

Water Management Strategies

Seminar organized by the IWMI-Tata Water Policy Program in collaboration with India Development Foundation and Rajiv Gandhi Institute of Contemporary Studies

Session I:

The seminar on *Water Management Strategies* began with an inaugural address by the Chairperson of India Development Foundation, Dr. Vijay Kelkar. In his brief address to the audience, he underscored the importance of sustainable management of our water resources, and emphasized on adopting a holistic approach to tackling the water-problems in rural and urban areas. He also unfurled the agenda for the rest of the day.

After the inaugural address of Dr. Kelkar, the Chairman of the Rajiv Gandhi Institute of Contemporary Studies, Bibek Debroy took over as the chair of the first session of the seminar. He invited Dr. Tushaar Shah, Principal Scientist and the head of IWMI-Tata Water Policy Program to make his presentation on *The Nature of India's Water Economy*.



In his presentation, Dr. Shah questioned the popular notion that integrated water resource management or IWRM is the solution for water scarcity and water poverty in developing countries, especially India. In fact, he mentioned that in developing countries, where a vast majority of water-users are “primary diverters” of water from the source, it is not

possible to develop regulatory mechanisms and enforce IWRM practices effectively, unlike in the case of developed economies where a vast majority of water-users depend on service providers (intermediaries) for meeting their water needs. Especially in the context of use of groundwater, he highlighted the fact the “tubewell juggernaut” in South Asia is continuously increasing without showing any signs of respite. However, he underscored the importance of electricity-pricing and rationing as an effective lever in trying to control the use of pump-sets in exploitation of groundwater, especially in peninsular India, where the problem of groundwater depletion has reached alarming proportions.

Citing instances from several developing countries like China and South Africa, Dr. Shah presented a case of failures of IWRM practices in addressing water problems. Using the celebrated “*Environment Kuznets’ Curve*”, he also mentioned that there does not exist any significant correlation between a country’s water poverty and its Human Development Index (HDI). Massive investments in water infrastructure, distribution systems and pricing mechanisms are needed to tide over the ever-deepening water problems in India.

After Dr. Shah, Mr. Shilp Verma, one of the authors of the book “*Mainstreaming the Margins*”, scheduled to be released later in the seminar, talked about the Central India Initiative (CInI) of the IWMI-Tata Water Policy Program and set the background for Mr. Jagawat to address the audience on the NGO Sadguru’s experience in working on development of watersheds in Central India.

Mr. Jagawat highlighted the fact the Second Green Revolution, if at all it can happen, can happen in the tribal districts of Central India. However, it would require some concerted effort on part of the Government and the funding agencies to look into the exemplary work done by several NGOs in this region and help them replicate their models of development. He showcased the work done by Sadguru in the tribal districts of Rajasthan, Gujarat and Madhya Pradesh and underscored the importance of development of good institutions in sustainably managing water resources in these areas.

The seminar was attended by several luminaries from the academic, government, business and development world. Mr. Rahul Gandhi was also present during the first session of the seminar.

Session II:

The session, chaired by TCAS Raghavan, witnessed a series of presentations made by people coming from different backgrounds, but having worked on the same issue. At the beginning of the session, Mr. Raghavan observed that there are two very important aspects of water management in India. The first is the management of water supply to the final consumer. The other is that of managing the ground water, which is a large and fast depleting source of water for a large section of the society.

The first to speak on the issue was Shilp Verma. Mr. Verma has been working with the International Water Management Institute under the IWMI-Tata Water Policy Program in Anand, Gujarat. He highlighted the fact that a majority of the Indian population uses ground water to meet their requirements. He further observed that a larger part of the water economy in India is informal. Thus require concerted efforts, especially in urban areas. He also emphasized the importance of hinterland water transactions. The crux of his presentation though was the importance of water supply to the tribal groups. These groups are usually out of any formal planning due to their economic and social status. Tribal societies are typically characterized by absence of private ownership, inefficient use of resources, migratory behavior and barter economy. All these have implied that there is very little or no private investment in land. No consistent efforts have come from the government as these usually constitute weak demand groups. He concluded his presentation by observing that times have changed. There is an increase in the investment being made by tribal groups in agricultural sector. In fact Mr. Verma was hopeful that the next green revolution would come from these.



The next to express his opinions on the issue was Professor Paul P Appasamy. Professor Appasamy is currently in charge of the Centre of Excellence for Environmental Economics at Madras School of Economics. The topic of his presentation was *Water as An Economic Good- Policy Implications*. The highlights of the presentation were the economic principles involved in water allocation. Professor Paul showed figures indicating the fact that Asia accounts for 60% of the global water withdrawals. Of these,

India and China are the largest consumers. In fact India, China and USA are the three largest water users, accounting for nearly 50% of the world water withdrawal. Further, 75% of the water used disappears and doesn't return to the flow. He also showed that the per capita consumption is very low in India and of the total agriculture accounts for the maximum use. Professor Paul also feels that the shadow price of water used in agriculture sector in India is very low and the O&M costs are not taken into account. He also suggested that water should be looked at as a natural capital and should be priced according to crop per drop or the water productivity. As far as the policy implications are concerned, he emphasized on re-assessment of water use in agriculture. Non-water intensive crops and organic farming should also be encouraged. He also stressed on the need to maintain the environmental flows in rivers.

Dr. Bhaskar Chakrabarti, the next speaker of the day, is currently teaching at the Indian Institute of Management, Calcutta. He spoke on *Decentralization and the Politics of Water Management in Rural West Bengal*. Decentralization, he observed, is a process of delegating responsibility to the lower level in a hierarchy. Water management in India has already been decentralized. Thus the Panchayat and the local government, now have the responsibility to maintain the water supply to local inhabitants. Dr. Chakrabarti shared his experience with the audience on the current state of affairs in West Bengal. He remarked that many a small farmers in the region have been forced to leave cultivation due to uncertainty of water availability. These people have moved to urban areas, looking for alternate means of employment. Their wage levels haven't gone up after this change and they want to go back to their traditional occupation, but are unable to do so due to the uncertainty prevailing. According to Dr. Chakrabarti, situation hasn't improved as there is lack of representation by the small farmers in the Panchayat. The inefficiencies of the Panchayat system, namely the lack of transparency and self-sufficiency also add to the problems. He concluded by saying that decentralization, though desirable, but on its own will not improve the situation. An important role has to be played by micro-politics in the management of scarce resources.

Dr. Haripriya Gundimeda is working as an Associate Professor at Madras School of Economics. She presented her analysis of *Water Resource Management Strategy in a water scarce city*. The highlight of the analysis is the use of Hedonic price method, used to measure the true economic value of water. This methodology is based on the premise that the preference for water use and hence the demand for water would depend both on the quantity and quality of water available. This method provides the theoretical basis for observing non-observed economic values of non-market goods from observed house market prices. The study looks at situation in Chennai for carrying out the empirical tests. The results show that people are willing to pay more for areas that have some water irrespective of the quality. However, the preference of water quality changes once they are assured of water.

Dr. Amir Ullah Khan, Fellow at IDF, was the next to speak on the issue. He addressed the issue of *Water Supply and Sanitation* in the country. Dr. Khan remarked that lots of emphasis is given these days to the infrastructure required for these amenities, but the policies fail to address the issue of quality. He pointed out the fact that the situation is

very poor both in case of water supply and sanitation. Further, the problem exists for almost all states, in both rural and urban areas. In fact, the smaller the town, the worse off it is. Dr. Khan ended his presentation by emphasizing the need to shift focus from providing infrastructure to providing services.

The next to come in and speak was Dr. Ashish Ambasta, working with ITC, a private sector firm. He spoke about the ITC initiative in watershed management. A large agriculture base of the firm is behind its interest in the development of the sector. The firm has adopted a model wherein it sets up water-use groups and undertakes their training along with providing the financial support. Various activities undertaken in this programme are the catchments and drainage treatment, and also the revival of stop dams. Currently 100 villages and around 500 structures are covered in this programme. A total of 3.41 lakh rupees have been spent on it, of which Rs.2.43 lakh have been spent by the firm and rest by the user groups. Dr. Ambasta compared this programme with NWDPRA model and suggested that the former is more flexible, better targeted and encourages user participation. He concluded by commenting that such efforts by private players alone can not solve the problem. There is a need of co-ordination between the state effort and private initiative.

Session III:

The consequent session was a roundtable discussion, with participants sharing their opinion and experiences on the issue. The moderator of the session was Dr. Shubhashis Gangopadhyay, Director IDF.

The session began with a discussion on the supply side problem. It was felt that private wells and private players can't be banned. So it's better to accept them and to improve the supply is the only solution.

The next obvious question was that of pricing the commodity. Many felt that what is currently being levied is not the scarcity value of the commodity, but a kind of a tax. The consumer may be willing to pay, but it is surely difficult to measure how much. It was also felt that consumers turn to private players only when the supply from government agencies is absent. Thus there is a need to improve the public delivery. But it couldn't be ascertained how a right to levy user charges would provide an incentive to the government agencies to perform better. Further it was suggested that water per say shouldn't be charged for. The example given was of the system being followed in France wherein user charge is levied only for the services provided i.e. cleaning and delivery of water. Multi part tariff also came forward as another possible solution.



Another big question was the role played by private players. Their importance in the sector couldn't be denied. It also has to be accepted that the motivating factor behind these is the possibility to earn profits as the government agencies are inefficient. Further, these are natural monopolies, so trying to set up competitive markets may not be feasible. Yet socially as well as politically it may not be possible to allow these firms to earn very high profits. Thus it was agreed that the private players should be regulated by an independent regulator.

In the agriculture sector, large amount of subsidies prevent the efficient allocation of resources. As a result prices for both water and power have remained stagnant over the years. The electricity-water nexus is important for the agricultural sector as the latter can't be provided if the former is absent.

One possible solution to improving the supply was to encourage rain water harvesting. Many agreed that it is an effective and cost efficient way of improving the supply. Further, it is possible to implement this at the micro level and doesn't require large investment and resources. The importance of community participation in improving the supply of water can't be denied. It was suggested that water-positive districts should be allowed to share with water-negative districts. Also the latter should be encouraged to become more efficient in water management.

In the end it was agreed on by all that there may not exist any one solution to this problem. All different outcomes are on their own correct measures. Yet there may exist a different solution for each different region. The need is to find the set of right measures that help in improving the management of water resources in that particular area.

Session IV:

This session was primarily for the release of the book “Mainstreaming the Margins” written by Dr. Sanjiv Phansalkar and Mr. Shilp Verma. The book was released by the Hon’ able Chief Guest, Mr. Montek Singh Ahluwalia. The book release was accompanied by a presentation by the authors on *Central India Initiative (CInI)*. This book was an outcome of more than two and half years of research by the authors in the remote tribal lands of Central India under the IWMI-Tata Water Policy Program.

Mr. Montek S. Ahluwalia, during his valedictory note, after the book release, expressed his happiness over the fact that a good volume of policy research has taken place in the area of water management, which shall come handy to policy makers in the years to come. However, he also expressed his concern over the fact that most states fail to recognise that India is *water-stressed*, and the “business as usual” environment may not augur well for them.



According to him, water in pure economic terms is not a pure public good, but is rather a private good on consumption and a common property asset in terms of ownership. Commenting upon the French example of “water being a free good in France”, he stated that delivery of water, and the services of the agencies involved in supplying water need to be paid for, as is the case in France and most other developed countries. He asserted that there is nothing inegalitarian about pricing of water. He maintained that resources need to be priced according to their scarcity value, and the poor may be given an income-subsidy to be able to afford the basic necessities of life. He appealed to all the sections of the academia, government, and NGOs to think about “pricing of water” as a “just solution”, especially in the context of urban areas. Only when there is support from the academia, the non-government organizations and the society at large that ‘pricing’ of water can be made possible.

Going further in support of ‘pricing of water’ Mr. Ahluwalia gave examples of the poor state of affairs in the canal-command areas in India. He asserted that serious endeavour has to be made in tackling the distribution issues in the country. Pricing of water, and assigning of entitlement rights to all users of water could help in development of water-markets, and shall also address the issue of equity in rural areas. Water Users’ Associations (WUA) have been cited as examples of users’ participation in water management, but such WUA do not include the landless and thus, are not very representative.

On the issue of groundwater, Mr. Ahluwalia pointed out that there are externalities in use of groundwater, and matters are complicated by the inefficient power regime that prevails in the country. He emphasised the development of “incentive compatibility” instruments for regulating the use of groundwater. Much to the relief of several NGOs working in the area of water-management, Mr. Ahluwalia mentioned that government now takes cognizance of the good work done by them, and there is a need for replication and up-scaling of the successful interventions of these NGOs.

Water, being much a part of the state-list, cannot be directly regulated. At best the Central Government can provide monetary help for development of water-infrastructure. He suggested that Rs.7000 crore from the Food for Work Programme in 150 backward districts be clubbed with Rs.5000 crore from the Backward Regions Fund, and this amount be utilised by the Panchayats in collaboration with the NGOs in development of sustainable rural water-infrastructure. Indeed the need of the hour is to augment investments in rural water infrastructure, and this suggestion of the Deputy Chairman of the Planning Commission is surely a step in the right direction.