



TERRA
ENVISION

Preliminary program TERRAenVISION 2026
Nature-based Solutions to Facilitate the
Transitions for living within the
Planetary Boundaries
Trier, Germany, 7-10 September, 2026

Organisers:

Manuel Seeger, Physical Geography, University of Trier, Germany

Johannes Ries, Physical Geography, University of Trier, Germany

Thomas Iserloh, Nature Conservation and Water Authority, District Administration Trier-Saarburg, Germany

Robert Jüpner, Hydraulic Engineering and Water Management, RPTU University Kaiserslautern-Landau, Germany

Saskia Keesstra, Wageningen Environmental Research, Netherlands, TERRAenVISION Foundation

Artemi Cerda, Physical Geography, University of Valencia, Spain

Margot de Cleen, Senior Advisor, Soil and Water Ministry of Infrastructure and Water Management, The Netherlands

Ioannis Daliakopoulos, Assistant Professor, Hellenic Mediterranean University, Greece



SEDER
soil erosion
and degradation
research group



Rijkswaterstaat

Sunday 6th of September:

15.00-17.00	City walk for NBS in Trier city (location will follow)
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Monday 7th of September:

8.00-9.00	Registration	
8.30-9.00	Opening: University of Trier: Rector/Manuel Seeger/Johannes Ries TERRAenVISION: Saskia Keesstra with general welcome and logistics	
9.00-10:30	Plenary session NATURE BASED SOLUTIONS FOR AGRICULTURE AND NATURE AREAS (SOIL, WATER AND LANDSCAPE): Keynote: Gera van Os Keynote: John Reid Panel discussion	
10:30-11:00	Coffee break	
11:00-12:30	Parallel session AN1: Land Degradation and Restoration. Problems and solutions	Parallel session MET1: Integrated Methodologies for Measuring Implementation and Impacts of Equitable Nature-Based Solutions and Green-Blue Infrastructures
12:30-13.30	LUNCH	
13:30-15:00	Plenary session theme Methodologies: how to measure processes and impact of Nature-based solutions Keynote 1: Bob Klein Lankhorst Keynote 2: Paul van Dijk Discussion between keynotes and audience	
15:00-16:30	Parallel sessions AN4: Nature-Based Solutions in Agriculture: Innovations, Evidence, and Practice	Parallel session MET7: Open session on methodologies for implementation and monitoring of NBS
16.30-18.00	Poster session with drinks and snacks	

Tuesday 8th September

8.00-9.00	Registration	
9.00-10.30	Plenary session theme: Theme Nature-based solutions for urban and industrial areas (soil, water and spatial planning). Keynote: Fransje Hooijmeijer Keynote: Ivonne Weichhold Discussion between keynotes and audience	
10.30 - 11.00	Coffee/tea break	
11.00 - 12.30	Parallel session UR2: Greening Cities for Climate Action: Resilience, Mitigation, and Community Well-Being	Parallel session SO1: More than Green - Towards more just, inclusive NBS reflecting socio-cultural and socio-economic aspects
12.30 - 14.00	Lunch break	
14.00 - 15.30	Plenary session theme: SCIENCE BROKERS FOR TRANSITIONING TO A CLIMATE RESILIENT AND CIRCULAR SOCIETY Keynote 1: Birgit Peters Keynote 2: Feras Youssef Discussion between keynotes and audience	
15.30 - 17.00	Parallel session UR4: Phytomanagement as Nature-Based Solution for sustainable land management	Parallel session SO4: Transition towards Circular Land and Soil Management; Building networks, bringing together interests and coping with friction in regulation (Workshop)
17.00 - 18.30	Poster session with refreshments	
20.00 -	Conference dinner	

Wednesday 9th September

8.00-9.00	Registration	
9.00-10.30	Plenary session theme: Nature-based solutions for natural hazards (Fire, Floods and Droughts) Keynote 1: Bertram de Rooij Keynote 2: Carla Ferreira	

	Panel discussion	
10.30 - 11.00	Coffee/tea break	
11.00 - 12.30	UR3: Cross scale approach for NBS integrations in urban ecosystems	NH3: Open session on Nature-Based Solutions for Natural Hazard Mitigation: fire and floods
12.30 - 14.00	Lunch break	
14.00- 15.30	AN6: Panel on SOSVITI: Sustainable Terroir	SO5: Transforming Society through Social Innovation: Lessons from Practice, Navigating Challenges, and Co-Designing Solutions (Workshop)
15.30 - 16.15	CLOSING session with NBS stories from Trier and surroundings Thema: Implementation opportunities and barriers of NBS	

10th September: Conference excursion

The excursion will lead us to a river restoration area with NBS and to typical steep sloping vineyards in the Saar valley

The Leuk river has been heavily transformed during the last centuries. For urban flood protection it has been reconducted some decades ago into its former watercourse, but without enabling the river to gain natural morphodynamics. Recently, fluvial elements have been built to enable the river generation pools and riffles, overflow the floodplain and in consequence a generalized uplift of the river bed. The methodology applied for crating obstacles, dams etc is especially interesting, as no allochthonous material has been used, but only tress and rock fragments extracted in situ. The elements are partially permeable, so no total blocking or diversion of the water flow is generated. We will observe the results only few months after implementation and the generation variable elements within the river bed.

Afterwards we will visit an ecologically managed vineyard, where experiments were conducted for soil and vegetation management, such as planting aromatics underneath grapevines. The winery is also testing some fungus resistant varieties to adapt to changing environmental conditions.

In the winery we will have a small picnic-like lunch.



AN1: Land Degradation and Restoration. Problems and solutions		
Chair: Artemi Cerda/ Johaness Ries		
1	Regenerative Homestead Agroforestry for restoration of degraded dryland: A Nature-Based Solution from Tribal India	Prof Benurkar Biswas
2	Drivers of Triple Direction (Environmental – Societal – Economic) for Enhanced Forecasting of Future Land Use/Land Cover Transformations: Reviewing the CLUE-S Modelling Framework in Mediterranean Settings.	Mr Dimitrios Koumoulidis
3	Securing the Nation's Water Supply and Livelihoods Using nature based solution	Dr Stanley Liphadzi
4	Impact of local environmental management on the diversity and availability of economically important wild food plants in the Central Sumatra traditional markets	Mrs Afni Marpaung
5	Dilution of Wastewater in Irrigation Water as an Alternative for Dairy Effluent Disposal	Mr Itamar Netafim
6	Nature-based evolution: Traditional ecological practices in the application of blue-green infrastructure for climate resilience	Dr Vidya Anderson
7	From Control to Kinship: What It Really Means to Learn from Nature	Dr Silke Bollmohr
AN4: Nature-Based Solutions in Agriculture: Innovations, Evidence, and Practice		
chair: Ho Huu Loc (Josh)		
1	Nature-Based Solutions for Resilient Agricultural Systems: Participatory Governance and EU Green Deal Alignment	Dr Davit Sidamonidze
2	Biochar suspension as a nature-based solution to enhance phosphorus efficiency in agroecosystems	Dr Iryna Loginova

3	Assessing the Performance of a Reactive Ditch Treating Agricultural Drainage Water in Northern Germany	Mr Ramodh Jayawardena
4	A Systematic Review of Runoff and Soil Erosion Control Measures in Agricultural Landscapes	Mr abobakr Hussin
5	Freshgraze: Rethinking “Normal” Grazing Behaviour to Enable Nature-Based Farming	Mr Thomas Drumm
6	An Ecosystem Service-BAased Cost-Benefit Framework for Evaluating Environmentally-Technical Areas in Agricultural Landscapes	Dr Jan Macháč
7	How governance matters: Actor constellations and coordination in nutrient-management innovation	Mr Friederike Selensky
MET1: Integrated Methodologies for Measuring Implementation and Impacts of Equitable Nature-Based Solutions and Green-Blue Infrastructures		
chairs: Lizzy Moonga, Chiara Iodice-Kraft, Katrin Specht, Noriko Otsuka, Virginia Ciocoloni		
1	Integrated Co-creation Methodology for Nature-based Solutions: A GreenME Approach to the Impact of Green Care on Mental Health	Mrs Lizzy Moonga
2	GeoAI and Self-Supervised Earth Observation Framework for Measuring Nature-Based Solutions and Climate-Resilient Landscape Transitions Across African Socio-Ecological Systems	Mr Shimeles Tadesse Zelelew
3	Integrating Nature-based Solutions and Ecosystem Service Assessment: Evaluating the Contribution of Green Infrastructure in Urban Landscapes	Mrs Lina Einkenkel

4	Invisible barriers and perceived motivations for green care in green and blue spaces	Dr Shaojuan Xu
5	An Earth System Spheres Perspective on the Integrated Assessment of Multifunctional Nature-Based Solutions	Mr Mohammed Khalafallah
6	Bridging the Operationalization Gap: A Territorial Connectivity Matrix to Support Implementation of the IUCN Global Standard for Nature-based Solutions in the Sahel	Mr Almamy Soumaré

MET7: Open session on methodologies for implementation and monitoring of NBS		
Chair: Manuel Seeger, John Sandalone		
1	A decision-support workbench for evidence-based siting of Nature-based Solutions with integrated environmental, economic, and social benefit assessment	Dr Estifanos Addisu Yimer
2	Evaluating High-Resolution Geomorphometry and UAV-Derived Spectral Indices for Environmental Monitoring and Nature-Based Solutions Diagnosis	Dr Jesús Rodrigo-Comino
3	Restoring the Urban Water Balance: A Proxy-Based Approach to Assess Climate Adaptation Need and Nature-Based Solutions	Mr Francesco Del Punta
4	Cost/Benefit of Sustainable Resource Recovery for Urban Residuals and Chemicals versus Structural Urban Water Treatment	Prof John Sansalone
6	Nature-Based Solutions for Wildfire Risk Mitigation in Europe: A Comparative Analysis of Northern and Southern Case Studies and Barriers to Scaling	Dr Saskia Keesstra

SO1: More than Green - Towards more just, inclusive NBS		
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reflecting socio-cultural and socio-economic aspects		
Chair: Gerd Lupp		
1	The contribution of nature-based solutions to ecosystem benefits: a framework application to the three informal settlement typologies of Kumasi, Ghana	Mrs Dorothy Julian Nalumu
2	Operationalizing Environmental Justice and Voicing Nature – A Reflexive Ethics Framework for Inclusive Nature-Based Solution Practices in the TRANS-lighthouses Project	Mr Gerd Lupp
3	Climate justice in interventions within protected areas in the Caullim Basin (São Paulo, Brazil): a new paradigm?	Mrs Isabela Cavaco
4	Bridging science and landowner decision-making through a serious game for nature-based solutions	Dr Jan Macháč
5	Between Heritage and Climate Crisis: Agricultural Identity, Adaptive Hybridisation, and Structural Constraints Among Smallholder Farmers in Lower Dir, Khyber Pakhtunkhwa, Pakistan	Mr Mujeeb Ur Rahman
6	Putting a price on urban nature. A social-economic framework for integrating nature-based solutions in cities	Prof Riccardo Privitera
UR2: Greening Cities for Climate Action: Resilience, Mitigation, and Community Well-Being		
Chairs: Carla Ferreira, Cong Cong, Tomas de Figuerido, Rares Halbac-Cotoara=Zamfir, Zahra Kalantari		
1	Quantifying ecosystem services of urban community gardens using InVEST: implications for nature-based solutions in New York City	Mrs Calista Hughes
2	PikoParks: Tiny Green Spaces, Big Impact – Co-Creating Biodiversity and Community	Mrs Michaela Shields

3	Insights into climate change dynamics: A tourism climate index-based evaluation of Gilgit-Baltistan, Pakistan	Dr NADEEM ULLAH
4	Nature-based solutions as a bridge between human health and climate adaptive cities	Dr Joyce Zwartkruis
5	Field monitoring of plant functional traits and thermo-hydric behaviour to assess the multifunctionality of urban Nature-based Solutions	Mrs Amrita Mukherjee
6	From Tree Detection to Climate Action: A Digital Twin for Urban Greening and Heat Adaptation	Dr Shaojuan Xu
7	Towards Climate-Neutral Cities: Preliminary Results from the GreenCities Framework for Integrating Nature-Based Solutions into Urban Planning	Dr Carla Ferreira
8	Cementitious permeable pavement as a reflective adsorptive-filtration urban interface for passive source control of particulates, chemicals, rainfall-runoff and temperature	Prof John Sansalone
UR3: Cross scale approach for NBS integrations in urban ecosystems		
Chairs: Michelle Pezzagno, Anna Richiedei, Giovanna Grossi, Margherita Dagnino, Marialaura Giuliani		
1	Co-designing and co-implementation for Climate Resilience: the AdaptWise Model and Pathways for Regional Scaling	Mrs Valentina Bucchi
2	A Fit-for-Purpose framework for Ecosystem Service Assessment in Spatial Planning	Mrs Marialaura Giuliani
3	Integrating the Planetary Boundary for Freshwater Change into Urban Water Management through Nature-Based Solutions	Dr Raghid Shehayeb

4	Integrating Participatory Governance into Urban Planning for Climate Resilience: Evidence from the PRIN URCA! Project	Prof Michele Pezzagno
5	Phosphorus accumulation and leaching in compost-amended urban soils: implications for nutrient management in nature-based solutions	Dr Gaston Small
6	NBS implementation in Lombardy Region: the experience of Contratti di Fiume	Mr Franco Raimondi
7	Evaporation-Oriented Sponge City Roofs: A New Paradigm for Compensating Urban Sealing	Ralf Walker/Mr Manuel Seeger
UR4: Phytomanagement as Nature-Based Solution for sustainable land management		
Chairs: Celile Nouet, Anna Espinoza, Sonia Henry		
1	Accounting for wider values to develop business cases for phytomanagement	Paul Drenning
2	Achieving natural reclamation from spontaneous forest in urban context	Mr Gianluca Rapaccini
3	From Total Contamination to Functional Risk: Phytoavailability Indicators for Contaminated Soils	Dr Senda ZARROUK
4	When is poplar-based phytomanagement of TPH-contaminated soils feasible? A dynamic integration of degradation kinetics, tree growth, ecosystem services and life cycle assessment	Mrs Lidia Favaretto
5	The Use of Phytoremediation for Removal of Heavy Metals in Urban Soils	Mrs Macartney Wormington
6	From Pollution to Production: Assessing Hemp as a Brownfield Opportunity	Nolan Regnier

NH3: Open session on Nature-Based Solutions for Natural Hazard Mitigation		
Chairs: Jan Macha, Thomas Hartmann, Artemi Cerda		
1	Strengthening Local Wildfire Risk Governance through Nature-based Solutions and Territorial Connectivity: Developing a Community Wildfire Prevention Toolkit in Guidimakha, Mauritania	Mr Almamy Soumaré
2	Assessing Policy Instruments for Wetland Restoration: Insights from Stakeholder Interviews across Europe	Mrs Lenka Zaňková
3	Assessing Wetland Restoration Effects on Natural Water Retention: Initial Hydrological Modelling Results from the Schneifel Case Study	Philip Meier
4	A GIS-Based Planning Workflow for Flood Adaptation and Land Policy in the Araklı District	Dr Bura Adem Atasoy
5	Evaluating sponge measures' effectiveness in mitigating flood extremes at Littlestock Brook, Upper Thames, UK	Dr Neeraj Sah
6	Optimizing urban water clarification systems as green infrastructure for water reuse	Prof John Sansalone
7	A proposed framework for multi-temporal UAV-based analysis of post-wildfire agroecosystem recovery in Mediterranean vineyards using object-based classification	Dr Jesús Rodrigo-Comino/ Mr Sebastian Löblein

Panel Session on Terroir and SOSVITI		
1	Biophysical Approach for Terroir Characterization: Evaluating Structural and Spectral Precision via Consumer and RTK-Enabled UAVs in Vineyards	Dr Jesús Rodrigo-Comino
2	NBS in the steep slopes of German vineyards	Manuel Seeger

3	Nature-Based Solutions in Vineyards: From Environmental Innovation to Business Value and Dissemination in Valencia and the Netherlands	Saskia Keesstra
4	NBS in Vineyards, comparing soil cover techniques in Valencia and The Netherlands	Artemi Cerda
5	Luxemburg and current challenges for viticulture	IBLA

closing panel examples from Trier and surroundings		
closing panel examples from Trier and surroundings	Concept for climate change adaptation in the Trier-Saarburg District (Germany)	Dr Feras Youssef

Posters			
an1	3611	Landscape connectivity and multi-hazard risk management in the Zagros Mountains, Iran	Dr Mehrnoosh Ghadimi
an5	3628	Scaling Nature-Based Solutions through Knowledge-Action Networks: Cooperation for Agricultural Transformation	Dr Qirui Li
an4	3584	Canopy Microclimate Modification and Plant–Soil Interactions in Basil under MANTI Shading	Mrs Szilvia Kisvarag
AN4	3626	Composting Suitability of Aged Woodchips from Reactive Ditches	Dr Uta Ulrich
UR1	3657	From Experimental Greywater Reuse to Urban Nature-Based Solutions: Developing the Green4Grey Pilot for Circular Rooftop Agriculture	Mr Dimitrios Papadimitriou
nh3	3644	MUDdy flood mitigation through transnational action-oriented CAPacity building (MUDCAP)	Mrs Madeleine Hill
SO3	3612	LOESS: Strengthening soil literacy through co-created education and community engagement	Mrs Michaela Shields

UR2	3615	Climate-Induced Displacement and Labour Migration from Somalia: Governance Gaps in Drought and Flood-Driven Mobility.	Mr Yusuf Adan
UR1	3659	Nutrient Sufficiency under Greywater Irrigation: Preliminary Evidence from Rooftop Nature-Based Food Production Systems	Mr Dimitrios Papadimitriou
met7	3603	Dimensioning Sustainable Project Management in Productive Sectors: Strategic Alignment, Emerging Practices, and Implementation Tensions	Prof Daniel Mateo Garzón Agudelo
AN8 (o)	3627	Unlocking the Potential of Black Gold to Improve Maize Growth under Cadmium Toxicity	Dr Zahra Jabeen
virtual poster/NH3	3645	Mesocosm studies for piloting sunflower-assisted phytoremediation of soil from a former railway yard	Dr Florin Alexandru
UR1 (o)	3663	Green4Grey: Advancing Urban Water Circularity through Decentralized Nature-Based Solutions	Ioannis Louloudakis