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Presentation Title: **Metropolitan Water Challenges in South Asia and the U.S.**

## Presentation Overview

### Metropolitan Water Management Requires Strong Rural-Urban Linkages – Three Questions

- “What is the problem?”
- “Is Historically-Based Thinking Obsolete?”
- “How can water-conserving urban design be linked with support for community-driven design?”

#### “What is the Problem?”

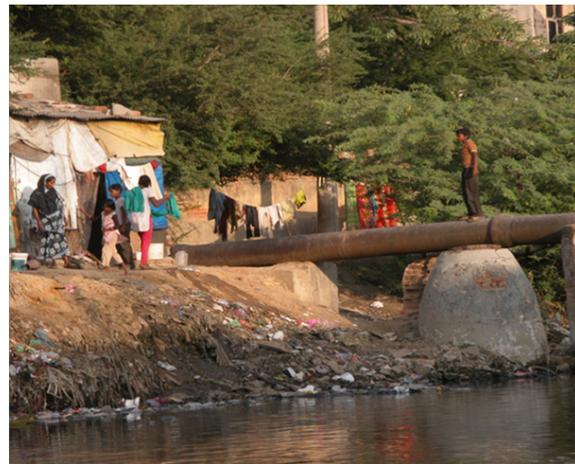
This question is answered in a predictable, inadequate, series of problem-framing approaches:

- Population pressure
- Natural water resource scarcity
- Technologies
- Economic costs (financial, environmental, social)
- Management and institutional reform
- Water lawyers
- Politics
- Culture

Considerable progress has been made in mainstreaming the first six approaches (e.g. in urban water utility benchmarking programs). Political research on water has advanced greatly over the past decade, e.g., on water movements and governance. *Cultural research remains an important frontier* (Wescoat, .



Ravi River Floodplain, Lahore, 2013



Barapulla nallah, Delhi, 2013

#### “Is Historically-Based Thinking Obsolete?”

This concern drawn from an ADB presentation by Peter Rogers challenges established ways of addressing water problems during the urban transition. It also invites creative reflection on the underutilized value of historical geographic inquiry in South Asian water management. This presentation notes the following examples:

## SAI – Urban Water Challenges – Panelist Summary

- Sophisticated but ultimately unsustainable urban water systems in Indus Valley cities
- Sophisticated but ultimately unsustainable urban water systems in the Sultanate cities of Delhi, Gujarat, and the Deccan.
- Technologically simple, architecturally sophisticated, but unsustainable urban water systems of the Mughal capitals in Delhi, Agra, and Lahore.

These cases offer insights into the conditions of urban water innovation and failure. They also complement the current rediscovery, experimentation, and performance analysis of traditional water management (e.g., rainwater harvesting).



Agra floodplain, 2013



Hauz Khas complex, Delhi 2013

### **“How can water-conserving urban design be linked with support for community-driven design?”**

Rainwater harvesting constitutes one of a suite of water-conserving design methods. As important as the techniques, is the question of what is being conserved? The Water-Conserving Design model presented has five components:

- Conservation of waterworks
- Conservation of water resources
- Conservation of water experience
- Conservation of water livelihoods
- Conservation of water wisdom

Complementing these forms of conservation are successful programs of “*Design Support*” for community-driven, community-financed, water and wastewater management. Exemplars of this approach are the Aga Khan Rural Support Programme, the Aga Khan Trust for Culture’s Historic Cities Programme, the Comilla Rural Development project, and Orangi Pilot Project in Karachi.

**Collaboration on Cultural Dimensions of Water-Conserving Design Support in South Asia and the U.S.** The paper concluded with reflections on the long record of historical exchange in water management knowledge between South Asia and the U.S., and the need for incorporating historical inquiry when addressing contemporary water problems. It further recommended focused collaboration on cultural dimensions of water management, including support for water-conserving design.

**Sources available at:** <http://web.mit.edu/akpia/www/facultywescoatcv.pdf>