



A global community of universities, research centers, and stakeholders committed to promoting the Agenda 2030 for sustainable development.

# Newsletter 2024

## ABOUT US



## RESEARCH PUBLICATIONS

- Nexus 1 | Food Systems**  
Crop production and livestock husbandry are globally of tremendous importance for food security and nutrition, rural employment, and income generation...
- Peer-reviewed Publications**  
Regionally peer-reviewed studies delve into the intersections of various disciplines to provide insights into sustainable development issues.
- Nexus 2 | Water**  
Water is a vital resource for all forms of life on earth, and the use of this resource creates several synergies and trade-offs between a variety of SDGs.
- Books and Book Chapters**  
In-depth publications that offer extended explorations of critical topics, presenting holistic perspectives and analyses within the framework of sustainable development.
- Nexus 3 | Urban and Rural Areas**  
A growing world population and demographic or socio-economic changes lead to a rapid growth of cities and involve a changing relationship between rural and urban areas...
- Working Papers**  
Timely works that capture ongoing discussions, preliminary findings, and evolving ideas, fostering open dialogue and encouraging collaboration among researchers and practitioners.
- Nexus 4 | Natural Resources**
- Other Publications**

## RESEARCH PAPERS



## OTHER PUBLICATIONS



## SEMINAR LECTURE SERIES



## TEACHING COURSES



## CONFERENCES



## ALUMNI



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## Network & Partners



The SDG<sup>nexus</sup> Network is part of the German Academic Exchange Service (DAAD) "Higher Education Excellence in Development Cooperation – exceed" program.

It aims to enhance the capacity of higher education institutions to make impactful and creative contributions towards achieving the United Nation's Sustainable Development Goals (SDGs).

- Financed by the Federal Ministry for Economic Cooperation and Development (BMZ), administered by DAAD.
- Administrated by the Centre for International Development and Environmental Research (ZEU), Justus Liebig University (JLU) Giessen, Germany.
- Duration: 2020-2024.
- Budget: EUR 3.8 mil.

## The objectives of the SDG<sup>nexus</sup> Network are:

- Establish a common **research framework** through joint research projects between our network partners.
- Qualify the next generation of scientists as **agents of change**.
- Promote **exchange and collaboration** between the higher education institutions and extramural actors in the network.



### Research

We promote the nexus approach for the establishment of our research framework. The nexus approach goes beyond the investigation of single SDGs and allows for flexibility in identifying vital context-specific interlinkages between SDGs.



### Education

We support students and young scientists across all academic stages, qualifying them as agents of change and enhancing their integration into academia and the labor market. We contribute to the master's program in Sustainable Transition by offering elective courses.



### Networking

We provide diverse opportunities, including, monthly Public Seminar Series, the Guest Professor Program, engaging Guest Lectureships, immersive individual research stays, and active involvement in organizing and participating in scientific conferences.

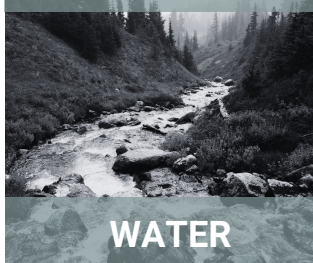
## Research areas

### NEXUS 1



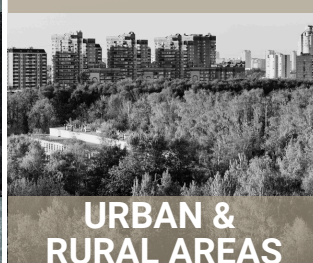
**FOOD  
SYSTEMS**

### NEXUS 2



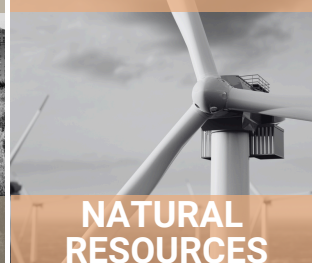
**WATER**

### NEXUS 3



**URBAN &  
RURAL AREAS**

### NEXUS 4



**NATURAL  
RESOURCES**

### NEXUS 5



**SDG  
MONITORING**



## Research papers

Rigorously peer-reviewed studies explore the intersections of various disciplines to provide insights into sustainable development issues.

[>>> READ MORE](#)

In-depth publications that offer extended explorations of critical topics, presenting holistic perspectives and analyses within the framework of sustainable development.

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## Books and book chapters



## Working papers

Timely works that capture ongoing discussions, preliminary findings, and evolving ideas, fostering open dialogue and encouraging collaboration among researchers and practitioners.

[>>> READ MORE](#)

Diverse content forms such as policy briefs, commentaries, and letters provide informative overviews, aiding in the dissemination of crucial knowledge to a wide audience interested in sustainable development.

[READ MORE <<<](#)

## Other publications



## *Selection of research publications in 2024*



Dzhunushalieva, G.D., and Teuber, R. (2024). A bibliometric analysis of trends in the relationship between innovation and food. *British Food Journal*. <https://doi.org/10.1108/BFJ-08-2022-0695>



Funk, C., Tönjes, E., Teuber, R., & Breuer, L. (2024). Reading between the lines: The intersection of research attention and sustainable development goals. *Sustainable Development*, 1–22. <https://doi.org/10.1002/sd.2906>



Otrachshenko, V., Popova, O., & Alimukhamedova, N. (2024). Rainfall variability and labor allocation in Uzbekistan: the role of women's empowerment. *Post-Soviet Affairs*, 1-20. <https://doi.org/10.1080/1060586X.2024.2309822>



Otrachshenko, V., Ilyas, S., & Alimukhamedova, N. (2024). Informal Network as a Coping Strategy in the Climate–Livestock Relationship. *Communist and Post-Communist Studies*, 1-29. <https://doi.org/10.1525/cpcs.2024.2091084>



Dzhunushalieva, G., & Teuber, R. (2024). Roles of innovation in achieving the Sustainable Development Goals: A bibliometric analysis. *Journal of Innovation & Knowledge*, 9(2), 100472. <https://doi.org/10.1016/j.jik.2024.100472>



Combariza Diaz, N. C. (2024). Alternative pathways for green hydrogen economy: the case of Colombia. *Contemporary Social Science*, 1–25. <https://doi.org/10.1080/21582041.2024.2349547>



Robinson, S., & Petrick, M. (2024). Land access and feeding strategies in post-Soviet livestock husbandry: Evidence from a rangeland system in Kazakhstan. *Agricultural Systems* 219 (2024) 104011. <https://doi.org/10.1016/j.agsy.2024.104011>



Urgilés, G., Céleri, R., Bendix, J., & Orellana-Alvear, J. (2024). Identification of spatio-temporal patterns in extreme rainfall events in the Tropical Andes: A clustering analysis approach. *Meteorological Applications*, 31(5), e70005. <https://doi.org/10.1002/met.70005>



Assubayeva, A., & Marco, J. (2024). Methodological approaches on synergies and trade-offs within the 2030 Agenda. *iScience*, 27(11). <https://doi.org/10.1016/j.isci.2024.111100>



## *Book chapters in 2024*



Sehring, J., Sharipova, B., & Assubayeva, A. (2024). The politics of water governance in Central Asia: institutionalizing river basin management". Chapter 15 In Handbook on the Governance and Politics of Water Resources. Cheltenham, UK: Edward Elgar Publishing. <https://doi.org/10.4337/9781800887909.00024>



Miteva-Bölter, P. (2024). "Chapter 7: The agency of IOC-UNESCO in shaping marine spatial planning as a novel policy solution". In Governing Oceans. Cheltenham, UK: Edward Elgar Publishing. <https://doi.org/10.4337/9781035315598.00014>



Assubayeva, A. & Sehring, J. (2024). Water Management. In: Mayer, S., Lempp, J. (eds) The EU as an Actor in Central Asia. Palgrave Studies in European Union Politics. Palgrave Macmillan, Cham. [https://doi.org/10.1007/978-3-031-51354-1\\_10](https://doi.org/10.1007/978-3-031-51354-1_10)

## *Policy briefs in 2024*



Assubayeva, A., Sharipova, B., Mirumach, N., and Everitt, L. (2024) The United Nations 2023 Water Conference: Lessons from the Aral Sea Basin. London: King's College London. <https://doi.org/10.18742/10.18742/pub01-173>



Abdullaev, I., & Akhmedov, S. (2024). Impact of Afghanistan's Water Developments in Amu Darya Basin on Central Asia. Policy Brief, Institute for Advanced International Studies, Tashkent

17.01.2024

## ***From knowledge to governance in addressing water security challenges***



Dr. Aliya Assubayeva presented collaborative research exploring water security in South America, focusing on the Mira-Mataje transboundary catchment shared by Colombia and Ecuador. She shared research findings derived from a critical literature review, a Delphi survey involving water stakeholders, and elite interviews with ethnic community leaders in Ecuador. Additionally, insights from field trips undertaken in Ecuador, spanning from highland to coastal areas within this basin in 2023, were presented.

[learn more](#)

14.02.24

## ***Affective hydropolitics: moving beyond rationalist explanations of water conflict and cooperation***



Dr. Jenniver Sehring introduced the concept of 'affective hydropolitics' to capture the role that emotions, spirituality, identity, trust or personal bonds play in how we govern international waters. A deeper look at the Aral Basin showed how such an approach enables a broader understanding of complex water relations that extend beyond state-centric models. Rather, regionally derived concepts that include a substantive affective dimension related to the (imagined) kinship ties of mutual respect and solidarity that exist among the peoples of Central Asia can explain the persistence of (informal) cooperation even in times of political tensions.

[learn more](#)

13.03.24

## ***Water sector developments in Central Asia: exploring research focus and emerging areas***



Dr. Iskandar Abdullaev discussed the historical timeline of water development in Central Asia, delineating three pivotal phases: the pre-Soviet era characterized by smallholder systems, the Soviet-led hydraulic mission, and the post-Soviet period. Dr. Abdullaev also highlighted potential research areas on water governance, changes, and transformations specific to Central Asia and compare different methodologies used in water studies within the region.

[learn more](#)

17.04.2024

## ***Enhancing stormwater management and water quality in a sea discharge on oceanic islands in Colombia***



Lizbeth Daniela Rosero Melo and Juan Sebastián González Guirald presented research findings on stormwater management and coastal water quality in a brine discharge area for a fragile ecosystem on San Andrés Island, located in the Northwestern Atlantic region of Colombia.

[learn more](#)

26.06.2024

## ***SDGs and Policy Agendas: preliminary results from SDG Barometer survey in Kazakhstan***



Dr. Serik Orazgaliyev presented the SDG Barometer project, which aims to bridge the gap between public expectation and policy formulation in attaining sustainable development goals by 2030. The survey was conducted across Kazakhstan's 17 regions and three major cities: Astana, Almaty, and Shymkent. The project endeavors to inform and enhance Kazakhstan's ongoing efforts to plan, steer, and coordinate effective SDG implementation strategies.

[learn more](#)

18.09.2024

## ***Climate economics: from valuation of ecosystem services to climate policy***



Dr. Rahat Sabyrbekov discussed critical aspects of climate economics. The presentation explored the central question: What is the relationship between economics and climate? Specifically, whether and how economic policies can be integrated with climate policies to address the challenges posed by the climate-economy nexus.

[learn more](#)

13.11.2024

## ***Assessing nature-based solutions for sustainable land and water management in the Andean páramo***



Kalina Fonseca presented a multi-method framework that captures PESTEL factors influencing the implementation of passive ecological restoration in páramo ecosystems as a measure of NbS and assesses its associated environmental impacts. This approach integrates a scoping review with remote sensing techniques, water quality assessment, and correlation analyses in the Upper Pita and Upper Cutuchi River Basins—key water sources for Andean communities in Ecuador.

[learn more](#)

## Teaching Course at JLU Gießen Semester 2024/2025

### Special Topics of the UN Sustainable Developments Goals I

MP-220-EN-DI



**Dr. Sarah Robinson**



**Dr. Alicia Herrera**

The syllabuses of the courses are available [here](#).

## The EU Erasmus+ Teaching Mobility at Makerere University, Uganda



**Dr. Alicia Herrera**



**Dr. Aliya Assubayeva**

- Natural tracers in hydrology
- Transit time modeling
- Spatially distributed ecohydrological models

- Transboundary cooperation and water diplomacy
- Water security assessment
- SDG Interlinkages and Agenda 2030



## Water Security and Climate Change Conference 2024

We hosted the Water Security and Climate Change Conference 2024 (WSCC2024) from October 9-11 at Justus Liebig University Gießen. As the 8th series of this international event—previously hosted in Thailand, Germany, Kenya, Mexico, Vietnam, and Ecuador—WSCC2024 brought together over 120 researchers from 36 countries across the Americas, Europe, Asia, and Africa. This year's topic, "Water Management for Urban-Rural Resilience."

The conference was a platform for thought-provoking keynote speeches, interactive expert panels, engaging workshops, and oral and poster presentations, offering participants opportunities for networking and collaboration.

[Read more about the conference.](#)



## Networking Workshop on Water Governance

We hosted a workshop on water governance research in Central Asia on May 14-15 in Gießen. The workshop consisted of several sessions, including the global discourse on water governance, recent water governance reforms in Central Asia, the role of higher education institutions, interactions of research and policy stakeholders, and the next steps in water governance research. Distinguished researchers from Germany and Central Asia contributed their insights, enriching discussions and fostering exchanges.

[Read more about the workshop.](#)



## School of Environment and Water for Women

In collaboration with the Department of Water Resources and Environmental Sciences at the University of Cuenca, Ecuador, we organized the School of Environment and Water for Women on November 18 – 24, 2024. This initiative aims to empower rural women by teaching geospatial technology applications for sustainable resource management, bridging the digital gender divide, and promoting women's leadership.

[Read more about the event.](#)



Name	Position	Organization
Dr. Iskandar Abdullaev	Country Representative	International Water Management Institute, Pakistan
Dr. Aliya Assubayeva	Assistant Professor	Nazarbayev University, Kazakhstan
Dr. Gina Berrones	Assistant Professor	University of Cuenca, Ecuador
Nadia Combariza Diaz	Co-executive Director	POLEN Transiciones Justas, Colombia
Dr. Jorge Gómez-Paredes	Team Leader	Novia University of Applied Sciences, Finland
Dr. Jorge Enrique Forero	Researcher	Sociology and Gender Studies Department, Latin American School of Social Sciences (FLASCO), Ecuador
Dr. Christoph Funk	Administrative Officer	German Research Foundation (DFG), Germany
Dr. Johanna Orellana	Associate Professor	University of Cuenca, Ecuador
Dr. Vladimir Otrachshenko	Senior Researcher	National Bank of Slovenia, Slovenia
Dr. Jorge Marco Renau	Assistant Professor	University of Girona, Spain

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