRAs, and strengthening the water policies and politics.

5.1 Base Note: Session On Drawing Lessons for Future

5.1.1 Introduction

The last session of the workshop was organized in the form of a Panel Discussion. The organizers had requested senior participants from different stake-holding institutions to be members of the panel. Dr. EAS Sarma (Former Secretary, Ministry of Power, Government of India) was requested to chair the panel. The members of the panel included:

- Mr. Ajit Nimbalakar (Chairman, Maharashtra Water resources Regulatory Authority)
- Mr. Suhas Paranjape (Trustee, Society for Promotion of Participatory Ecosystem Management)
- Prof. Tushar Shah (Former Director, Institute of Rural Management, Anand [IRMA])
- Mr. Ajit Ranade (Group Chief Economist, Aditya Birla Group)

In this Concluding Session, the panelists shared their views and opinions on some of the suggested issues pertaining to the theme for the session. The panelists did not necessarily represent their respective stake-holding institutions, though they would rely on their experiences from the particular stand-point. The session ended with Concluding Remarks by the chairperson.

5.1.2 Objectives

The following were the key objectives of this session:

- To reflect on the day's proceedings and draw summary findings of the workshop
- To draw lessons for the future of water regulation and related reforms
- To articulate and share the possible strategies for the future with regards to evolving pro-people and pro-poor regulatory frameworks in the water sector

5.1.3 Issues for Sharing and Discussion

The theme of the session was: "Drawing Lessons for the future: Making IRAs People-Friendly OR Going for Alternatives?" Here, the core concerns related to the role of the regulatory system are: (a) their relevance to the sector's needs, i.e., their contribution to the resolution of problems faced by the water sector, (b) their contribution to the objective of protection and promotion of public interests, especially the interests of the poor and disadvantaged.

In view of this, the panelists were requested to choose one of the two options suggested in the theme as the approach guiding their presentations: (a) making (refining or remoulding) IRAs to make them relevant to the sector needs and public interest; OR (b) suggesting an alternative to the IRA system.

After presentations by the panelists, other participants sought clarifications from the panelists and presented their views on the issues raised for the panel discussion.

The issues for sharing and discussion were categorized into the following four broad sub-themes:

i. Assessment of Regulatory Models in the Water Sector

- Whether the existing IRA Modelprimarily the Current Organizational Arrangements, the Entitlement System, and the Tariff Systemwill contribute significantly to resolution of the current and future problems faced by the sector or not.
- Would these reform initiatives effectively protect and promote the public interest, including interests of common water users, especially, the marginalized and poor sections of the society?

ii. Improving the Existing Regulatory Framework in the IRA laws

- What improvements or changes are required in the existing regulatory frameworks and mechanisms in the IRA laws of UP and Maharashtrain order to ensure significant contribution of IRAs in resolution of the problems faced by the sector and ensuring interests of the disadvantaged?
- How could these improvements or changes be brought into effect, especially since the laws have already been enacted? What are the spaces and opportunities for bringing in these desirable improvements or changes?

iii. Possibility of Alternative Regulatory Models in the Water Sector

- Is there any need for exploring the alternatives to the emerging IRA model of regulation?

- What could be the contours, guidelines, and features of the alternative regulatory model (especially related to the organizational structures as well as entitlement and tariff systems) which would be superior to the current IRA Model in protecting the sector and the disadvantaged?
- What could be the process for identifying, selecting, articulating, and institutionalizing such alternatives?

iv. Role of Different Stakeholders

- What should be the role of the different stakeholders in the process of planning for the future and giving effect to the same (Water Users Associations, NGOs, Government, IRAs, Academics, Corporate, Media and other such stakeholders)?
- What should be the mechanisms for a collective action in this regard?

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5.2 Substantive Presentations and Discussions in Workshop: Session on Drawing Lessons for Future

The main substantive issues and concerns that emerged from the panel session are presented in paragraphs below.

5.2.1 Feasibility of Regulatory Control in Water Sector in India

One of the major lessons shared during this session-pertaining to the future of IRAs in India was on the feasibility of regulatory control on the water sector. Reflecting on the ground-level context of the IRAs in India and other countries, it was noted that the design of the water sector IRAs in future could be significantly different from what is presented in current laws. This is mainly because the success of the water regulator requires conditions which do not exist in the Indian water sector.

It was argued that regulation in the water sector works when the regulators have to regulate a limited number of entities. This generally happens in countries where the water sector is highly amenable to intermediation. Intermediation is possible when the number of primary water diverters (from bulk sources) is very small. These primary 'diverters' may be large companies or municipalities, whereas most of the final users are secondary users. In countries like India, majority of userswho are large in numbersthemselves are primary diverters, directly drawing water from aquifers, lakes, streams, or rivers without any major intermediary. Hence, in this situation, regulation through a regulatory authority becomes practically impossible.

It was shared that regulations have been successful in another situation where there is no intermediary but the number of primary diverters is limited. Example of South Africa was cited where only 2% of population uses or diverts 95% of the country's water. Thus, the regulator while regulating 95% of water has to regulate behaviour of only a few users. Today, South Africa has issued permits to 1900 users, which draw more than 90% of the country's water. In this situation, the regulatory authority becomes very effective as it has to control only 1900 users, and by doing this, it actually is regulating the entire water resources in the country. But, in countries like India, Bangladesh, or others, this is logistically impossible.

To overcome this practical difficulty, most of the developed countries (like Australia, USA, Brazil, Chile) are very conscious of minimizing the number of entities to be regulated. So, all such countries have clauses in their laws, exempting smaller users from regulation. Applying this criteria to countries like India would lead to exemption to a majority of users.

In case of the entitlement system, it was observed that the system becomes meaningful when there is a significant number of large water users for whom the cost of defending the rights is much smaller than the value of these rights. This is not the case in India, and hence, it is always the state or the government that has to take the responsibility of protecting the rights.

The lesson that was drawn from this is that the design of the regulatory task needs to be done by giving due consideration to the feasibility of the regulatory control. The future of IRAs in the water sector in India may not exactly reflect the design envisaged in the current laws. There could be some deletions and additions in the laws, and one needs to be prepared for the same.

It was also suggested that, in this case, there could be attempts to reduce the number of primary diverters so that regulation can be made feasible. This could be an area of concern, especially, with regard to 'equity' and 'empowerment' related considerations in water sector.

5.2.2 Possible Areas of Performance of Independent Regulation in Water Sector

In contrast to the argument on infeasibility of regulating the water sector, there were points raised in justification of regulation and the possibilities of the same. It was shared that surface water is still a major source of water in many parts of the country. The water resource departments managing these surface water sources are provided with the largest budget allocation by the states, especially in Maharashtra. Heavy capital investments are made by the government through government-owned utilities such as the river basin corporations in Maharashtra. But the actual irrigation still falls short of the potential created. IRA is established in this context to improve the efficiency and the overall performance of the sector. So, in the future, the IRAs will work towards overcoming various hurdles towards efficiency and introduce new systems for enhancing the performance of the sector.

Example of the current tariff determination process in Maharashtra was cited to show the feasibility of regulation in the water sector. The IRA in Maharashtra has initiated consultative process on the Approach Paper for Tariff Regulations. After regulations are defined, the water resources department or water utilities will be invited for giving their tariff proposal. The IRA will examine the proposal, look into the issues of costs, repairs, maintenance and its efficiency, and accordingly give the final tariff order. So, in this process, the IRA will ensure that the efficiency and sustainability is achieved over a period of time in the sector.

5.2.3 Entitlements as Efficiency Improving Mechanism

It was argued that entitlements in the law have been framed mainly as an efficiency improving mechanism and not based on individual right to users. The rights for entitlement trading will be given to those farmers who save their share of water and hence, can sell this saved water to other farmers. Thus, in the future, entitlements will lead to enhanced efficiency of water use. In this situation, entitlement can be seen mainly as a measure to improve the efficiency of the irrigation system.

5.2.4 Strengthening Water Policy and Politics

It was suggested that the various critical points raised on IRA in the workshop need to be taken to the government and not just to the regulator. The IRA is already established by the law. The decisions on issues such as social equity, human rights, and empowerment are such decisions where IRA is related but not very directly. It is the government which should be held responsible for the same. Hence, it was suggested that there is a need for improving the policy framework through due political processes. It was suggested, in this regard, that we should also involve gramsabhas in the decision making on various aspects of water governance and regulation.

Government actors are driven by their own agendas and interests while making and changing policies on various aspects, such as independent regulation, water tariffs, or entitlements. But, there is a need for public pressure and politics for influencing these policies in the best interests of the people, especially the poor sections of society. In the future, we need to ensure that the process of setting-up the IRAs or implementation by already established IRAs do not impinge upon the basic rights such as the right to life, right to livelihoods, and the right to conserve water for the future needs. If water is a human necessity and hence a right, a question was raised on, whether water should be traded. Trading of water in this context would lead to trading of human right or human survival. In this context, it was felt that we need to be vigilant on the role of IRAs in the water sector.

An example from Andhra Pradesh was cited to make the point that the government is not emulating the IRA models already set-up in states like Maharashtra and UP. The government is proposing to form an IRA to discover the system performance levels and efficiency. The IRA will be given the responsibility of fixing standards of performance and of monitoring the same. The government is not yet going ahead with the entitlement system but shall delegate the function of determining the requirements of water across sectors and accordingly making allocations. So, the government is not rushing ahead with full-scale entitlement or tariff system and hence, not freezing all options at the outset. The government might gradually learn from the experiences and, accordingly, undertake future actions. This approach would certainly provide opportunity to strengthen the water policy and politics in the future.

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Section 6

Notes and Presentations by Participants

Contents

Introduction

This section includes compilation of the substantive contribution made by participants in the form of notes and presentations. The same are reproduced here verbatim and organized in alphabetical order. The contributors of notes are (in alphabetical order) Amita Bhide, EAS Sarma, Himanshu Kulkarni, Joy K.J. /Suhas Paranjpe, M.K. Ramesh, Priya Sangameswaran, Ravindra Kumar, Sebastian Morris, Shashi Enarth, and Shripad Dharmadhikari. The presentations were contributed by Joy K.J., Navroz Dubash, Philippe Cullet, and Sachin Warghade.

6.1.1 Note on IRAs in the Water Sector: Reflections on Urban Experience

Amita Bhide , TISS, Mumbai

This note specifically intends to bring in issues of water regimes in the urban sector and dwells on the implications of the new architecture of water governance.

The current urban water regimes consist of a maze of agencies that range form State Irrigation Departments to Industrial Development Corporations to Urban Local Bodies (ULBs) of various sizes besides the bodies that are most akin to Regulatory functions pertaining to water. It needs to be noted that many of these agencies are involved in both development of water resources besides being claimants to water resources. In fact, the ability to mobilize finances for water resource development has been the single most important variable that has determined actual water use. Experience shows that Master Plans for coordinated water entitlements across these institutional users have largely failed, instead creating uneven geographies of water availability as water resources allocated to some users could not be developed by them due to lack of finances while the larger cities with resources command an undue share. For example, domestic water supply in Mumbai is at an average of 130 lpcd while in outer MMR it is less than 40 lpcd.It is not clear how the IRA regime treats the development of water resource and relates it to specific entitlements.

Urban users are not industrial alone; however the towns represent a concentrated demand of domestic water resources. Water borne sanitation systems make further demands on availability of water. It is for this reason that the Centre for Public Health and Environmental Engineering Organization (CPHEEO) has norms for water needs dependent on sizes of settlements. There is thus an inherent inequity set in, irrespective of use. So far, ULBs have bypassed the sanitation related needs in consideration of the much more urgent need for drinking water. This dimension needs to be considered in looking at water entitlements.

Water supply inequities across domestic users in cities are linked to several factors, including the level of services provided, city geography etc. Thus the Maharashtra Water Supply and Sanitation Board (MWSSB) norm for water supply in urban areas through taps is 120 lpcd while through stand pipes it is 50 lpcd. Given the fact that most slums-an integral feature of our urbanization are serviced by stand posts, it introduces an inequity set in not by entitlement across classes but due to the level of service given. A consideration of such inequities needs to feed in the discussion of entitlements.

Water tariff systems in urban areas have been undergoing a sea change and while there is a lot of attention currently focused on attempts to privatize, there is relatively less attention paid to the corporatisation of water supply systems which has been underway for a fairly long time. One example here is the water charges Rules of Mumbai Municipal Corporation incorporated in 2001. The earlier rules had very few user categories-residential, commercial, slums. Under the new rules, the number of user categories has expanded to about 10 and with price differentials ranging from 3.50 per 1000 litres for residential and public amenities to Rs. 38 per 1000 litres for racecourses, star hotels etc. The rules are also accompanied by the levy of a sewerage benefit tax to the tune of about 40 per cent of water charges; a tax never levied before. The point to be noted is that the creation of water markets is well under way in urban areas at least.

In several cities of the country, it is the water supply to slums which has got almost fully metered and in many instances; it is the only option available to access water. The experience of these meter systems is that they are accompanied by several unacknowledged costs costs on related infrastructure, necessity to involve a licensed plumber, assumption of full water consumption in preparation of bills due to non functioning of meters etc. The scale of these unacknowledged costs is quite substantive and makes a concessional pricing negligible in its value. This is another dimension that a discussion of entitlements needs to consider.

Several studies illustrate the importance of politicians as modes to establish their claims to water as a service, faced with technocratic beauracracies of ULBs..It is a real question whether these groups will be able to access the participatory mechanisms of IRAs and be able to demand their rights to water.

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6.1.2 Water Regulation- Some Observations

E.A.S.Sarma
Former Secretary, Ministry of Power, Government of India

1. The concept of "independent regulation" as a means to reform the individual infrastructure sectors is slowly gaining ground in India. It started in a big way with electricity regulation, accompanied by major institutional and structural changes in the electricity industry. The latest to join this movement is the oil & gas sector. For some years, there have been moves to introduce independent regulation in the water sector. With three States having adopted regulatory laws and the others following them, water regulation seems to be gaining momentum.
2. Independent regulation, as envisaged in the West, is relevant when there are a sizeable number of private players and a well developed water market. In such water markets, regulation becomes necessary because water storage and distribution tend to be natural monopolies and market failures occur because of externalities and information deficiencies for the consumers. In the case of India, the situation is somewhat different. Water is still considered as a public good. There are practically no private players. The utilities that are engaged in the storage and distribution of water are owned and controlled by government agencies. Unless the regulatory authority is truly independent, it is possible to have a situation in which both the regulator and the regulated are indirectly controlled by the government, yielding no special benefit. The only benefit one can expect from independent regulation in the water sector in our case is (i) financial viability of water storage and distribution, (ii) greater transparency in the functioning of the utilities, (iii) efficiency improvements, (iv) transparency in subsidies and (v) hopefully, better customer service.
3. Both in the electricity and the oil & gas sectors, the regulatory laws and the institutional changes have not been fully satisfactory. When regulation was initially introduced in the electricity sector, there was all round expectation that the electricity industry would become more efficient, the unit cost of delivery of electricity to the retail consumer would decline as a result of the greater efficiency and the industry would become more consumer-oriented through improvements in the customer service standards. More than a decade after the first regulatory laws were introduced, we seem to be quite far from realizing any of these goals.
4. In the oil & gas sector, the regulator is bereft of the authority to fix the price of either of these two petroleum products, as the government expected competitive market forces to determine the price to the advantage of the consumer. While it might have worked in the case of oil, regulation in the gas sub-sector has already started posing challenges.
5. Since many States are eager to introduce water regulation, it is of crucial importance for the civil society to examine the regulatory laws and the institutional changes that are contemplated and come up with suggestions on the regulatory regime that will maximize the benefit to the water consumers, in a sustainable manner. Lessons could be drawn from our earlier experience with regulation and the laws and the institutions should be adapted to the water sector in a way that takes into account its peculiarities.
6. Like Electricity, the water sector is a capital intensive industry with the characteristics of a natural monopoly. Both these sectors are characterized by competing and fluctuating demands. Unlike electricity, the cost of distributing water is much higher. Also, there are not many segments of the water supply chain that can be unbundled and exposed to competition. Also, unlike electricity, water is usually a public good available to the people free of cost, though the quality of such water may not be high. The entry of a private investor in such a situation would only fragment the sector into those that supply high quality water to the rich and the rest of the water sources catering to the comparatively poorer households from reduced availability. Therefore, the cost of privatization will far overweigh its benefits.
7. It is a fact that water is fast becoming a scarce resource. Unless its storage and distribution are planned ahead and the efficiency of its use enhanced, we are going to face a serious crisis in the coming years. More than 80% of the diseases in the country are water borne and there is urgent need to regulate its quality. A large number of both rural and urban poor have inadequate access to water for drinking. Therefore, it is necessary to define the minimum entitlements to water for such households as a basic human right. Ground water is getting

depleted and contaminated in many areas due to lax regulation of spacing and pumping of ground water and control of pollution. These are the kind of inputs that should go into the water regulation law. A law by itself cannot deliver, unless there are institutions that can respond to it.

8. The primary requirement of any regulatory law is an overall framework of policy. The regulatory legislation and the regulatory authority can at best implement the norms set out in the policy. The "water policy" statement should indicate the sectoral priorities of water allocation, minimum entitlements for the lower income groups, pricing norms, people's participation and a long-term vision. The National Water Policy statement covers these aspects in a general way, though there does not seem to be any mention in it of the need for entitlements. The water policy documents of UP, Maharashtra, Karnataka, A.P. and others also cover these aspects well, except that the Karnataka Water Policy statement is perhaps the only policy document that has quantified the entitlements. The differential entitlement scheme of Karnataka for people living in rural and urban areas and in smaller and bigger urban bodies is somewhat questionable.

9. If regulation is to be rendered effective, the civil society should analyze the policy statements in some detail. Allocation priorities, water entitlements and pricing are the important aspects on which a wider debate is called for. There could be some conflict between pricing and entitlements. Entitlement is in the nature of a right that cannot be abridged by the price.

10. For example, there are specific instances in which the total water availability is limited but the government agencies have indiscriminately made commitments to new industrial units in the name of "development", thereby compromising on the need to ensure sustainable and adequate water availability for drinking water. Should drinking water needs constitute the first charge in any long term water plan? Even assuming that water storage and distribution activities are rendered fully efficient, if the unit cost of delivery of water in the case of a low-income household is far higher than what the household can afford within its own income, how should the concept of "entitlement" be translated into reality?

11. The regulatory laws so far enacted follow the general pattern set out at the national level, though there are slight variations.

12. The UP law provides for a Regulatory Commission with members drawn from experts and government officials. No representation is provided to the civil society dealing with citizens' water concerns. They have a tenure of five years but the law provides for "reappointment" with the upper age limit stretched up to 70 years. This tends to erode the Commission's autonomy. The Selection Committee has two outsiders but Section 12 lays down that the decision taken by the majority should prevail.

13. The Maharashtra law provides for a Regulatory Authority that comprises of experts and government officials. No representation is provided to the civil society dealing with citizens' water concerns. They have a tenure of only three years but the law, like in UP, provides for "reappointment" with the upper age limit stretched up to 70 years. This tends to erode the Commission's autonomy. The Maharashtra Selection Committee comprises only of experts and government officials as its members. There is no transparency in the selection process.

14. For the regulatory authorities to be effective and sensitive to consumer interest, they need to be both professional and independent. Then alone, they will be able to deliver at least the kind of benefits listed out under Item 2 above. For this, (i) the authority should be a high-level one, as it has to exercise authority over several departments such as the different wings of Irrigation, Municipal Administration, Municipalities, local bodies, district authorities etc., (ii) the authority should have representation from civil society organizations dealing with the concerns of (a) drinking water needs of the people and (b) irrigation water needs of the farmers, (iii) the members should have a fixed tenure of five years, not extendable under any circumstance, (iv) the authority should have some financial autonomy by way of a predetermined budget to obtain the necessary technical inputs, (v) the authority should not become a haven for retired government officials.

15. The Selection Committees should have a majority of outsiders, preferably persons of eminence nominated by a well-defined set of reputed academic institutions dealing with water management issues. Its recommendation should be accepted in the normal course and if the State Govt. wishes to differ with the Committee, they should record the reasons for it. This will make the process transparent.

16. The water sector is a complex one, as the demands on water sources can be highly competitive and, at times, conflicting. To cite an example, irrigation channels from an irrigation project are necessarily closed down for maintenance for about a month every year. On the other hand, if that project is required to supply water for a nearby urban cluster, it is a 24-hour, 365-day demand. If the same channel is used for meeting both these demands, the urban cluster will need extra storage to absorb the interruption in supply. While irrigation demand is comparatively easy to forecast, haphazard growth in urban settlements make it difficult to plan the supplies. The problem is compounded by the need for conjunctive use of ground and surface water supplies and the need to assess the ground water resources accurately from time to time. The quality of both ground and surface water supplies has been affected by the unbridled setting up of polluting industrial units.

17. Against this background, the regulatory authorities should have the mandate to prepare long-term intra- and inter-basin water supply and demand plans that should be placed in the public domain, seeking the views of the civil society. These plans, once finalized, should have statutory force. The authority should have sufficient teeth to enforce its plans.

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6.1.3 Independent Regulatory Authorities and Water Entitlement System

A brief discussion note for Session on New Water Entitlement System

Joy K. J. and Suhas Paranjape, SOPPECOM, Pune

The base note circulated for Session 3 on "New Water Entitlement System: Is it Warranted, What Would be Its Impacts and How to Address the Impacts?" by the organizers of this workshop is fairly comprehensive and bring out most of the critical issues involved around the new water entitlement system that is being proposed/implemented by the Independent Regulatory Authorities (IRAs) in the water sector. Of course the note could have avoided some of the details which may not be very critical or significant. The note also could have avoided a bit of the overstatement of the case especially those sections which compare the provisions (or sometimes the interpretations of the provisions) regarding entitlements in the two regulatory authority acts of Maharashtra and UP with the pre-IRA irrigation practices. Take for example the discussion on the eligibility criteria. In the IRA regime, as the base note rightly points out, is based on the landholding one has within the designated command area. But this was the case even before: farmers who have land within the designated command get or used to get water in proportion to the land they hold. In fact this was the whole basis to say that the conventional irrigation water distribution is inequitable. Or the statement about the water being supplied to farmers as per their (perceived) needs in the conventional system and in the case of IRA regime water rights would be given automatically and by implication it means even if a particular farmer does no want the water for a particular season as if he IRA would thrust the water upon him or her! This gives a bit of an impression that in the conventional system farmers form the command area used to get water as per their needs. Those who have followed the irrigation practices on the ground would agree that this is pretty far from the actual practice. Yes, it is true that in the conventional system a farmer who has land in the designated command area has to place his/her demand for water before a particular date in each cropping season to the concerned irrigation officer or to the WUA (if one exists), then the applications are processed, the total demand is estimated, the water availability is assessed and then a decision is taken as to how much area can be irrigated for which crops and then individual demands are adjusted as per this. Thus it does not automatically mean that if a farmer demands water for, say 5 acres of wheat, the actual approval would depend on the water availability and the total demand. Even in the case of MWRRA it is very clearly the quantum that goes with the entitlement has to be worked out for a specific season or run off season. The point is not to say that there are no differences between the conventional system and the IRA regime, there are, the point is we should desist from overstressing a point.

Water rights and right to water are two different things

In the discussion on water entitlements and IRA, the first and foremost thing we should note is that water rights and right to water are two different concepts. Very often the concept of water rights get conflated with right to water and in fact as Priya Sangameshwaran has rightly pointed out in her notes we should guard against entitlements being posited or paraded as a right. Under the rubric of entitlements what the MWRRA talks about is water right and not right to water.

In one way we can say that water right is only a sub-set of right to water which is a much broader concept and includes dimensions such scope (quantity and quality requirements, accessibility and affordability and so on), duties and responsibilities, ownership, delivery, pricing (state, market, social vs. economic good), relationship with other rights, participation in decision making, macro/global developments that impact on content and the working of the right and so on. These issues are elaborated in Priya Sangameshwaran's technical report on right to water[4]. Right to water is part of the broader right to development or right to resources discourse which is irrespective of the present ownership or access to property that emanate from concerns like human dignity, human rights and equity. Thus the thrust of right to water is "ensuring a social minimum to all".

The emphasis in water right discourse is to give a clear title to the right holder so that he/she can use, sell

[4]Priya Sangameswaran, 2007, Review of right to water: human rights, state legislation, and civil society initiatives in India, Technical Report, CISED, Bangalore

and/or exchange the entitlement freely, something like a market commodity. The best example of this is in Australia where people can buy water entitlements and freely sell them as one sells shares of companies. In fact the World Bank documents also talk about delinking water rights from land right supposed to be a progressive slogan which has been the hallmark of many socio-political movements around equitable distribution of water to primarily make water a free commodity that can be bought and sold in the market (or share market). The provisions in the MWRRA do not go to this extent as there are quite a few restrictions imposed on tradability, but the directions are clear as Australia is being held as a role model.

Some of the other issues related to entitlement

Some of the other important problems related to water entitlements the way it has been conceptualized in the MWRRA have been detailed out in the base note. According to us the three most important ones are:

1. Water entitlements tied to land rights: The initial allocation of entitlement is decided on the basis of the land one holds in the designated command area of an irrigation project. This creates various problems or gives rise to various issues like 1) entitlement is restricted to only irrigation, what about other needs like drinking water and sanitation, environmental needs and also other non-irrigation based livelihoods? 2) What happens to people who do not have land in the command areas of irrigation projects? Don't they have any entitlements? 3) Most of the irrigation potential assessments (for example the Suktankar Committee Report) show that only about 30% of the cropped area can be irrigated (going by conventional paradigm of irrigated agriculture) and may be this can go up by another 10 or 15% with efficiency measures. So what happens to the people who own about 60% of the cropped area? Will they not have any entitlements?
2. Freezing of existing inequities: This can freeze the present inequities in access to water, formalise and legalise the unequal access and this way it can foreclose more progressive and socially just options in future.
3. Tradability and role of market: The space provided for tradability though limited in scope presently and the role of market in this can create problems for the resource poor. This along with the provision in the Maharashtra Management of Irrigation System by Farmers Act (2005) of providing water entitlements to those who are engaged in contract farming by acquiring land in the irrigation commands can pave the way for concentration of water rights.

Water is different from classical private property

Though the MWRRA treats water as a state property for every practical purpose, especially while dealing with entitlements it treats water more as a classical private property. This needs some discussion as the issue is not only limited to MWRRA, but with the LPG regime the viewpoint that market (and not state or communities) is the most efficient mechanism or means to allocate water is also gaining increasing ground.

Delivered by a piped water system, water appears to be private property, bought, sold and owned like any other commodity. However, `ownership' of water is basically an entitlement to use water in a certain way at certain points and times. Secondly, it is affected by the action of other actors and other people's entitlements, and sometimes, unilaterally causing the constant headache of upstream states versus downstream states. And these entitlements are not volumetric, in an absolute sense, but rather are relative or proportionate entitlements; in other words, shares of a common pool resource.

Moreover, since water is also a variable resource, the entitled share of common pool resource may turn out to be very different for different situations because prioritisation of needs may be very different. Take, for example, a rough classification of situations into those of normal availability, of surpluses and of shortages. Shares that accrue for various uses in normal situations may not be the same as those that accrue in surplus and shortage situations. Thus, `ownership' over water is not only entitlement to a share of a common resource but a share tied to specified use and affected by prioritisation of use.

This element and its operational and legal implications are not fully taken into account by our establishment. For example, awards for the allocation of river waters assume availability at some level of dependability of river flow and specify allocations, but barring a few exceptions, do not evolve and lay down norms for modifying those allocations in light of surpluses and shortages, and this absence of commonly accepted norms of sharing shortages and surpluses leads to recurrent, no, permanent conflicts. Asymmetries and unidirectional relations play their own part in exacerbating or even incubating conflicts.

The last point that needs to be taken into account is what has been identified as the often very high costs of exclusion. It is difficult to exclude someone from natural

access (we are not here talking about closely controlled artificial access like the one in a piped supply system). If water flows through a field to reach another field, it is difficult to exclude that field from accessing it for some other use. Since the state can operate only through the threat of exclusion, the high exclusion cost makes it very difficult for the state to enforce or modify natural access entitlements.

Each of these characteristics of ownership of water moves it further and further away from classical private property ownership that is the basis of so much law. Actual in the past have evolved slowly over hundreds of years in the form of customary water rights and institutions that grew around these entitlements, adapting to each other through mutual interaction and adjustment. Water never was a commodity prior to the advent of modernity, which is often a euphemism for the advent and flourishing of capital. As capitalism expanded geographically and socially, it sought to capitalise nature more and more and convert it into private property, at least in form, if not in content. However, the peculiar nature of water as an ecosystem resource should make it clear that water cannot be treated as private property in the classical sense and it also follows that instruments like classical market mechanisms that are supposed to be efficient instruments for the management of classical private property also cannot work efficiently because water lacks the reliability, the ready manipulability and the constancy that other private property has.

IRA, entitlements and depoliticised discourse

Issue of water allocation, access, rights and entitlements are very much part of political contestation and these have to be kept very much part of the political processes. Only then the resource poor sections can exert some pressure on the system to get their share of water or entitlements broadly as part of a right to water movement or politics. However, the very rationale of IRA is to take this away from the political sphere. With IRA and the way entitlements are defined the whole discourse on entitlements would get increasingly depoliticized and as Shripad Dharmadhikari has noted it can lead to depoliticisation of the entire water sector.

The necessity of IRAs is premised on the need for "independence". This assumption of `independence' needs critical examination. The questions are independence `from' what and `for' what. Independence generally means independence from `political' intrusion and freedom for full operation of `economic' criteria. Thus IRA, the way it is being designed and operationalised is very much part of neo-liberalism. We need to accept this upfront and not be apologetic about it as this would help us to demarcate the boundaries of what it can do and what it cannot do.

The IRAs need to be independent not from politics but from the executive if they have to go beyond (economic) efficiency and become part of a broader institutional mechanism for sustainability, equity and democratisation and address the concerns of the poor. The independence of the IRA from the executive should be assured (for example, part of the proceeds from the sector must be automatically earmarked for it), else, it becomes dependent of the executive.

In fact, there is a need to recognize that there should be a minimum common set of norms that include particular social, political as well as economic objectives regarding the resource/utility which should inform the decision of any IRA and the IRA should be held accountable to those principles.

The IRA should be embedded in a process that involves the different stakeholders and allows them space to bring their viewpoints to bear on the decision. Also, a distinction needs to be made between direct stakeholders and indirect stakeholders, or so to say between, stakes held as access rights and stakes held through proximate effects.

Basic rights of access to resource (especially to fulfil livelihood needs) and rights for profit making (or surplus generation) need to be distinguished and treated differently. In other words access rights that are part of livelihood activities of the poor must be preserved (though there may be some consideration of provision of alternative assured livelihoods in some cases). Privatisation of rights (or resource) and mere privatization of service provision or delivery must be distinguished and the former must not be allowed to happen under the guise of the latter.

Bottom line is a normative framework that serves as a guide for decision making that needs to be stipulated quite clearly. Proactive efforts must be made to ensure representation of vulnerable sections whose interests might not get articulated easily. Environmental and long term sustainability interests must be explicitly part of the normative framework and represented separately if possible. (The environment cannot represent itself, etc.)

Unfortunately there does not seem to be any effort in evolving such a framework in India and IRAs are being promoted and set up in the absence of such a framework for governance or very often in lieu of it! They operate in the same old framework; there is no attempt to question the present unequal access, allocations and entitlements; very often the fight is over procedural transparency.

An alternative framework for defining entitlements

From the above discussion it is very clear that we need a different framework if we have to conceptualise entitlements from right to water perspective which can at least guaranty "a social minimum to all". By merely tinkering with some of the provisions of MWRRA we would not be able to achieve this. In all probability they can come in the way of articulating a more progressive and socially just agenda.

Here we only attempt to outline only two important components of this framework, and that too very tentatively.

1. **Scope of the right:** The first issue that we need to settle is what to include or the scope of right to water. Entitlements could include 1) basic needs, 2) livelihood needs, 3) ecosystem needs, and 4) socio-cultural needs.

   By and large there is a consensus that basic needs, meaning water required for domestic use (drinking, cooking, washing, hygiene and so on) should be seen as part of the right or human right. There is also a strong opinion that instead of prescribing one uniform quantity it may be better to give a minimum and maximum range, should include both quantity and quality aspects and also do away with the rural and urban divides.

   When it comes to water for livelihood needs then we should go beyond the irrigation centered livelihoods to include all other livelihoods which are dependent on water. Secondly depending on the specific agro climatic conditions and livelihood pattern of area different norms for different livelihoods could be worked out. This could be part of a decentralize exercise than prescribing a uniform norm. May be for agriculture based livelihoods biomass based estimation of water could be one way (for example 6000 m^3 of water for 18 tons of biomass or the general norm that it requires about 1000 m^3 of water per capita to meet livelihood needs could be used. Here per capita water allocation should be the basis to decide the entitlement and not the amount of land one holds. Similar norms could be worked out for other livelihood needs. There are also livelihoods which do not consume water in the process, for example fisheries, or tanning and so on. Here it is important that certain water bodies be made available to them to carry out the livelihood activities.

   On the question of whether we should make water for livelihoods as part of the right discourse (human right) the opinion seems to be divided. There is a school which says that, yes, it should be where as there are the others which say it should not as it can dilute the demand for making water for domestic use a basic right. They say that at the most what we should say is that it is the responsibility of the state to provide adequate quantities of water to carry out livelihood activities.

   In MWRRA there is no mention about ecosystem needs and cultural needs. These two need to be incorporated. Even here it should be a decentralized exercise and norms have to be fixed for different river systems to maintain ecosystem integrity and also meet the livelihood needs of the downstream communities and also for different communities to meet their cultural requirements.

2. **Water use prioritization:** In fact MWRRA is rather silent on the water use prioritization and only says that it would operate within the prioritization set by the State water Policy. One of the issues that needs immediate attention to change the water use prioritization. The third position accorded to agriculture in Maharashtra needs to be changed; instead it should have a priority over ad above the industry.

   We also need to reconceptualise the whole issue of prioritization. Very often the present prioritization is only a wish list as actual allocations and planning do not follow the prioritization. The prioritization should include hierarchy of uses and unless the first order priority is not met water should not be made available to next set of priority especially in the case of domestic water needs and ecosystem needs. Her we are proposing that water for domestic needs and ecosystem needs should be given first priority and only after meeting these needs, the residual water should be made available for other uses.

   Instead of agriculture use it is better to say water needs for livelihood needs and water for surplus or profit making. Here the priority should be for livelihood needs and only after this is met water should be made available for profit making. This way we can work out the water sue prioritization and the MWRRA should be able to operate within this framework of prioritization and it should be its responsibility to see that this is followed or not.

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6.1.4 IRA In Water Governance: Reform Or Retrograde Measure?
(focusing on the legislative efforts of Maharashtra & U.P.)

Dr. M. K. Ramesh, Professor, NLSIU, Banglore

I. Nature of the law & its impacts:

(a) Characteristic features:

- Law primarily intended to promote the interests of the industry, commercial ventures and land-holders through a particularized application of the polluter pays principle and a system of levies, pricing and penalties.
- Water viewed as a tradable commodity. The Maharashtra Act (MWRRA), in particular, provides for a facilitating mechanism for trading of entitlements, by fixing 3 criteria for the same (S.11(i) of the U.P Act does not have a comparable provision)-This defies logic -The laws are supposed to have been framed within the letter and spirit of the National and State Water Policies and both proclaim water as a national asset and insist on de-linking water rights from land rights. In addition, considerations of equity and meeting basic needs are claimed to inform and influence the decision-making under these laws. There exists a clear chasm and disconnect between the objects and operational parts of the legislative efforts.
- Not a self-contained and complete code on the subjectvisualizes difficulties in its working and requires approbation of the legislature for every " order" issued, to remove the difficulties and give effect to the provisions (S.32 of Maharashtra Act; S.36 of U.P. Act), giving the impression that this is a law under "construction, perennially"(-like, some of the websites!)
- Not to a law to integrate ecological and conservation concerns (- except, insisting on a minimum level and efficient use); basic human needs and rights and equity concerns (-except, in requiring fixing different tariffs for different kinds of users and uses)
- Neither a Consolidation Law nor a re-statement of the law- this is not an overarching umbrella law, as to bring all the related laws on the subject within its fold or for that matter incorporating the decisional law (-that have brought into play the principle of Precaution and the role of local communities in resource management etc.)- except for giving representation to related ministries in the steering and decision-making bodies, nothing in actual terms, provided for in bringing about harmony among different laws and their working- more of a stand alone legal prescription.

(b) Conflict Resolution Mechanism:

- Maharashtra Water Resources Regulatory Authority (MWRRA) Act provides for two-level mechanism: River Basin Agency as the primary level grievance redressal body (S.22), from which appeal will go to the Authority; U.P Law has only one stop shop for conflict resolution Arbitration - It has a very elaborate set of provisions for "reference" to "arbitration"(Ch.IV). Both the laws invest these quasi-judicial bodies with the same powers as that of a civil court. Formal justice delivery system is ousted from exercising jurisdiction except when the authorities choose to bring in an action before the Judge at the district level (-S.29 of Maharashtra Act and Ss. 23 & 31 U.P. Act)
- Both the laws are guilty of "tokenism"- They make a mockery of the whole process by assuming the roles of complainant, Prosecutor, jury and Judge all at once. Under the Maharashtra Scheme, both the levels of justice dispensation, lack the competence for rendering justice and the U.P Law is guilty of either carelessness or ignorance when it uses the expressions, "reference" and "Arbitration". "Reference", is always by the disputing parties to a third party. But, here it is the Commission making the reference, that too, to itself ! and, the Commission wears the hat of Arbitrator as well! No provision for appeal exists! - To save face, it could at least have been a "tribunal" constituted by the State Govt. for the purpose.

(c) Water as a tradable commodity:

- The Maharashtra Act is guilty of articulating and operationalizing this idea (-S.11(i)) trading water entitlements -This raises a number of questions : How can a scarce resource, that should serve basic need of every one, be made an object of trade?

Where does equity lie? What has happened to the National Water Policy that treats water as " national asset"? How would this ensure de-linking water rights from land rights, as the national policy aspires? If the law and the authorities enforcing it are abide by and conform to the National and State policies, as the statute insists, (-S.12), how can this be explained?- Although the U.P Law has provisions that measures entitlements on the basis of nature of land and area, it mercifully leaves out the highly objectionable trading aspect

(d) Information Disclosure:

- While the Maharashtra. Act has a set of provisions for gathering, disseminating and making available information on the subject (Ss. 20 and 11(s,t,v)). The U.P Act has none of these salutary features. Instead, it comes up with two provisions- one, that is objectionable (S.17) and another that is truly reprehensible (S.18) : S.17, obligates the licensee to furnish the the information to the Commission about the level of its performance to the standard set(-S.16) and this information may be published for public access, by the Commission at its discretion! S.18 commands, "Information in respect of any person or business shall be treated as CLASSIFIED AND SHALL NOT BE DISCLOSED BY THE COMMISSION, WITHOUT THE CONSENT OF THE CONCERNED."- as if it were a defence secret!

(e) Drafting Bloomers:

- Observance of graces of language is not a strong point of these legislative efforts. Maharashtra Act is more guilty on this count. Obviously, the law makers were in a tearing hurry in accomplishing what they set out for themselves- pricing, trading , marketing and privatizing water:

  Both the laws list out the "policies" guiding the working of the Authority/Commission (-S.12 of Maharashtra Act, S.13 of U.P. Act). The so called policies actually turn out to be a combination of obligations, functions, guiding principles and strategies for calculation of levies(- besides, imposition of penal sanctions for having more children!- legislative contribution to family planning!);

  Both the laws take pains in cataloguing a host of powers and functions of the Authority/Commission (-S.11 of Maharashtra Act & U.P Act). They either suffer from over statement or repetition (-S.11(j) &(u)of Maharashtra Act and S.11 (j) &(o) of U.P. Act)

II. IRAs and their legal status:

- Justifications apart the IRAs are not what they claim to be. There exists a clear disconnection between perceptions and projections (fuelled by the stated objectives) and what finally got articulated in law- raise questions of the need for and efficacy of such artifices and mechanisms.

First, a little bit of demystification of the grandiloquent design would be appropriate:

* **ARE THEY TRULY INDEPENDENT ?**

- S.5/6 of MWRRA/UP Act: SELECTION: The Chairman and the members owe their position to the selection committee, which is the top brass of the State bureaucracy, and the political leadership (- the govt./Governor, appoints upon the recommendation of the Selection Committee-S.3(5) Maharashtra & U.P. Acts).They are political appointees and hold their position at the pleasure of the govt. of the day- They are, thus, not independent of the govt.- never free from interference from political and administrative interference.

* **DO THEY HAVE AUTONOMY?**

-Ss.15 & 16 of Maharashtra Act makes it explicitly clear that this body is weighted down by the supervisory, advisory and controlling power of the State bureaucracy(-Selection Committee cum- State Water Board) and the political leadership (-State Water Council) and is confined to function with in the Integrated State Water Plan prepared by the Board and approved by the Council (Ss.14 &15).This kind of fetter is not there for the U.P Commission, as the Plan is prepared by the State Water Resources Agency(- that is more of a technical secretariat to the Commission), subject to the approval by the Commission (Ss.2(x) &12(a))

* **IS IT AN EXPERT BODY?**

-To be an expert and professional body and going by the objectives of the Act and the assigned functions, the Authority/Commission should have expertise in Hydrology, Irrigation systems, Ecology (- conservation), Law (-adjudicatory functions), Human Rights (-basic need, right, equity) and administrative experience- The composition, as is provided in the law, can hardly be credited with these capabilities and expertise. The law prescribes that it should have a retired Chief Secretary level bureaucrat, as its Chairman. With his vast experience in administration, he is assumed to possess all these virtues and much more !It is post-

retirement rehabilitation programme, to say the least! The only expert worth the name , in this "brain trust", is the engineer. The ubiquitous Economist is another member. By what stretch does he possess the expertise in ensuring "equity", and "conserve" resources, is any body's guess. As the high priest of the market he can bring in such expertise that the global economy is still struggling to recover from!

* **IS IT A REGULATORY BODY?**

-This raises two questions: regulate what? and How?- Going by the kind of functions this body discharges, it is command and control and license raj in a different avatar (- having less accountability, greater space and scope for market players have their say and way)

The emerging brand of IRA, through this legislative design, is hardly an innovation. It is more of a diabolical distortion of organizational spirit of cohesive functioning and collective action. It is more of an "organized chaos".

Verily, this is an entity that is A MERE EXTENSION OF A PROCESS AND A DEVICE FOR CENTRALIZATION AND OVER BUREAUCRATIZATION. Further, THE LAW IS A CAMOUFLAGED CLOAK FOR PRIVATIZATION OF PUBLIC RESOURCES!!

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6.1.5 National Workshop On Water Regulation And Reforms: Some Points For Further Discussion

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- Broader context of organizational and institutional changes: Apart from IRAs and the organizational and institutional changes that they have brought in, there are a wide range of reforms that have been introduced in the water decade in the last decade. It would be useful to spend some time on these, and also see how they would affect the changes brought about by IRAs. For instance, in discussing the changes in the roles of stakeholders (Session 2), how would processes of decentralization (in both drinking water and irrigation) interact with the working of IRAs and what are the contradictions and complementarities between them.
- Apart from other reforms in water, changes in other non-water arenas would also have to be brought in the discussion. For instance, in the discussion of entitlements (Session 3), how useful or not they are would have to consider other changes in the agrarian scenario along with a broader conception of livelihoods.
- Sessions 1and 5: For each specific function that IRAs currently have or are expected to perform, are there any other state or sub-state organizations that can perform them equally well if not better? Even if there are no such organizations, how realistic are the expectations from IRAs (ranging from substitution of markets to democratization functions). If IRAs cannot perform their expected role in the current climate, it may be better to try and push for alternatives (except in those cases where they are already in existence, where a different kind of engagement may be needed).
- Session 4: The rationale behind changes in prices and a new tariff system must be carefully deconstructed. Some points for consideration:
  - There are three major arguments usually made in favor of pricing of water recovering costs, capturing the 'true' value of water as a resource that has multiple uses, and providing an incentive for judicious use of water, although it is the goal of cost-recovery that has received the most attention. These goals are perfectly valid. However, it is not obvious that increasing the price of water will necessarily meet these goals; further, there are also often alternative instruments that are more effective.
  - For instance, the argument that water as a resource has been taken for granted and overused, and that only pricing will help to understand its real value and to start conserving it is problematic because for affluent customers, higher rates do not necessarily translate into lower demand or more careful use of water. In the case of irrigation water in canal systems in Western India, for instance, studies have shown that that the function of ensuring efficient irrigation or water conservation may be more achievable through enforceable allocation rules (such as a per-hectare ration) that would make the scarcity value of water immediately obvious and change in the price policy of agricultural output (e.g., reducing government support prices for water-intensive crops such as sugarcane) rather than through higher price of irrigation water.
  - In terms of the goal of cost-recovery, greater attention would need to be paid, among other things, to the consideration of costs (e.g., the kind of technology used and its implications for capital and O&M costs; how much profit is considered 'valid' for institutions (public or private) running on commercial principles; and analysis of different kinds of expenditure to determine which ones can or should be maintained as well as the equity implications of cutting certain forms of expenditure.
  - It is important to keep in mind that the freedom of water user entities to determine internal water charges would be limited by the criteria used for water charges on the volume of water delivered to them. Hence these criteria (and their underlying philosophy) need to be carefully discussed along with the real extent of choice that water user entities would have.

- The mechanisms of cross-subsidization to take care of equity considerations should be carefully laid out. There should also be careful attention paid to the targeting of subsidies. At the same time, it must be acknowledged that cross-subsidies are not easy to implement. For instance, higher prices for industry (in order to subsidize drinking water for households in urban areas) may lead to industrial users moving away from municipal water to private sources of water and ways would be have to found to work around this. Also, there should not be undue emphasis on the question of funding of cross-subsidy, especially from within the water sector itself. That is to say, the water sector or particular sub-sectors of water need not be self-sufficient and could potentially be funded from other non-water revenue sources.
- Pricing (of both drinking and irrigation water) would have to take into account the right to water (which has judicial support in India). Note that one should guard against entitlements being posited as a right. Among other things, emphasis on a right to water would explicitly link pricing to the question of affordability or ability to pay. Also note that the question of willingness and ability to pay cannot just be considered in the context of a single sector such as water; costs of other basic goods and services that people may have to bear would also need to be considered.
- The problem of pricing water in a manner that it remains affordable, as well as enables costs to be met, is a tricky one. There should be an explicit policy on what to do if there is a contradiction between full cost recover and affordability (to ensure right to water) or other desirable goals.

- Does regulation has the potential to address questions of affordability and access by the poor? There is mixed experience in this regards. In the case of England and Wales, although there were a lot of problems with the working of the regulator in the initial stages, it did eventually outlaw prepaid meters and cut down on the initial spate of tariff increases; however, the adverse equity impact in the interim period could not be undone. In the Indian case, installing a regulator in the water sector without a comprehensive pro-poor policy framework in place would be dangerous. At the same time, given the changes already taking place in the water arena (for instance, the large number of private players in the rural and urban drinking water arena), the need for some kind of regulation though not necessarily by IRAs cannot be denied.

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6.1.6 Water Resources IRA and Related Institutional Reforms

Note on Uttar Pradesh Water Management and Regulatory Commission Act, 2008

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Objective of the Act

To encourage the sustainable, optimal and equitable use of water resources through appropriate regulatory instruments to improve the productivity of water to meet competing demands and resolve conflicts among domestic, industrial, irrigation, hydropower, livestock, environment and other uses in the manner that is most beneficial to the residents of the state.

This would also require that incentives are in place for improvement in service efficiency of water- related departments to ensure better accountability and sustainability to provide assured supplies of water of the right quantity and quality to consumers at the right time and in a manner that is affordable and financially-sustainable.

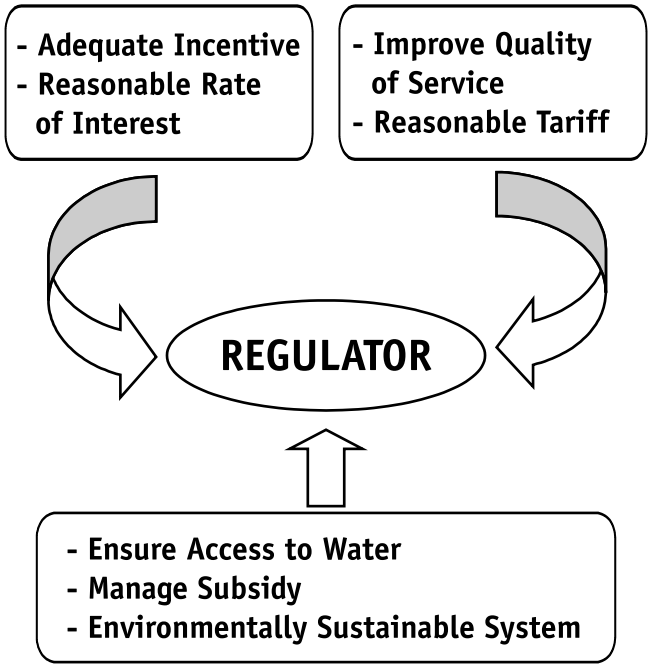

Fig. 1.
Role of Independent Water Pricing Regulatory Authority

Institutional Strengthening

As part of the Institutional strengthening for overall water resources management, the State Water Resources Agency (SWaRA) and a supporting State Water Resources Data and Analysis Center (SWaRDAC) have been set up to strengthen the capacity of the state for basin **planning** to develop the water resources of the basin in an integrated and sustainable manner to maximize productivity.

The Commission (u/s 9/2) of UPWaMReC Act 2008 (u/s 9/2) shall obtain necessary inputs from State Water Resources Agency/ State Water Resources Data and Analysis Centre that would work as technical secretariat to the Commission.

The Commission may appoint such number of officers and employees as it considers necessary for the performance of its duties and functions. The Commission may appoint consultants required to assist the Commission in the discharge of its functions on such terms and conditions as may be determined by regulations.

The State Government shall appoint any Government officer or employee on deputation to the Commission on the proposal made by the Commission in this regard.

General Policy of the Commission

- The Commission shall work within the framework of the State Water Policy.
- The Commission shall promote and monitor sound water conservation and management practices throughout the State in accordance with State Water Policy through the implementing agencies in the State.
- The Commission shall support and aid the enhancement and preservation of water quality within the State in close coordination with the relevant State agency.
- The Commission shall enforce the decisions or orders issued under this Act by a suitable agency authorized by the Commission or empower to any existing agency for this purpose.

Specific Duties

Information base development: Assist in developing an information base for effective water resources regulation in the state. This will include mechanisms for

water allocation, devolution, cost-sharing, groundwater and surface water regulation, provisions for meeting basic human needs, environmental protection, etc.

Adopting Regulatory Approaches - The Commission would pilot various regulatory approaches to ensure that the water resources of the state are managed sustainbiliy, optimally and equitabily. In this regard, the Commission would liaise with other competent regulatory bodies in the state to ensure that a coordinated regulatory approach with shared vision is developed. A spatial approach would need to be developed to customize these regulatory instruments to needs of different basins and areas of the state. These approaches may also need to be piloted in the state to learn lessons before mainstreaming in the entire state. These approaches include:

- Consultation of key stakeholders to obtain viewpoints on need for water regulation and raise awareness on water issues;
- Analysis of current and potential needs of various water related sectors, current service, current and potential conflicts, and potential options to resolve the issues through appropriate regulatory instruments;
- Instruments to allocate water for various uses with appropriate water entitlements;
- Appropriate water tariffs in relation to the costs and reliability of service provision, benefits of water use, and affordability to consumers;
- Appropriate regulation for sustainable extraction of groundwater, addressing issues relating to groundwater over-extraction as well as waterlogging;
- Mechanisms to promote sustainability of the environment, including protection of water quality especially in sensitive areas;
- Examine the service efficiency of various water-related sectors through appropriate benchmarking of key service indicators.

Enabling Frameworks: Development of appropriate legislative and other frameworks to support effective water regulation in the state.

Powers & Functions provided in UPWaMReC Act 2008

The Commission shall exercise the following powers and perform the following functions, namely: -

(a) to approve the Integrated State Water Plan / Basin Plans developed by State Water Resources Agency to ensure sustainable management of water resources within the parameters laid down by State Water Policy as amended from time to time;

(b) to determine the allocation and distribution of entitlements for various category of use of water at utility, project level and also between various water user entity within the parameters laid down by the State Water policy on such terms and conditions as may be prescribed for such a distribution;

(c) to lay down the criteria for modifications in the entitlements for the diversion, storage and use of surface and ground water of the State;

(d) to review and accord clearance to new water resources projects proposed at the river basin / sub-basin level by the concerned entity ensuring that the proposal is in conformity with Integrated State Water Plan specially with respect to the water allocation of each entity, that is economically, hydro-geologically and environmentally viable;

(e) to establish a system of enforcement, monitoring and measurement of the entitlements for the use of water to ensure that the actual use of water, both in quantity and type of use are in compliance with the entitlements as issued by the Commission.

(f) to monitor conservation of environment and facilitate the development of a framework for the preservation and protection of the quality of surface and ground water resources as per established norms and standards;

(g) to withdraw the entitlement or take any action as deemed necessary in case any water user entity pollutes or causes to pollute any surface or ground water source of water and thereby infringes the maintenance of established norms and standards for water quality;

(h) to impose penalty on any organization or agency, whether government or private, any individual or a group of individuals who changes, alters or cause to change or alter the status of any surface or groundwater resources without the specific sanction or approval of the Commission.

(i) to periodically review the entitlement as and when considered necessary;

(j) to register and monitor bulk water entitlement by the Commission or its duly authorized representatives,

(k) to promote competition, efficiency and economy in the activities of the water and wastewater sector to minimize wastage of water;

(l) to promote better water management techniques;

(m) to enforce rain water harvesting to augment ground water recharge;

(n) to fix and regulate a water tariff system and charges for the use of water after due consideration to all costs including administration, operation, maintenance, depreciation, and subsidies.

(o) to review and revise the tariff/ water charges periodically;

(p) to determine and fix the rate of cess to be charged from owner of lands benefited by flood protection and drainage works implemented under new projects.

(q) to aid and advise the State Government on any matter referred to the Commission by the State Government.

New Water Entitlement System: Is it warranted, what would be its impact and how to address the impacts?

Example-1: Environmental Flow Requirements of a River

RECOMMENDATIONS FOR ENVIRONMENTAL FLOWS REQUIREMENTS

During the final session of the International Conference on 'Environment Flow Requirements of Himalayan Rivers' organized jointly by SWaRA and WWF India at Lucknow on 21st and 22nd July 2009, various working groups made recommendations regarding E-flow principles, planning, policies, methodologies and practice. These recommendations have been grouped and summarized below for the sake of brevity and clarity.

I. E-Flow Principles and Planning

In the wake of current and emerging challenges posed by issues concerning water security in India and recognizing the importance of rivers in meeting these long term challenges if managed properly, there is an imperative need to recognize E-Flows. These form as a subset of holistic water management aimed at protecting the ecological integrity of our rivers which would ensure long term water availability for people and nature. Recognizing the relevance of E-Flows, the following principles underpin the proposed recommendations:

1. Consider and factor in E-Flows from the planning phase of development projects.
2. Ensure that multi-functionality of water is taken into account when determining the objectives for E-Flows.
3. Recognise that E-Flows settings are site specific and vary across basins (e.g., level of modification, perennial or seasonal).
4. Consider the importance of E-Flows in maintaining the biological diversity and socio-cultural attributes for the local communities.
5. Enable multi-stakeholder participation involving academicians/technical experts, government agencies/engineers, civil society organisations, NGOs, policy makers in building wider consensus on E-Flows.
6. Explore management of water inflows into the system through a combination of better conservation, efficient groundwater recharge, restoration of tanks, watershed management, soil moisture retention, water transfer and storage where appropriate.
7. Recognise that maintenance of water quality and maintenance of E-Flow regimes are different issues and dilution is not a solution to pollution; in a water scarce situation, efficient treatment, recycling and reuse is necessary.

II. Methodology

For assessing E-Flows requirements, the methodology could vary from project to project, however the following recommendations are made in regard to critical aspects which need to be integrated into the methodology:

1. Understand and integrate:
    a. relationship between surface water, groundwater and precipitation for determining E-Flows
    b. flood plain ecology and biodiversity
    c. socio-economic (including cultural) aspects and land use
    d. Eco-hydrology, aquatic ecology of the river reach hydraulics and geomorphology
2. Take into account potential climate change impacts in determining future E-Flows.
3. Rivers should be zoned with consideration for current and future uses, with some areas of the river accorded a higher level of protection than others (for example, irreplaceable biodiversity or cultural/spiritual values)

III. Legal and Policy issues

The following key recommendations that require policy or legal reform at central and/or state levels emerge from the consultation.

1. All states and the Centre should ensure legislation (new or within existing water policies) that enable E-Flows in river system where infrastructure projects are planned, and their continuous monitoring.
2. Guidelines for allocations should ensure that each project allows essential flows, based on specifics of the river system as a precautionary measure until more detailed studies are completed. The main goal should be to ensure that the natural aquatic ecology, native to the system, does not suffer any irrepairable damages due to development
3. It needs to be recognized that in the systems where all water is already allocated to other uses, a new provision of e-flows would cause both social and financial problems. A step by step approach, and incentives,, is necessary.
4. Provision of e-flows, on their own, is not sufficient, unless necessary fish ladders, fish locks, etc, are built. Steps in this direction are necessary
5. Appropriate incentives and market based mechanisms (e.g. payments for ecological services) for promoting more efficient use of water by users should be developed and implemented.
6. Discharge of treated water into river systems should meet prescribed potable water quality standards in order to be recognized as a contribution to total E-Flow of a river.
7. Existing state and central level agencies responsible for water resources management/infrastructure development should be trained and empowered to enforce E-Flow recommendations.
8. Existing policies regarding restrictions on access and sharing of flow data should be reviewed to enable use of data necessary for E-Flow research.
9. Mechanisms to enable effective river basin level management that need all riparian countries/states to work together should be included in national and state water policies.

Follow up action

Once recommendations are agreed, partner organizations should use existing mechanisms to widely disseminate these and encourage dialogue on E-Flows; potential to develop a small publication exists; final report to be circulated to all workshop participants.

A small multi-stakeholder group will be constituted to take up the agreed recommendations with appropriate State water agencies, Ministry of Environment & Forests, Ministry of Water Resources and private sector.

A forum for the Ganga ("Ganga Forum") which is made up of representatives from government (central & state) including National Ganga River Basin Authority, NGOs, academic/research institutions, users/community and private sector to be established to discuss and lobby for E-Flows.

The possibility of holding a similar workshop with Uttrakhand state government (or jointly with UP/Uttrakhand state governments) and other stakeholders will be explored.

Example-2: Preparation of Drainage Master Plan

Recommendations

(Basin wise Drainage Master Plan for Uttar Pradesh-Priorities & Actions, Lucknow, March 2-3, 2009.)

1. When Drainage is necessary?

It needs to be recognized that drainage of all water bodies is not essential. Water bodies and wet lands serve important ecologic purposes. Also agricultural farming, fishing, use of waterlogged area for non food crops also need to be considered. In general anthropogenic wetlands need to be drained not only to increase productivity of these lands, but also for including additional water available else where. Drainage of lowest plains or of Jheels connected with rivers requires a holistic study.

2. Integrating Drainage Plans in Water Use Plans-IWRM.

- Assess an IWRM plans for each sub-basin and plan transfer of water from surplus to deficit areas. This will ease water logging problem of water effluent sub basin. Drainages and return flows, from various uses including agriculture, need to be recognized as a potential asset for use elsewhere and as a potential hazard through possible water-logging and pollution. A good mix of surface vertical and sub-surface drainage should be implemented to tackle the problem in a holistic manner.
- Wherever possible Conjunctive use of surface and ground water through vertical drainage should be adapted as an integrated water resources management. In areas showing an increasing tendency of ground water table, with eminent water logging, surface supplies need to be curtailed and ground water use needs to be increased . Similarly,

in areas showing declining water table, increased surface use and artificial recharge can be considered. Differential water pricing, with higher prices in head reaches, may also help.

- The workshop noted that UP has a policy for allowing free boring of wells in high GW table and saturated root zone areas. While this is a step which can save water logging, a criteria for delineating such areas needs some national standardization.

3. Developing Knowledge Base about Water-Logging

Problematic area- ill drained and flood prone, should be identified and knowledge base should be developed covering topographical survey, Remote Sensing, land use, drainage system & canal system, soil data, rain-fall and depth of GW table profile, climate, cropping pattern, location of water bodies. Genetic classification of the soils of the water logged and saline areas should be included in this knowledge base. GIS tools can be used for this purpose. The knowledge base should include information about geomorphology, hydraulic carrying capacities, and time trends in these, in regard to manmade drains and natural river systems.

4. Drainage Water as a Resource

- Reuse of drainage water, for irrigation, increases overall efficiency and needs to be included in the drainage master plan. However, unplanned bunds constructed by users, for such reuse, need to be replaced by planned regulators, pumps, etc.
- Long term water planning for Uttar Pradesh indicates that the supplies after upstream uses, the demands and the down stream obligations cannot be balanced without using the return flows in drainages.
- Bio drainage has its uses in certain situations but it involves loss of the drainage water, which may or may not be justified socially.

5. Drainage as a Hazard

- Drainages of urban areas requires a close review. Unless a policy of total separation of domestic sewerage systems from urban storm water drainage is implemented, and unless urban sewage is either treated as per the regulations, (or reused separately after partial treatment in non food irrigation), it becomes a health hazard, both for the urban area and the downstream areas.
- Industrial effluents also should not be allowed to be mixed with the natural or manmade drainages or with groundwater aquifers, without adequate treatment, recycling and recovery or reuse.
- Salt mass balance should be a part of an irrigation and drainage system. The sea is the ultimate sink of the salt, and drainages needed to provide for this. Some times, temporary storage of salty drain water in low flow season and its discharge during the floods may be necessary.
- Vector born diseases in wetlands and drained areas must be controlled,

6. Drainage as an essential ingredient of environments

- Important natural wetlands would need to be maintained and managed as per Ramsar conventions, and not drained for agricultural use.
- In the water use and drainage plans, minimum environmental flows would have to be maintained.
- Recreational and aesthetic values of wetlands ad drained areas would have to be maintained
- Trade-offs between environmental needs of river flows and socio-economic values be developed in a watershed must be established. Integration of eco-hydrology into formulation of projects be made.

7. Sustainability of Drainages

- Just like irrigation canals, drainages require regular maintenance. The irrigation water price should be sufficient to meet the O&M of Governmental canals & drainage network. Minor canals and drains need to be maintained by WUAs. Develop monitoring and evaluation mechanism for sustainable solutions, a permanent mechanism should be at state level so that all the study should be monitored at least one year

8. Institutional Issues

- Since drainage is an Inter-departmental activity there is need for participation of other nodal department like agriculture, horticulture, fisheries, ground water department etc. for which adequate Institutional setup may be made. Indicate a Nodal department, for each category of problem area, and ensure that it has synergy with allied Departments
- Public-private partnership could be adopted in rural as well as urban drainage, achieved in Maharashtra for RWH/Drainage management.

9. Drainage Design Problems With in Uttar Pradesh

Within Uttar Pradesh, the general land slopes are different in different regions. These are high in Bundelkand, comparatively larger in western parts, and comparatively smaller in central and eastern parts. This has to be reflected in the drainage planning. In flatter areas, narrower and deeper drains, which are hydraulically more efficient, may have to be constructed. Also, where soils and crops make it necessary, costlier sub-surface drainages may have to be constructed.

10. Need for Flexibility and Adjustments

Planning, designing and executing drainage plans is a complex exercise. Multiplicity of stakeholders, contradictions amongst objectives, differing perceptions of departments, etc are some of the problems faced. Therefore it may be appropriate to finalize plans for a few waterlogged areas for implementations, learn and conduct action research during the implementation, and use this experience in the next set of plans

11. Policy and Legal Issues

particiAmendments may be necessary in the irrigation and drainage act for allowing peoples pation, and for removing impracticable provisions. Legal instruments to treat Ground Water as a common resource would be necessary for optimized conjunctive use. More efficient control and prevention of pollution may also require changes in laws and regulations.

Concluding Remarks

Water is common Heritage, essential for life and life support systems. Water right is linked with right to life. It should be ensured that its scarcity might not become Corporate Commodity. The financial health of water supplying departments should be sound to cater for future challenges ahead of time. Water quality is growing concern of the day. Water pricing reforms are among various measures designed to encourage the efficient use of water resource. It is felt that Independent Water Regulatory Authority is required to de-politicize the rationalization of water price. Analogy may be drawn from experience of electricity regulatory 22 Commissions. The need of the hour is to plan for water development and management at basin level by basin organization. Government of Uttar Pradesh aspires to continue its tradition of leading irrigation development in the country, by being the first state to start the process of water sector restructuring project initiated with sector-reforms, basin planning as well as , with the setting up of the Uttar Pradesh Water Management and Regulatory Commission Act 2008. [Opinion express here is that of authors and not of organization they represent.]

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6.1.7 Some Questions and Issues on IRA & Water Tariff

Sebastian Morris, Indian Institute of Management, Ahmedabad

To the questions raised by Prayas in Base Note on "New Water Pricing and Tariff " I would like to raise the following questions/ Issues.

1) There does not seem to be a mechanism and framework to integrate water rights and the tariffs.
2) The value of water is not necessarily the cost of production. Value can be much less than cost as when there are inefficiencies (but abundance of resource) and much more as when there is restricted resource (but no inefficiencies). Tariffs (in the sense of the indicator price upon which the user makes his /her decision to use) must ultimately must be based on value and not on cost. The lack of recognition of this simple principle would make a mess out of regulation.
3) Efficiency of use of water needs to be built into the tariff. This is not apparently been recognised in either of the bills?
4) One element of above of ensuring that the hierarchy of use does not get inverted /distorted.
5) Implicitly the framework is cost plus. Is this the right one when cost plus has failed in water and in so many other contexts? Should it not have been norms based, bid based or price cap based to provide sufficient incentives for performance and cost reduction?
6) The subsidy issue is ill addressed. Subsidy direction in a non-distortionary way is not laid out as a principle. This could have been done.
7) That the regulatory framework should not be inconsistent with viability of various segments of the value added chain (bulk production, transmission, distribution and retail sales, and in the case of municipal supplies, treatment and distribution related services) is not clear enough.
8) More specifically the relationship between regulation, investment and development and financing. Are they going to be consistent with the country needs to grow and improve efficiency.
9) Tariff consistency across the various segments above?
10) Framework for conservation and development of water resources through innovation.
11) Where are the water rights embedded? How are scarcity rents allocated to possibly right holders or state agencies on their behalf, without destroying efficient use and production criteria?
12) The framework for cross basin and cross regional efficiency in development and use of water?
13) Regulatory basis for other "sectors" with which there is unavoidable linkage sewerage systems, hydro-power and pumped storage, riverside development etc.
14) The use charges versus access charges; the tariffs for consumer versus the revenue for the developer. Method of transparently and principled address of these issues.

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6.1.8 IRA and Decentralization: Reconciling Seemingly Opposite Moves on the Policy Front

Shashi Enarth, Development Support Centre, Ahmedabad

The last two decades have seen a spate of policy changes that emphasized the importance and advantages of decentralizing resource development and management. Irrigation sector (and thus farmers) was one of the tangible beneficiaries of this shift in policy. Decentralization was justified on the grounds that the centralized, state-run agencies were found wanting in delivering efficient equitable and sustainable resource use for the legitimate users. Among the many reasons cited for the poor performance of state-run agencies is the fact that the institutional design of these monopolies enabled them to shirk accountability to the resource users. Their "upward-accountability" to higher levels of executive branch of government instead of "downward accountability" to users and their representatives had resulted in lopsided access to resources and a decision making process that was driven as a result of political patronage. Decentralization, it was argued, will put resource users at the centre of resource management and in the process make the managers accountable, since they are the primary stakeholders. The assumption was that the incentives to use resources in a sustainable manner will be higher if managed by user than by a bureaucracy. Early results of decentralization has been encouraging at least in PIM where substantive decentralization has actually taken place.

In a way a regulatory institution could be perceived as counter-intuitive to the idea of decentralization. On many counts, it will undermine the fiscal and operational autonomy that decentralized user-institutions will gradually come to assume if the current policy changes (towards decentralization) are allowed to happen. Will IRAs render the decentralization policies redundant? Will the two, rather opposing initiatives try and find a middle ground, and if so, how? Or will IRAs and user-institutions have clearly demarcated boundaries of jurisdiction?

The above conundrum apart, the move towards regulatory regime is not necessarily a bad move for the simple reason that there are multiple institutions and constituencies that deal with water at the state-level and there is a need to harmonize the mandates of each with a holistic plan, say the Integrated State Water Plan. Besides, there is a need for an agency that will deal with issues that cuts across various categories of users. A central agency or a regulatory framework may be a good way to achieve that. However, for avoiding the pitfalls that centralized state-run agencies are prone to, it is absolutely imperative that there is a mechanism that can enable any agency or body of water users to hold such an agency accountable for its actions. The provisions in the Maharashtra Act are certainly too lopsided in terms of handing over authority to a handful of functionaries without the proportionate accountability. The Act must provide for binding provisions for users to hold the Authority to account. The current Act is far from achieving that. In fact, there is no reason to believe that the authors of the Act even had accountability as a serious concern. The fact that the "authority" consists of technocrats with little or no direct connection with water users either directly or through elected representatives, indicates their perception that this will be an institution that operated through the same unaccountable civil servants. Even the "Selection Committee" is 100% "floating" civil servants with no demonstrable links to water users or their welfare.

Assuming that these IRAs are here to stay, how best can we (the CSOs) mount pressure and provide workable approaches/mechanisms that can safeguard not only legitimate entitlements of all users, but also promote a sense of stewardship among the users as much as we can. Users will be encouraged to play that role only by making IRA function in a transparent way and hold key functionaries accountable.

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6.1.9 Some Issues related to 'Independent Regulation'

Shripad Dharmadhikari, Manthan, Badwani

Regulation is a necessary and critical part of any governance system. It plays an important role in the checks and balances. Regulation has always existed in the water and power sectors. In the recent years, one particular model of regulation the so called 'Independent Regulator' (IRA) model has gained currency. The experiences of the power sector with this model give us valuable insights as the model is being pushed in the water sector too.

On the whole, the concept note captures most of the issues well, identifying some of the key criticisms of the model and its implementation. I wish to highlight some of these, and also raise some other issues.

Framework is most Critical

The framework in which the regulation is created is most critical in determining its impact. This framework includes both, the structural framework and the policy framework.

The IRA model in India was brought in with the express purpose of allowing private operators / owners in areas that were hitherto in the public sector. That purpose determined the structure of the IRA.

Along with the entry of the private operators / owners, the sectors were undergoing major restructuring towards turning them into fully commercial operations. The policy framework therefore was changing to bring in features like full cost recovery, elimination of subsidies etc. The IRAs were created partly to implement these changes.

These two factors have placed severe limitations on what the IRA can do and cannot do. Thus, it is difficult to see the IRA as vehicles of ensuring any kind of justice or relief to the poor their purpose and structure is something different. For example, the power sector restructuring Act in Madhya Pradesh that created its regulator specifically mandates that the tariffs have to ensure that at least 75% of the cost is recovered from any category of users. This puts a bound on what the regulator can do.

If we want to talk about equity, it is important to start with the larger structure and policies of the sector, rather than with the regulator. The appropriate structure of regulation would evolve from this.

One among many models

It is important to understand that there are many different models of regulation and the model of IRA as proposed in the World Bank led 'reforms' is not the only one. There is nothing given about this model. It is important to recognise that we have a choice both, in the model of the reforms, and the model of the regulation.

We should choose the kind of regulation that will help achieve our aims rather than see how we can make best use of a given model.

Depoliticising the Sector

The IRA model is being pushed with the explicit aim of depoliticising the tariff setting, and more generally, de-politicizing the sector. This aim needs to be questioned.

Politicisation of decision-making has come to be seen as a bad thing, but actually this is because of the corruption and perversion of the political process. Politics is essentially the practice of making public policy, so de-politicization of the water and power sectors is an oxymoron.

It is important to remove the distortions from the political process, rather than attempt to remove politics from decisions in the power and water sector. Doing the latter will divorce social and environmental issues from decision making, reducing it only to technical matters.

Today, the political process, no matter how distorted, offers the poor possibly their only point of intervention in the decision-making process. To depoliticise the sectors is to take away even this small space available to them.

It should be noted that the way the IRA are structured currently, it is the well-off, better educated people who can easily intervene and use the process; it is most difficult for the poor and not so well educated. It thus disempowers the poor even further.

This notion of de-politicization of the water and power sectors needs to be strongly challenged.

Regulators as Instruments of Accountability

Sometimes, it is argued that the one of the roles of the IRA is to address the very distortions that have crept into the political process. The IRAs have opened up some spaces and created some mechanisms for accountability, but to a very limited extent. There are several reasons for this. For one, there are very clear boundaries to what the IRA can do or not do; most distortions in the political processes are beyond these boundaries. Secondly, experience has shown that what the IRA does often depends on the individual holding the office. While this is universally true of any such institution, the performance of the IRA - without its own checks and balances and accountability mechanisms - can be far more individual-dependent.

This brings in the question of the accountability of the IRA itself, which needs to be addressed.

Another question is whether the institution of the IRA has led to the reduction in the accountability of the Government? Has the government been able to hide behind the IRA and evade responsibility for its decisions and actions?

Further Directions

Given the origins of the current model of IRA to open up the sectors for privatisation and commercialisation, and given the experience of these institutions till date, there is a case for rejecting this model and the larger framework of reforms in which it is set.

Rather than starting with an a priori assumption of independent regulator model, the real question should be: What is the policy framework that should be in place to ensure that the poor are benefited? What should be the structure of the sector to achieve equity, to ensure other goals of economic, financial, social and environmental sustainability? What is the system of checks and balances that is necessary to ensure that the system works? The regulation model will be one part of this, which will have to evolve from the needs of the system.

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6.2.1 New Water Entitlement System: Is it warranted? What would be its impacts? How to address the impacts?

K. J. Joy and Suhas Paranjape, SOPPECOM

Slide 1

Historical context of IRAs and entitlements

- Broader context of LPG regime
- In Maharashtra: the $ 325 million World Bank funded Maharashtra Water Sector Improvement Project

Slide 2

Right to water and water rights

- Water rights and right to water

  are two different things

  - Very often they get conflated
  - Water right could be a sub-set of right to water

Slide 3

Right to water and water rights

- **Broad dimensions of right to water**
  - **scope (quantity and quality requirements, accessibility and affordability and so on)**
  - **duties and responsibilities**
  - **ownership, delivery, pricing (state, market, social vs. economic good)**
  - **relationship with other rights**
  - **macro/global developments that impact on content and the working of the right**

(from Sangameswaran, 2007)

Slide 4

Right to water and water rights

- **Right to water: part of a broader concern and rights like right to life and livelihoods, development, resources and so on**
  - **Embedded in concerns like human dignity, human rights and equity**
  - **Ensure a "social minimum to all"**
- **Water right: clear title to the right holder to use, sell/exchange especially through market**
  - **Example of Australia**
  - **Delinking of land rights from water rights**
- **MWRRA: presently limited tradability**

Slide 5

Critical issues related to entitlements

- Water entitlements tied to land rights or landholding in a particular irrigation command
- Freezing of existing inequities
- Tradability and role of market
  - Likelihood of concentration of water rights

Slide 6

Can market be an effective instrument in the case of water?

- Water is different other classical private property
  - The eco-system and common pool character of water
  - Variability and lacks stability
  - Basically it is a right to use water in a certain manner, at certain times – not an absolute right
  - Impacted by the behaviour of other users
  - High costs of exclusion
- All these characteristics of water move it further away from classical private property which seems to be the basis of much of the law
- So instruments which might work for classical private property may not work for water

Slide 7

IRA, entitlements and depoliticised discourse

- Issues of allocation, access, rights and entitlements are very much part of the political realm
  - De-politicization of the water sector
  - Independence from what? Not from politics but from the executive?
  - IRA to seen as part of a larger institutional mechanism tied to sustainability, equity and democratization

Slide 8

Should entitlement be part of the Water Regulatory Authority?

- Water entitlements are presently at the core of MWRRA
- What about electricity sector?
- Water entitlements should be taken out of the purview of MWRRA and make it part of the political system
  - MWRRA can come in only after the entitlements are decided as part of he political process
  - Basically to regulate the operational part

Slide 9

Need for an alternative framework for defining entitlements

- Scope of the right
  - Basic needs
  - Ecosystem needs
  - Livelihood needs
  - Socio-cultural needs
- Water use prioritization
- Working out entitlements in a nested framework
  - Starting from micro-watersheds, to sub-basins to basins

6.2.2 Independent Regulatory Agencies: A Brief Theoretical Review

Navroz K. Dubash
Centre for Policy Research, New Delhi

Slide 1

Why this presentation?

- **Regulation transplanted into India**
  - What kind of institutions are IRAs?
  - mental maps
  - Theory versus practice
  - Balancing multiple objectives
- **Re-thinking regulation**
  - from an apolitical instrument of economic decision-making to a governance process

Slide 2

Mental Map 1: Public Interest

- **Background: Munn vs. Illinois: grain storage by railways**
  - "... when one devotes his property to a use in which the public has an interest, he ... must submit to be controlled by the public for the common good."
- **Regulation of monopoly**
- **Regulation for values: fairness, equality**
- **Critique: can we assume regulators will always act in the public interest?**

Slide 3

Mental Map 2: Private Interest

- Regulators emerge to serve the private interests of individuals or organized groups
- Regulation to serve interests of political elite
- Collusion between politician and bureaucrat
- Critique: is all regulation only self-serving in narrow economic or political terms?

Slide 4

Mental Map 3: Institutionalist

- Need more realism about how regulation actually works
  - Neither naïve (public interest) nor cynical (capture)
- Look at existing "regulatory space"
  - Public owned/controlled entities
  - Predominance of IAS
  - Weak capacity of staff
  - Weak judiciary
  - Limited oversight role of legislature

Slide 5

Theory and Practice of IRAs in India

- Theory: Intentional design to serve a public interest function
  - Technocratic apolitical decision-making to ensure predictability and defence against arbitrary decisions
- Alternative explanation: Copying of institutional form to gain legitimacy with no attention to function
- Practice:
  - Have to balance techno-economic with social and political
  - Have to juggle objectives behind scenes while maintaining
  - objective facade
- Suggest: make explicit that regulators exercise judgment

Slide 6

Accountability and Legitimacy

- Expertise as source of legitimacy
  - Limited when exercise of judgment is necessary
- Oversight
  - Executive: conflicts with autonomy
  - Parliament: weak oversight
  - Stakeholders: balance against capture
  - All of the above?
- Procedural safeguards
  - Transparency
  - Reason giving
  - Participation through hearings
  - Right of appeal

Slide 7

Regulation for Social Objectives

- Are robust procedures enough?
  - On what basis do IRAs weigh competing interests?
- Need "substantive values"
  - Economic (allocative) efficiency is dominant substantive value in regulation
  - In practice, hard to implement
- Clear and realistic substantive guidance to regulators in legislation/policies
  - e.g. ensure quality access to water
  - Procedures to ensure consistency with substantive guidance

Slide 8

Conclusion

- Multiple theoretical understandings of IRAs
  - Institutionalist theories most realistic
- Practice of regulation suggests exercise of discretionary judgment is unavoidable
- Concerns of accountability and legitimacy lead to an emphasis on procedures
- Explicit substantive guidance
  (beyond only economic efficiency) necessary if social goals are to be pursued

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6.2.3 New Water Entitlement System: Is it warranted? What would be the its impacts? How to address the impacts?

Philippe Cullet
International Environmental Law Research Centre (IELRC)

Slide 1

Is it warranted?

- **What are current 'entitlements'?**
  note: this includes state and union aspects
  - **Public trust/common heritage ('non-entitlements')**
  - **Human right to water**
  - **Land-based access to water**
- **Limitations of current system?**
  - **Incomplete implementation/enforcement of public trust**
  - **Incomplete implementation of human right to water**
  - **Land-based access incapable of addressing today's water challenges**
- **Present needs**
  - **Move away from property rights based access and control over water**

Slide 2

What would be its impacts?

- **Common law rights to a certain extent precursors**
  - **Rights at common law incapable of fostering either broader environmental or social policy goals**
  - **Rights at common law have no fundamental right dimension**
  - **Rights at common law reproduce inequality in access to land (as a proxy for wealth inequalities)**
- **New entitlements are conceptually unable to remedy shortcomings of other property rights-based entitlement systems and de-linking may exacerbate existing inequalities**

Slide 3

How to address the impacts?

- **Start from a different premise**
  - Water as a common heritage = no individual entitlements
  - Water as a human right = entitlements cannot be traded
  - Water as an environmental substance = prevention, precaution as bases for regulation, not efficiency
- **Redefine basic concepts, in particular 'equity'**
  - From equity as efficiency, from equity among landowners to gender equity, social equity, environmental equity
  - Equity to be defined according to basic water law principles, not to non-binding water policies

6.2.4 Introduction to IRA Laws in Water Sector (UP & Maharashtra)

Sachin Warghade
Resources and Livelihoods Group, PRAYAS, Pune

Slide 1

Background to Independent Regulatory Authority (IRA) Laws

- Water Sector Improvement/ Restructuring Projects
  - Maharashtra, UP, MP, Raj., AP (in-pipeline)
  - WB Funded - varying degrees of reform conditions
- IRAs – component of WB project (covenants/ conditions)
- Laws passed:
  - MWRRA Act 2005, Arunachal WRRA Act 2006, UPWMRC Act 2009, MP bill pending
  - AP accepts formation of a commission in its latest state policy (APWRRC)

Slide 2

Nature of Reforms through IRA Laws : Organizational Changes

- Establishment of IRA which is:
  - Quasi-judicial, adjudicatory, adversarial proceedings
  - Independent / Autonomous of the State
  - Comprising of 2-3 members & a chairperson (3-5 years tenure)
  - Members selected by Government (UPWMRC Act) or the Governor (MWRRA Act) - recommendations of a selection committee
  - Members as experts - 'technical' & 'economic' aspects of water sector
  - Chairperson - track record of committed civil service, of the rank of Secretary or Chief Secretary

Slide 3

Nature of Reforms through IRA Laws : Other institutional Changes

- Fundamental changes in issues of governance such as (areas of regulatory purview of IRA):
  1. Water Entitlements/ Rights
  2. Water Tariff
  3. Resource Planning (Integrated State Water Planning)
  4. Water Resource Projects (review & approvals)
  5. Licensing
  6. Groundwater Regulation
  7. Water Conservation & Pollution Control
  8. Dispute Resolution
- Changes in the principles, norms, procedures, roles-responsibilities, powers-authority

Slide 4

Water Entitlement System

- Creating a system of determining, distribution and regulating water entitlements (usufructuary rights)
- Equitable distribution of water entitlements based on the principles defined in the law or policy statements
- Provision for 'tradable entitlements' (Maharashtra)
- No water use allowed without having duly recognized entitlements (except for small sources)

Slide 5

Water Tariff System

- Creation of system for determining and regulation of water tariff
- 'Recovery of costs' as key principle
- Mandatory review of tariff after specified time period
- Attempt to link 'water tariff' & 'pollution control' (Maharashtra law)

Slide 6

Integrated State Water Planning (ISWP)

- ISWP - an important tool for decision making on crucial sectoral and basin-level issues
- Roles:
  - ISWP to be prepared by 'Administrative Committee'
  - Approved by either 'Ministerial Committee' (Maha. Law) or 'IRA' (UP Law)
  - IRA to monitor implementation of ISWP

Slide 7

Project Review and Approvals

- IRA will regulate Water Resource Projects through review & approval of projects
- Thus, project proposals will come under the purview of the IRA
- IRA will ensure feasibility of the projects based on economic, environmental and hydrological criteria

Slide 8

Licensing Mechanisms (UP)

- Water service provider & ground water user will be regulated under a 'license' by IRA
- Emergence of a typical 'utility regulation approach through licensing'
- All functioning of utilities will come under direct purview of IRA

Slide 9

Ground Water Regulation

- Definitions of 'Sub-surface Water Entitlements' – Entitlement Approach (UP & Maharashtra)
- Licensing of groundwater user – Licensing Approach (UP)

Slide 10

Water Pollution and Conservation

- Role of IRA to evolve and administer
  - 'dis-incentive' mechanisms (like 'withdrawal of entitlements' in UP Act or 'polluters' pay' in Mah. Act) and
  - 'incentive' mechanisms (like rebates proposed for pollution control in Maharashtra)

Slide 11

Dispute Resolution

- Emergence of formal legally backed mechanism for handling disputes
- Hierarchy of mechanisms for dispute resolution starting from 'water-user level' to 'project', 'basin' and 'state-level'
- IRA as an apex state-level dispute resolution body
- IRAs empowered with powers equivalent to Civil Court

Slide 12

Other Resource Management Aspects

- Monitoring of issues pertaining to inter-state water resources
- Determining water use criteria and monitoring of the same
- Regulation and monitoring of other aspects specific to state context such as -
  - 'Irrigation Backlog' in Maharashtra or
  - 'Cess on Land Benefited by Flood Control' in UP

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About the Organizers of the Workshop

1. Resources and Livelihoods Group, PRAYAS, Pune

PRAYAS is a registered charitable trust established in 1994. The Resources and Livelihoods (or ReLi) Group is one of the four independent groups of PRAYAS, working on issues related to natural resources and livelihoods. It emerged from Prayas' Energy Group (PEG) in November 2000, with the substantive objective of working on core social and political issues affecting natural resources and people's livelihoods. The organizational objective was to spawn the next generation of researchers-activists who would adapt the strategic model of PEG to address a broader range of social and political issues.

The Mission Statement of PRAYAS is: "We apply our professional knowledge and skills to understand the issues afflicting society. Further, we strive to translate this understanding in strategic but sensitive responses. We believe that, if equipped with adequate information, sound analysis, and necessary skills, even disadvantaged sections of society can tackle their problems and shape their own future. All our activities are geared to the objective of equipping the afflicted and facilitating people's own action."

Specifically, two objectives guide ReLi group's activities: (i) To bring livelihoods-related issues of disadvantaged sections to the centre of development discourse, policy, and practice; (ii) To increase influence of common citizens, especially disadvantaged sections on the mainstream governance agencies and processes.

In the past, the ReLi group worked at the level of perspective, practice, and policy with activities such as: analysis and articulation of 'Sustainable Livelihoods (SL) Perspective', development of tools for articulation of the 'Community Livehood Manifesto', experimentation and capacity building on 'Sustainable Cultivation for Poor', documentation of 'good practices' in the government schemes, advocacy initiatives on issues such as 'Below Poverty Line Survey', Tribal Policy of the Central Government, Employment Guarantee Scheme, and Disaster Management.

Currently, the group has focused its work on following four themes and areas of work:
• Structures and Roles of New IRAs in Basic and Social Services Sectors (Water Sector) • Spaces Created by Pro-Public and Pro-Poor Reform Measures (Urban Sector) • Strengths and Weaknesses of Public Organizations Serving Poor (Urban and Rural Drinking Water) •Accessibility and Efficacy of Mega Anti-Poverty Schemes (NREGS)

2. School of Habitat Studies, Tata Institute of Social Science (TISS)

Since its inception in 1936, the Vision of the TISS is to be an institution of excellence in higher education that continually responds to changing social realities through development and application of knowledge, towards creating a people-centred, ecologically sustainable and just society that promotes and protects dignity, equality, social justice and human rights for all.

The School for Habitat Studies is a centre for knowledge excellence, which focuses on providing a comprehensive response to the knowledge-related needs of the society in the habitat sector. It draws from the fields of habitat studies, economics, environmental science, the social sciences, engineering, architecture, and management. The key agenda of the School involves creation, dissemination, and application of relevant and useful knowledge about planning, design, development, management, and governance of the habitats. The School strives to develop professional capacities in the field of Habitat Studies through academic teaching and professional/in-service training that incorporate both social and technical skills.

It offers Master's Degree programme in Habitat Policy and Practice. The School conducts its research and analytical work through its following three Centres:
• Centre for Urban Planning and Governance • Centre for Science, Technology and Society
• Centre for Water Policy and Governance

3. Centre for Technology Alternatives for Rural Areas, Indian Institute of Technology, Bombay

Centre for Technology Alternatives for Rural Areas (CTARA) was established at Indian Institute of Technology (IIT), Bombay in 1985 for the purpose of responding to the technological needs of rural areas. The center has been working on developing and disseminating technologies from diverse fields that are relevant to the rural areas.

In the last two decades, the country has witnessed significant changes in several spheres and at increasingly rapid speed. The economic reforms and the policies of liberalization, globalization, and privatization have resulted in momentous changes in perspectives, policies, and practices pertaining to technology, development, and the interrelationship between the two.

The center is gearing itself to face the challenges posed by these changes, through research projects as well as new academic and training programs. CTARA has started a new M. Tech. program in Technology and Development from July 2007.

Establishment of Independent Regulatory Authorities (IRAs) is the latest development under the rubric of water sector reforms in India. Considering their far-reaching impacts, it was found necessary to initiate a dialogue among civil society actors on various laws being passed for establishment of IRAs in different States in India. A national workshop on 'IRAs and Related Reforms in Water Sector in India' was organized for the very purpose of initiating and facilitating discussion on this crucial reform measure in the water sector. The workshop was attended by senior activists, researchers, experts, and government officials. The workshop was able to generate valuable discussion around the issues and concerns surrounding water regulation in general, and those surrounding independent water regulatory agencies in particular. An attempt has been made in this report to capture the wealth of knowledge generated and contributed by the esteemed participants during the workshop. It is hoped that this valuable information will be useful for policy makers and policy advocates in pursuing the objective of promotion and protection of public interest in the water sector.