

## **Paradox of Growing Adaptive Capacities for Sustainability Transformation in Urban Water Management in Bangladesh**

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**Abstract :** Urban water governance in developing countries faces numerous challenges arising from uncontrolled urban population expansion, water pollution, greater economic push and more recently, climate change impact while undergoing transitioning towards a sustainable system. Sustainability transition requires developing adaptive capacities of the socio-ecological and socio-technical system to be able to deal with complexity. Adaptive capacities deliver strategies to connect individuals, organizations, agencies and institutions at multiple levels for dealing with such complexity. Understanding the level of adaptive capacities for sustainability transformation thus has gained significant research attention within developed countries, much less so in developing countries. Filling this gap, this article develops a conceptual framework for analysing the level of adaptive capacities (if any) within a developing context. This framework then applied to the chronological development of urban water governance strategies in Bangladesh for almost two centuries. The chronological analysis of governance interventions has revealed that crisis (public health, food and natural hazards) became the opportunities and thus opened the windows for experimentation and learning to occur as a deviation from traditional practices. Self-organization and networks thus created the platform for development or disruptions to occur for creating change. Leadership (internal or external) is important for nurturing and upscaling these development or disruptions towards guiding policy vision and targets as well as championing ground implementation. In the case of Bangladesh, the leadership from the international and national aid organizations and targets have always lead the development whereas more often social capital tools (trust, power relations, cultural norms) act as disruptions. Historically, this has been evident in the development pathways of urban water governance in Bangladesh. Overall this research has shown some level of adaptive capacities is growing for sustainable urban growth in big cities, nevertheless unclear regarding the growth in medium and small cities context.

**Keywords :** adaptive capacity, Bangladesh, sustainability transformation, water governance

**Conference Title :** ICAIWM 2017 : International Conference on Adaptive and Integrative Water Management

**Conference Location :** London, United Kingdom

**Conference Dates :** August 21-22, 2017