

5-6 November 2024

Nexus Implementation: Potential and Opportunities

A lead-up initiative



Nexus Implementation: Potential and Opportunities
Organisers: UNU-FLORES, SUSTAINFOOD, NEXUSNET, PRIMA, and GIZ.
AGENDA

Dates and time: Tuesday 5 November, 2024 at 13.00-18.00 CET
Wednesday 6 November at 9.00-18.00 CET

Link for registration:

https://unu-edu.zoom.us/webinar/register/WN_KEBAgSj6RNaPgaNO9K2AuA

This workshop advances technical and policy-oriented research skills related to Nexus topics. Participants will gain valuable insights and practical guidelines for effectively integrating Nexus approaches into their case studies, strengthening their research's impact and rigour.

Main Topics and Objectives

- a. **Selection of Case Studies:** the workshop will explore methodologies for the selection and design of case studies pertinent to Nexus research on different environmental resources, including water, energy, food, climate, ecosystems, soil, material, and space
- b. **Data Integration:** Address the complexities of accessing and integrating data from diverse sources to enhance the robustness of research outcomes
- c. **Stakeholder Involvement:** Discuss criteria for the selection and commitment of stakeholders to ensure meaningful and impactful research collaborations
- d. **Application of Practical Tools:** Evaluate the use of practical tools and knowledge derived from real-world applications to strengthen case study research

5 November, 2024
Time: 13:00 to 18:00 CET

13:00 – 14:00 CET

Opening Remarks and Welcome by the (co-) organisers.

Speakers: **Prof Edeltraud (Edel) Günther**, Director UNU-FLORES, Dresden, Germany
Dr Giulio Pattanaro, European Research Executive Agency, Brussels, Belgium
Dr Octavi Quintana Trias, Director of PRIMA Foundation, Barcelona, Spain
Prof Chrysi Laspidou, NEXUSNET, University of Thessaly, Volos, Greece
Prof Michael Jacobson, SUSTAINFOOD, Penn State University, Pennsylvania, United States
Mr Dieter Rothenberger, Cluster Coordinator Water, German Agency for International Cooperation (GIZ), Bonn, Germany

Moderator: **Dr Floor Brouwer**, UNU-FLORES, Dresden, Germany

Topics: Introduction to the workshop objectives and overview of the agenda.

14:00 - 14:45 CET

What makes a Nexus case study, and what is a Nexus application?

Speaker: **Dr Dimitris Kofinas**, University of Thessaly, Greece

Moderator: **Prof Michael Jacobson**, Penn State University, Pennsylvania, United States

Topics: Presentation of a taxonomy for case studies through a bottom-up approach to analyse the implications of human-induced stresses that act as trends and has worked on producing recommendations for the increase of nexus projects' impact. It also explores the circular economy paradigm as a Nexus-compliant practice.

14:45 - 15.30 CET

What are the specific features of a Nexus project beyond technological innovations?

Speaker: **Prof Ali Rhouma**, PRIMA Foundation, Spain

Moderator: **Prof Serena Coetzee**, UNU-FLORES, Dresden, Germany

Topics: Presentation of two cases in the Mediterranean region to show the efforts made by PRIMA Foundation in implementing the Nexus Approach.

15.30 – 16.15 CET

The Role of Analytics and Community Engagement in Supporting Sustainable and Equitable Water-Energy-Food Systems Transformation.

Speaker: **Dr Bassel Daher**, Texas A&M University, United States

Moderator: **Assist. Prof Giannis Adamos**, Aristotle University of Thessaloniki, Greece

Topics: This talk will explore the critical role of analytics and community engagement in driving sustainable and equitable transformations within water-energy-food (WEF) systems. This will be illustrated through multiple global case studies to reflect on best practices, lessons learned, and open questions.

16.15 – 17.00 CET

Collaborative student assignments: Urban planning and ecology in Nexus-aware public spaces.

Speakers: **Dr Mirela Sertić Perić**, University of Zagreb, Croatia

Dr Tamara Zaninović, University of Zagreb, Croatia

Dr Ana Sopina, University of Zagreb, Croatia

Moderator: **Dr Natalia Ruiz Morato**, UNU-FLORES, Dresden, Germany

Topics: Presentation of the results of innovative interdisciplinary methodology in research, design, and education in developing projects from the Urban Ecology and STUDIO III - Landscape Architecture courses at the University of Zagreb, Croatia. The Round table will contribute to the Nexus discussion of urban planning and natural resources.

17.00 – 17.45 CET

Empowering Sustainability Research through the Sustainability Nexus Analytics, Informatics, and Data (AID) Programme

Speakers: **Dr Mir Matin**, UNU-INWEH, Richmond Hill, Canada

Dr Azin Zarei, UNU-FLORES, Dresden, Germany

Mr Taha Loghmani (MSc), UNU-FLORES, Dresden, Germany

Ms Ghada Amin (MSc), UNU-FLORES, Dresden, Germany

Moderator: **Dr Bassel Daher**, Texas A&M University, College Station, Texas, United States

Topics: The Sustainability Nexus Analytics, Informatics, and Data (AID) Programme was initiated by the United Nations University (UNU) to tackle critical challenges in sustainable development. In this presentation, we will demonstrate through two PhD research cases how the AID Programme facilitates spatial data analysis, environmental monitoring, and sustainability assessment.

17.45 – 17.50 CET

Closing of the day

Moderator: **Dr Floor Brouwer**, UNU-FLORES, Dresden, Germany

6 November, 2024

Time: 8:55 to 17:00 CET

8:55 - 9:00 CET

Welcome & Recap of Day 1

Moderator: **Dr Floor Brouwer**, UNU-FLORES, Dresden, Germany

9.00 – 9.45 CET

Stakeholder co-creation approach to governance of the water-energy-food-ecosystem nexus: transdisciplinary methods and insights from application in 5 river basins

Speakers: **Mrs Caro Mooren, MSc**, KWR Water Research Institute, Nieuwegein, the Netherlands

Mrs Sabina Khan, MSc, Helmholtz Centre for Environmental Research – UFZ, Leipzig, Germany

Moderator: **Dr Floor Brouwer**, UNU-FLORES, Dresden, Germany

Topics: The presentation is firmly rooted in stakeholder co-creation and aims to transform siloed sectoral policies into a coordinated and coherent nexus governance system. It will present the four phases of the approach: problem identification, stakeholder dialogue, realising new nexus governance instruments, and implementation. Also, it will showcase studies in four river basins: Lielupe (Latvia-Lithuania), Mesta-Nestos (Bulgaria-Greece), Jiu (Romania), Adige (Italy), and Inkomati-Usunthu (South Africa).

9.45 – 10.30 CET

Strengthening Gender in the WEFE Nexus—Insights from the CGIAR Initiative on NEXUS Gains

Speakers: **Dr Riina Jalonen**, Alliance of Bioversity international and CIAT

Dr Muzna Alvi, International Food Policy Research Institute, Delhi

Moderator: **Dr Mirela Sertić Perić**, University of Zagreb, Faculty of Science, Department of Biology, Zagreb, Croatia

Topics: Presentation of a NEXUS Gains learning module and approach to promote gender equality and social inclusion (GESI) in WEFE nexus research and interventions; Case study on developing and applying a new tool on women's empowerment in energy.

10.30 – 11.15 CET

Business and finance models to accelerate the adoption of renewable energy technologies for water and food security: Insights from South Asia

Speakers: **Mr Shisher Shrestha**, International Water Management Institute (IWMI), Nepal

Dr Mutum Lamnganbi, IWMI India

Moderator: **Dr Saroj Kumar Chapagain**, UNU-FLORES, Dresden, Germany

Topics: The CGIAR Initiative on NEXUS Gains used two differing case study approaches to identify inclusive business and finance models suitable for accelerating the adoption of solar irrigation systems in India and in the mid-hills region of Nepal.

11.15 – 12.00 CET

Companies with Conservation: Deep Dive into NEXUS Innovators with a Cause

Speakers: **Mr Robert Kranefeld**, GIZ, Bonn, Germany

Mr Admore Chiumia, Innovator Speaker Green Impact Technology, Malawi

Mrs Acacia Leakey, Innovator Speaker Turkana Basin Institute, Kenya

Moderator: **Dr Mirela Sertić Perić**, University of Zagreb, Zagreb, Croatia

Topics: The Water and Energy For Food (WE4F) Global Challenge, a joint international initiative that targeted established small and medium-sized enterprises changing the status quo in the agricultural sector across Africa and Asia. This presentation will highlight innovators, their innovations and approaches, and how they engaged with multiple stakeholders to scale their nexus solutions within the communities that they serve.

12.00 – 12.45 CET

Screening for environmental hotspots and organising a field campaign, lab analysis, and data interpretation

Speaker: **Prof Alexey Alekseenko**, UNU-FLORES, Dresden, Germany

Moderator: **Dr Floor Brouwer**, UNU-FLORES, Dresden, Germany

Topics: Presentation of a case study assessed the resource deterioration and restoration abilities in mining-affected areas under arid climates. It will show the Resource Nexus approach and suggestions for improving Nexus case studies, including policy recommendations.

12.45 – 13.30 CET

The Summit of the Future and the Implications for a Nexus Research Agenda

Speaker: **Dr Natalia Ruiz Morato**, UNU-FLORES, Dresden, Germany

Moderator: **Assist. Prof Giannis Adamos**, Aristotle University of Thessaloniki, Greece

Topics: Given the relevance of the United Nations Declarations and the interrelations of the SDGs and the Nexus Approach, this presentation addresses the opportunities, necessities, and missing points in the last UN Summit for the Future for the resource nexus research-practice agenda.

13.30 – 14.15 CET

Advancing Resource Nexus Studies through Replication Studies

Speaker **Dr Floor Brouwer**, UNU-FLORES, Dresden, Germany

Moderator: **Prof Daniel Karthe**, UNU-FLORES, Dresden, Germany

Topic: Credible scientific knowledge is essential for the design of effective policies and programs. Presentation on replication studies and their importance for advancing Resource Nexus studies. Drawing from some literature on replication studies in environmental and resource economics, the presentation will recommend steps to create momentum for replicability in Resource Nexus studies.

14.15 – 15.00 CET

Experiences from the SustainFood USA-Africa-Europe Network of Networks: Lessons for Engaging Early Career Researchers in Transdisciplinary Water Energy, food Nexus

Speaker: **Prof Michael Jacobson**, SUSTAINFOOD Penn State University, Pennsylvania, United States

Moderator: **Dr Floor Brouwer**, UNU-FLORES, Dresden, Germany

Topics: Presentation of lessons from experiences from SustainFood activities focusing on the two Collaborative Learning Schools held in Africa and the US to advance in the WEF nexus systems thinking for decision-making and the completion of the SDG 17, "Partnerships for the Goals."

15.00 – 15.45 CET

Round Table Session: What makes an impactful NEXUS project?

Speaker: **Dr Mirela Sertić Perić**, University of Zagreb, Croatia

Moderator: **Prof Michael Jacobson**, SUSTAINFOOD Penn State University, Pennsylvania, United States

Topic: Presentation of the results of a pilot study conducted by European Junior Water Programme participants that demonstrates how bringing COST Action initiatives together with capacity-building programs can equip them with essential professional and technical skills through collaborative and interdisciplinary work to address the current Nexus challenges.

15.45 – 16.45 CET

Lessons Learned and Future for the Nexus Implementation

Speakers: **Assist. Prof Giannis Adamos**, Aristotle University of Thessaloniki, Greece

Prof Serena Coetzee, UNU-FLORES, Dresden, Germany

Prof Michael Jacobson, SUSTAINFOOD Penn State University, Pennsylvania, United States

Prof Ali Rhouma, PRIMA Foundation, Spain

Dr Bassel Daher, Texas A&M University, College Station, Texas, United States

Dr Natalia Ruiz Morato, UNU-FLORES, Dresden, Germany

Dr Mirela Sertić Perić, University of Zagreb, Zagreb, Croatia

Dr Saroj Kumar Chapagain, UNU-FLORES, Dresden, Germany

Dr Floor Brouwer, UNU-FLORES, Dresden, Germany

Moderator: **Prof Daniel Karthe**, UNU-FLORES, Dresden, Germany

Topic: Summary of workshop outcomes, participant reflections, and recommendations for follow-up.

16:45 - 16:55 CET

On the Horizon: Dresden Nexus Conference, 8-10 April 2025, Dresden, Germany

16.55 – 17.00 CET

Closure of the workshop

Speaker: **Dr Floor Brouwer**, UNU-FLORES, Dresden, Germany