

## Tropentag, September 18-20, 2019, Kassel

"Filling gaps and removing traps for sustainable resource management"

## Challenges of Sustainable Wastewater Management in Pakistan: A Case Study of Faisalabad

SAIMA JABEEN, REGINA BIRNER

University of Hohenheim, Inst. of Agric. Sci. in the Tropics (Hans-Ruthenberg-Institute), Germany

## Abstract

With the industrial revolution and having big cities for a good quality of life, we are living in a situation, which is deprived of environmental and ethical standards. The present scenario of industrial development and rapid urbanisation in most of developing countries cause wastewater production. Wastewater management remains an important challenge for the state, communities and other stakeholders within such economies. The wastewater generations, mixing with freshwater resources, and its usage in irrigation are critical issues and all-pervasive. The policies mostly target engineering-oriented solutions (treatment plants). There is a dearth of managerial and administrative solutions to handle the problems locally. The research, thus, sets out to explore the gaps in the institutional frameworks for wastewater management within the context of Pakistan. The study applies a combination of methods to assess and explore the gaps and traps within the wastewater management sector. Policymakers mainly face the problem of unreliable data and absence of specified information required for strategic planning in most of developing countries like Pakistan. This study provides a framework to analyse the current status of wastewater management and reasons of unsustainability. Notably, 'sustainable wastewater management' is a multifaceted problem having particular situation due to the nature of product or service. It advocates that sustainable wastewater management is a social/governance dilemma. The historical institutionalism of administrative organisations helped to find out the inherent challenges of ministries, departments, and agencies. Furthermore, the institutional analysis identified the constraints and challenges in the legal and administrative arrangements. Consequently, these gaps and traps identification direct towards future policy formulation in a sustainable manner.

**Keywords:** Governance challenges, IAD framework, institutional analysis, linear to circular water economy, public administration in wastewater management, qualitative analysis, sustainable wastewater management