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Sociology of a Crisis: The Social Pathology of the Water Crisis in the Zayandeh-Rood River Basin

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Extended Abstract

The Zayandeh-Rood river basin is the only permanent and water-rich river in the central plateau in a densely populated area with a dry and semi-arid climate. Due to precise historical management and supervision, the social problems of water distribution rarely happened. However, since the mid-1980s, the river has steadily lost its natural flow and has become seasonal river. Therefore, there have been many protests by stakeholder in the provinces. The purpose of this paper is to investigate the reason for the water crisis in the Zayandeh-Rood river basin has occurred over the last two decades. The knowledge of water management is beyond the technical understanding of the subject, and it is an interdisciplinary science, so it should be considered in different fields. Thus, this article focuses on recognizing the water governance gap in the Zayandeh-Rood river basin in various sectors. The method used for this purpose, is analysis of documents, based on a comparative content analysis. Also we conducted interviews with 30 water experts in different districts and provinces (Isfahan, Chaharmahal and Bakhtiari). The results showed that water governance in the Zayandeh-Rood River basin resulted in various gaps, including executive gaps, targeting gaps, policy gaps, information gaps, capacity gaps, investment gaps, and responsibility gaps.

Keywords: water governance, water crisis, Zayandeh-Rood river basin, policy making, law on fair water distribution

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INTRODUCTION

A host of research has been done in the field of water management. Every dimension of water problems deals with a special field. Therefore, it should be considered as a multidimensional issue. Generally, the issue of water is considered a technical dilemma, and its social and political dimensions have not been given enough attention. In this study, we intend to overcome this shortcoming and highlight its social aspects. Therefore, the pathology of water management in the Zayandeh-Rood river basin cannot be determined only by technical and engineering studies. In this paper, social studies of water for understanding of conflicts and gaps in governance have been used.

The Zayandeh-Rood river basin has a long history of managing and monitoring the behavior of users. But since the mid-1980s, however, the river has lost its flow steadily because of the interference of Isfahan stakeholders. This has led to numerous securities, social and political issues among the provinces that use this basin.

PURPOSE

The purpose of this project is to focus on the understanding of the causes that led to many problems for the Zayandeh-Rood River basin. This article examines these issues from the perspective of gaps in water governance. The model presented by the Organization for Economic Cooperation and Development has been used to identify these gaps. This model introduces seven gaps as can be seen, in the following table.

Table 1. Explaining the gaps in water governance

Gaps in water governance	Description
Administrative gap	Mismatch of administrative and hydrological boundaries.
Information gap	Information asymmetry (quantity, quality, type) among water policy stakeholders
Policy gap	Multi-division tasks between ministries and institutions in water management
Capacity gap	Lack of infrastructure capacity to design and implement water policies
Funding gap	Insufficient funds
Objective gap	Motivational gap and different cross-sectional logic for sustainable water management
Accountability gap	Due to lack of information transparency, weak commitment, lack of attention, awareness and participation

METHODOLOGY

The method used for this article, is analyzing documents, based on a comparative content analysis. Also we conducted interviews with 30 water experts in different districts and provinces (Isfahan, Chaharmahal and Bakhtiari). A multilevel coding model was used for data analysis to identify gaps in the OECD model. "Targeted or criterion-based" sampling was performed based on the extent of access and range of information. In this study, information was collected from different groups, documents and provinces. Interviews were conducted with 6 members of the Agricultural Trade Union, 5 experts from the Regional Water Company, 10 leading farmers, 5 experts from the Office of the Operating System, and 4 experts from the Agricultural Bureau.

RESULT

In the administrative gap identified in Zayandeh-Rood Governance, the most important issues were the non-compliance of the executive boundary with water ownership law, the non-compliance of the administrative boundary with the water compensation law, and the executive gap due to periodic violation of the laws. In the area of gaps in water management targeting, the inconsistent goals of Zayandeh-Rood basin management in different governments, the incompatible objectives of the concerned institutions, and the inconsistent objectives among Zayandeh-Rood's provincial policy caused this gap. Factors that have led to the policy gap in Zayandeh-Rood River basin governance include the policy gap resulting from unbalanced power and the policy gap resulting from the conversion of basin management to provincial management. The asymmetric quantity and quality of information as well as the type of information have caused the information gap in the Zayandeh-Rood River basin. Water governance in this basin also suffers from a capacity gap caused by an interactive capacity gap and an allocation capacity gap. Weak investment in social and non-technical issues, as well as inappropriate investment in the region, is another factor that has led to an investment gap in Zayandeh-Rood water governance. The Zayandeh-Rood River basin also suffers from an accountability gap among users. This is the result of consumerism and state monopolism, which has minimized real and effective user participation.

CONCLUSION

Overall, the results of this study show that many of the social and security issues in the Zayandeh-Rood basin have resulted from gaps in governance rather than instability. As it arises in the watershed, it is the plans, laws, and decisions that play a key role in the emergence of social issues. The lack of coherence, inconsistency of



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laws, and instability in planning has created many problems, most notably the weakening of legitimacy that has nothing to do with the spread of abuses, gaps, and social and political mistrust.

The gap in water governance has led to the illegitimacy of the law both among executors and planners, and amongst users. In fact, there is extra-legal power in approving water resource development plans and programs that can enforce inappropriate approvals without regard to laws, documents and programs.

NOVELTY

Understanding water issues has mainly been addressed in terms of climate problems, such as drought and the psychology of individual behavior, such as saving. However, many water issues arise from management, policy, and governance. This study also investigates the problems from the perspective of water governance in different dimensions.



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