

‘We Gave Them the Glass, Now It’s Up to Them to Pour the Tea’

Exploring Farmers’ Appropriation of Water User Associations in Rural Morocco

Abstract

In the early 1990s, Morocco adopted participatory irrigation management (PIM) and irrigation management transfer (IMT) as key policy frameworks in irrigation management following international donors’ agendas. As part of this policy framework, Water User Associations (WUAs) were implemented as an instrument to decentralize resource management, promote farmers’ participation and reduce irrigation system maintenance costs. However, in the early 2000s, evaluations of WUAs’ performance reported mixed results and challenges in promoting active participation and securing financial support. Many factors have been identified to explain these outcomes, including insufficient training and capacity building, unequal power relations, and elite capture, as well as the unclear definition of WUA roles. More broadly, several studies have highlighted how the disappointing performances of WUAs can be attributed to the mismatch between donor-driven and state-imposed bureaucratic WUA frameworks and the complex socio-cultural and political context in which bureaucratic institutions are implemented. Externally imposed bureaucratic frameworks often fail to account for, or effectively engage with, long-established, embedded institutions and traditional practices that shape irrigation management in rural areas, contributing to weak institutional embeddedness, reduced management efficiency, and low local ownership of imposed bureaucratic models.

Research examining WUAs around the world represents a broad corpus and has analysed the factors contributing to these outcomes from different angles and regional perspectives. Despite contextual differences, all studies have identified common challenges and limitations that the implementation of WUAs has experienced.

A subset of those studies has examined the interaction between WUAs and pre-existing traditional forms of irrigation management, exploring the capacity of local communities to transform, negotiate, reject, and reconfigure the bureaucratic institutions, shedding light on local-level dynamics driving institutional transformation and adaptation processes. Research conducted in rural Morocco shows that WUAs, depending on the context and actors involved, may become innovative arenas that serve a range of socially valued purposes through locally driven reconfiguration processes.

This thesis contributes to this body of research by examining how local farmers appropriate or reject WUAs and how local communities reshape and repurpose WUA through micro-level negotiation and institutional bricolage processes. The study situates this analysis within the structure-agency interplay, examining how local actors strategically navigate political and socio-cultural dynamics as well as the influential role of state public policy implementation, agrarian transformation and the impact of climate change on water resources.

This thesis develops and applies an original analytical framework that combines the notion of appropriation of space adapted from the work of Henri Lefebvre with institutional bricolage theory as conceptualized by Frances Cleaver, focusing on the transformative potential of local agency and place politics. The framework offers a lens to examine how WUAs are locally reshaped or rejected and explores how local communities selectively draw on bureaucratic and customary practices, as well as their own experiences and creativity, to integrate different institutional logics and arrangements in local irrigation governance. The framework was progressively refined through an interactive process between theoretical reflections and empirical field observations, grounded in local perspectives. This approach offers a deeper insight into institutional change dynamics in response to evolving local socio-political and ecological conditions, as well as to policy implementation, and in turn, reveals how these factors redefine local irrigation governance.

Empirically, this thesis is based on a qualitative, participatory, and exploratory research conducted in two municipalities on the Moroccan Atlas. Through a comparative case study of 12 WUAs implemented in small-scale irrigation systems in Ain Leuh (Ifrane Province) and the Zat Valley (Al Haouz Province), this study identifies common patterns and divergent trajectories across cases and regions. The comparative analysis allows for a more nuanced understanding of how the interplay between community-endogenous factors and external pressures shapes irrigation management across different sites.

Moreover, the combination of ethnographic approaches with participatory methods enables a deep contextual understanding and incorporation of local perspectives, reflections and theorizations, complementing and integrating the qualitative inquiry conducted.

A key research finding is that all WUAs initially mainly functioned as ‘contractual’ entities, adopted primarily to access state funding to achieve infrastructural development goals. Following this phase, most of them returned to customary management, highlighting the limits of externally imposed institutional models.

The study findings reveal that, over time, local communities in most cases engaged with WUAs through three distinct processes of institutional appropriation, each contributing to their reconfiguration through institutional bricolage - a process of selective borrowing, adaptation, and recombination of elements from both bureaucratic and customary systems.

The first process, defined in this study as civic-driven appropriation, involves the emergence of new forms of rural leadership that strategically integrate local customary practices within bureaucratic institutions and frameworks. The second, termed partial appropriation, refers to the coexistence and interaction of customary and bureaucratic logics, resulting in hybrid modes of institutional functioning. The third, conceptualized as cultural non-appropriation, describes cases in which WUAs are appropriated primarily as contractual entities to facilitate infrastructural development of the irrigation scheme, while customary institutions retain their control of water management.

Together, these processes illustrate the plurality of local responses and highlight the role of bricolage in generating adaptive, contextually grounded, and socially legitimate water management institutions.

This thesis is structured around eight chapters. Following the introduction of the research design, the research problem framing (Chapter 1) and the methodological approach description

(Chapter 2), this thesis presents the theoretical and analytical framework adopted (Chapter 3). It then examines the historical, socio-cultural, and political dimensions of irrigation management in Morocco. This contextual analysis provides the foundation for understanding how the interplay between historical legacies, state-driven developmental policies, evolving socio-political changes in rural areas, and the influence of climatic changing circumstances influence local irrigation management (Chapter 4). The context analysis serves as a lens to examine the empirical findings, which are discussed and analysed based on the data collected in Ain Leuh (Chapter 5) and the Zat Valley (Chapter 6). The subsequent comparative analysis (Chapter 7) shows that local reconfiguration of WUAs is a dynamic process that evolves in time, with varying degrees of engagement and approaches from local communities, depending on local contextual socio-cultural factors, intra-community political negotiation, and the influence of external factors, such as climate change and public development policy. Local communities draw on different institutional logics, ‘borrowing’ elements from both customary and bureaucratic domains and selectively recombine them to produce a wide range of locally elaborated water management institutions. The analysis also explores how, in certain cases, local WUAs are repurposed, acquiring alternative management functions to address locally identified needs and functions.

This thesis offers theoretical, empirical, and methodological contributions to the academic debate, as well as implications for future research and policy. Empirically, this research contributes to the academic debate on institutional change and local irrigation management by shedding light on the interplay between externally introduced bureaucratic management practices and existing socio-culturally embedded ones. By combining institutional bricolage theory with the concept of appropriation of space, this thesis offers theoretical reflections and a lens for the understanding of locally-led institutional adaptation processes and the emergence of novel, locally-elaborated, governance arrangements. Methodologically, this research contributes to community-based irrigation management and local water governance studies, providing cross-case insights, and grounding findings on institutional change processes in local farmers’ perspective and lived experiences.

Theoretically, the thesis advances our understanding by linking the appropriation of space with institutional bricolage, offering a powerful lens to reveal local institutional dynamics and the ways actors exercise agency in transforming imposed models. Empirically, it highlights how local communities rework, hybridize, or reject WUAs to produce new governance arrangements that reflect local norms and needs. Methodologically, it demonstrates the value of comparative, participatory, and ethnographic approaches for capturing micro-level institutional transformations from farmers’ perspectives.

This thesis suggests that future research should investigate how WUAs are locally reshaped to become embedded in the local rural setting and repurposed to serve a wide range of community-based functions. When locally legitimized through appropriation processes, WUAs may support a wide range of community-based needs, playing a role in adaptation practices, infrastructural co-design, local agricultural development, and may become significant innovation platforms. Comparative and participatory research approaches can reveal the historical, socio-cultural, the political factors, as well as external drivers that shape institutional reconfiguration processes and related outcomes.

The research findings have implications for policy considerations, emphasizing the need to reconsider the WUA model, by adopting a more flexible and context-sensitive framework. Such an approach would accommodate locally identified and elaborated institutional functions and management options, suggesting a paradigm shift in which WUA design can integrate locally produced practices, institutional arrangements, and functions to better serve and empower local communities.