

Session HS5.2.6 - Water Security Frameworks, Assessment
Tools and Indicators to inform Water Governance

Towards Water Security in Central Asia: Evaluation of Experts' Views through Delphi Approach

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Introduction

- Water challenges and water-related risks are increasing in scale which is part of the reasoning for searching water security.
- Water security is a multidimensional concept:
 - Grey & Sadoff (2007) interpret as *the availability of adequate quantity and quality of water for livelihoods, health, ecosystems, and production.*
- Water security in Central Asia - transboundary river complexity:
 - Soviet Time: large-scale engineering projects for surface water management for irrigation and hydropower generation; regional WEF nexus.
 - After the break of the USSR: restructuring national priorities still based on technical (engineering) solutions
 - Nowadays: economic development through better water allocation in each CA country



Introduction

What are water security trends in Central Asian region and in each country individually?

Literature Review

- three-layer Boolean search (CA, Countries, Keywords)
- Stratified sampling: peer-reviewed English language articles from 1991 to 2020;
- Databases: Scopus, Web of Science, NU Library
- Sample ~ 150 articles
- Qualitative Analysis (Nvivo Software)
- Data mining (Python programming)

Are water security trends in literature aligned with the policy discourse in Central Asia?

Delphi approach

- with 2-3 rounds
- Purposive sampling of experts/ practitioners
- Sample ~ 100-200 experts in Central Asia (ministries, NGOs, research, and academic institutes)
- Survey (Qualtrics Software)



Theoretical framework

ADB: Asian Water Development Outlook:
Strengthening Water Security in Asia and
the Pacific (2013, 2016)

According to (AWDO 2016):

- National Water Security Index:
hazardous, engaged, capable, effective,
and model
- CA countries categorized to engaged
group, except Kazakhstan (capable)
- Governance and management
perspectives
- Achieving water security depends on
country-specific factors



1st Round of Questionnaire

The questionnaire is in English and Russian languages

Overall 15 questions about:

- assessment of relevance of Water Security Dimensions in Central Asia;
- indication of factors of each Dimensions;
- evaluation of trend on Water Security literature for Central Asia;
- assessment of significance of each Water Security Dimensions and Water Insecurity perception
- ranking of Water Security Dimensions and Association with each Central Asian countries
- evaluation of mechanisms and institutions in Central Asia to deal with issues of water security in the region

and demographic questions.





Please take a survey:

https://nukz.qualtrics.com/jfe/form/SV_57THpJDW6moa8At

Thank you!

References

- AWDO. (2013). Measuring Water Security in Asia and the Pacific, Asian Development Bank, Philippines, ISBN: 978-92-9092-988-8
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- Grey, D., & Sadoff, C. (2007). Sink or Swim? Water security for growth and development. Water Policy 1 December 2007; 9 (6): 545–571. Doi:10.2166/wp.2007.021

