

Appendix B. Review matrix

This appendix provides the matrix that guided the full-text review and the analysis of the findings. The matrix is presented here in the same order as the results are presented in the main manuscript.

Criteria	Type of information	Explanation of the category or possible options	Reference (where applicable)
A. Generic information			
Main issue	Numbered (select one option)	<ol style="list-style-type: none"> 1. River basin management 2. Agriculture 3. Urban water services 4. Flood risk governance 5. Groundwater governance 6. Transboundary water management 7. Environmental protection 8. Watershed management 	Adapted from Cook and Bakker (2012)
Specification of main issue	Free field	Further specification of the main scope of the publication	
Objective/Question	Free field	Research objective(s) or question(s) as stated in the publication	
B. Definitions, elements and frameworks			
Type of water governance definition	Numbered (select one option)	<ol style="list-style-type: none"> 1. Existing definition 2. Own definition 3. No/unclear definition 	
Definition used	Free field	If applicable, the definition (and the reference) is copied from the publication.	
Type of framework for comparison	Numbered (select one option)	<ol style="list-style-type: none"> 1. Existing framework, 2. Own framework A (developed and then used to compare cases), 3. Own framework B (developed out of the comparison e.g. inductively or through grounded theory), 4. No/unclear framework 	

Criteria	Type of information	Explanation of the category or possible options	Reference (where applicable)
Governance elements included	Free field	Description of the theoretical concepts or governance elements that are assessed and compared. For example, institutions/actors; policies; legislation; instruments; structures; coordination.	
Type of governance elements	Numbered (multiple options possible)	<ol style="list-style-type: none"> 1. Legislation, instruments, policies 2. Participation and stakeholder involvement 3. Cooperation and coordination 4. Resources 5. Knowledge and expertise 6. Governance levels 7. Governance qualities 8. Water/environmental management and outcomes 9. Other 	Expanded from Rogers and Hall (2003)
C. Case selection, location and boundaries			
Case selection rationale	Free field	If applicable, the specific method or rationale that was used to select cases, e.g. most similar, most different research design. Left as empty when no reason for selecting the cases is provided.	
Unit of analysis	Free field	The unit of analyses (cases) that are being used to compare, e.g. a watershed committee, a river basin, a participation arena. The term that is used by the authors is copied.	
Number of cases compared	Insert number	The number of cases compared	
Name(s) of country/countries	Free field	The name of up to 10 of the countries that are compared. When more than 10 countries are compared just write the number of countries and the relevant region.	
Name(s) of jurisdictional unit (not a country)	Free field	The name of the city, subnational or multi-national region that is being compared, e.g. Europe, city of Manila, region in central Spain	
Name(s) of hydrological basin(s)	Free field	The name of the basin and its location. For example, Elqui Basin (Chile); Mendoza Basin (Argentina); Pucara Basin (Bolivia)	

Criteria	Type of information	Explanation of the category or possible options	Reference (where applicable)
Case boundaries	Numbered (select one option)	<ol style="list-style-type: none"> 1. Hydrological borders 2. Jurisdictional 3. Both (This option applies when jurisdictional borders are used to define a part of a hydrological unit (e.g. Dutch part of the Rhine basin)) 4. Not clearly specified 	
Hydrological borders	Numbered (select one option if hydrological borders apply)	<p>Options for applicable hydrological unit when the cases are defined by a hydrological border (e.g. River (sub-)basins / aquifers / streams / wetlands or parts thereof):</p> <ol style="list-style-type: none"> 1. Whole transboundary river basins. For example, the Rhine basin, Danube River (if tributaries and the catchment area are not considered) 2. Whole domestic river basins. For example, the Thames basin, Loire River (if tributaries and the catchment area are not considered) 3. Sub-basins of domestic or transboundary river basins. For example, the Tisza basin (part of the Danube basin), Doñana wetland, Mississippi delta 4. Aquifers 	Tanago et al. (2016); Varady et al (2016)
Jurisdictional borders	Numbered (select one option if jurisdictional borders apply)	<p>Options for applicable jurisdictional boundaries:</p> <ol style="list-style-type: none"> 1. Local: Comparison of towns, communities or cities. For example, London; 2. Sub-national regions: Comparison of provinces, counties or federal states. For example, Western USA, Bavarian part of the Danube basin; 3. Countries: Comparison of countries, e.g. Spain 4. Multi-national regions: Comparison of region that encompasses multiple countries 5. Global: The comparison covers the entire world 	
D. Data and methods			
Type of data	Numbered (select one option)	<ol style="list-style-type: none"> 1. Primary data (interviews, observations or documents collected for research purposes) 2. Secondary data (collected by others for other purposes, e.g. indices, censuses, monitoring data) 3. Both 4. Other 	Van de Ven, 2007
	Free field	If "Other", the data used is specified.	

Criteria	Type of information	Explanation of the category or possible options	Reference (where applicable)
Methods	Numbered (select one option)	1. Only qualitative methods (in-depth case study) 2. Only quantitative methods (e.g. statistics) 3. Only set-theoretic methods (e.g. Qualitative Comparative Analysis) 4. Other (e.g. a combination of methods)	
	Free field	If “Other”, the method or the combination of methods used is specified.	
E. Reflections			
Implications of comparative choices and methods	Free field	If applicable, the following questions are answered: 1. What reflections do the authors offer on their method of comparison? 2. What recommendations do the authors provide for comparative analysis?	
Current and/or emerging issues and research gaps	Free field	If applicable, the following question is answered: 1. What governance-related gaps for future research do the authors identify?	

Citations

Cook, C., & Bakker, K. (2012). Water security: Debating an emerging paradigm. *Global Environmental Change*, 22(1), 94-102.

Rogers, P., & Hall, A. W. (2003). *Effective water governance (Vol. 7)*. Global water partnership.

Tánago, I. G., Urquijo, J., Blauhut, V., Villarroya, F., & De Stefano, L. (2016). Learning from experience: a systematic review of assessments of vulnerability to drought. *Natural Hazards*, 80(2), 951-973.

Van de Ven, A. H. (2007). *Engaged scholarship: A guide for organizational and social research*. Oxford University Press on Demand.

Varady, R. G., Zuniga-Teran, A. A., Gerlak, A. K., & Megdal, S. B. (2016). Modes and approaches of groundwater governance: a survey of lessons learned from selected cases across the globe. *Water*, 8(10), 417.