Water Resources and Irrigation Reform

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The Main Problems

• There is no institutional framework for WRM that is not dominated by a single sector institution focused on its own objectives
• There is generally no institutional framework at all for GW management
• Subsidies are widespread and incentives are perverse even as water grows increasingly scarce and competition increases
• Participation and empowerment of stakeholders (farmers, communities) has been low if not non-existent
• The knowledge base has lagged, and there is little or no systematic monitoring or data analysis
• The provision of vital public goods is poor and the condition of infrastructure is seriously deteriorating
• Recognition of the importance and value of environmental goods and services is very low, e.g., water quality, wetlands, coastal resources
• There is little or no holistic planning particularly for river basins or sub-basins – hence little attention to conjunctive use of SW & GW, water allocation, conflict resolution, hydrologic sustainability
The Political Economy of Change in the “Water Sector”

• Development remains the single minded focus – it is hard to grasp and commit to a shift to greater emphasis on management and sustainability when the perceived rural and urban demand for new services is high – especially by groups that have been left out or vested interests who have already captured benefits.

• Devotion to projects over a long period makes it difficult to see the need or value of planning.

• Acceptance of changes is mainly driven by crisis – salinity, falling water tables, drought and water shortage, pollution, fiscal crises.

• Champions, once identified, have a limited tenure and are hard to hang onto without broad-based governance reform.

• Bureaucratic resistance and inertia is strong – it is one of the most powerful of the vested interests.

• Low credibility of sector institutions with economic management agencies – seen as wasting funds with little to show (poor O&M, long delayed and stretched out projects that yield little benefit) – and cost recovery is constrained by disincentives and poor service.

• Politicians want to sustain their traditional role in controlling water allocation and provision, pricing, investment – these are still seen as important political tools in electoral politics.
Keys to Good Performance of the Sector

• The Institutional Framework
  - Laws, Rights, Entitlements
  - Roles and responsibilities of actors (present or missing)
  - Regulations and standards

• The Management Framework
  - Instruments and the institutional framework for their use
  - Planning processes, Participation, Conflict resolution
  - Monitoring, Knowledge management, data, information technology

• Infrastructure
  - Cost effective, efficient, Sustainable
  - Capable of providing reliable and appropriate service

• Understanding the political economy of reform
Key Strategic Challenges

- Increasing the “productivity” of water
- Empowering water users to make good decision on the use of water, and enabling their effective participation in water management at local and basin levels
- Ensuring the financial health of the sector - water charges and subsidies, participation of the private sector
- Efficient and cost-effective service delivery - reforming and modernizing public sector institutions
- Explicit allocation of water to EFRs and environment goods and services
- Sustainable management of water resources (surface and groundwater, water quality, environmental services and functions) for growth, security and equity
• State Water Policy; State R&R Policy
• Apex Institutions
  • State Water Resources Agency
  • State Water Resources Data & Analysis Center
  • State Water Tariff Regulatory Commission
  • Basin Management and Development Boards
• Basin Planning and Decision Support Systems development

In selected sub-basins,
• Fisheries Development
• Micro-hydropower Development
• Village Pond Management
• Conjunctive Use Enhancement
• Targeted Extension for Resource Management
• Equity considerations mainstreamed into water resource management

• Management Reforms in Service Delivery
  • Irrigation Department Reforms (capacity-building, business process reengineering, MIS, fiscal accountability)
  • Public-private partnerships for service delivery
  • Water user association strengthening
  • Improve coordination and convergence in rural service delivery

• Environmentally and Socially Sustainable Asset Development & Management (including technological improvements, volumetric sale and delivery)
• Environmentally and Socially Sustainable Irrigation and Drainage Asset Modernization
  • Water User Association Strengthening
  • Village Information Kiosks
  • Improved Agricultural Intensification and Diversification through targeted extension services, technological innovation and local capacity-building

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Some Principles

• Investment should reward not only commitment to but also action on reform

• Reform is a long-term process that proceed in stages building on what has been achieved
  – Champions are necessary to drive the process
  – Ownership must be built early, and a broad consensus among stakeholders developed
  – Capacity for new roles and functions must be developed

• Initial reforms must put in place the policy, legislative and institutional enabling environment – but the reform process is one of experimentation and innovation, no single model seems to be the panacea

• A Programmatic approach is needed in which the Bank sustains a long-term commitment so long as Government stays on track
The Specific Focus in the Irrigation Sub-sector

- **Restructuring**
  - The relation between the farmer and the ID
  - The relation between the ID and other agencies
  - The ID itself
- **Restoring the financial health of irrigation**
  - Sustainability of infrastructure function and performance
  - Opening fiscal space to add and modernize infrastructure
- **A Broader set of interventions**
  - IWRM - a river basin management approach
  - Irrigation service reform & empowerment of farmers
  - Improving agricultural support services - PSP
  - Establishing a system of secure water entitlements
  - Policy, legal and institutional reforms
How have these Principles played out in India - The evolution of the approach since the early 1990s

- First generation of projects
  - WRCPs (TN, Orissa, Haryana, A.P.)

- Second generation of projects (ongoing)
  - U.P., Rajasthan

- Third Generation of Projects (in preparation)
  - M.P., Maharashtra, A.P.
  - Karnataka and TN in the wings (dialogue on policy reform and directions)

- No commitment to change - reforms on paper only

- Investment remains the primary activity

- Unbundling of ID functions
- Establishment of SWPDs and introduction of basin approach
- More emphasis on reform in service delivery, management transfer, restoring financial health of sector

- Implementation of SWP
- Restructuring of sector institutions and functions, institutional arrangements for a river basin approach and IWRM
- State leading preparation, driving process by undertaking reforms, increased emphasis on Bank AAA
Where are we in other countries of the region?

• Pakistan
  - Need to sustain fundamental reforms when country is focused on an investment program that rivals the Indus Basin Program of the 1960s and early 1970s
  - Preparation of Country Water Sector Assistance Strategy based on GOP work, PER, Poverty Assessment, and Environment Strategy work

• Bangladesh
  - Lending has been blocked by need for GOB to demonstrate commitment to reform of key sector institutions and processes - now progressing with specific targets set for appraisal

• Sri Lanka
  - Bank will withdraw from sector if GOSL does not “bite the bullet” on policy reform, complete Mahaweli project successfully - GOSL has gotten message and is starting to lead, Bank will consider a sector program approach that deepens reforms and builds on changes in service delivery and farmer empowerment
Hot Ticket Items . . .

- Interstate water issues in India
- Interlinking of rivers in India
- Regional cooperation on water resources
- Failure to deal with water logging and salinity in the Indus Basin
- The lack of water rights
- Poor monitoring, lagging knowledge base, lack of data and analysis, low public access
- Poverty impact and targeting
- Water Resources Management and AL
challenge of changing an Irrigation Department ...
## Key Sector Issues & Reform Imperatives in a Sample Sub-Sector

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<th>Water Sector</th>
<th>Key Issues</th>
<th>Reform Imperatives</th>
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<td>Fragmented approach to the water sector</td>
<td>Need for <strong>Apex Institutions for Inter-sectoral water resources planning and regulation</strong></td>
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<td>Poor outcome orientation - Low agricultural productivity and diversification</td>
<td>Need for independent <strong>Water Tariff Setting mechanism</strong></td>
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<td>Inadequate coordination, knowledge management, analytical capacity for a holistic approach</td>
<td>Need to improve knowledge base and analytical capacity for water resources management in a basin framework</td>
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<td>Poor service delivery and lack of user participation</td>
<td><strong>Financial</strong>: Reduce Costs; Increase Revenue Base; Set appropriate tariffs</td>
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<td>Weak mainstreaming of social and environmental issues in the water sector</td>
<td><strong>Institutional</strong>: Training and Capacity-building; Business Process Re-engineering; Public-Private Partnerships, incl. Water User Associations</td>
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<td>High establishment costs, low user tariffs, poor cost recovery, and resulting fiscal distress</td>
<td><strong>Technical</strong>: Changed focus to agricultural and poverty outcomes; New survey techniques; Computerized Decision-Support Systems development</td>
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<td>Inadequate professional capacity, insufficient knowledge-base, poor skills mix and high proportion of non-professional staff</td>
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