

The Research Group

Cosmopolis Centre for Urban Research

has the honor to invite you to the public defense of the PhD thesis of

Nishtman Karimi

to obtain the degree of Doctor of Sciences

Title of the PhD thesis:
Water management regimes and regional adaptation in a semi-arid area: assessing the case of Sanandaj, Iranian Kurdistan

Promotor:
Prof. dr. Kobe Boussauw (VUB)

The defense will take place on
Friday, December 9, 2022 at 16h00 in auditorium D2.01 (promotiezaal)

Members of the jury

Prof. dr. Matthieu Kervyn (VUB, chair)
Prof. dr. Marijke Huysmans (VUB, secretary)
Dr. Griet Juwet (VUB)
Prof. dr. Hossein Azadi (Université de Liège)
Prof. dr. Luisa Moretto (ULB)

Curriculum vitae

Nishtman Karimi obtained her Master's of Science degree in Urban and Regional planning at Shahid Beheshti University in Tehran in 2012. Nishtman has built her academic work on earlier activities as an expert in urban and regional planning and environmental assessment, both in consultancy and in public service in Iran. Then, she started working as a PhD student at the Department of Geography of the Vrije Universiteit Brussel under the supervision of Prof. Dr. Kobe Boussauw. She has published parts of her work in three scientific articles in peer-reviewed international journals.

Abstract of the PhD research

This dissertation investigates a wide range of issues of urban and regional adaptation in the face of water shortage in the Sanandaj region of Iranian Kurdistan. It assesses management regimes through institutional analysis and transition frameworks, and proposes strategic options through consideration of the water-food-energy-ecosystem nexus.

The purpose of this dissertation is to answer the question of how and to what extent transformations of water management regimes can create a basis for water security, as opposed to water shortage. The dissertation is structured as follows: the introductory chapter details the general background and rationale of the research, and explains how this dissertation contributes to the literature. The second chapter is a published review article that explores the history and outlines the profile of the city of Sanandaj, from an urban development perspective. The third chapter, that was published as a research article, investigates the shift in the ownership regime of water resources in the same region, arguing that it has unintentionally turned the communal ownership regime into a regime of open access of common-pool resources. The fourth chapter, published as a research article, documents the transition of the management regime of water resources in Sanandaj county between 1962 and 2018 through a retrospective analysis. The fifth chapter aims to identify the complexity of the interdependency of resource sectors, employing the concept of the water-food-energy-ecosystem nexus and assessing water related trade-offs. The sixth and final chapter concludes and summarizes the results and provides some practical implications, limitations, and suggestions for future research.

This qualitative analysis of social-ecological aspects of water shortage in the Sanandaj case study, while unique in specific aspects, is far from unique in its complexity, and the same holds for the conclusions of the study. The impact of the findings could be extended to most regions in Iran, and serve as a basis for a future research agenda. The findings can be widely applied with respect to regional spatial planning of drought and human induced water shortage, or to demonstrate the complexity of the nexus and the interactions with ecosystem services.