

ADB's Water Policy Implementation Review

CONSULTATION REPORT FOR THE IN-COUNTRY CONSULTATION IN INDIA 28 SEPTEMBER 2005

WATER for ALL

This report reflects the views and observations of the consultation participants, not those of the Asian Development Bank or its staff. The Asian Development Bank does not guarantee the accuracy of the data presented.

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I. EXECUTIVE SUMMARY

Stakeholders from government, civil society, NGOs, private sector, ADB projects, and international organizations came together in New Delhi, India on 28 September 2005 to discuss India's experiences in implementing ADB's water policy. This consultation was the last of a series of in-country consultations for the comprehensive review of ADB's water policy implementation. The agenda is included in Appendix 1 and a list of the participants is included in Appendix 2. This report recaps the issues discussed, synthesizes the views expressed during the consultation, and provides background information on ADB's water policy and review processes. This report will be posted on ADB's website for comment.

Forty-nine participants attended the in-country consultation for ADB's water policy implementation review in India, on 28 September 2005. The consultation included project presentations, multi-stakeholder dialogue, and individual and group exercises including a survey, a breakout group session, and plenary discussions.

The opening program consultation speakers included representatives from ADB's India Resident Mission (INRM), and key government agencies involved in the water sector. Government representatives presented innovative water sector projects: Water Resource Initiatives in Gujarat, and Urban Infrastructure Development Projects in Karnataka. An international NGO, Water Aid, also presented the findings from Water Aid's study of four water supply and sanitation projects in India.

The outputs of the consultation included participants' assessment of ADB's water policy implementation, participants' recommendations to improve ADB's water policy implementation, and a summary report reflecting participants' views and observations. Participants' views and observations on the key questions and issues that were discussed are outlined below:

PROGRESS

1. **POLICY, SECTOR AND INSTITUTIONAL REFORMS:** Water sector and sub-sector reforms have moved forward under the revised national water policy, which has prioritized domestic water use, increased public awareness of rights and obligations, and increased recognition of the need to increase and improve participatory approaches.

- The revised National Water Policy adopted in 2002 prioritizes water for domestic requirements, which should improve coverage and reliability of drinking and household water supply and sanitation.
- The revised National Water Policy has increased public awareness of rights and responsibilities in the water sector and highlighted the need for institutional reform to improve multi-stakeholder cooperation.
- Participatory approaches in water resource management and service delivery have increased. However, capacity to participate must be further developed, and the quality of participatory practices must be improved.

2. **WATER RESOURCES MANAGEMENT:** Modest progress has been made to implement a river basin approach to integrated water resources management (IWRM) and incorporate social and environmental concerns in water resources projects.

- Efforts have been made to advance a river basin approach to IWRM in India, including private sector and NGO small-scale initiatives to establish river basin organizations (RBOs) and international networks, and research to inform policy and planning.

- Modest progress has been made to acknowledge social and environmental concerns in water resources projects.

3. **WATER SERVICE DELIVERY:** Investment, infrastructure improvements, decentralization, participatory measures, private sector participation, and environmental protection efforts have helped expand coverage and improve efficiency and sustainability of water services. However, more effort must be made to improve the quality of service and ensure affordable access for the poor. Public awareness campaigns and technical studies have helped to raise the visibility of water quality issues.

Coverage: Access, Affordability, Water Quality

- Increased support from state government and international subsidies has provided for more state level projects and minor irrigation systems, which has improved and expanded irrigation coverage.
- Increased government investment and new and rehabilitated infrastructure built through ADB and World Bank-assisted projects have helped to expand coverage of water supply and sanitation services in both urban and rural areas. However, the quality of such services has yet to be improved.
- Cross-subsidization and differential tariffs have helped to keep water supply services affordable at current rates, however affordable access by the poor continues to be limited and sewerage remains unaffordable for most segments of the population.
- Public awareness campaigns, technical studies, recent projects, and state level policies have helped to raise the visibility of water quality issues.

Efficiency and Sustainability

- Public awareness programs on tariff reforms and O & M have helped to increase efficiencies and promote sustainability of irrigation services. However, tariff reform, water use inefficiencies and fee collection mechanisms in both agricultural and domestic water services still need to be addressed.
- Initiatives have been undertaken to decentralize management and institutionalize user participation in water service delivery for both domestic and agricultural use, e.g. participatory irrigation management (PIM).
- Private sector participation (PSP) has been piloted in ADB and World Bank projects to improve the efficiency of water service delivery systems.
- Provisions to protect and effectively manage watershed areas have been incorporated into water supply projects to promote sustainability.

CHALLENGES AND CONSTRAINTS

1. **POLITICAL AND INSTITUTIONAL CONSTRAINTS:** Political resistance, bureaucracy, and uncoordinated institutions have limited the implementation of water sector and sub-sector reforms in India.

- Political and bureaucratic resistance, lack of transparency and accountability mechanisms, and exclusion of the poor in decision-making have compromised governance, impaired efforts to promote water security among the rural and urban poor, and stalled reforms.

- Existing laws, regulations, and public institutions do not adequately promote integrated management of water resources or protection of watersheds, threatening the sustainability of both the environment and water supply projects.

2. **CAPACITY ISSUES:** Lack of knowledge and skills, participatory approaches, and access to information, funding, and technology has limited capacity to implement water sector and sub-sector reforms.

- Inadequate management and implementation skills and lack of knowledge of participatory approaches among water-related agencies have compromised effective interventions in the water sector and deepened the gaps in capacity.
- Water User Associations (WUAs) have not been responsive and must be further developed.
- Limited financial resources and a lack of new funding mechanisms have restricted the ability of government to develop large-scale water resource projects and expand water services.
- Knowledge of alternative technologies is limited and lack of information dissemination, public awareness and participation has perpetuated inefficiencies in water use and allocation of services.

3. **SOCIAL INEQUITIES AND POVERTY:** Addressing inequities in water service delivery in the context of caste, gender, and ethnic divisions as well as in the context of massive poverty in India is a huge challenge for the sector.

- Poverty and social inequities have exacerbated gaps in water service provision.

RECOMMENDED ACTIONS FOR INDIA

1. **POLICY, LEGAL AND INSTITUTIONAL REFORMS:** Participants outlined the need to reform existing institutions, pass new legislation, and establish new governing bodies to improve multi-stakeholder institutional coordination, regulatory functions, and service delivery in the water sector.

- GOI should adopt new laws and establish new governing bodies to determine appropriate authority over the allocation and regulation of shared water resources.
- GOI should reform the public procurement system for water supply and sanitation and establish a new regulatory body to ensure effective solid waste management and high standards for drinking water quality.
- GOI should develop appropriate mechanisms or platforms to improve multi-stakeholder institutional coordination and promote localized planning and management of water resources and water service delivery.
- GOI should develop transparent public monitoring and feedback mechanisms to ensure accountability in the water sector.
- GOI should assess its use of subsidies in the irrigation sector to consider impacts on water use and availability and better target subsidies to minimize disparities between landowning and poor villages.

2. **CAPACITY DEVELOPMENT AND PUBLIC PARTICIPATION AND AWARENESS:** Participants outlined the need to increase public participation and awareness and undertake

massive capacity development initiatives to strengthen the management and skills base of both urban and rural public institutions and improve conditions in India's water sector.

- GOI should help build capacity among WUAs, irrigation departments, Panchayats and urban local bodies (ULBs) in engineering, human resources management, and in participatory project planning, design and implementation.
- GOI should conduct statewide policy dialogues and studies to update past assessments and determine the present scope and priority of sector reforms.
- GOI should establish independent high quality information and data collection systems, and dissemination facilities to strengthen capacities.
- GOI could partner with civil society to help facilitate citizens' engagement in policy development and undertake poverty mapping improve the water sector's responsiveness to the needs of the poor.

3. **EFFICIENCY AND SUSTAINABILITY OF WATER SERVICE DELIVERY:** Participants highlighted the need to develop appropriate incentives, provide technical support, reallocate resources, realign tariff structures, and promote alternative finance modalities and technologies to increase efficiency and ensure sustainability in water service delivery.

Financial Efficiency

- GOI should reallocate existing resources to maximize existing infrastructure development and increase efficiency in water service delivery.
- GOI should implement appropriate tariff measures to cover O & M expenditures and conduct public awareness programs to support such revenue generation.
- GOI could provide performance-based incentives to leverage alternative finance modalities like PSP to increase efficiency and ensure sustainability of water service delivery in both irrigation and water supply and sanitation sub-sectors.

Water Use Efficiency

- GOI should promote the use of alternative technologies to increase efficiency and ensure sustainability of water service delivery in both irrigation and water supply and sanitation sub-sectors.
- GOI should undertake initiatives to promote water conservation, combat water scarcity, and ensure sustainability of water resources.

RECOMMENDATIONS TO ADB

Enabling Environment

- ADB could promote regional cooperation to address trans-boundary issues affecting irrigation and drainage.
- ADB could support the formation of citizens' forums involving all the stakeholder groups in policy development and in monitoring performance in the water sector, and assist in developing monitoring tools and frameworks as well as feedback mechanisms.

- ADB should help GOI establish clearly defined norms for transparency, upholding the right to information.
- ADB could help coordinate multi-stakeholder fora to assist GOI in implementing the recommendations of the joint World Bank-GOI Water Sector Management Review (WSMR).

Capacity Building

- ADB could partner with bilateral organizations to launch capacity development programs for WUAs, farmers, and government agencies involved in irrigation and drainage, and for Panchayat Raj and ULBs involved in water supply and sanitation.
- ADB could provide technical assistance to assess the existing capacities of local water service delivery institutions, and support decentralized, local initiatives on information dissemination, research and documentation of best practices.

Investments

- ADB should provide funding to help effectively leverage PSP in irrigation and drainage.
- ADB should help finance the rehabilitation of irrigation infrastructure.
- ADB should fund sanitation, especially in the rural areas and give equal emphasis to sanitation in policy dialogues with government and other stakeholders.
- ADB should include wastewater management in its investment priorities for India.

Project Impacts

- ADB should help GOI implement the recommendations of the World Commission on Dams (WCD) concerning large water resources projects.
- ADB should take responsibility for the impacts of its projects.

II. BACKGROUND ON COMPREHENSIVE REVIEW

In 2001, the Asian Development Bank (ADB) outlined its vision for integrated water management in the region in its "Water for All" water policy. The policy recognizes the Asia and Pacific region's need to formulate and implement integrated, cross-sectoral approaches to water management and development.

The principal goals outlined in the water policy are as follows:

- Promote a national focus on water sector reform
- Foster the integrated management of water resources
- Improve and expand the delivery of water services
- Foster the conservation of water and increase system efficiencies
- Promote regional cooperation and increase the mutually beneficial use of shared water resources within and between countries
- Facilitate the exchange of water sector information and experience through partnerships
- Improve governance and capacity building

As stipulated in ADB's water policy, an in-house review of policy implementation was undertaken in the third year in 2003 and a more extensive comprehensive review led by an external expert review panel has been launched in 2005, five years after the policy was approved¹.

The comprehensive review has four core objectives:

1. To assess performance or progress in the 7 key areas of the water policy
2. To identify challenges, investment requirements, and opportunities
3. To determine capacities and constraints in ADB and the DMCs (institutional, financial, human)
4. To advise ADB's management if the policy needs to be revised or supplemented

The comprehensive review has focused on the three key areas highlighted in ADB's water policy (water sector reforms, water resource management, and water service delivery), and the four cross-cutting issues (resource conservation, regional cooperation, partnerships, and governance). In addition to the seven key areas outlined in ADB's water policy, the comprehensive review has also considered a number of key internal and external issues and drivers relevant to implementing ADB's water policy and strengthening efforts to address the region's water sector needs.²

The review has been conducted in a manner that ensures broad stakeholder participation, transparent proceedings and reporting, and wide dissemination of the policy and the results and recommendation of the review. As outlined in the policy, an external expert review panel has led the review and has been informed by feedback gathered at in-country consultations, regional workshops, water-related conferences, ADB staff workshops and surveys, and comments gathered on ADB's water website. Additional modalities include interviews, case studies, desk study of loan, project and agreement documents, and involvement in external research studies relevant to the review.

III. BACKGROUND ON IN-COUNTRY CONSULTATIONS

A. Objectives and Process

ADB conducted five in-country consultations and two regional events on key topics to inform the comprehensive review. The consultations involved stakeholders from national and sub-national levels of government, elected representatives, civil society including NGOs and academe, private sector, the media, and other institutions involved in water sector related work. In selecting participants and outlining the agenda, ADB aimed for a balanced representation across stakeholder group, geography, ethnicity, gender, and the main subsector and thematic areas outlined in ADB's work.

The consultations were designed to generate feedback on policy implementation and other inputs to improve water operations, considering:

- experience in implementing the water policy
- achievements and lessons learned
- challenges and investment requirements
- opportunities and areas for improvement
- issues specific to the country and region that require attention

B. Timeline and Expected Outputs

¹ A timeline for major activities for the review is provided in Appendix 5. Regular updates are posted on ADB's website at <http://www.adb.org/water>.

² Please refer to Appendix 6 for a complete list of the 26 areas covered in the scope of the comprehensive review.

The consultations took place during the months of June to November 2005. The schedule listed below was coordinated with the Resident Missions, related regional events, and other ADB policy reviews planned for 2005. The consultations were undertaken in countries representing the five regions ADB serves.

Table 1: Tentative Schedule for In-country Consultations and Regional Events

Country	Regional Department	Proposed Dates
<i>In-country³</i>		
Cambodia (Phnom Penh)	Mekong	23-24 June 2005
Fiji (Suva)	Pacific	9-10 August 2005
Indonesia (Jakarta)	SERD	25/27 August 2005
Kazakhstan (Almaty)	ECRD	15-16 September 2005
India (New Delhi)	SARD	28 September 2005
<i>Regional Events</i>		
ADB HQ (Manila)	Private Sector Consultation	18 October 2005 (TBD)
ADB HQ (Manila)	Civil Society Consultation	17-18 November 2005 (TBD)

Each consultation was expected to produce the following outputs:

- Participants' assessment of ADB's water policy implementation: performance and progress, challenges and constraints, and required actions
- Participants' recommendations to improve ADB's water policy implementation in the short and medium term: investment priorities, partnerships, innovations, and new business opportunities
- A summary report of the consultation reflecting participants views and comments

IV. SUMMARY OF INDIA'S CONSULTATION

A. Participants and Process

Forty-nine participants attended the consultation to discuss India's experiences in implementing ADB's water policy. As outlined in the table below, participants represented the diversity of India's water sector across key stakeholder groups.

Breakdown of Participants by Major Stakeholder Group and Gender

Stakeholder Group	Number
Government	20 (19 men/ 1 woman)
Civil Society	18 (12 men/ 6 women)
International Organizations	3 men
Private Sector	8 men
TOTAL	49(42 men/ 7 women)

The consultation included project presentations, multi-stakeholder dialogue, and individual and group work. Individual and group exercises during the consultation included a survey, a breakout group session, and plenary discussions. Participants were also given the opportunity to provide feedback on pressing concerns not covered in the consultation exercises.

B. Presentations

³ The consultation itself is a one-day exercise. The second day listed in the table is allotted for possible site visits for the Review Panel members present.

The opening program consultation speakers included representatives from ADB's India Resident Mission (INRM), and key government agencies involved in the water sector. Mr. Alex Jorgensen, Principal Urban Development Specialist from INRM, welcomed the participants on behalf of ADB, and presented some of the key issues that he hoped the participants would discuss to improve multi-stakeholder cooperation. Mr. A. Mayaram, Joint Secretary of the Department of Economic Affairs (DEA), highlighted India's need for integrated water resources management (IWRM), and outlined the key areas in IWRM that need to be addressed by the consultation. Mr. R. Sethuraman, Joint Advisor of the Ministry of Urban Development, shared government's efforts to improve the country's water supply and sanitation conditions, and outlined the key issues and challenges facing the sub-sector.

Government representatives presented innovative water sector projects: Water Resource Initiatives in Gujarat, and Urban Infrastructure Development Projects in Karnataka. Speakers highlighted challenges in implementation, lessons learned, and good practices to inform other projects.

Mr. Kailashnathan, Principal Secretary, Urban Development and Housing Department, Government of Gujarat, outlined the contributions made by the Water Resource Initiatives in Gujarat in providing drinking water supply to earthquake-affected areas. He stressed that the innovations undertaken by the project to implement more sustainable approaches to water supply development have resulted in greater water availability in the project areas, triggering industrial investments to come in, eventually leading to the cross-subsidization by the private sector of project services for the poor. Project innovations have included the setting-up of a calamity resistant water infrastructure, greater use of surface waters to preserve groundwater sources, and the employment of participatory approaches in the maintenance of water infrastructure.

Dr. K. P. Krishnan, Joint Secretary (Bilateral Cooperation) of the Ministry of Finance, presented Karnataka's experience in implementing reforms in urban water supply. He traced the evolution of these reforms into a multi-donor funded package, emphasizing that current innovations have benefited from the lessons learned by Karnataka from the early project funded by ADB, the Karnataka Urban Infrastructure Development Project (KUIDP). Innovative reforms currently undertaken in Karnataka include O&M outsourcing from the private sector, structured people's participation, beneficiary capital contribution (1/3 of project cost in GBWASP), and the development of a long-term policy and legislative framework. Overall, these innovations have enabled the state government to improve the financial sustainability of urban water supply while increasing service levels in various municipalities.

Mr. Depinder Singh Kapur, Country Representative of Water Aid India, presented the findings from Water Aid's study of four ADB water supply and sanitation projects including the Rajasthan Urban Infrastructure Development Project (RUIDP), the Karnataka Urban Development Project III (KUDCEMP), KUIDP, and the Urban Water Supply and Environmental Improvement Project (UWSEIP) in Madhya Pradesh. Overall, the findings from Water Aid study are not favorable. Key issues raised by the study on ADB projects include low coverage of the poor, poor quality of water and sanitation services provided, and low level and quality of community participation in project design, and benefit monitoring and evaluation.

During the closing session, a few NGOs presented ADB and the Review Panel with a letter outlining their concerns about ADB's water policy, the review process, specific ADB projects in India, and International Financial Institutions' (IFIs) interventions in the water sector. A copy of this letter and ADB's response will be posted on the website.

C. Key Questions and Issues Discussed

Through individual and group work, participants were asked to provide their assessment of ADB's water policy implementation, highlighting progress, challenges and constraints, and required actions

to improve performance in key areas outlined in the policy: national water policies and water sector and sub sector reforms, integrated water resources management, and water services delivery (both in irrigation and drainage, and water supply and sanitation). Participants were also asked to recommend necessary investments and new opportunities that ADB should pursue in the short and medium-term to improve water sector operations. Participants' key observations and views are summarized below⁴.

PROGRESS

1. **POLICY, SECTOR AND INSTITUTIONAL REFORMS:** Water sector and sub-sector reforms have moved forward under the revised national water policy, which has prioritized domestic water use, increased public awareness of rights and obligations, and increased recognition of the need to increase and improve participatory approaches.

- The revised National Water Policy adopted in 2002 prioritizes water for domestic requirements, which should improve coverage and reliability of drinking and household water supply and sanitation.

Government participants indicated that the adoption of a revised National Water Policy in March 2002 has prioritized water for domestic requirements, leading to the creation of new and sustainable sources for drinking water, improved capacity to develop new water sources, and increased permission to extract water from surface sources in the urban areas. Private sector participants also credited the revised policy for helping to improve water sharing among the different users. However, while NGO participants acknowledged slight improvements in sanitation since the policy was adopted, they maintained that it is still too early to note real progress.

- The revised National Water Policy has increased public awareness of rights and responsibilities in the water sector and highlighted the need for institutional reform to improve multi-stakeholder cooperation.

Since the revised water policy describes water as a right, public discussions on the policy have provided opportunities to raise public awareness of the responsibilities inherent in this right. Private sector participants observed that such public discussions have empowered civil society to influence change and have also fostered greater awareness of the need for institutional reform to improve multi-stakeholder cooperation.

- Participatory approaches in water resource management and service delivery have increased. However, capacity to participate must be further developed, and the quality of participatory practices must be improved.

New laws, legal instruments, and the establishment of local governing bodies have strengthened participatory approaches in water resource management and service delivery. For example, new laws at the state level have strengthened the role of primary stakeholders in irrigation management. In recent water supply and sanitation projects in Gujarat and Karnataka, beneficiaries have taken on a central role to ensure that the projects achieve their targets. In Uttaranchal, village water and sanitation committees have been formed to help plan and implement single village schemes, and to assist in O & M of water supply schemes. Water user involvement and community ownership of water supply schemes have also been institutionalized to a varying degree in a number of municipal and state level projects. Government participants indicated that ownership of the water supply schemes has strengthened existing networks of water users. Moreover, participants from

⁴ Initial tabulations of survey responses are provided in Appendices 3a and 3b, and a summary of group and individual responses in the multi-stakeholder breakout group exercises are included in Appendix 4.

international organizations observed that user groups are competent, accountable, and effective in their operations.

NGO participants observed that participatory irrigation management (PIM) has worked well in terms of identifying and responding to irrigation water needs, however, they maintained that participatory practices have remained rhetorical. Asserting that government has shown little understanding of reality on the ground, NGOs questioned the quality of participation that has been achieved. While government participants highlighted the participatory mechanisms that have been put in place, they acknowledged that more must be done at the apex level to achieve coordination between states, and build capacities through participatory methods.

2. WATER RESOURCES MANAGEMENT: Modest progress has been made to implement a river basin approach to integrated water resources management (IWRM) and incorporate social and environmental concerns in water resources projects.

- Efforts have been made to advance a river basin approach to IWRM in India, including private sector and NGO small-scale initiatives to establish river basin organizations (RBOs) and international networks, and research to inform policy and planning.

Participants indicated that while the National Water Policy of 2002 and the River Basin Act of 1956 have provided the legal basis for the formation of RBOs, more must be done to make significant progress to advance a river basin approach to IWRM in the country. The Government of India has recently developed a project to integrate all rivers to facilitate inter-basin transfer and meet the source development needs for the country's huge water supply projects. Likewise, the private sector and NGOs have launched a few small-scale initiatives to establish RBOs⁵. Additionally, UNICEF, the World Bank, and the International Commission on Irrigation and Drainage (ICID) are conducting ongoing research on IWRM to inform policy and planning in this area. Participants also observed that WaterAid had established a network to facilitate the exchange of experience and knowledge on IWRM across countries.

Participants from international organizations also cited the establishment of RBOs in two small basins in TamilNadu, which has contributed to the integration of cross-cutting issues in water resources projects.

- Modest progress has been made to acknowledge social and environmental concerns in water resources projects.

Participants indicated that while a number of positive steps had been taken, there has been little improvement in integrating environmental and social concerns in water resources projects in India. NGO participants acknowledged the contributions of recent environmental movements including the Narmada Bandora Andolan and the World Commission on Dams (WCD) and the importance of recent measures including, 1) making the social and environmental impact assessments (SEIA) process public before project clearance, 2) formation of the National Environmental Appellate Authority (though not yet functional); and, 3) establishment at the state level in Himachael Pradesh of an environmental clearance and monitoring committee.

However, private sector participants emphasized that while the SEIAs have been "good on paper," they have been poor in practice. They maintained that the methodologies and assumptions used in these SEIAs have not been made explicit, and there has been no follow-up in the monitoring and evaluation of projects to check progress against SEIA standards.

⁵ Private sector initiatives have covered the Krishna river basin in Hyderabad, and the Tambaparani and Polar river basins in TamilNadu, while NGO mini-watershed level RBO initiatives have been undertaken in Maharashtra and Rajashtan.

3. **WATER SERVICE DELIVERY:** Investment, infrastructure improvements, decentralization, participatory measures, private sector participation, and environmental protection efforts have helped expand coverage and improve efficiency and sustainability of water services. However, more effort must be made to improve the quality of service and ensure affordable access for the poor. Public awareness campaigns and technical studies have helped to raise the visibility of water quality issues.

Coverage: Access, Affordability, Water Quality

- Increased support from state government and international subsidies has provided for more state level projects and minor irrigation systems, which has improved and expanded irrigation coverage.

Participants observed that the increase in state level projects and minor irrigation schemes coupled with the revival of traditional irrigation systems has played a major role in expanding and improving the coverage of irrigation services. Increased support from state governments and subsidies from international agencies, e.g., for drip and sprinklers, have helped increase the use of minor irrigation schemes and traditional systems. Additionally, surface water schemes are also helping to extend coverage.

- Increased government investment and new and rehabilitated infrastructure built through ADB and World Bank-assisted projects have helped to expand coverage of water supply and sanitation services in both urban and rural areas. However, the quality of such services has yet to be improved.

Participant views were somewhat mixed with regard to improvements made in urban and rural water supply services. Government, private sector, and civil society participants indicated that increased government investment (e.g. Swajal Dara program) and several ADB and World Bank water supply projects have helped to increase coverage of water supply services in both urban and rural areas in Karnataka, Kerala and in Uttaranchal, while international organization participants focused on the results of recent studies and assessments, which highlight the lack of quality in water service delivery.

Specifically, government participants highlighted progress, indicating that sixty-three towns in the *urban* areas of Uttaranchal representing 27% of the state's population have enjoyed water supply at a rate of 70 lpd per capita. Fifteen towns have water supply at a rate of more than 70 lpd per capita. They also noted that in the rural areas of Uttaranchal, water supply coverage reached 87% in 2003, with 50% of the population enjoying full coverage and 37% enjoying partial coverage. Regional water supply schemes to transfer bulk water supply are also being implemented, and systems have been put in place to increase coverage.

While participants from international organizations acknowledged that moderate progress had been made to expand coverage in Andhra Pradesh, TamilNadu, Delhi, Gujarat, and Karnataka, they maintained that "only lip service has been given to improving service delivery in water supply and sanitation in India. Studies have been conducted and assessment reports have been submitted, but they have languished in the offices of government and local water bodies."

- Cross-subsidization and differential tariffs have helped to keep water supply services affordable at current rates, however affordable access by the poor continues to be limited and sewerage remains unaffordable for most segments of the population.

Participants agreed that water supply services are affordable at current rates because of cross-subsidization and the implementation of differential tariffs on a volumetric basis. Access has improved and much money continues to be spent to increase the coverage of urban and rural water supply projects. However, access by the poor to water services continues to be limited by their lack

of ability to pay. Moreover, sewerage has remained unavailable or unaffordable for most segments of the population. Government has acknowledged that a large number of inhabitants, particularly tribal communities and urban poor slum dwellers, have remained without access to water or water services.

- Public awareness campaigns, technical studies, recent projects, and state level policies have helped to raise the visibility of water quality issues.

Participants indicated that recent awareness programs like the Total Sanitation Campaign and state level policies like the comprehensive Urban Drinking Water and Sanitation Policy in Karnataka have made targeted efforts to advance long-range sector reforms and address water quality issues. They cited technical studies funded by the World Bank, which have helped inform implementation of the drinking water policy. They also observed that awareness of water quality issues has increased in the urban areas where they have been given greater attention and that chemical and bacteriological tests have been conducted to ensure that drinking water supplies are safe.

Efficiency and Sustainability

- Public awareness programs on tariff reforms and O & M have helped to increase efficiencies and promote sustainability of irrigation services. However, tariff reform, water use inefficiencies and fee collection mechanisms in both agricultural and domestic water services still need to be addressed.

Efforts have been made to improve tariff setting and collection mechanisms in domestic water supply. In Karnataka, studies are underway to develop tariff structures that will help to recover the costs of O & M and offset subsequent capital costs. However, participants maintain that little progress has been made to implement tariff reforms due to political implications.

With regard to tariffs for agricultural water use, historically, irrigation services have been free of charge in India. However, as participants observed irrigation projects have increasingly included provisions for cost recovery, user involvement, and water-saving techniques to increase efficiency and promote sustainability.

Several awareness programs have been conducted, emphasizing the need for tariffs and efficient tariff collection, the importance of rainwater harvesting, conjunctive use, controlled groundwater utilization and water conservation to improve sustainable water use and management. Moreover, government participants indicated that such programs have underscored the need for accountability and transparency, and have instilled ownership and cooperation among the users to promote proper use and maintenance of the existing infrastructure.

- Initiatives have been undertaken to decentralize management and institutionalize user participation in water service delivery for both domestic and agricultural use, e.g. participatory irrigation management (PIM).

Institutional arrangements to decentralize the management of water supply projects and involve user groups in all stages of the project cycle have been put in place. As cited earlier, village water and sanitation committees have been formed in Uttaranchal to help plan and implement single village schemes, and to assist in O & M of water supply systems. In Kerala, key agencies have been established, including the State Water and Sanitation Mission (SWSM), the highest policy-making body headed by the Chief Minister, and the District Water and Sanitation Mission (DWSM), headed by the District Panchayat Chairman.

Participatory Irrigation Management (PIM) has also helped to increase local participation and the overall efficiency and sustainability of irrigation services. However, participants maintain that PIM's

effectiveness must be improved to better address water use inefficiencies, inadequate fee structure and collection mechanisms, and accountability issues.

- Private sector participation (PSP) has been piloted in ADB and World Bank projects to improve the efficiency of water service delivery systems.

World Bank has piloted initiatives in three major cities in Karnataka to demonstrate private sector participation (PSP) as a viable option to promote efficiency in water service delivery. Likewise, ADB has utilized PSP to introduce performance-based delivery systems in its water supply projects. Management contracts with the private sector are being tested in Karnataka (KWASIP), Delhi, Mumbai and other areas. PSP is also being negotiated to help reduce non-revenue water (NRW), and increase the O & M efficiency of water supply projects in Bangalore.

- Provisions to protect and effectively manage watershed areas have been incorporated into water supply projects to promote sustainability.

Watershed management activities have been initiated in rural areas to enhance source availability for water supply projects and to meet irrigation needs. For example, protection of watershed areas has been made an integral component of water supply projects in Uttaranchal. In some states, water and energy audits have been made compulsory and included in the reform package to improve the sustainability of water supply projects.

CHALLENGES AND CONSTRAINTS

1. **POLITICAL AND INSTITUTIONAL CONSTRAINTS:** Political resistance, bureaucracy, and uncoordinated institutions have limited the implementation of water sector and sub-sector reforms in India.

- Political and bureaucratic resistance, lack of transparency and accountability mechanisms, and exclusion of the poor in decision-making have compromised governance, impaired efforts to promote water security among the rural and urban poor, and stalled reforms.

Participants indicated that conflicting political priorities and bureaucratic resistance to sector reforms, excessive politicization in scheme selection, design, and project implementation, and a lack of accountability and transparency have compromised effective water governance and thwarted reform efforts. For example, they cited a lack of transparency in the state level irrigation sub-sector decision-making processes, which have left farmers unable to combat political and bureaucratic resistance to necessary reforms.

NGO participants noted that current department-led initiatives have focused on spreading canal, tube well, and bore well technologies, sidelining such traditional systems as tanks and dry wells which have performed equally well in terms of the extent of areas irrigated. They maintained that tank irrigation is vital in hard rock areas, and observed that engineers and line departments have been indifferent toward adapting irrigation technologies to the needs of the communities.

Participants emphasized that such a lack of participation in project planning, design and implementation, and lack of transparency and accountability mechanisms have also contributed to corruption. NGO participants maintained that corruption has limited the capacity of government to raise the funds necessary to improve service delivery and has been exacerbated by the high-cost investments made by international agencies in the water sector.

NGO participants emphasized that because the weak and the poor continue to be excluded from decision-making, they have invariably suffered the most from the compromises made during water sector reform efforts. They blame the lack of interface mechanisms and appropriate platforms to

support multi-stakeholder, inter-sectoral and intergovernmental coordination for the continuing exclusion of the poor.

- Existing laws, regulations, and public institutions do not adequately promote integrated management of water resources or protection of watersheds, threatening the sustainability of both the environment and water supply projects.

Participants indicated that existing laws and regulations to protect the lakes and wetlands, establish norms for the minimum flow in rivers, and regulate competing water uses, are inadequate. They observe that there is no macro plan in place to address differing patterns of water scarcity and abundance. Current reforestation efforts cover public lands only and little attention is given to the impact of water supply projects on watersheds, thus threatening the country's water resource base.

Moreover, they highlighted a number of issues plaguing the institutional framework governing shared water use, including unclear and overlapping responsibilities in water supply and sanitation; disparate responsibilities by water-related government agencies; and, lack of inter-sectoral, interstate and national coordination on water issues. They maintain that the mismatch between administrative boundaries and water boundaries has not been effectively addressed, giving rise to institutional and jurisdictional issues over shared water boundaries.

4. CAPACITY ISSUES: Lack of knowledge and skills, participatory approaches, and access to information, funding, and technology has limited capacity to implement water sector and sub-sector reforms.

- Inadequate management and implementation skills and lack of knowledge of participatory approaches among water-related agencies have compromised effective interventions in the water sector and deepened the gaps in capacity.

Civil society participants observed that the implementation and management skills of water sector agencies have remained low at all levels. They blamed the lack of knowledge of participatory approaches and the absence of information systems and appropriate indicators for monitoring and evaluation for deepening the gaps in managerial capacities.

For example, participants observed a lack of financial and managerial capacities in environmental sanitation and solid waste management that has exacerbated the deterioration of the country's sewerage system. They noted that without a technically and financially viable model, the country's dilapidated sewerage system is not equipped to cope with rapid urbanization, growth of urban populations, and the rising arsenic and nitrate contamination and high fluorine content which threaten water quality. Participants concluded that the lack of managerial capacities to ensure effective implementation and O & M for infrastructure of sewerage systems threatens to reverse the progress made in improving water quality and sanitation conditions.

- Water User Associations (WUAs) have not been responsive and must be further developed

The formation of WUAs has provided a critical mass for increased user participation in irrigation management at the local level. However, government participants noted that farmers lack a sense of ownership of the decentralized irrigation system, and network-wide cooperation among the users has yet to be developed. NGO participants maintained that farmers would have to be significantly involved in the management of irrigation systems through the WUAs to increase accountability and local ownership.

- Limited financial resources and a lack of new funding mechanisms have restricted the ability of government to develop large-scale water resource projects and expand water services.

Participants cited a lack of funding to meet the demand for increased levels of service in water supply and sanitation, asserting that existing water supply projects are not financially viable. Tariff collections have been widely insufficient to meet O & M costs. Moreover, high levels of unaccounted for water (UFW) and non-revenue water (NRW) have exacerbated O & M cost recovery problems. Government participants indicated that limited financial resources have also restricted government options in developing larger-scale water resources projects. They cited the interlinking of rivers as an important intervention that would require significant investment.

- Knowledge of alternative technologies is limited and lack of information dissemination, public awareness and participation has perpetuated inefficiencies in water use and allocation of services.

Participants indicated that rainwater harvesting, the conjunctive use of groundwater and surface water, and groundwater recharge continue to be narrowly appreciated and practiced by the communities as well as government agencies charged with the development of water supply projects. They observed that educational and awareness campaigns on these water utilization and conserving techniques have generally been lacking.

Likewise, network planning and development has not been integrated into the main irrigation systems, resulting in delayed benefits and disproportionate water distribution. As cited earlier, NGO participants observed that in many of the projects, only major canals are constructed, and the accessibility of these canals to distant farmlands has not been considered. As a result, large acres of land close to irrigation canals have remained out of reach because of the insufficiency of field channels. Utility potential has also not been taken into account in a number of projects, and the need to move toward volumetric supply of irrigation water has not been fully considered. Private sector participants also indicated that there has been continuing disparities in access to irrigation water among the head reach and tail reach users.

Participants noted that inefficiencies in the use of irrigation water have remained high due to the lack of knowledge by farmers of the water requirements of their crops, alternative crop patterns, and water-conserving technologies. They cited poor information, education and communication (IEC), and lack of technology diffusion as contributing factors. They also emphasized that power subsidies provided to the irrigation sector have reinforced inefficient water use and the disparities between land owning families and poor village communities.

5. **SOCIAL INEQUITIES AND POVERTY:** Addressing inequities in water service delivery in the context of caste, gender, and ethnic divisions as well as in the context of massive poverty in India is a huge challenge for the sector.

- Poverty and social inequities have exacerbated gaps in water service provision.

Participants observed that a large number of untenured settlers, consisting mainly of tribal communities and urban slum dwellers, have remained entirely without access to water services. Addressing inequities in water service delivery in the context of caste, gender, and ethnic divisions as well as in the context of rapid urbanization and massive poverty in India is a huge challenge for the sector. It remains unclear how the question of tenure will be addressed by the Government of India to improve water service levels in the slum areas in line with its National Slum Development Program and the MDG Goal 11 targeting improved conditions by 2010 for 100 million slum dwellers.

RECOMMENDED ACTIONS FOR INDIA

1. **POLICY, LEGAL AND INSTITUTIONAL REFORMS:** Participants outlined the need to reform existing institutions, pass new legislation, and establish new governing bodies to improve multi-stakeholder institutional coordination, regulatory functions, and service delivery in the water sector.

- GOI should adopt new laws and establish new governing bodies to determine appropriate authority over the allocation and regulation of shared water resources.

Participants emphasized the need to adopt new laws and establish new governing bodies to better regulate water use, promote water use efficiency and conservation, protect the lakes and wetlands, and establish norms for minimum flow in rivers. However, views were somewhat mixed with regard to who should regulate and manage shared water resources. Government participants maintained that the national government should intervene as outlined by the Constitution. In contrast, private sector participants proposed establishing river basin management institutions with overall authority to allocate and regulate water uses in the basin areas, while participants from international organizations suggested providing explicit long-term and firm ownership of surface waters to the states. They proposed establishing state water regulatory authorities to allocate surface waters on a proportional basis for irrigation, commercial, municipal and industrial uses, and, rural drinking water supply, involving the national level of government only in matters of arbitration.

- GOI should reform the public procurement system for water supply and sanitation and establish a new regulatory body to ensure effective solid waste management and high standards for drinking water quality.

Private sector participants proposed reforming the public procurement system for water supply and sanitation services, emphasizing that quality and timely delivery of works and services are essential to avoiding costly delays and inefficiencies in project implementation. They indicated that GOI could develop incentives, and suggested that the PIUs could prioritize these norms to avoid the “lowest bid syndrome.” Participants also proposed establishing a regulatory body for water supply and sanitation services, emphasizing the need to improve solid waste management and drinking water quality. They indicated that local bodies should take responsibility for O & M of water supply schemes, and service provider agencies should be given autonomy with regard to staffing and tariff setting.

- GOI should develop appropriate mechanisms or platforms to improve multi-stakeholder institutional coordination and promote localized planning and management of water resources and water service delivery.

Participants recommended that GOI establish a multi-stakeholder platform to bring together government, private sector, and communities to cooperate in implementing the different aspects of IWRM. Similar to Australia’s Murray-Darling Basin Management Organization, the multi-stakeholder platform could advise statutory bodies on IWRM implementation.

Participants emphasized the need to localize such efforts, proposing that water resources management planning and decision-making take place at the Panchayat or municipal level. They observed the greatest potential for the convergence of initiatives among the different development actors at this level, including community-based organizations, local NGOs, local government agencies, and small business operators. NGOs proposed leveraging ULBs as the focal point to root planning and decision-making processes in local communities, which would help promote transparency and accountability in the management of water resources projects. Likewise, government participants emphasized the need for citizens’ participation in the management of projects undertaken by the urban local bodies (ULBs). They also proposed that actions be taken to address the politicization of project formulation and the implementation of tariff reforms.

NGO participants also highlighted the need to clarify the division of responsibility between water user associations (WUAs) and irrigation departments in the development and management of irrigation services.

- GOI should develop transparent public monitoring and feedback mechanisms to ensure accountability in the water sector.

Participants called for full public disclosure, debate, and feedback from planning to implementation and monitoring to promote accountability in water resources management, water supply and sanitation, and irrigation services. They proposed establishing public monitoring and feedback mechanisms with full implementation powers, citing the Supreme Court Standing Committee on Forest Conservation (Act) as a precedent.

Participants indicated that such mechanisms could also help ensure that social and environmental concerns are effectively incorporated at the planning stage for water sector projects. For example, private sector participants emphasized the need to adhere to SEIA standards, and NGO participants proposed developing quality EIAs and EMPs to ensure that the free, prior and informed consent of affected communities is secured before project clearance. Participants from international organizations echoed these recommendations, calling for better assessment procedures of ecosystems and environmental needs. NGO participants also emphasized the need for GOI to implement the World Commission on Dams (WCD) recommendations. However, some government participants did not support this view.

- GOI should assess its use of subsidies in the irrigation sector to consider impacts on water use and availability and better target subsidies to minimize disparities between landowning and poor villages.

Participants proposed that GOI assess its use of power subsidies in the irrigation sector, to consider impacts on water use and availability and to better target subsidies to minimize disparities between landowning and poor village communities.

2. CAPACITY DEVELOPMENT AND PUBLIC PARTICIPATION AND AWARENESS:
Participants outlined the need to increase public participation and awareness and undertake massive capacity development initiatives to strengthen the management and skills base of both urban and rural public institutions and improve conditions in India's water sector.

- GOI should help build capacity among WUAs, irrigation departments, Panchayats and urban local bodies (ULBs) in engineering, human resources management, and in participatory project planning, design and implementation.

Participants recommended that GOI undertake a massive capacity development program to improve the implementation and management capacities of WUAs and irrigation departments. Farmers and WUAs require information, education and communication (IEC), and technology training to improve their knowledge on the water requirements of different crops, and to promote alternative cropping patterns and water-efficient and economical irrigation technologies. Research on existing and alternative cropping patterns would also prove useful.

Participants also emphasized the need for capacity development among water supply delivery institutions in the public sector, including the urban local bodies (ULBs), and the Panchayat Raj institutions. Capacity development efforts should build human resources and participatory project management skills and target in-house capacities of these public institutions to plan, design, and implement large water supply, sewerage, and solid waste management projects. To ensure that these institutions are sustainable, participants stressed the importance of building in-house capacities instead of outsourcing to strengthen the public sector.

- GOI should conduct statewide policy dialogues and studies to update past assessments and determine the present scope and priority of sector reforms.

Participants discussed the need to better implement the recommendations of the joint World Bank - GOI review of 1998, which provided guidance on water sector reforms for central and state governments. To update these efforts, participants also recommended conducting a study and statewide policy dialogues to help prioritize and determine the current scope of sector reforms.

- GOI should establish independent high quality information and data collection systems, and dissemination facilities to strengthen capacities.

Participants outlined the need to develop independent, high quality information and data collection and dissemination systems to provide the feedback loop to strengthen the capacities of the key actors in planning and managing water sector policies and interventions.

- GOI could partner with civil society to help facilitate citizens' engagement in policy development and undertake poverty mapping improve the water sector's responsiveness to the needs of the poor.

Government and civil society participants proposed a number of related recommendations to increase local citizen involvement and improve the responsiveness of sector policies and interventions to the needs of the poor. These included: 1) mobilizing grassroots involvement in policy development 2) encouraging community innovations for ensuring the sustainability of water services delivery; 3) developing pro-poor incentives in infrastructure development, e.g., performance-based support for the rehabilitation of damaged water infrastructure; 4) developing land tenure policies that are responsive to the needs of the poor; and, 5) developing least cost water service delivery schemes. NGO participants also emphasized the need to initiate poverty mapping to clearly target the poor in water services provision.

Government participants acknowledged the importance of community empowerment, which would enable the poor to reduce reliance on external development agencies and manage their own development processes. They also outlined the need to work with appropriate civil society organizations to build public confidence and support multi-stakeholder processes in water governance.

3. EFFICIENCY AND SUSTAINABILITY OF WATER SERVICE DELIVERY: Participants highlighted the need to develop appropriate incentives, provide technical support, reallocate resources, realign tariff structures, and promote alternative finance modalities and technologies to increase efficiency and ensure sustainability in water service delivery.

Financial Efficiency

- GOI should reallocate existing resources to maximize existing infrastructure development and increase efficiency in water service delivery.

Participants observed that while huge investments have been made in water infrastructure development, existing infrastructure has not been maximized because of efficiency issues. Private sector, civil society, and international organization participants emphasized the need to reallocate resources within the current budget to improve efficiencies rather than investing in and building new infrastructure.

- GOI should implement appropriate tariff measures to cover O & M expenditures and conduct public awareness programs to support such revenue generation.

Participants urged the government to raise revenues for O & M of existing water systems through the implementation of appropriate tariff measures. They stressed that water pricing should consider the volume of water received and incorporate environmental and O & M charges into the water fee structure. They also proposed reducing or eliminating subsidies for those who can afford to pay, and conducting public awareness programs to “sensitize” the public with regard to the need for tariffs.

- GOI could provide performance-based incentives to leverage alternative finance modalities like PSP to increase efficiency and ensure sustainability of water service delivery in both irrigation and water supply and sanitation sub-sectors.

Participants generally agreed with the proposal of GOI-initiated performance-based incentives to increase the efficiency in irrigation services management. Such performance-based incentives could be linked to the timely completion of projects, the generation of revenues to meet O & M costs, and the reduction of water use inefficiencies. However, views were mixed with regard to the appropriate authority to manage existing services to make them more efficient. Government participants advocated handing over the management of irrigation projects to elected bodies. NGO participants asserted that WUAs should continue to manage the irrigation systems below the distribution level, indicating that the loan agreement could still be used as a base document to address existing inefficiencies. Private sector participants suggested privatizing existing canals to improve the delivery of services, while participants from international organizations proposed exploring the use of private contractors in O & M of watercourses and sub-minors up to distribution channels.

With regard to private sector involvement in water supply and sanitation, private sector participants varied in their views on the extent to which private sector should be involved. Some participants argued that PSP should be limited to system improvement with demonstrated performance parameters. While contracts would be structured to allow domestic companies to take the lead role in operating water services, the lead domestic partner could then bring in the necessary operational expertise from other players. Others participants suggested that the private sector could be involved in all aspects, from assets creation and financing to management and overall service delivery.

Government participants were also divided in their views on PSP. Some government participants agreed that increased PSP would help improve water supply and sanitation services. However, other representatives cited the successful example of Phnom Penh Water Supply Authority (PPWSA), arguing that public entities in service delivery when efficient are far more acceptable than PSP. Instead of outsourcing to the private sector, they suggested strengthening public institutions involved in water services delivery through such options as “corporatization,” restructuring, and an overhaul of viable public entities.

Water Use Efficiency

- GOI should promote the use of alternative technologies to increase efficiency and ensure sustainability of water service delivery in both irrigation and water supply and sanitation sub-sectors.

Participants recommended that GOI provide credit incentives and technical support for farmers’ use of appropriate irrigation technologies and help create a market for the hardware components of appropriate technologies. Regarding possible technologies, participants indicated that micro-irrigation technologies such as drips and sprinklers would be most effective in increasing the access of poor farmers to irrigation, and promoting efficient water use on a massive scale.

- GOI should undertake initiatives to promote water conservation, combat water scarcity, and ensure sustainability of water resources.

Participants urged GOI to take a proactive approach to water conservation and water scarcity. Some participants highlighted the need to rehabilitate damaged infrastructure and upgrade of

existing networks to reduce UFW and NRW, while others focused on improving planning and employing alternative water saving techniques. Key recommendations included: a) developing a master plan to address different patterns of water scarcity and abundance in the country b) undertaking holistic planning of groundwater development with an emphasis on controlled groundwater use and recharge, c) promoting water-saving techniques in agriculture specifically the System of Rice Intensification (SRI), d) assessing the potential of river basins for rainwater harvesting, e) integrating and upgrading traditional water harvesting and water supply systems like wells, ponds, and kunds, and f) including water in the curriculum for primary education.

RECOMMENDATIONS TO ADB

Enabling Environment

- ADB could promote regional cooperation to address trans-boundary issues affecting irrigation and drainage.
- ADB could support the formation of citizens' forums and assist in developing monitoring tools and frameworks as well as feedback mechanisms to involve all stakeholder groups in policy development and monitoring performance in the water sector.
- ADB should help GOI establish clearly defined norms for transparency, upholding the right to information.

Capacity Building

- ADB could partner with bilateral organizations to launch capacity development programs for WUAs, farmers, and government agencies involved in irrigation and drainage, and for Panchayat Raj and ULBs involved in water supply and sanitation.
- ADB could provide technical assistance to assess the existing capacities of local water service delivery institutions, and support decentralized, local initiatives on information dissemination, research and documentation of best practices.

Investments

- ADB should provide funding to help effectively leverage PSP in irrigation and drainage.
- ADB should help finance the rehabilitation of irrigation infrastructure.
- ADB should fund sanitation, especially in the rural areas and give equal emphasis to sanitation in policy dialogues with government and other stakeholders.
- ADB should include wastewater management in its investment priorities for India.

Project Impacts

- ADB should help GOI implement the recommendations of the World Commission on Dams (WCD) concerning large water resources projects.
- ADB should take responsibility for the impacts of its projects.

V. FOR MORE INFORMATION ABOUT THE REVIEW AND THIS REPORT:

Throughout the course of the review, the Lead Facilitator, ADB Water Policy Implementation Review, managed all activities to monitor progress and to ensure that the review was completed on schedule. A Meeting Facilitator was also enlisted to help organize and conduct the in-country consultations. Their contact information is as follows:

Kathryn E. Nelson

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Throughout the review process, regular updates will be posted on ADB's website for comment:
at <http://www.adb.org/water>

Appendix 1: Agenda for In-country Consultation

ADB's WATER POLICY IMPLEMENTATION REVIEW IN-COUNTRY CONSULTATION FOR INDIA

Oberoi Hotel, New Delhi
28 September 2005

Final Agenda

Introductions and Overviews

- 9:00 – 9:15 Welcome and Opening Remarks
Mr. Alex Jorgensen, Principal Urban Development Specialist, India Resident Mission, INRM ADB
- 9:15 – 9:45 Keynote Speeches
Mr. A. Mayaram, Joint Secretary, Department of Economic Affairs

Mr. Sethuraman, Joint Advisor, Ministry of Urban Development
- 9:45 – 10:00 Introduction of ADB's Water Policy: (film viewing)
Water for All: The Power to Change People's Lives
- 10:00 – 10:15 Overview of ADB's Water Policy Implementation
Mr. K.E. Seetharam, Senior Water Supply and Sanitation Specialist, ADB
- 10:15 – 10:30 Overview of the Comprehensive Review of ADB's Water Policy Implementation
Ms. Kathryn E. Nelson, Lead Facilitator, Water Policy Implementation Review, ADB
- 10:30 – 10:45 Questions
- 10:45 – 11:00 TEA BREAK
- 11:00 – 11:10 Introduction of the Consultation Agenda, Ground Rules, and Participants
Ms. Jean C. Laguerder, Meeting Facilitator, Water Policy Implementation Review, ADB
- 11:10 – 12:10 India's Water Sector and Innovative Water Projects
Introduced by Mr. Alex Jorgensen, Principal Urban Development Specialist, INRM ADB

Water Resources Initiatives in Gujarat
Mr. K. Kailashnathan, Principal Secretary, Urban Development & Urban Housing Department, Government of Gujarat
Urban Infrastructure Development Projects in Karnataka (Water Supply and Sanitation)
Dr. K. P. Krishnan, Joint Secretary (Bilateral Cooperation), Ministry of Finance

Findings from WaterAid Study on
ADB's Water Supply and Sanitation Projects in India
Mr. Depinder Singh Kapur, Country Representative, WaterAid India

12:10 – 12:30 Questions and Discussion

12:30 – 1:30 LUNCH

Facilitated Exercises and Discussions to Secure Feedback on Water Policy Implementation

1:30 – 2:15 Surveys: Performance, Priorities and Partnerships

2:15 – 2:30 TEA BREAK

2:30 – 4:00 Multi-stakeholder Breakout Groups: Innovations and Progress,
Challenges and Constraints, Required Actions and Opportunities

Group 1: Water Sector Reforms
Group 2: Water Resources Management
Group 3: Water Service Delivery (Irrigation and Drainage)
Group 4: Water Service Delivery (Water Supply and Sanitation)

4:00 – 5:00 Report Out from Breakout Groups and Discussion

5:00 – 5:30 Participants' Reflections and Closing Remarks

5:30 – 6:00 Wrap up and Next Steps
Ms. Kathryn E. Nelson

6:00 – 7:00 COCKTAILS

7:00 – 8:30 DINNER
Hosted by Mr. Tadashi Kondo, Country Director, INRM ADB

Appendix 2: Final List of Participants

**ADB's WATER POLICY IMPLEMENTATION REVIEW
IN-COUNTRY CONSULTATION FOR INDIA**

Oberoi Hotel, New Delhi
28 September 2005

GOVERNMENT

Mr. A. Mayaram
Department of Economic Affairs
New Delhi, India

Mr. R. Sethuraman
Joint Advisor
Ministry of Urban Development
New Delhi, India

Mr. K. Kailashnathan
Principal Secretary
Urban Development
Ahmedabad, India

Mr. B. Srinivas Reddy
Managing Director
KUWS&DB
Bangalore, India

Mr. S.N. Mishra
Project Director
UWSEIMP Madhya Pradesh
Bhopal, India

Mr. S. Karuthiah Pandian
Managing Director
Tamil Nadu Water and Drainage Board
Chennai, India

Mr. B.P. Pandey
Secretary
Drinking Water (Uttaranchal)
Dehradun, India

Mr. Bharat Lal
Joint Secretary, Water Resources
and CEO – Water and Sanitation
Management Organization (WASMO)
New Delhi, India

Dr. K.P. Krishnan
Joint Secretary
Department of Economic Affairs, former
Managing Director, KUIDFC
New Delhi, India

Mr. Robert Berlin
Team Leader
Rajasthan Urban Infrastructure
Development Project
Jaipur, India

Mr. S. Kumar
Senior Executive Engineer
Kerala Water Authority
Kerala, India

Mr. P Vijayanand
Secretary
LSG & Department of Urban Development
Trivandrum, India

Mr. Subrata Biswas
Director
Urban Development
Uttaranchal, India

Ms. Radhika Shah
Manager
Water and Sanitation Management
Organization Ahmedabad, India

Mr. Anuj Aggarwal
MOWR
New Delhi, India

Mr. S.K. Sakar
Water Resources Department Miinimata
Chasdeao Bango Project

Mr. N.R.N. Simha
Karnataka Urban Infrastructure
Development
Karnataka, India

Mr. V. Thangaveluu
CMWSSB

Mr. Purohit Ragavendra
Karnataka Urban Infrastructure
Development
Karnataka, India

NGO

Mr. Gururaja Budhya
Urban Research Centre - Bangalore
Bangalore, India

Ms. Bharti Bhavsar
Rural Development
Self Employed Women's Association

Dr. A. Nambi
MS Swaminathan Research Foundation
Chennai, India

Mr. Vijay Sardana
Executive director
Society for Promotion of Wastelands
Development
New Delhi, India

Mr. James Wicken
Water Aid, Nepal
Nepal

Mr. Avilash Roul
Asia Regional Coordinator
Bank Information Centre
Jaipur, India

Dr. Jasveen Jairath
Project Director
Saciwaters-S. Asia Consortium of
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(Gender and Water Alliance Member)
Hyderabad (A.P.), India

Mr. Depinder Singh Kapur
Country Representative
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Ms. Konsam Sangeeta
India Network for Participatory Irrigation
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Dr. Renu Khosla
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New Delhi, India

Mr. Himanshu Thakkar
South Asia Network on Dams, Rivers and
People
New Delhi, India

Mr. AJ James
Pragmatix
Gurgaon, India

Mr. Joe Madiath
Executive Director
Gram Vikas, Mohuda Village
Orissa, India

Ms. Biraj Swain
Water Aid
India

Mr. Myank Joshi
Consultant/Trustee
SAATH
Ahmedabad, India

Mr. Soupama Lahir
Delhi Forum
New Delhi, India

Mr. Ganesh Pangare
World Water Institute
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Dr. Somanath Bandyopadhyay
Senior Programeme Officer
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INTERNATIONAL ORGANIZATIONS

Mr. M. Gopalakrishnan
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Mr. Sean Diolan
DFID, India

Dr. Sanjiv Phansalker
International Water Management Institute

PRIVATE SECTOR

Mr. Jaap Butter
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Lea Associates South Asia Pvt. Ltd.
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Mr. Vikas Goyal
Principal Consultant
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Mr. Sudhir Saxena
Rites Ltd.
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Mr. Anand Chiplunkar
Senior Vice President
IL&FS Infrastructure Development
Corporation
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Mr. Surjit Marwala
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Mr. Devedat Mody
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Ms Jean Laguerder
Meeting Facilitator, ADB Water Policy Implementation Review
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Ms Jennifer Vicedo
Administrative Assistant
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Meeting Organizer

Ms. Neelam Chowdhry
Meeting Organizer
New Delhi, India

Appendix 3a: Summary of Survey Responses

ADB Water Policy Implementation Review Client and Stakeholder Survey Initial Tabulations September 2005

Number of Total Respondents: 41

<i>Date</i>	<i>28 September 2005</i>				
<i>Name (optional)</i>		<i>Age</i>		<i>Gender</i>	Male 33 Female 4
<i>Position</i>		<i>Organization</i>			
<i>Country</i>		<i>Email Address</i>			

My Organization:

- Central Government =2
- Sub-National Government (Region/State/District/Local)=13
- International NGO/Civil Society Organization=5
- National NGO/Civil Society Organization =8
- Local NGO/Civil Society Organization =3
- Trade Union =
- Private Sector/Business Association =8
- Private Citizen =
- Multilateral/Intergovernmental Agency =
- University/Educational Institution =
- Research Institute/"Think Tank" =2
- Other (specify): = Consulting Organization

My Work:

- Water resources management =10
- Urban water supply & sanitation=20
- Rural water supply & sanitation =8
- Bulk water supply=3
- Irrigation & drainage=8
- Hydropower=5
- Flood management & urban drainage=5
- Disaster response & mitigation=3
- Watershed management=7
- Environment improvement=10
- Wastewater control & treatment=6
- Marine & coastal management=2
- Others: Facilitating state-level resource center in water and sanitation. Public private partnerships in infrastructure development. Urban Issues. Monitoring of international financial institutions (IFIs). Programme implementation. Governance. Environment and rural development. Waste management. Forest, water, land and livelihood. Infrastructure projects. Hygiene promotion

Please take 10 minutes to answer the following 7 questions. Your response refers to:

- Asia Pacific Region, OR
- Specific Country: India

1. ADB's water policy aims to support its clients in the Asia Pacific region in the following seven areas. In which of these has progress been highest? Please select up to 3 areas where progress has been highest.

- | | |
|---|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> National water sector reforms=10 <input type="checkbox"/> Integrated water resources management=5 | <ul style="list-style-type: none"> <input type="checkbox"/> Expansion and improvement of water services=32 |
|---|---|

- Water conservation and water use efficiency=13
 - Regional cooperation=4
 - Stakeholder consultation and participation=13
 - Good governance and capacity building= 10
- Others: Progress in the direction of encroaching the constitutional institutions. Don't see progress in any of the above.
2. **Where should ADB concentrate its water investments over the next 5 years (through 2010)?** *Please select up to 3 areas for priority investments.*
- Urban water supply=18
 - Rural water supply=13
 - Sanitation=20
 - Wastewater management=17
 - Integrated water resources management in river basins (IWRM)=13
 - Irrigation and drainage=9
 - Flood management=4
 - Hydropower=6
 - Transboundary rivers management=4
 - Regional exchange of experience=6
 - Regional networking for capacity development=12
 - Others: Experimenting with alternative irrigation management systems.
3. **What should ADB include in its water investment packages?** *Please select up to 3 options to be included.*
- Sector assessments and analyses of issues=19
 - Policy dialogue =12
 - Technical assistance =13
 - Infrastructure (new and rehabilitation) =26
 - Capacity development =27
 - Development partnerships =12
 - Regional cooperation =4
 - Other: Not having policy conditionalities. Delink policy conditionalities from investments. Service delivery focus. Community participation.
4. **How could ADB become more responsive to client needs and increase its water investments?** *Please select up to 3 approaches to increase investments.*
- Program approach (multi-donor budget support to government) =13
 - Sector approach (financing subprojects selected by government) =24
 - Project approach (financing of projects designed in advance) =22
 - Lending to national ministries and agencies =5
 - Lending to local government =9
 - Private sector participation (without government guarantees) =18
 - Others: Technical assistance. Take up projects only after open participation, needs assessment, and options studies. Fund national level NGO networks. Studies on effective projects.
5. **Which of these changes (suggested by participants of ADB's Water Week 2004) are the most important?** *Please select up to 3 changes.*
- Working more selectively with the right information, organizations, and leaders =25
 - Empowering civil society organizations as catalysts for water sector reform =22
 - Promoting credible water regulatory bodies for water services =22
 - Linking formal and informal water service providers =10
 - Catalyzing water investments to the rural poor =11

- Investing more in nonstructural interventions =8
- Lending more to subsovereign partners =1
- Others: Promoting entrepreneurs in water sector. Attune policies to

being a lending institution not a development institution. Increase transparencies, accountability, and participation. Create user awareness and ownership of water systems.

6. Which of the following options would be most effective in promoting community ownership of water infrastructure and services in poor rural areas? Please select up to 3 options.

- Small private water networks =8
- Community-managed water networks =25
- Handover of management to water user organizations =10
- Service agreements between water providers and water user organizations =19
- Participation of NGOs/CBOs in projects implemented by local government =12
- Water awareness campaigns by local government and service providers =15
- Water education in schools =18
- Others = Provide assurance for sustainable supplies to stakeholders. Projects decided after participation of communities in planning, decision making, design implementation of the project.

7. Which of the following groups or organizations could be the most effective partners for ADB over the next 5 years? Please select up to 3 partners or partnerships that ADB should pursue.

Advocacy:

- Media and journalists =12
- Civil society organizations =18
- International advocacy NGOs =5
- United Nations organizations =8
- World Water Council = 3

- International professional associations = 7

Capacity:

- Networks among national water apex bodies, river basin organizations, water utilities, and regulatory bodies =20
- Regional water partnerships =10
- Country water partnerships =5
- Professional associations =6
- Research organizations =7

Co-financing:

- Public-private partnerships =19
- Bilateral funding agencies =10

Knowledge:

- Universities and institutes =16
- Multilateral development banks =5
- Global Water Partnership =11
- International organizations e.g. IWMI, IFPRI, IUCN, WWF =5

- Others: = Independent Research Organizations. Implement WCD recommendations. National level NGOs promoting networks relating to WRM.

Appendix 3b: Summary of Survey Responses

ADB Water Policy Implementation Review NGO Center Questionnaire Initial Tabulations September 2005

Number of Total Respondents: 33

1. Are you familiar with *ADB-Government-NGO Cooperation: A Framework for Action, 2003-2005*? (If not, please check "No" and skip to question 6).

 9 Yes, I know something about *the Framework*

 21 No, I do not know anything about *the Framework*

2. In which of the following five areas has the greatest progress been made since 2003 in improving ADB-Government-NGO cooperation? (Check up to three).

 6 Strengthening NGO participation in ADB-supported activities

 6 Enhancing transparency and accountability through access to information

 2 Developing ADB's capacity for NGO cooperation

 3 Building NGO capacity and providing institutional support

 4 Strengthening Government-NGO cooperation and collaboration

3. What have been the most significant contributions by ADB to implementing *the Framework* and strengthening ADB-Government-NGO cooperation over the past two years?

- Promoting a national focus on water sector and reforms
- Forming partnerships to achieve the goals and face the challenge of MDGs
- Optimizing PDAs
- Consulting with NGOs
- Incorporating NGO participation as an integral part of the projects thereby bringing government and NGOs together and providing opportunities for NGO growth
- Providing space and appreciating differences of opinion, if not negotiating these differences
- Creating space for NGOs in policy development
- Listening to NGOs
- Stimulating active interaction on multi-sided opinions
- Providing institutional and financial support
- Project design reflects NGO engagement

4. What have been the most significant contributions of NGOs and other civil society organizations in implementing *the Framework* and strengthening ADB-Government-NGO cooperation over the past two years?

- Achieving cooperation of local societies throughout the implementation process
- Forcing ADB to listen to NGOs and civil society
- Creating space for NGOs and civil society in program/ project implementation
- Articulation of views at an early stage that helps ADB to prepare project implementation safeguards accordingly
- ADB can benefit from the knowledge base available in ICID, IWA, IWRA and other international, non-profit NGOs or agencies
- Promoting stakeholder consultation and participation

5. What have been the most significant contributions of ADB member governments in implementing *the Framework* and strengthening ADB-Government-NGO cooperation since 2003?

- Identification of the most problematic areas in countries and coming up with solutions and assistance
- Action, awareness, accountability
- None that we can unite on
- Participating in ADB projects and demonstrating improved ways of developing coordination between government and the people
- Water supply sanitation: new thrusts; irrigation and drainage: drainage is more important in Pakistan and India
- Regional cooperation

6. A new action plan for ADB-government-NGO cooperation (2006-2010) should give greatest attention to the following priorities (check up to three).

12 Strengthening NGO participation in ADB-supported activities

20 Enhancing transparency and accountability through access to information

8 Developing ADB's capacity for NGO cooperation

13 Building NGO capacity and providing institutional support

19 Strengthening Government-NGO cooperation and collaboration

Others: drainage and flood management, create responsible NGOs

7. What are the most significant obstacles to strengthening ADB-Government-NGO cooperation?

- Lack of trust
- Governance issues
- To the extent that ADB shows flexibility to adapt to national policies of sovereign government, progress could be easier
- Sustaining process of reform and change
- Facilitating alternative organizational arrangements
- Inter-sectoral coordination/ cooperation
- Lack of transparency in government
- Hidden agendas of some NGOs
- Tedious process involved
- Lack of will on ADB's end
- Government resistance to NGO services
- Government contracting and management procedures
- Lack of reliable data
- Biased analysis
- Lack of earnest engagement
- Public perception about NGOs has not been encouraging in the past
- Participation of NGOs is often seen by governments as activism, overcrowding of space
- Unhealthy attitudes by government and ADB staff
- Equating NGOs with local government and establishing parallel processes in countries
- Inherent anti-establishment approach of NGOs
- Lack of accurate awareness of decisions
- Lack of proper NGO selection
- Government rules and regulations which vary widely from government to government
- Tendency to compartmentalize government/NGO service domains
- Lack of understanding/ awareness of the strengths of the other parties
- There are no institutionalized mechanisms. Cooperation largely depends on persons in government and not on systems.
- Lack of capacity and understanding on the part of ADB of community issues

8. In what country do you live? India

9. What description best fit your organization? (Check one)

10 Government public sector

1 Academic/research institution

6 Advocacy/issue based NGO

4 Service-delivery NGO

1 Nonprofit community-based organization

0 Trade union/workers organization

0 Professional association

1 Foundation

3 Business/profit-making enterprise

3 International organization

3 Others: Technical and management support NGO, Professional Consultancy in Infrastructure Planning and Development

10. If you would like to be kept informed about the development of a new action plan for ADB-Government-NGO Cooperation, please provide your e-mail address here:

Appendix 4a: Summary of Breakout Group Outputs

ADB's WATER POLICY IMPLEMENTATION REVIEW IN-COUNTRY CONSULTATION FOR INDIA

Oberoi Hotel, New Delhi
28 September 2005

GROUP 1: NATIONAL POLICIES AND WATER SECTOR AND SUB-SECTOR REFORMS

Question 1. PROGRESS: *What key improvements have resulted from the implementation of national water policy, legal, and institutional reforms in your country? What progress has been made to strengthen the coordination, institutional capacities, and participatory practices of the agencies and institutions charged with governance of the water sector in your country?*

COLLECTIVE RESPONSES:

- Water policy has succeeded in prioritizing water for domestic requirements.
- Recognition of the need to strengthen participatory approaches has increased.
- National water policy has created awareness of rights and obligations among the public.

INDIVIDUAL RESPONSES:

Government Participants:

- There have been few governmental attempts at the apex level to achieve greater coordination between states, and build capacities through participatory methods.
- Source development for irrigation needs by way of integrating sources across the country has yet to be addressed meaningfully.
- Ownership of the schemes has strengthened existing networks of water users.
- Creation of sustainable sources for drinking water supply is being achieved through general policies and reforms.
- Capacity for the creation of new sources for water supply has increased.
- Fostering community participation in existing water supply schemes has been made possible.
- A lot still has to be done in building the capacity of institutions including state owned organizations, and concerned urban local bodies to ensure the proper maintenance of assets and service delivery.
- Improvements have been made in obtaining permission for the extraction of water from surface sources to urban areas because of national and state policies giving top priority to drinking water supply.
- Participatory approaches have been put in place.

NGO Participants:

- There has more visible progress in terms of municipal reforms; however, there has been very limited progress at the sector level
- Participatory practices have remained verbal and rhetoric because of very little understanding of ground realities
- Progress has been urban visible. More resources have been provided to the sector.
- National Water Policy talks of water as a right.
- Water sanitation reforms have helped improve sanitation.
- Reforms have been good on paper but weak on the field.
- Too early to note progress: most progress has been on institutional capacity.
- There is a policy right now but no improvements have so far resulted from the policy.
- Water sector governance is in its infancy.

- National Water Policy 2002 has maintained that access to safe drinking water and sanitation is the priority area. This is also mentioned in the Constitution. However, there is no initiative in strengthening existing institutions. According to the recent historical Parliamentary Act, and the Employment Guarantee Act, rural/ urban self-governments have the mandate to look into this matter; thus, there is need to strengthen existing institutions.
- Policy is more centralized.

Private Sector Participants:

- National Water Policy has succeeded in identifying the order of priorities for different water uses, i.e., drinking water, agriculture, etc., which serves as a guiding principle for water sharing among different users.
- Awareness about the need for institutional reforms is growing among government organizations.
- Placing the national water policy in the public domain has empowered civil society to review and comment on the policy, and to influence change.

International Organization Participants:

- Recent programs have a central role for the beneficiaries, e.g., WASMO in Gujarat and urban projects in Karnataka, delivered by special purpose vehicles that are time-bound, project-oriented.
- User groups are competent, accountable and effective in their operations.
- Water services are charged and the notion of payment is linked to improved services, accountability, and future demand.

Question 2: CHALLENGES/CONSTRAINTS: *What challenges or constraints remain in the way of improving water governance at the national and sector and sub-sector levels?*

COLLECTIVE RESPONSES:

- Political and bureaucratic resistance has hampered the delivery of water security to the rural and urban poor areas.
- Water resources have not been treated or managed in an integrated manner.
- Lack of knowledge and capacity has remained among key actors and stakeholders.

INDIVIDUAL RESPONSES:

Government Participants:

- There is no macro plan to address the problem of water scarcity and abundance occurring at the same time but in different areas.
- Finances of greater scale have remained inadequate, e.g., to finance interlinking of rivers that would require huge investment.
- Water as a subject should find its place either in the central list or concurrent list in the Constitution so that GOI is enabled to enforce the sharing or prioritizing of water more effectively.
- The view at the national level that water supply and sanitation projects are financially viable is coming in the way of the formulation of projects to ensure adequate water supply with assured sources.
- Present Land Acquisition Laws at the state level are causing delays in the completion of projects within the targeted period.
- There is a continuing absence of mechanisms and systems to address sustainability both at implementation stage and the subsequent maintenance stage in water resources projects.

NGO Participants:

- Being a developing country where rural areas are predominantly agrarian and poor, we must look into the water economy first before we talk of water governance. Water economy is more important than water market decentralization.
- The challenge of sustainability when financial support is withdrawn has to be addressed.
- There is a continuing lack of organized community and civil society – government interface. No platforms for interaction have been created.
- Inclusion of the weak and the poor has remained inadequate. There have been no serious measures to address political conflicts.
- Information systems, and appropriate indicators for monitoring and evaluation have been lacking.
- There is a continuing lack of capacity among implementing agencies at all levels.
- Participation has been lacking at the national level.
- Participatory planning and project design has been inadequate at the sectoral level.
- Dissemination of information, awareness, and participation in decision-making have been inadequate at the sub-sectoral level.

Private Sector Participants:

- There has been a lack of focus and attention given to implementing reforms on water use and water conservation practices.
- Water resources have not been treated in an integrated and sustainable manner, and appropriate, enforceable legislation to regulate water uses have not been introduced.
- Political priorities seem to be in the way of implementing reforms.
- Disparate responsibilities, and lack of coordination have remained among the many different government agencies and departments responsible for or with functions affecting water governance.
- The social impact of organizational restructuring (i.e., reducing staff members) is a bottleneck.
- Sector reforms are only possible with and should parallel reforms in governance.
- Accountability of elected representatives has been lacking.

International Organization Participants:

- Allow private suppliers to contribute in the existing municipal water supply systems to ensure regular and adequate water supply (i.e., parallel the telecommunication reforms where BSNL/ MTNL continue to influence market prices).
- A pro-active effort is required to invest in small towns and influence the patterns of urbanization rather than react to the growing pressures in the metro/ mega-cities.
- Discuss success stories from India and abroad, and provide platforms to analyze these under local conditions (physical, social, economic, etc.).

Question 3. REQUIRED ACTIONS: *What sector reforms are still necessary to build the capacities, address constraints, and improve governance in your country? What should ADB do to help?*

COLLECTIVE RESPONSES:

- Establish independent high quality information, and data collection and dissemination facilities.
- Undertake grassroots mobilization as the first effective step to improving water governance.
- Promote accountability and strengthen the regulatory framework.

INDIVIDUAL RESPONSES:

Government Participants:

- Encourage public representatives not to politicize project formulation, and the implementation of tariff payments.
- ADB has to start the capacity building process at the beginning of the project or else identify a suitable agency or mechanism for operations and maintenance (O&M).
- Address the lack of proper NGOs that can build public confidence and create awareness on water and sanitation.
- Consolidate institutional reforms on O&M.
- Ensure realistic financial sustainability.
- Encourage new innovations by the communities for sustainability of schemes. ADB may design the appropriate methodology for generating these innovations and assist in community sensitization.
- People from the disadvantaged sections of the community may not be able to meet the entire cost of renewal of the schemes. In such cases, performance-based support may be necessary from ADB.
- Communities need to be empowered to grow with time so that they could meet any challenges on their own without looking for other agencies. Perhaps ADB could come up with the appropriate mechanism for the overall review of the status of community empowerment and suggest the necessary interventions.
- ADB may address sanitation and hygiene in rural areas as an issue requiring in-depth attention for remedial action. Flood mitigation may be another core area for concentrated action.
- Management of solid waste disposal may be a key area in achieving environmental cleanliness.
- Finding suitable cropping patterns and irrigation methods that would help to preserve available water is necessary.
- Undertake reforestation in a meaningful way not only in government lands but also in private lands.

NGO Participants:

- Grassroots social mobilization is the most effective step to improve water governance.
- Implement the single window/ agency approach to implementation recommended by the 74th CAA, with the utility local boards (ULBs) as focal point.
- Develop land tenure and service delivery policies that are responsive to the needs of the urban poor slum households and help ensure equity of access within households.
- Improve coordination and promote the convergence of initiatives among key actors. Establish mechanisms for cross-sectoral reforms.
- Promote water as a right by implementing least cost services delivery schemes, and clarifying associated duties and responsibilities.
- ADB at best can provide technical support.
- Domestic and sectoral reforms should recognize water as a right and a livelihood need.
- Empower and decentralize traditionally elected institutional bodies of local governance.
- Before intervening in the national water policy or sub-sector reforms, ADB should look into the independent situation of various countries. It cannot enforce one policy for all.
- ADB should also look into the matter that in India, water is not a public ECONOMIC good. It is a SOCIAL good according to India's culture.
- Water sector reforms are internal concerns of a country. As such, government in consultation with the people should be the one to look into these concerns. ADB should encourage governments to strengthen existing institutions and not create parallel institutions.

Private Sector Participants:

- ADB should more strongly link its investments with the “aqua ” agenda of sector reforms.
- Study the need for and scope of sector reforms.
- Establish river basin management institutions with overall authority to allocate and regulate water uses in the basin areas.
- Re-allocate budget to de-emphasize the development of new infrastructure; reduce losses and improve efficiencies before expanding capacities.
- Treat water as an economic good and put in place fair pricing policies to support water conservation and sustainability. Link revenue generation with operational costs.
- Conduct statewide discussions on sector reforms (as in West Bengal).

International Organization Participants:

- Set up state level water regulatory authorities to allocate surface waters on a proportional basis to irrigation; municipal, industrial and environmental uses; and rural drinking water.
- Give explicit long term and firm ownership of surface waters to the states with the national government involved only in arbitration.
- Undertake independent, high quality data collection, disseminated aggressively on the basis of the right to information.

GROUP 2: WATER RESOURCES MANAGEMENT

Question 1. *PROGRESS: What progress has been made to develop river basin organizations (RBOs) and to pilot a river basin approach to implementing integrated water resources management (IWRM) in your country? What improvements have been made (good practices) to acknowledge social and environmental concerns in water resources projects in your country?*

COLLECTIVE RESPONSES:

- Some progress has been made with the implementation of the National Water Policy of 2002 and the River Basin Act of 1956. However, much more needs to be done on the ground.
- Some private, small-scale efforts have been done to implement the river basin approach to IWRM, e.g., the Aravari River Parliament in Rajasthan, and in basins like Tambaraparani and Polar.
- Studies are ongoing on IWRM. Community participation has been emphasized in addition to hardware. Environmental clearances have been required. Project related rehabilitation has been made mandatory. The river basin approach has begun to emerge in the agenda of NGOs engaged in IWRM.
- No improvements have been made to acknowledge social and environmental concerns in water resources projects.

INDIVIDUAL RESPONSES:

Government Participants:

- River basin organizations have yet to develop into powerful legal authorities.
- Ownership- trusteeship and response protocols have yet to be developed.

Private Sector Participants:

- Some private efforts have been made, e.g., in the Krishna river basin (Peter Molinga, Hyderabad), Sabarmati river basin (Viksati, Ahmedabad). However, these efforts have been small-scale and have not been sustained. There has been no government involvement in these undertakings.

- Progress on paper has been made, e.g., the River Basin Act of 1956 and the National Water Policy of 2002). But there has been no progress on the ground, i.e., no river basin organization has yet been registered.
- Existing social and environmental impact assessments (SEIA) of water resources projects have been “good on paper” but poor in practice. Specifically, no impact assessment has been undertaken to track down or anticipate externalities. The methodology and assumptions used in these SEIAs have not been made explicit or public. There is also no follow-up in the monitoring and evaluation of projects to check progress against SEIA norms and concerns.
- Studies are ongoing on IWRM, e.g., by the UNICEF and World Bank. A network on IWRM facilitated by WaterAid has been established. There has been definite interest in the GOI (RGNDWM) in IWRM as a framework for future water policy.

NGO Participants:

- No progress to develop RBOs.
- River basin approach and watershed development approach must go hand in hand. But the unified approach to watershed development has not yet emerged.
- River basin management would only be meaningful if undertaken through a bottom-up process. This would require a study of the existing conditions of the watersheds, and the demands and priorities in water uses. Planning and decision-making will have to be transparent, and should involve all the stakeholders. If RBO and IWRM are not approached in such a manner, they will not be useful. What the Aravari River Parliament has done is a good example.
- There has been very little improvement in integrating social and economic concerns in water resources projects in India. But there have been some positive steps taken. The process of making EIAs public by holding public hearings before project clearance, and by making the environmental clearance public is a positive step. The formation of the National Environmental Appellate Authority, though not yet implemented, is another positive step. The establishment at state level of an environmental clearance and monitoring committee in Himachal Pradesh is another good example. Movements like the Narmada Bandora Andolan have done great service.
- However, a lot remains to be done on social and environmental issues. Powerful monitoring mechanisms have to be established, i.e., the Narmada Control Authority is a very good example. Court interventions in some cases will also have to be undertaken. That ADB is not funding large dams directly is a good practice. But ADB should also take responsibility for the negative impacts of its projects.
- The river basin approach has just begun to emerge in the agenda of NGOs engaged in WRM.
- RBOs would mean decentralization. It would require the integration of micro watershed management issues.
- We do not accept the river basin approach and IWRM concepts per se. These are new concepts being pushed by ADB.
- No improvements have been made to acknowledge social and environmental concerns in water resources projects.

International Organization Participants:

- Establishment of RBOs has been provided for in the National Water Policy of 2002, and the process has commenced in a few smaller basins like the Tambaparani and Polar in TamilNadu. The establishment of RBOs has contributed in the recognition of cross cutting issues including social and environmental concerns. However, action plans to address social and environmental concerns have yet to be developed.
- In the RBO approach, land and water resources have to be linked aside from surface and ground water. Water needs essentially consist of water for people, water for food, and water for nature. An integrated future policy option is possible, looking at the results of the CPSP

study undertaken by the International Commission on Irrigation and Drainage (ICID) on the Sabarmati and Brahmani river basins.

- The river basin approach enables a critical review of all options like water development efficiency improvement, watershed management, and social and environmental concerns. Consultations with stakeholders at the watershed, sub-basin and basin levels lead to better options and solutions for decision-makers.
- Rivers are too large, and river basins may not be the appropriate unit for planning.
- Government programs on watershed development and on drinking water supply have community participation components in addition to hardware.
- RBO initiatives have been undertaken on mini watershed level by NGOs in Maharashtra and Rajasthan.
- Environmental clearances have been required. A rehabilitation policy to address environmental and social concerns in project implementation has been adopted, and project related rehabilitation efforts have been undertaken.

Question 2. CHALLENGES/CONSTRAINTS: *What challenges or constraints remain in the way of improving water resources development and management and addressing social and environmental concerns in water resource projects in your country?*

COLLECTIVE RESPONSES:

- Water supply projects do not consider watershed issues and vice-versa.
- The mismatch between administrative boundaries and water boundaries has not been addressed, giving rise to institutional issues hampering the implementation of IWRM.
- Data and analysis have remained inadequate.
- The conjunctive use of groundwater and surface water has not been actively promoted and implemented.
- Existing infrastructure have not been optimized.
- Transparency, accountability and participation have not been institutionalized.
- Structured knowledge on how to do IWRM is lacking.
- Rainwater harvesting, groundwater recharge and watershed management have not been adequately promoted and implemented.
- Sustainable management (cost recovery), granting rights to the poorest, has not been sufficiently addressed.

INDIVIDUAL RESPONSES:

Government Participants:

- Redraw boundaries.
- Empower the communities.

NGO Participants:

- Water resources development is a highly centralized activity, mainly under state control.
- Water supplies and irrigation means bringing water into an area, resulting in collapse of local water management systems.
- Water supply projects do not consider watershed management.
- Effective utilization of available water is the biggest challenge. Constraint is in the mindset.
- Conjunctive use of groundwater and surface water is also a major challenge. Too much dependence on groundwater without adequate water harvesting is the cause of the problem.
- To address social and environmental concerns: norms for minimum flow in rivers should be developed; good quality EIAs and EMPs should be developed and implemented, securing the free, prior, and informed consent of affected communities; outstanding social and

environmental impacts of past projects must be addressed; there should be no displacement without prior rehabilitation; and WCD recommendations should be implemented.

- For WRM: appropriate cropping patterns should be promoted; water saving techniques like the SRI should be adopted; legislation to protect lakes and wetlands should be enacted; and, community-controlled groundwater use and management should be implemented.

Question 3. *What actions must be taken in the next five years to improve water resources development and management (including addressing social and environmental concerns) in your country? What can ADB do to help?*

COLLECTIVE RESPONSES:

- Localize planning and decision-making at the Panchayat/ municipal level.
- Consider the recommendations of the 1998 joint WB-GOI Water Sector Management Review (WSMR).
- Help state governments to develop institutional and legal framework.
- Devise, pilot and implement a mechanism for monitoring and evaluating water resources projects with full public disclosure, debate and feedback.
- Assess and realize the potential of increasing the efficiency of existing infrastructure.
- Legislate the right to water.
- Widely promote the adoption of the system of rice intensification (SRI) and similar water-saving agricultural techniques.
- Legislate the protection of lakes and wetlands.
- Create a multi-stakeholder platform to bring to bear all available resources to implement IWRM.
- Conduct awareness and build the capacity of local self-governments.

INDIVIDUAL RESPONSES:

Government Participants:

- Help state governments to develop water policy.
- Help state governments to develop institutional and legal frameworks.

NGO Participants:

- Addressing social and environmental concerns: legislate minimum flows in rivers; conduct a credible evaluation of past projects and address outstanding issues; implement catchment area treatment and rehabilitation in advance of construction.
- Assure the provision of water: do not commercialize a public good; remove policy conditionalities.
- Build and disseminate relevant knowledge and information on technical fields related to WRM as well as on community management experiences.
- Localize planning at the Panchayat/ municipal level.
- ADB should implement the recommendations of the WCD, review its water policy through participatory and open processes involving affected groups, develop clearly defined norms for transparency based on the right to information, and take responsibility for the impacts brought about by ADB projects, e.g., water taken from Sandar Sarovar in Gujarat in ADB's earthquake rehabilitation project.
- Assess the rainwater harvesting potential of river basins, assess and realize the potential of increasing the efficiency of existing infrastructure, promote widespread adoption of SRI and water-saving agricultural techniques, and legislate the right to water.
- Groundwater is a community resource, not an individual's resource, and hence should be shared, e.g., even when the well is on an individual's field.

- Promote the conjunctive use of groundwater and surface water for domestic consumption and agriculture including livestock.

Private Sector Participants:

- Devise, pilot, and implement a robust and structured mechanism for the effective, transparent, and accountable management of water resources projects and programs, with full public disclosure, debate, and feedback on all issues from planning, implementation and monitoring to address all social and environmental concerns. This mechanism should have direct implementation powers like the Supreme Court Standing Committee on Forest Conservation Act of 1990. ADB could support such pioneering initiative.
- Create a multi-stakeholder platform to bring to bear all available resources from government, private sector and community to implement the different aspects of IWRM as in Australia's Murray-Darling Basin Management. The platform can advise statutory bodies. ADB could support the creation and operation of such a platform.
- Implement all the recommendations of the joint ADB-GOI Water Sector Management Review (WSMR) of 1998. ADB could support any GOI initiative in this direction: join other players who may be planning such support or coordinate a multi-stakeholder effort to help GOI implement the recommendations.

International Organization Participants:

- Funding and investment needs could be made conditional to introducing the river basin concept, institutional reforms, and better governance.
- Efficiency improvement in the management of resources requires substantial investment. ADB can help in funding micro irrigation, automation, better control and measurement of water supply.
- Develop better assessment procedures for ecosystem and environmental needs. At present, ecosystem needs are subjective, and environmental needs are vague.
- Conduct training and capacity building among farmers and irrigation management agencies. Undertake institutional reforms among irrigation management agencies at all levels, learning from the experiences of developed countries.

GROUP 3: IRRIGATION AND DRAINAGE

Question 1. PROGRESS: *What progress has been made to improve coverage and increase efficiencies in water service delivery in your country? What reforms have been implemented to improve the quality and sustainability of water service delivery in your country? What progress has been made to address affordability and access?*

COLLECTIVE RESPONSES:

- Irrigation potential has increased with the increase in projects at state level.
- More emphasis has been given to minor irrigation schemes and traditional irrigation methods.
- Groundwater schemes have been developed.

Efficiency:

- Modern irrigation systems and participatory irrigation management (PIM) have been introduced.
- Awareness activities and educational courses have been conducted.
- Crop diversification has been encouraged and supported.

Sustainability:

- Reforms have been undertaken through the enactment of new laws (state level).

- Water users associations (WUAs) have been organized to enable the users to participate in water and irrigation management.

Quality:

- Not much attention has been given to the quality of irrigation water.
- Wastewater (Tumken case)

Affordability:

- Irrigation water to date is free.

Access:

- The formation of WUAs has increased access to irrigation services.

INDIVIDUAL RESPONSES:

Government Participants:

- A lot of projects are under approval stage.
- Accountability, and transparency are being addressed.
- Ownership and maintenance of the irrigation infrastructure by the farmers are being emphasized. Cultivators are encouraged to ensure water up to the tail end. Awareness programs also address the need to moderate the use of water.
- The need for tariffs is also being addressed, specifically for O&M of irrigation services, and to support the conservation and development of irrigation water sources.
- The state of Uhhaltisparh in India is a “kharif prone” state, dominated by paddy crop farming. Here, the cultivator is in the habit of taking water by flood irrigation that results in the waste of water. Education initiatives have been undertaken among the farmers in Uhhaltisparh regarding the water requirement of paddies and to persuade them to control water. Specifically, control of the main supply and the use and provision of water by “rotation” have been encouraged. Still, a lot of awareness and capacity development efforts have to be undertaken.
- PIM has been implemented but its effectiveness has to be increased.

Private Sector Participants:

- Pricing of water has never been an issue since independence. Prices are very minimal, as water has not been considered a “commodity” since independence. Government has extended support to construct infrastructure for all the users.
- Improvements have been made with the adoption of an umbrella water policy as well as of other countries’ practices in project planning, design, and implementation. The needs of the different types of users have been considered through a variety of social development and tribal development approaches. Subsidies and grants have been extended to different irrigation systems.
- Projects related to WRM, RWSS, and UMSS have been implemented at the national and state levels. The use of suitable technology that blends with traditional techniques has been promoted, e.g., drip and sprinkle, and PIM.
- Projects have increasingly emphasized the need for cost recovery, particularly for O&M. Public awareness campaigns have basically underscored that improved service requires more payment. Public participation is increasing on projects and more people have access to irrigation.
- The implementation of minor irrigation schemes and the revival of traditional irrigation systems play a major role in improved coverage. Introduction of modern irrigation systems, better tariff structure and tariff collection, and PIM would make water services delivery more efficient.

- Not much reform has been implemented to improve the quality of irrigation water but public awareness campaigns have been undertaken to promote water harvesting, conjunctive use, controlled groundwater utilization, and water conservation.
- A large number of projects having different dimensions are being implemented in the country.
- Many environmental and watershed development projects have been implemented to increase the sustainability of water sources.
- For the benefits of irrigation to reach the majority of users, schemes are planned to cover the maximum extent of the command areas.

NGO Participants:

- Micro-irrigation technologies have been increasingly promoted, e.g., drip irrigation.
- Multi-cropping has boosted the farmers' yields several folds.
- Lay scale watershed development programs have helped increase the availability of irrigation water.
- There have been more centrally sponsored schemes and increase in plan outlays at the state level. To increase efficiency, more emphasis has been given to user participation.
- User groups have been formed. Acts and other legal instruments have been instituted by some state governments to involve the users and increase the role of primary stakeholders in the management of irrigation systems, and O&M.
- Progress has been slow, but accessibility has increased because of the formation of WUAs.
- Participatory water management concepts have worked well, especially in terms of identifying irrigation water needs.
- Financial support has been provided by both the central government and state governments to WUAs (ratio 270: 270: 60).
- Some progress has been made in a few states where water sector restructuring projects and other schemes have been undertaken.
- Major improvement is the formation of water users associations (WUAs).

International Organization Participants:

- More surface water schemes are creating greater coverage.
- Efficiency has been increasingly addressed in surface water management.
- Price subsidies have been provided for drips and sprinklers.
- Acts pertaining to farmer management of irrigation have been initiated. Progress on the ground leaves room for improvement.
- Public participation has increased.
- Number of projects has increased.

Question 2. CHALLENGES/CONSTRAINTS: *What challenges or constraints remain in the way of improving water service delivery in your country?*

COLLECTIVE RESPONSES:

- The mindset of irrigation sector departments has remained unfavorable.
- Vibrant and responsive WUAs have been lacking.
- Network planning has been inadequate.
- Institutional arrangements are deficient.
- Data has been lacking.
- Technology and technology diffusion have been inadequate.
- Information, education and communication (IEC) have remained poor.
- Sense of ownership among the users of the existing service has been generally lacking.
- Unsuitable cropping patterns have continued.
- Inadequate attention has been given to the impact of irrigation on the power sector

- Scheme selection has been excessively politicized.
- The need to move to volumetric supply of irrigation water has not been addressed
- Traditional irrigation systems continue to be sidelined.
- Groundwater recharge has not been given proper emphasis.

INDIVIDUAL RESPONSES:

Government Participants:

- Inadequate funds.
- Maintenance problems on existing projects.
- Political interference during project design and execution.
- Lack of public awareness.
- Lack of implementation of the policies on the field by ADB itself.
- Lack of sense of ownership and capacity among the users.
- Lack of technical knowledge by the users, the cultivator must know the quantity of water required for his crop, and should cooperate with fellow cultivators for water distribution.

Private Sector Participants:

- Persistent divide between the head reach and tail reach users.
- Network planning and development has not been done, alongside the development of the main system, resulting in delayed benefits and disproportionate water distribution.
- The operational cost of the system is very high and not performance related.

NGO Participants:

- Government policies have focused on spreading canal, tubewell, and borewell technologies, sidelining the traditional systems such as tanks and drywells that have been performing equally well in terms of the extent of areas irrigated. Particularly, tank irrigation is very vital in hard rock areas.
- In many of the projects, major canals are constructed without minding their accessibility to distant farmlands. Large acres of land close to irrigation canals are out of reach of irrigation because there are insufficient field channels.
- Oftentimes, utility potential is not taken into consideration.
- The need to move towards volumetric supply of irrigation water has not been addressed. Drainage is still a very low priority in India.
- How to make the farmers accountable and part of all the aspects of management remains a challenge. WUAs have to be involved also in participatory drainage.
- Changing the mindset of the irrigation sector bureaucracy.
- Indifferent attitude of engineers and line departments.
- System inefficiencies.
- No empowerment of farmers.

International Organization Participants:

- Energy and irrigation nexus poses a huge challenge to the state and electricity board.
- Sustainability of loans for irrigation infrastructure has not been addressed.
- Ensuring the emergence of vibrant and responsive WUAs in existing canal systems is a major challenge.
- Inadequate investment for capable coverage and potential sources to increase supply.
- Efforts to improve water use efficiency and examine alternative cropping patterns have remained inadequate. Lack of IWRM.
- Inadequate cost recovery to ensure O&M and expand coverage.

Unidentified:

- Lack of transparency and awareness.
- Lack of institutional and policy arrangements.
- Lack of data and technology.
- Excessive politicization in the selection of schemes for irrigation development and/ or rehabilitation/ modernization.
- Poor information education and communication (IEC).
- Inadequate institutional arrangements and poor capacity to understand and resolve challenges.

Question 3. REQUIRED ACTIONS: *What actions must be taken in the next five years to expand and improve water service delivery in your country and what can ADB do to help?*

COLLECTIVE RESPONSES:

- Create a market for drip and sprinkler irrigation.
- Develop performance-based incentives for controlling authorities (could be independent).
- Create forward and backward linkages.
- Ensure timely completion of projects.
- Promote minute-based selection of schemes.
- Give equal emphasis to hard and soft project components.
- Build the capacities of WUAs and irrigation agencies.
- Undertake holistic planning.
- Improve the sustainability of WUAs.

What ADB Can Do

- Support the cost of privatization of existing canals to improve management and delivery.
- Adhere to the loan documents.
- Emphasize the involvement of stakeholders.
- Promote regional cooperation on transboundary issues.

INDIVIDUAL RESPONSES:

Government Participants:

- Increase public participation and awareness.
- Strictly monitor ADB-funded projects.
- Establish accountability at each level.
- Repair existing damaged infrastructure.
- Increase revenue rates to match the maintenance cost; hand over the programs to elected bodies.

Private Sector Participants:

- Make water a “national” commodity and not a “state” commodity.
- Establish a performance-based system to improve the delivery of controlling authorities. ADB could support the cost of privatization of existing canals to improve management’s delivery.
- Undertake a holistic planning of groundwater development along with adequate recharge structures. Water saved is water created!

NGO Participants:

- Create both forward and backward linkages such as credit incentives, industry back-up, markets, pricing, etc.

- More aggressively promote the use of micro-irrigation technologies and on-farm management. Undertake technological diffusion.
- Emphasize capacity building and empowerment of WUAs. Build the capacity also of the irrigation bureaucracy.
- Put equal emphasis to the soft and hard project components.
- Hand over the systems to WUAs. Adhere to the decisions and commitments agreed upon in loan development.
- Rehabilitate damaged infrastructure. ADB can help in this task.
- Improve the sustainability of WUAs.
- Legally empower WUAs.

International Organization Participants:

- Establish a river basin management organization to guide and optimize available resources and potential sources.
- Alter cropping patterns. Conduct a technology review on the present water intensive crops and determine better alternative crops. Develop and promote technologies for water conservation.
- Experiment with private contractors in O&M of watercourses and sub-minor components (up to distribution channels). ADB could support the experimentation cost.
- Create a market for drip and sprinkle products. ADB could support the market creation.
- Generate political consensus on private sector partnership in the maintenance and development of irrigation assets. ADB could support research or cross-country studies documenting PSP successes.

Unidentified:

- Lack of willingness to pay for quality services.
- Lack of proper identification and timely implementation of projects.
- Inadequate participation of potential beneficiaries.
- Lack of merit-based selection of schemes.
- ADB should use scientific methods to address the social and environmental issues raised by stakeholders.
- Ensure the involvement of stakeholders in decision-making and implementation. ADB should make the stakeholders an integral part of the decision-making and implementation systems.
- Promote accountability, responsibility, and better governance. ADB could make recommendations on the necessary policy revisions.

GROUP 4: WATER SUPPLY AND SANITATION

Question 1. PROGRESS: *What progress has been made to improve coverage and increase efficiencies in water service delivery in your country? What reforms have been implemented to improve the quality and sustainability of water service delivery in your country? What progress has been made to address affordability and access?*

COLLECTIVE RESPONSES:

- Coverage has increased.
- Efficiency remains a concern.

Quality and sustainability:

- Quality is being addressed through the conduct of chemical/ bacteriological tests.
- Sanitation awareness has improved in urban areas.
- A strategy for reforms is being finalized but implementation is a long way off.

- Sustainability has yet to be addressed.

Affordability and access:

- Water services delivery is affordable at current tariffs.
- Despite the increase in coverage, there is a need to expand, upgrade quality, and ensure equitable access of water supply and sanitation services.
- Sewerage is unavailable or unaffordable.
- Affordability must consider the users' ability to pay.

INDIVIDUAL RESPONSES:

Government Participants:

- Cross subsidy and telescopic rate for potable water have been implemented.
- Under various infrastructure development programs, assets creation and optimization of existing facilities have resulted in greater coverage and efficiency of water service delivery.
- Decentralization and the adoption of participatory approaches, resulting from reforms, have improved the sustainability of water service delivery.
- Cross-subsidization and differential tariff on volumetric basis have been the instruments to address affordability and access issues in water supply and sanitation.
- In the state of Uttaranchal, per water census of 2003, of the 39,000 rural inhabitants, 21,000 have been fully covered while 16,000 are partially covered, e.g., having water supply less than 40 lpd . 5,000 inhabitants have not been covered including those with less than 10 lpd water supply per capita.
- In the urban areas, 63 towns having 27% of the state's population have water supply at a rate of 70 lpd per capita. 15 towns have water supply at the rate of more than 70 lpd.
- User participation through village water and sanitation committees is being secured. These committees help in planning and implementing single village schemes as well as in O&M of the existing water supply systems.
- Protection of catchment areas and water sources have been made an integral part of the water supply schemes.
- Stand post and raw pumps water supply are at Re 5 per month.
- The 2003 survey conducted in line with Rajire Gandhi water supply mission has identified the populations covered by existing water supply services. Time bound target approach has been implemented involving the third tier of elected government officials.
- Quality is being given more attention in urban water supply systems but sustainability remains a challenge.
- Affordability still has to be addressed in line with ensuring equitable access.
- In Karnataka, improved coverage has been/ is being achieved through two ADB projects. Increased efficiency is being attempted through limited PSP in a demonstration project in three major north Karnataka cities under a World Bank-funded project.
- Karnataka government has developed a comprehensive Urban Drinking Water and Sanitation Policy to serve as foundation for long-range sector reforms. Issues of quality and sustainability are central to the policy, and policy pronouncements are being realized through technical assistance studies conducted under a World Bank project.
- The Karnataka Urban Drinking Water and Sanitation Policy aims to achieve universal coverage and service to all at levels commensurate with their willingness and ability to pay.
- A PSP project is being tried with special attention given to the development of a performance-based delivery system.
- Studies are underway in Karnataka regarding affordability and tariff structure toward O&M cost recovery and subsequent capital cost recovery.

- In Kerala, the coverage of water supply has been expanded to rural areas through high government investment. However, efficiencies have gone down in old and larger water supply schemes.
- The State Water and Sanitation Mission (SWSM), the highest policy making body headed by the Chief Minister, and the District Water and Sanitation Mission (DWSM) at the district level, headed by District Panchayat Chairman, are being established.
- Sewerage remains unaffordable; access of poor to water supply is unsatisfactory especially in urban areas; and access by socially disadvantaged remains poor in rural and urban areas
- Community-managed water supply in rural areas with the involvement of Panchayats is a promising reform to address quality and sustainability.
- Water quality surveillance for quality improvement, and the determination of sustainable tariff structure have to be undertaken.
- Reduction in UFW will result in greater water production.

Private Sector Participants:

- Coverage has increased, with the implementation of five ADB – funded water supply projects in the urban areas, and six World Bank – funded water supply projects in the rural areas.
- Management contracts to increase the efficiency of water supply projects are being conceptualized and tested out in KUWASIP, Delhi, Mumbai, and others.
- Reduction of NRW in Bangalore projects is being addressed through contract negotiation. Proposed PSP for O&M of Bangalore projects is also being negotiated.
- Quality and sustainability issues have not been substantially addressed.
- Access has improved with the increased coverage of water supply projects. Much money is being spent on urban, rural, and sector restructuring.
- Affordability has never been an issue for the rich and middle classes. But access and availability of water supply has always been an issue for the larger segment of the population. To date, water is still unaffordable for the poor.
- Very little effort is done to improve coverage and efficiencies across the country. However, a few municipalities have gone ahead, e.g., Karnataka, with assistance from ADB and the World Bank
- Some states have implemented reforms to improve the sustainability of water services, e.g., water and energy audits have been made compulsory.
- Little progress has been made on tariff reforms because of their political implications. Tariff is linked to inflation and is seen as bad for election. But tariffs need to be put in place to ensure sustainability.

NGO Participants:

- Total sanitation campaign has been launched.
- Government has acknowledged that a large number of rural inhabitants especially tribal communities have remained without access to safe drinking water.
- The Swajaldara Program has been a huge step in making drinking water available to rural areas.
- Watershed management activities are being undertaken in rural areas to enhance the availability of drinking water as well as to meet irrigation needs.
- Sustainability and affordability have not been given any thought and in fact have been seriously compromised. Greater engagement at the local level in the planning stage or before loan application would address some of the problems experienced in these areas of concern.
- Reforms have remained on paper. India has yet to move purposefully in a positive direction.
- Progress has been made only in relation to increasing coverage.
- The link between local and external (distant) water sources has been integrated in the design of projects.

- Regional water supply schemes to transfer bulk water are being implemented, and systems have been put in place.
- Institutional arrangements to decentralize the management of water supply projects and involve the user groups in all stages of the project cycle have been put in place.

International Organization Participants:

- Only lip service has been given to improving service delivery in water supply and sanitation. Studies have been conducted, and assessment reports have been submitted but they have languished in the offices of government and local water bodies. There has been no political will to implement the necessary reforms. But some areas have moved on like Andhra Pradesh, TamilNadu, Delhi, Gujarat, and Karnataka.
- “Vote Bank Politics” aims at keeping the poor as they are. And the poor are being provided services without having to pay for them, thereby, generating wasteful habits. The haves are being made to pay not only for their own utilization but also for the services availed of by the poor, and this gives rise to evasion. Thus, the services become a burden on the Exchequer.

Question 2. CHALLENGES/CONSTRAINTS: *What challenges or constraints remain in the way of improving water service delivery in your country?*

COLLECTIVE RESPONSES:

- Large sections of untenured settlers and tribal communities have not been covered by the existing water supply and sanitation services.
- Protection and development of water sources have remained inadequate.
- Sewerage technology and infrastructure are in poor condition and have not been attended.
- Fund constraints have remained.

INDIVIDUAL RESPONSES:

Government Participants:

- Although the involvement of Panchayat Raj institutions, through the Eram Panchayats and Zula Panchayats, has been institutionalized, transfer of management and ownership of water supply schemes to the Panchayats still has to be worked out. Acceptance by the community of this move is the biggest challenge.
- Tariff measures have been improved. Current target is to cover at least 50% of O&M cost. Sustainability of water sources has remained a major constraint. There is an ongoing reshuffle of ground water but no regulatory body is in place.
- Water use efficiency still has to be achieved.
- Availability of water continues to be limited.
- Funds have remained inadequate.
- Corruption and red tape have persisted.
- Specific to urban municipal water services: underground asset map, data, and records have been lacking; responsibilities have remained overlapping and unclear, resulting in diffused accountability; management capabilities and practices have remained poor; and, engineering skills have been inadequate.
- Management of service resources has been ineffective.
- Cost recovery to meet O&M has not been sufficiently addressed.
- Unaccounted for water (UFW) and non-revenue water (NRW) have remained high.
- Viable technical and financial models of sewerage have been lacking.
- Environmental sanitation management especially on solid waste management has been deficient.
- Plain areas have been covered wholly. Terrain and coastal areas have to be attended.

- Local bodies are not taking responsibility for O&M.
- Subsidies and tariff structures are weak.
- Autonomy of service provider agencies specifically with regard to staffing and tariff has been lacking.
- Misinterpretation and lack of knowledge of water supply sector needs and cost considerations have created confusion in the minds of stakeholders particularly the consumers.

Private Sector Participants:

- Consumers, not technologies or contracts, have to be served by the projects.
- Tariffs have been insufficient to meet O&M cost.
- The equity question of “water being supplied to all” has not been met.
- Public procurement system has remained weak with regard to ensuring quality and timely delivery, and providing incentives for assets creation.
- Common challenges have remained across all areas of the water sector, namely:
 - Lack of political will, vision and direction to solve water problems.
 - Lack of understanding and capacity in government bodies responsible for the projects.
 - Unwillingness to change the price and economic value of water.
 - Apathy towards people’s needs and neglect of responsibility by government (due to political considerations).
- In urban areas, the key challenges are: high NRW; lack of water supply in slums; and, inadequate and unreliable water supply in some cases.

NGO Participants:

- Inter-sectoral coordination and cooperation have remained weak. No mechanism has been established for collective problem solving.
- Deadlines for organizations have become obsolete or less relevant due to the evolution of alternative organizations or organizational arrangements.
- Capabilities of all stakeholders to deliver desired impacts have to be built.
- People’s representatives have been left out in project planning, design and implementation.
- High cost investment projects pushed by international funding institutions have fostered corruption.
- Mindless mining has led to the increased incidence of water contamination by such pollutants as arsenic and nitrates, and high fluorine content.
- Bore wells have been favored over dug wells and water-recharging mechanisms as a fast and easy measure to expand to the rural areas.
- Isolated communities especially tribal villages continue to be excluded because they could not afford the charges.
- Services to people living on non-tenured land have remained inadequate.
- Rapid urbanization, i.e., fast growing cities and old infrastructure, is a key challenge.
- There has been a continuing gap between water supply and sanitation services, i.e., lower priority has been given to sanitation.
- Deep and widespread inequity.
- People without tenurial security continue to have no access to services.

Unidentified:

- Lack of political will
- Lack of education and awareness of responsibilities not only in water delivery but in infrastructure development at large
- “Lowest bid” syndrome has afflicted some PIUs, leading to incompetent agencies getting the award for projects, compromising quality and timely completion of the projects.

Question 3. REQUIRED ACTIONS: *What actions must be taken in the next five years to expand and improve water service delivery in your country and what can ADB do to help?*

COLLECTIVE RESPONSES:

- Proper facilitation of citizens' engagement.
- Capacity building of delivery institutions.
- Transparency in procurement and implementation.
- Water supply and sanitation should be equally prioritized.

INDIVIDUAL RESPONSES:

Government Participants:

- Set up annual targets based on realistic capacities.
- Promote the right to information.
- ADB can act as a catalyst for government–public dialogue to improve public participation in decision-making.
- Strengthen entities by introducing appropriate human resources, engineering and management reforms. Pursue public sector strengthening with the same vigor.
- Demonstrate the contributions to efficient management of private sector participation adapted to the local context.
- Improve the management of utility local boards, with active citizen's participation.
- Reduce unaccounted for water, and non-revenue water (UFW/ NRW).
- Improve the management of scarce resources by conducting river basin analysis, and developing appropriate responses to preserve lakes and rivers, e.g. water grid formation.
- Improve service delivery and tariff structures (2x).
- Build the capacity of Panchayats and small municipalities to take up and manage water supply and sanitation projects.
- Build the in-house technical capacity of the engineering department to plan, design, and implement large water supply sewerage and solid water management projects. Do not de-skill serving engineers while re-skilling retired engineers.
- Support the integrated upgrading of traditional water harvesting and water supply systems like wells, ponds, kundis, etc.
- Rehabilitate existing water supply systems. Reduce unaccounted for water by: i) implementing **PM and LD** programs; ii) providing bulk meters for cross checking consumer consumption; iii) identifying unauthorized connections; and iv) ensuring timely water billing.
- Reduce and eventually stop the subsidies for those who can afford to pay. Come up with a telescopic tariff structure, and create tariff regulatory arrangements.
- Educate the public on the cost of production of potable water. Inform consumers to use the required quality of water only so that water bills would be within their budget.
- Conduct pilot studies to assess the cost of micro water supply systems at the household level, for use in convincing decision makers about water charges, and to address affordability issues. Studies could also be made on the cost of station pumps, overhead tanks and water purifiers, etc.
- Include water in the curriculum of primary schools and in the library functions of the different institutions of learning.
- Translate PSP and knowledge into action particularly with regard to municipal engineering and services.
- Strengthen the capacities of local self-governments including the ULBs and Panchayat Raj institutions to take over and manage water supply and sanitation services. ADB can help in building capacities and developing the necessary policy framework.
- Improve the urban drainage and sewerage systems, and put in place a rural sanitation system.

Private Sector Participants:

- Structure contracts to allow for private sector participation where domestic companies can take a lead position. The lead partner can bring in operational expertise.
- Promote private sector involvement but limit this to system improvement with demonstrated performance parameters.
- Bank on reforms rather than capital-intensive schemes to improve the distribution system.
- Improve transparency in and the quality of public procurement of works and services. ADB can provide a TA to study how other countries have done it and how public procurement can be made politically sensible.
- Involve the private sector in service provision and in other aspects like asset creation, financing, and management. ADB can finance more PSP projects and even fund the private sector on good terms.
- Reduce water losses and conserve resources. ADB can support and price such projects for cost recovery.
- Identify and develop more projects in a “sound manner.” ADB could continue funding project preparation.

NGO Participants:

- Undertake performance monitoring of services by citizens’ forums. ADB can support the development of tools and frameworks for feeding monitoring results to regulators.
- Map out poor areas and facilitate joint advocacy to serve the poor on non-tenured land.
- ADB should fund sanitation especially in rural areas on the same footing as water supply, as speaking about water without at the same time speaking about sanitation will do no good to water quality.
- Emphasize the importance of sanitation in policy dialogue.
- Develop differential tariff structures. ADB can support experiments and pilot initiatives to develop differential tariff structures.
- Invest in innovative models like the formation of collective forums involving government and NGOs, and facilitate and support joint government and civil society initiatives.
- Support decentralized, local initiatives for information dissemination, research, and documentation of best practices.
- ADB should not oblige to requests for further loans, and should not push for further disbursement without clarifying the risks and costs involved at the local level and with state governments.
- Undertake integrated local river basin management programs.
- ADB should focus on a holistic approach to water issues and get out of the rut of funding high cost infrastructure.

Unidentified:

- Conduct city or town wide slum mapping.
- Undertake regular assessment of services looking at water quality, adequacy, and access
- Engage with city-level citizens forums with pro-rata poor representation
- Only the people in the country can cross the main hurdles themselves, and ADB can only help on insistence.
- Impose stringent deadlines for implementation.
- Give greater stress to improving sanitation and disposal of wastes. This will also help prevent the pollution of fresh water sources.