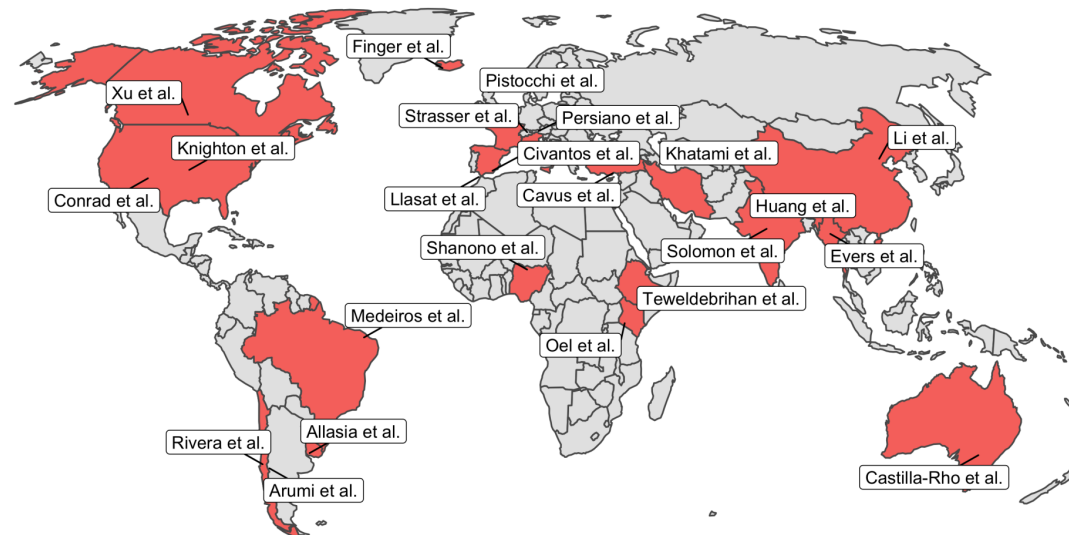


Panta Rhei Chapter 11: Sociohydrology Case Studies

Gopal Penny, Postdoctoral Fellow, University of Michigan Ann Arbor

Additional coordinating authors:

Cynthia Castro, Thushara Gunda, Alberto Montanari, María José Polo Gómez*



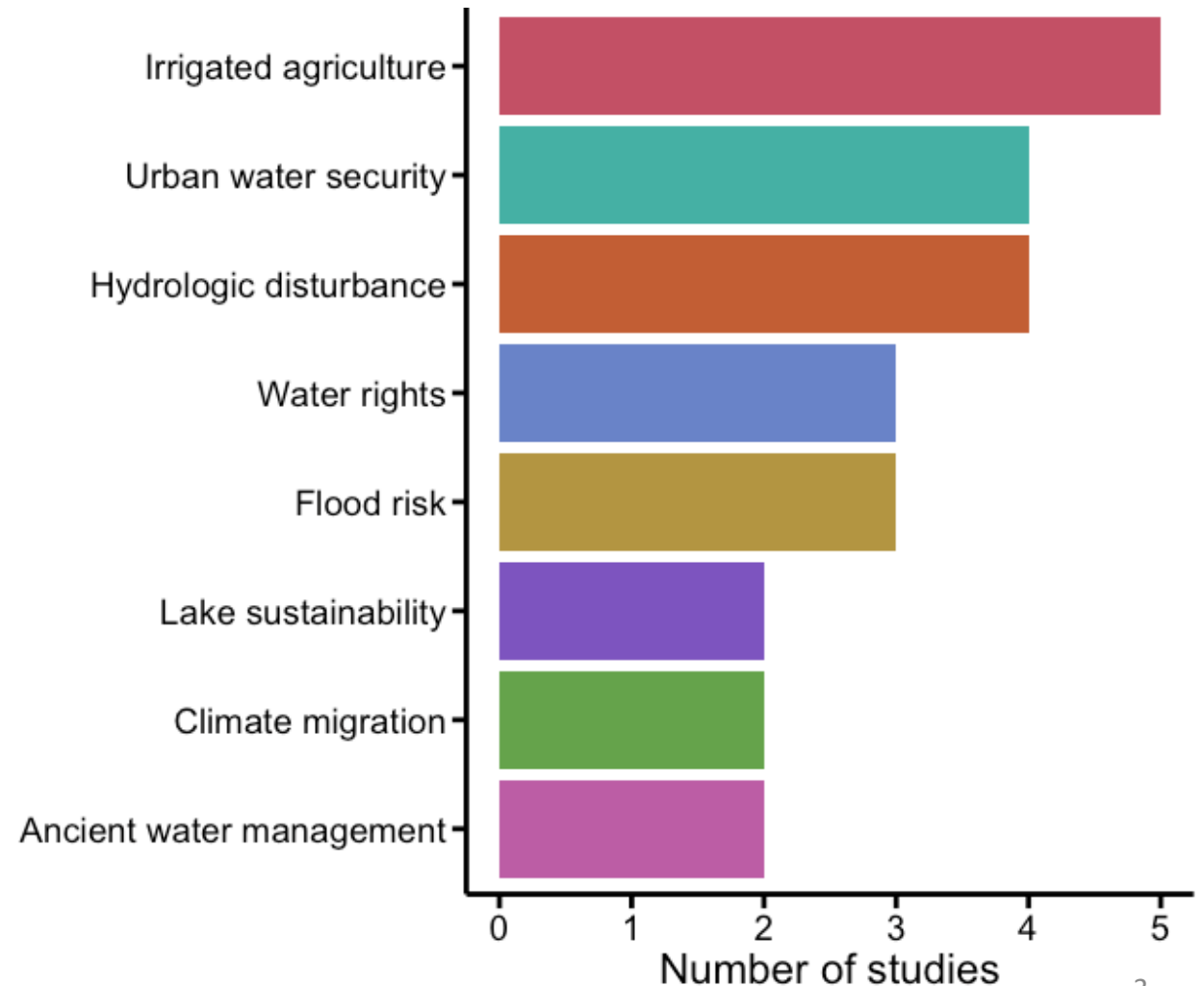
*Chapter lead author

Panta Rhei book

- Chapters 1-10: Foundations, progress, and theory
- Chapter 11: Sociohydrology case studies
- Benefits:
 - Apply theory to real-world cases
 - New and emerging research
 - Synthesis across regions and themes

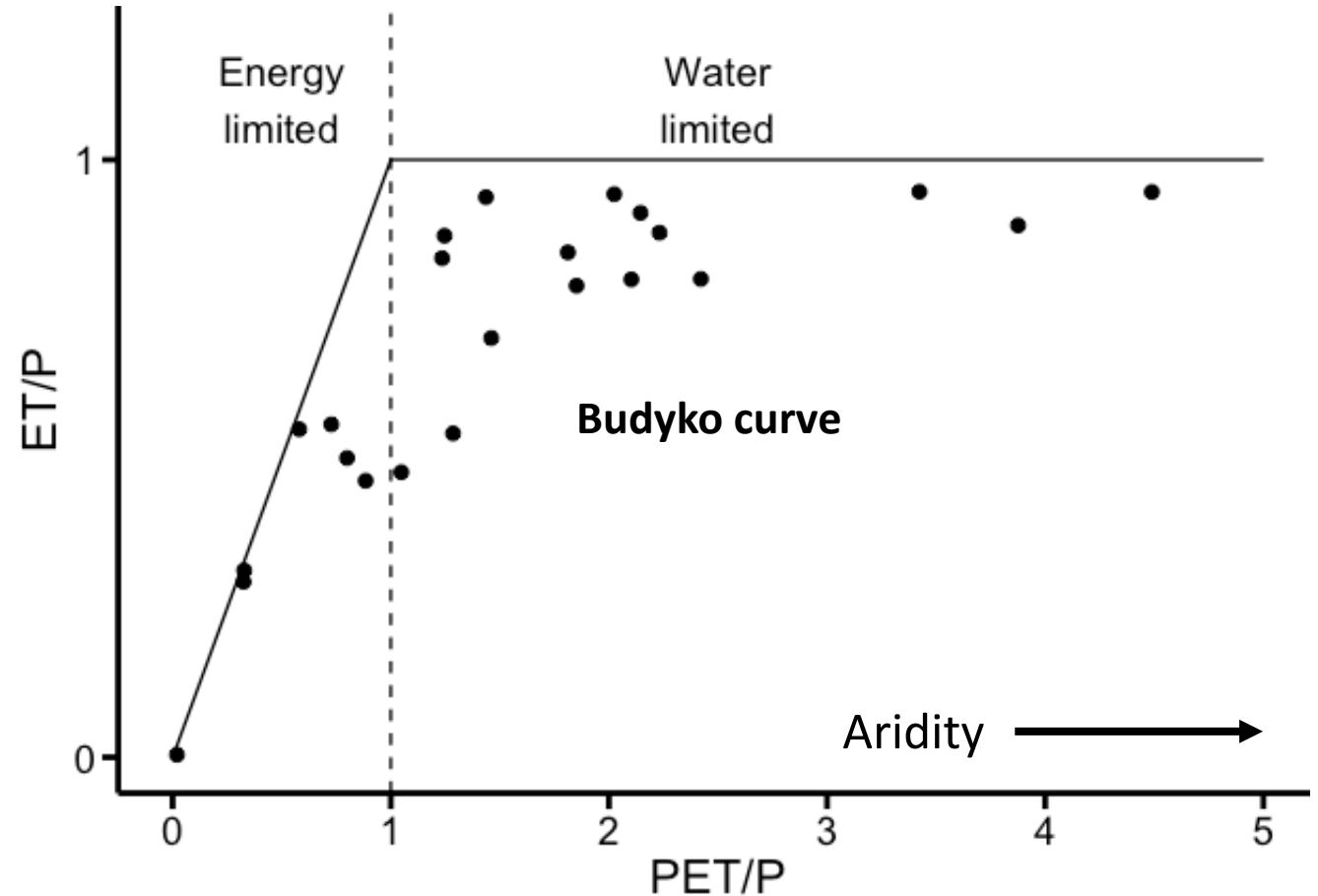
Compiling case studies

- 25 case studies
- Requirements
 - Recent or emerging research
 - Human-water coupling
- Additional criteria
 - Diverse themes



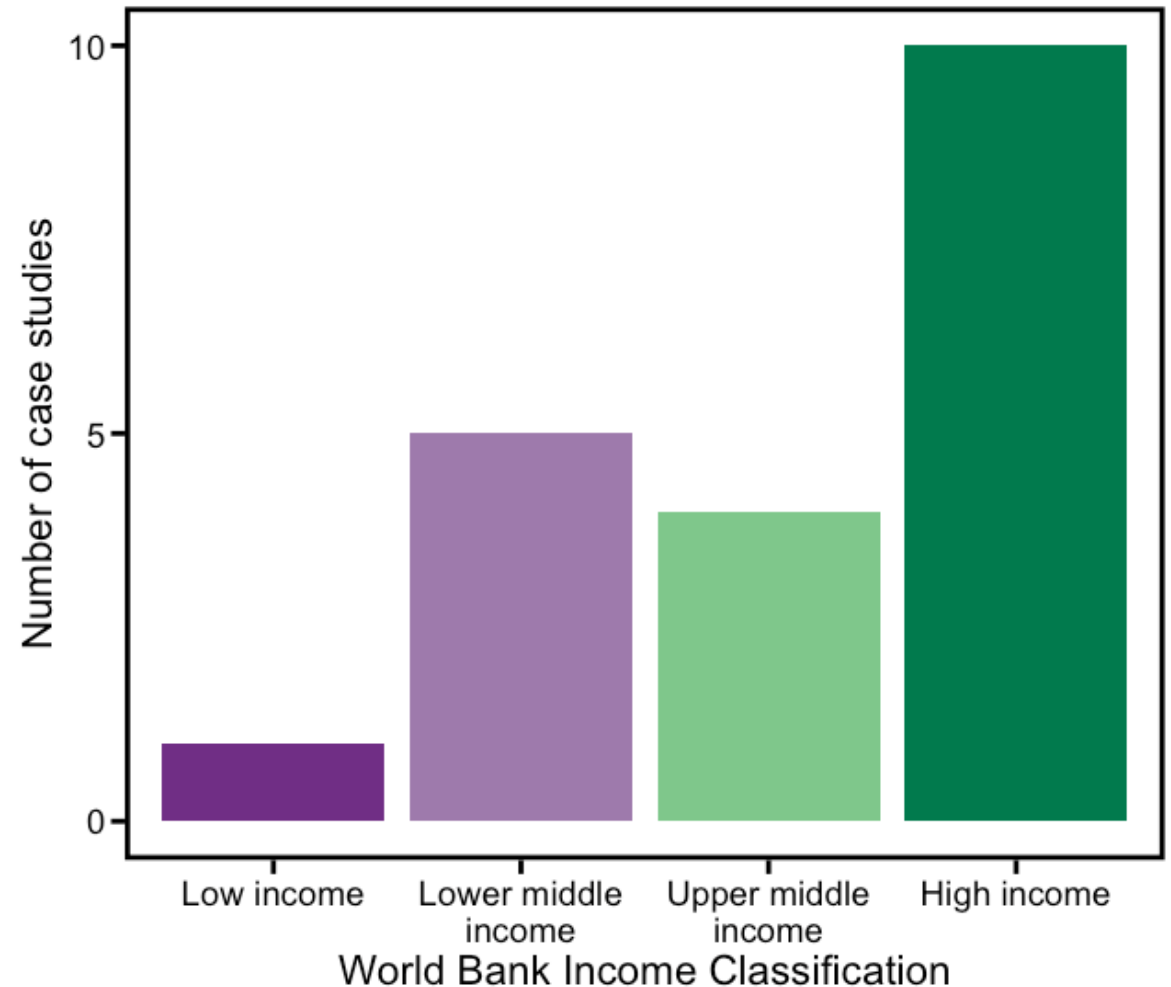
Compiling case studies

- 25 case studies
- Requirements
 - Recent or emerging research
 - Human-water coupling
- Additional criteria
 - Diverse themes
 - **Hydrological diversity**



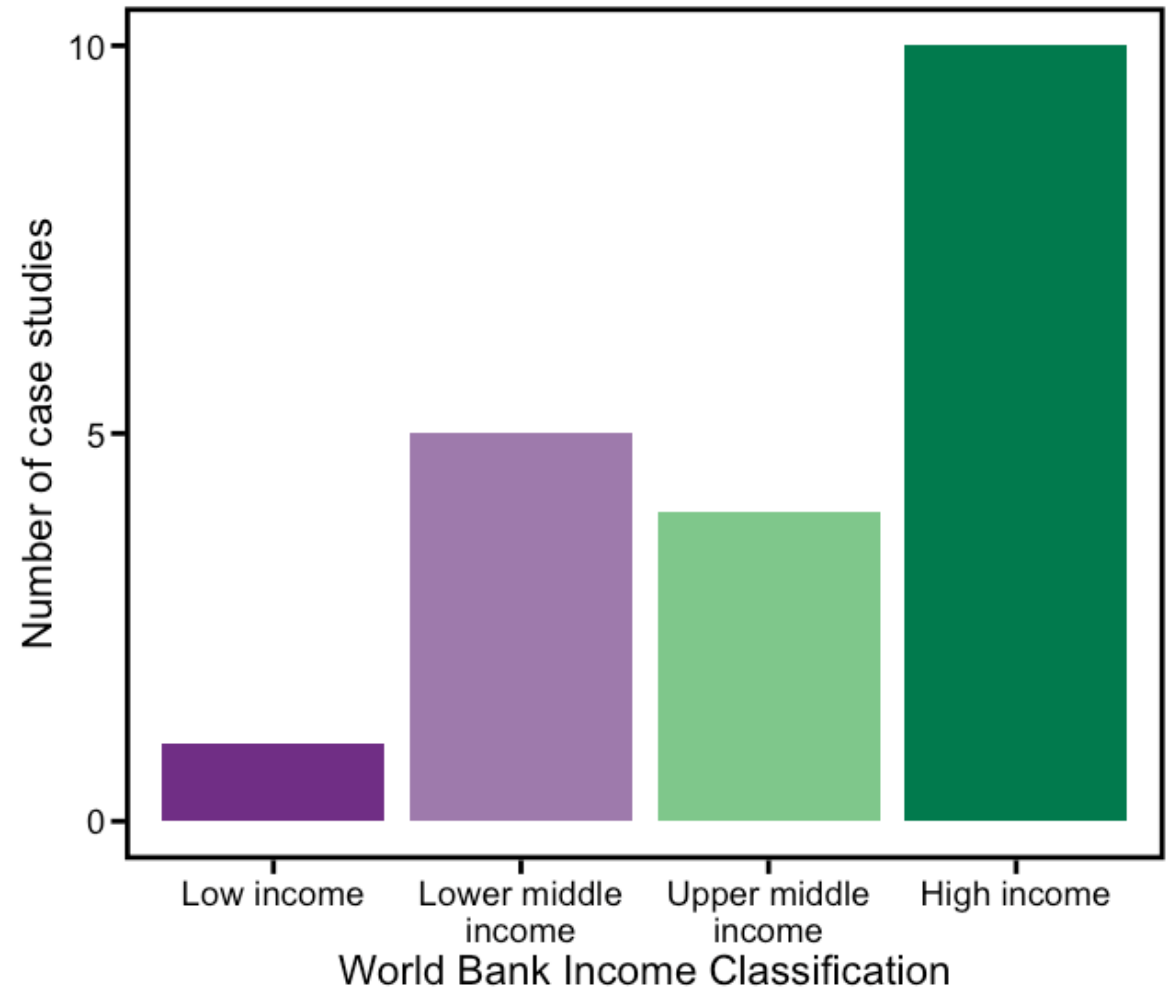
Compiling case studies

- 25 case studies
- Requirements
 - Recent or emerging research
 - Human-water coupling
- Additional criteria
 - Diverse themes
 - Hydrological diversity
 - Socioeconomic diversity



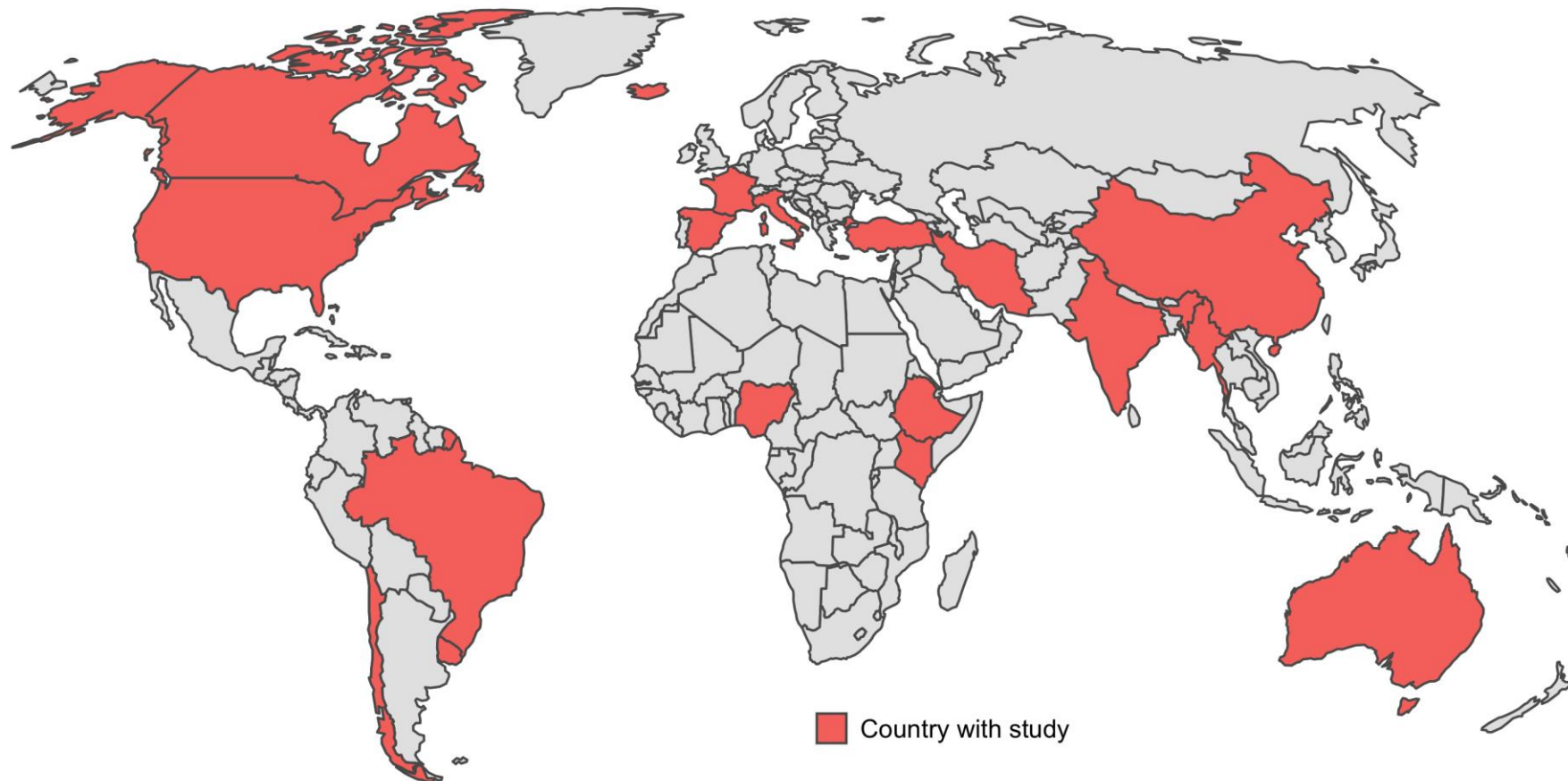
Compiling case studies

- 25 case studies
- Requirements
 - Recent or emerging research
 - Human-water coupling
- Additional criteria
 - Diverse themes
 - Hydrological diversity
 - Socioeconomic diversity
 - **Geographical diversity**

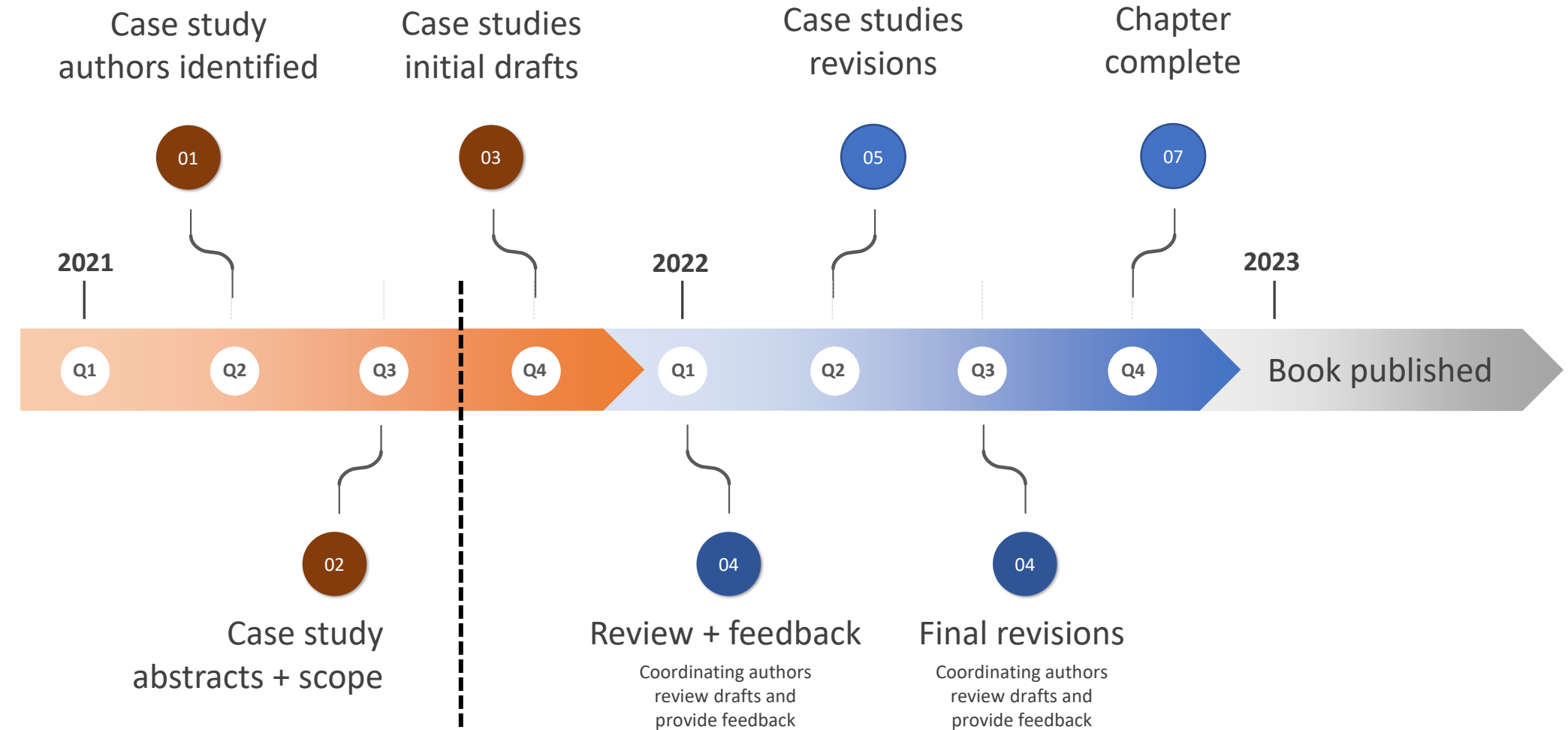


Case studies: map

25 cases, 21 countries



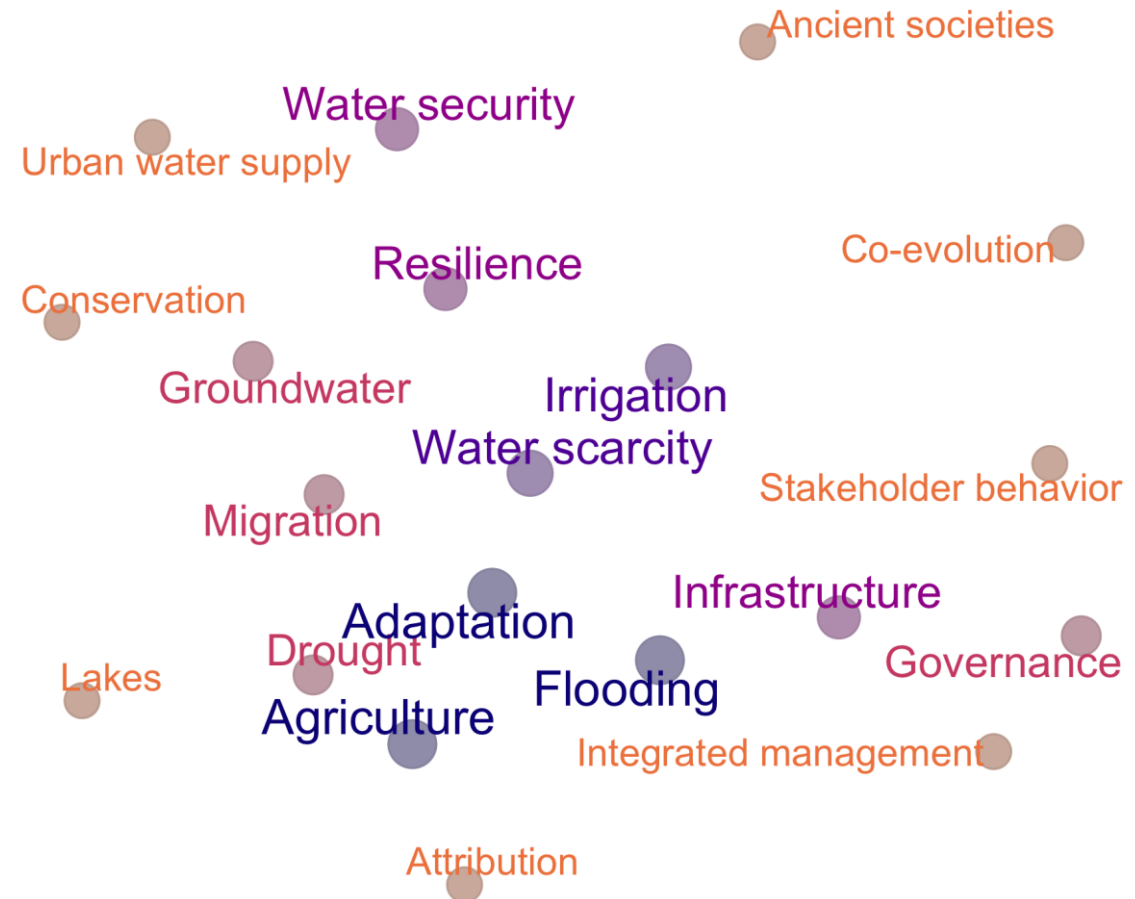
Chapter timeline



Keywords in multiple studies

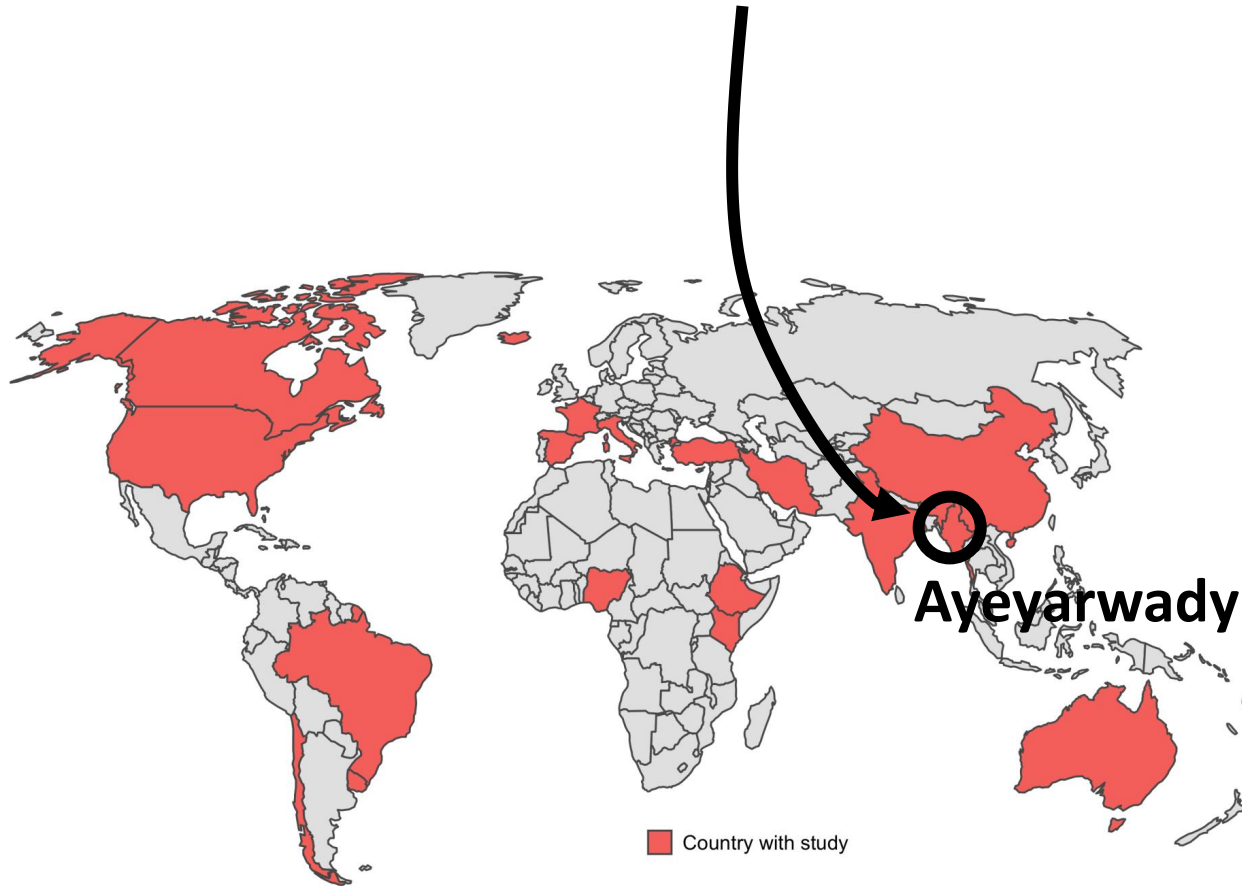
Examples:

1. Agricultural adaptation
2. Urban water security
3. Rural migration and crop choices

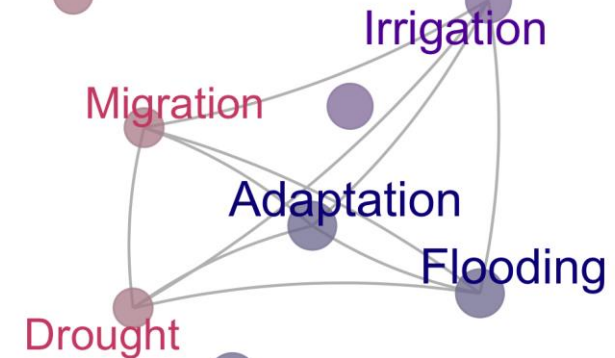


Alluvial farming along Ayeyarwady - coping with spatio-temporal hydrological dynamics in Myanmar's central dry zone

Mariele Evers, Khin Kyu Kyu, Htike Htike, Linda Taft, Adrian Almoradie, Michelle Zülich

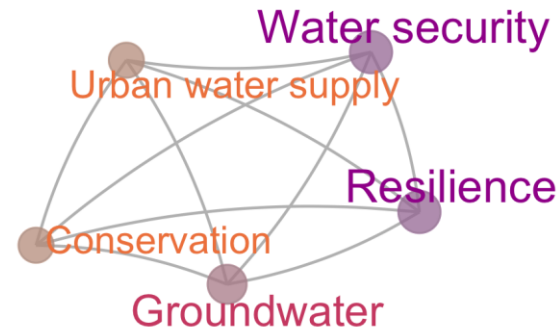
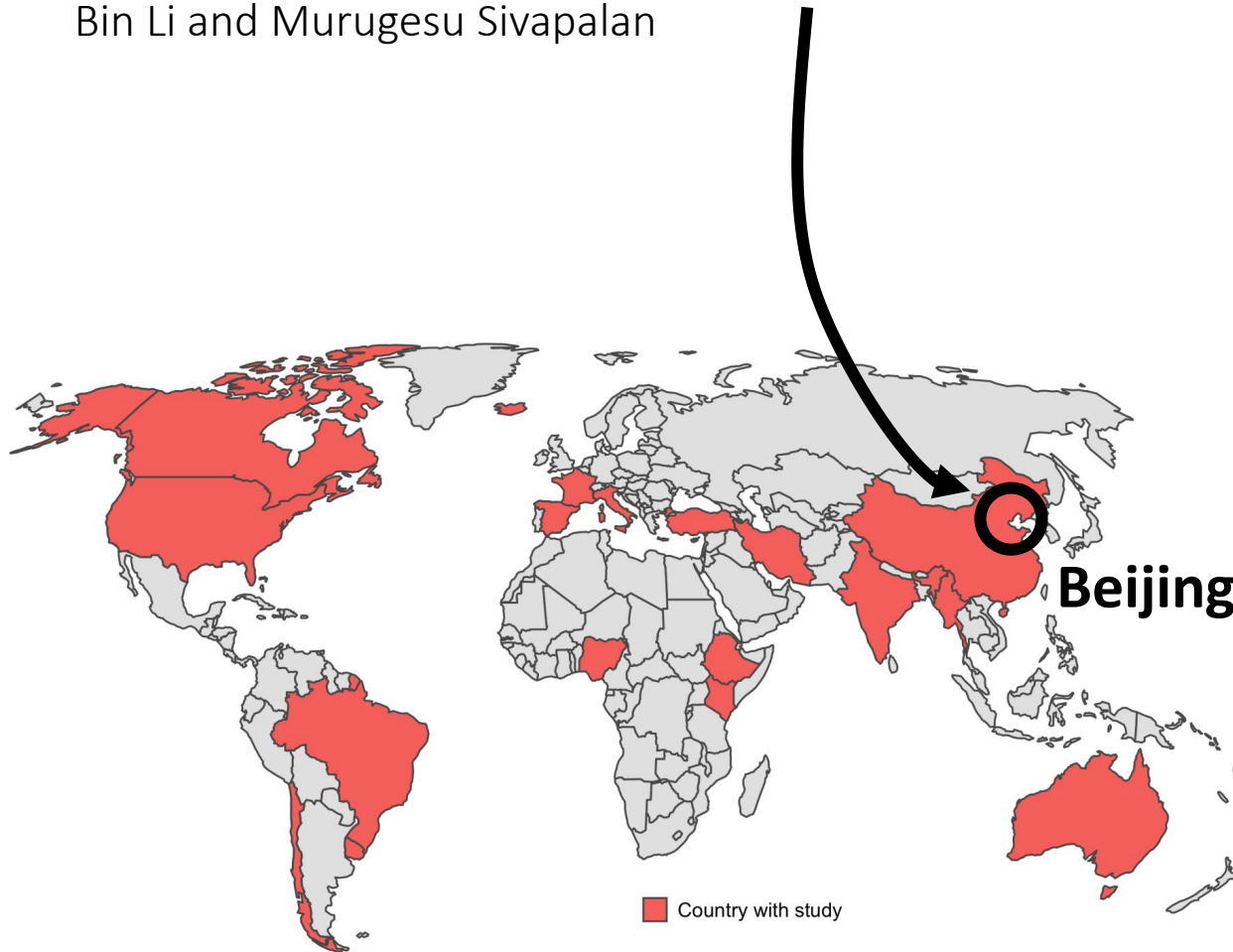


Keywords



Coping with Beijing's water scarcity challenges through balancing the dynamics of population growth and groundwater health

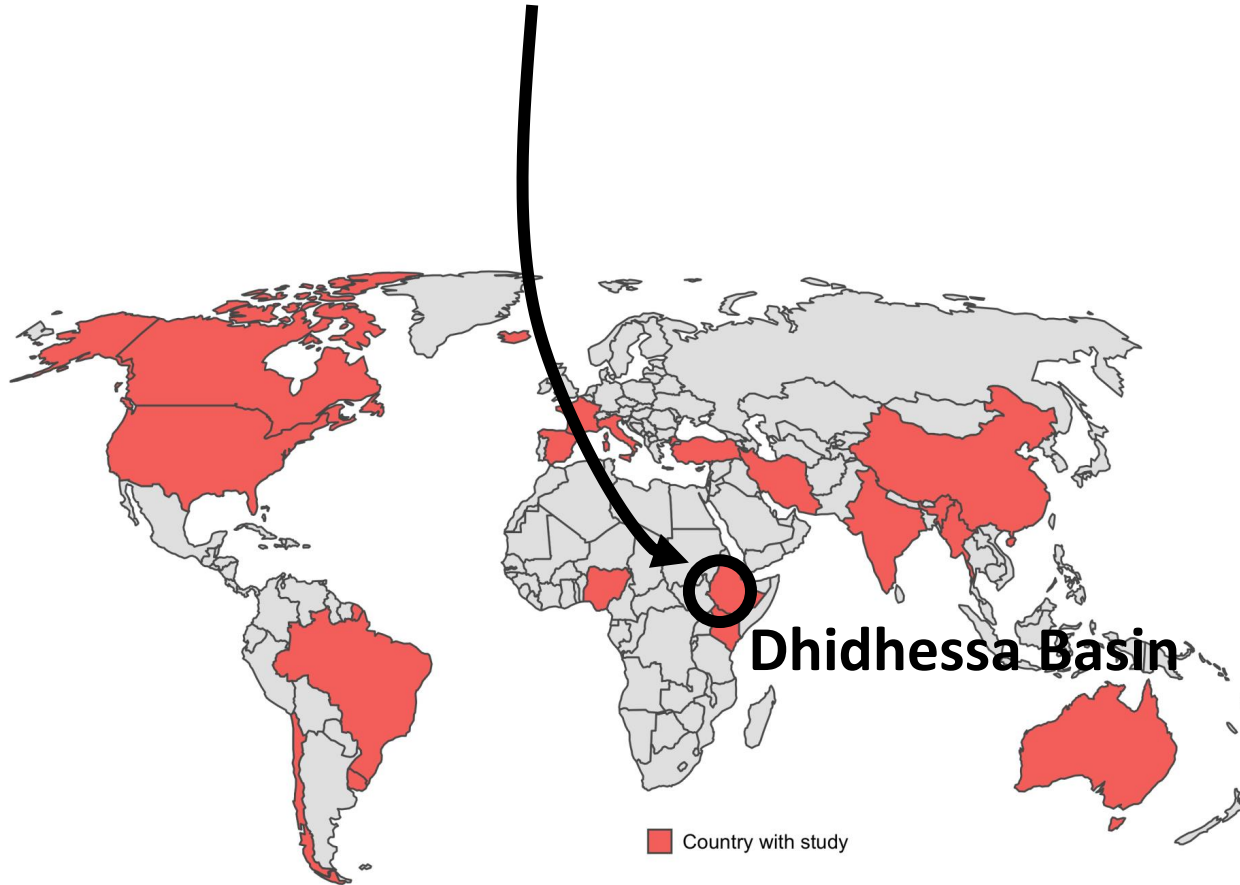
Bin Li and Murugesu Sivapalan



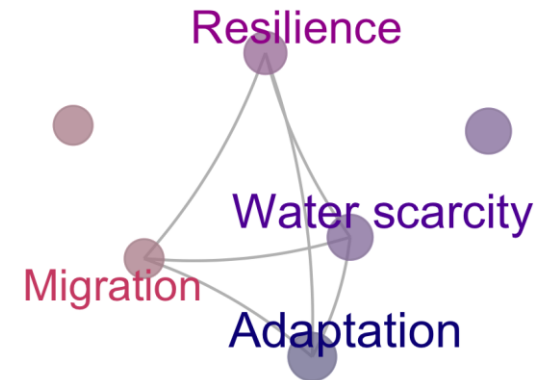
Keywords

On climate-insensitive migration and agricultural expansion in the Dhidhessa River Basin, Ethiopia

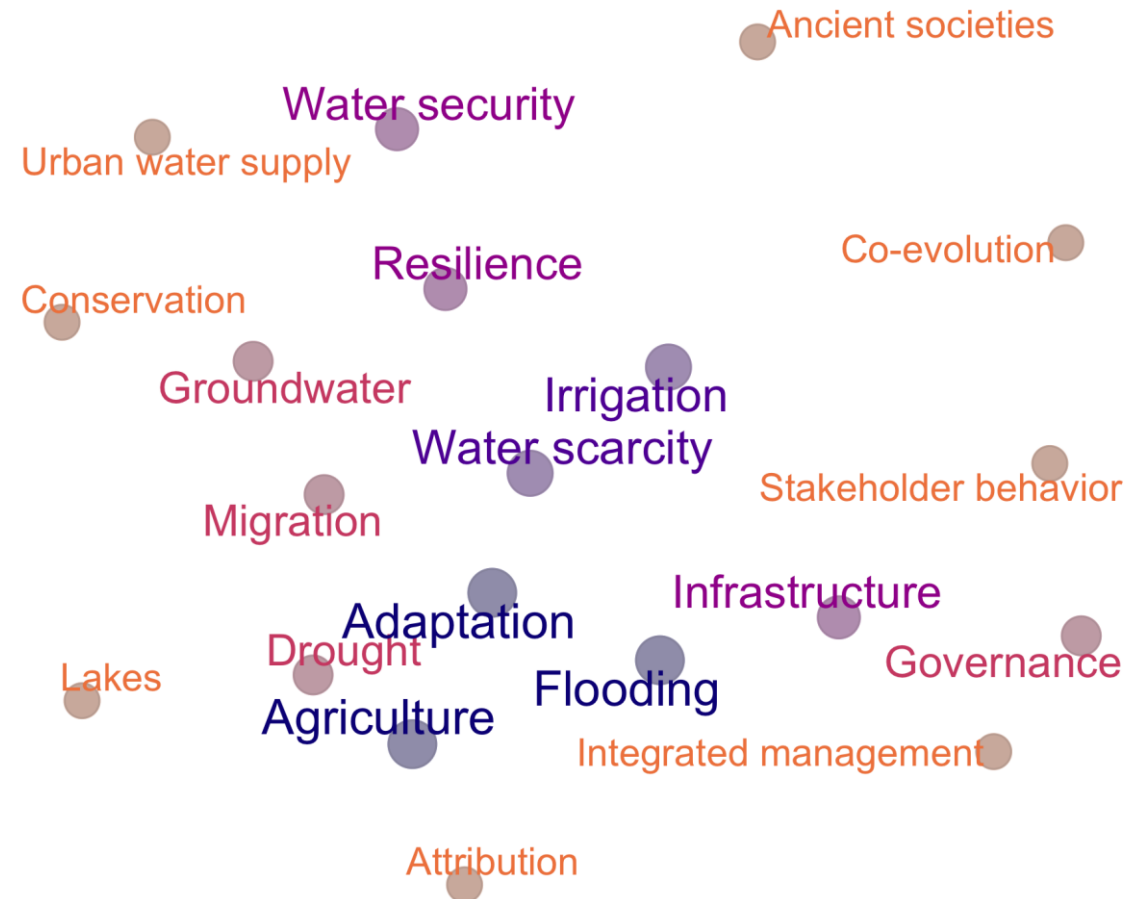
Meseret Teweldeabrihan, Haoyang Lyu, Saket Pande, and Michael McClain



Keywords

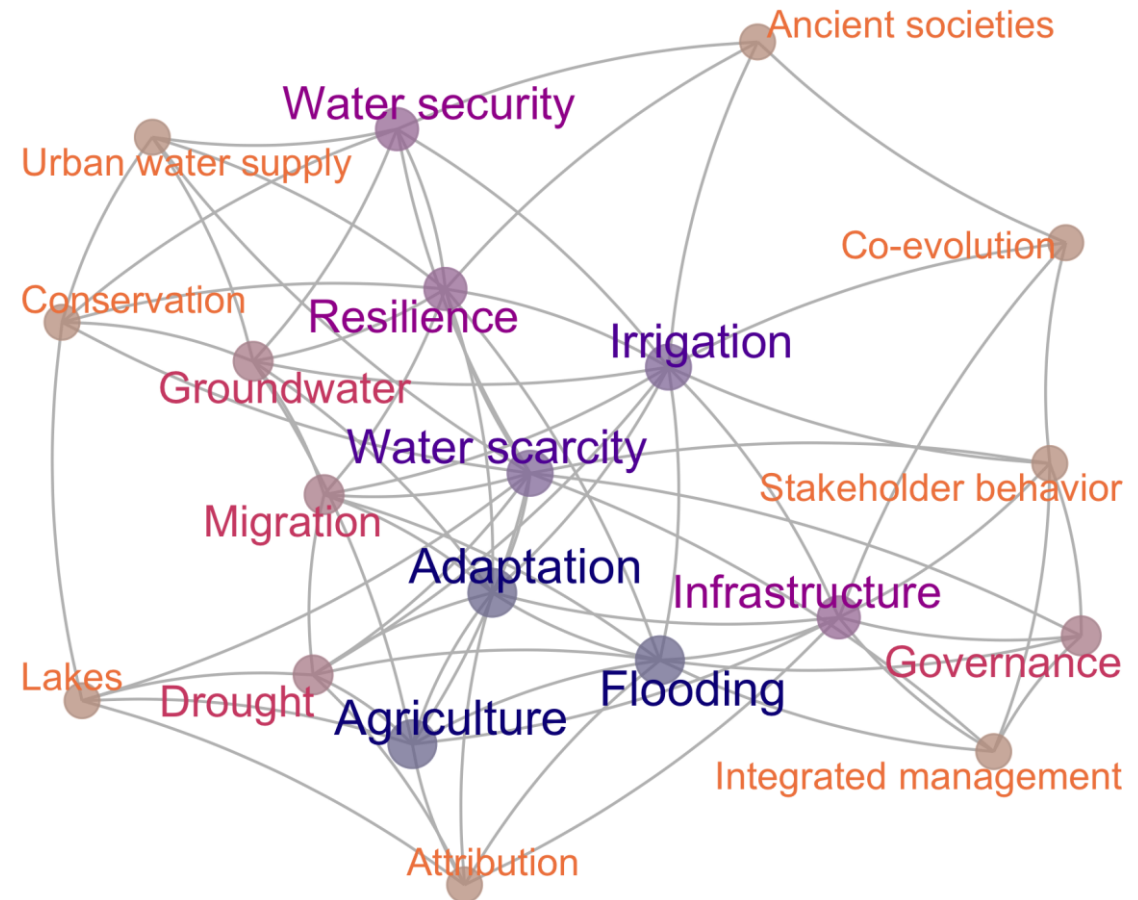


Keywords in multiple studies



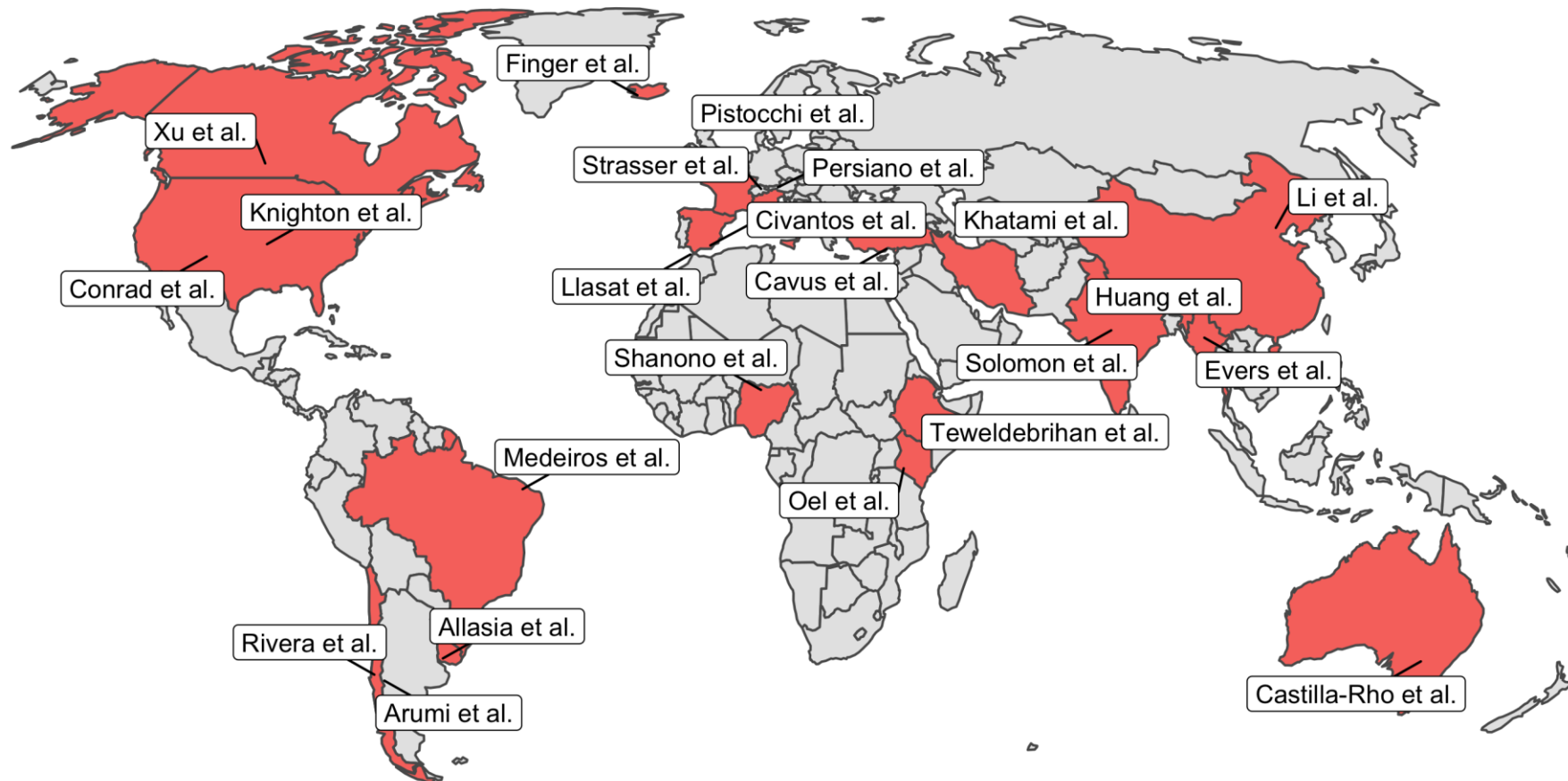
Keywords in multiple studies

Sociohydrological systems are complex and highly interconnected



Case study authors

25 cases, 21 countries



Thank you

Contact:

Gopal Penny

gopenny@umich.edu

Case study authors

- Mariele Evers, Khin Kyu Kyu, Htike Htike, Linda Taft, Adrian Almoradie, Michelle Zülich, Nura Jafar Shanono, Nuraddeen Mukhtar Nasidi, Habibu Ismail, Jose Luis Arumi, Enrique Muñoz, Jorg Dietrich, Veronica Delgado, Jan Boll, Meseret Dawit Teweldebrihan, Haoyang Lyu, Saket Pande, Michael McClain, Bin Li, Murugesu Sivapalan, Pedro Medeiros, José Carlos de Araújo, David Finger, Sina Khatami, Zahra Kalantari, James Knighton, Christian Guzman, Daniel Gustavo Allasia Piccilli, Bibiana Peruzzo Bulé, Elzon Rippel, Rutineia Tassi, Nicolas Failache Gallo, Jean Paolo Gomes Minella, Olivier Evrard, Latif Kalin, Claudia Alessandra Peixoto De Barros, Rafael Ramon, Tales Tiecher, Miguel Losada, M.J. Polo, M. Díez-Minguito, E. Contreras, G. Navarro, J. Ruiz-Segura, Diego Rivera, Alex Godoy, Camila Boettiger, Pieter Oel, Vincent O. Odongo, Francis K. Muthoni, Dawit W. Mulatu, Charles N. Wamucii, Maria Carmet Llasat, José A. Jiménez, Dimmie Hendricks, Lily M. Conrad, Alexander G. Fernald, Yan Huang, Shan Yu, Juan Castilla-Rho, Li Xu, James Famiglietti, John W. Pomeroy, Jose Martin Civantos, Maria Jose Polo, Alberto Pistocchi, Daniele Ganora, Ulrich Strasser, Samuel Morin, Simone Persiano, Katja Schmölz, Giacomo Bertoldi, Alessio Pugliese, Erich Tasser, Attilio Castellarin, Yonca Cavus, Hafzullah Aksoy