BOOK OF ABSTRACTS

This Book of Abstracts provides a comprehensive overview of the session content and is structured into three main sections:

I. Session Description – an introduction to each session, including its objectives and expected outputs
II. Session Program – a detailed schedule for each session, including speakers and timing
III. List of Abstracts – a complete compilation of all accepted abstracts

I. SESSION DESCRIPTION

ID: T13

Restoration of ecosystem services: bridging science, policy, and practice for a nature- and people-positive Europe

Hosts:

	Name	Organisation	E-mail
Host (s):	Aveliina Helm	SER Europe, University of Tartu	aveliina.helm@ut.ee
Co-host(s):	SER Europe Board	European Chapter of the Society for Ecological Restoration	
Other organiser(s):	Triin Reitalu	University of Tartu	triin.reitalu@ut.ee

Abstract:

Ecosystem restoration is crucial to reversing biodiversity loss, enhancing climate resilience, and ensuring the continued provision of ecosystem services for both people and nature. In Europe, the momentum created by the EU Nature Restoration Law and the Biodiversity Strategy 2030 highlights the urgent need for evidence-based and inclusive restoration. Yet science, policy, and practice often remain fragmented, limiting the potential of restoration efforts to deliver multiple benefits.
This session, organised by the Society for Ecological Restoration Europe (SER Europe), will bring together researchers, policymakers, and practitioners to critically examine the role of ecosystem services in guiding restoration. By showcasing scientific insights, policy perspectives, and practical case studies, the session will explore how to best align the restoration goals and ecosystem service-based approaches.

Goals and objectives of the session:

- Present cutting-edge scientific knowledge on how and whether restoration actions can enhance ecosystem services (e.g. pollination, water regulation, soil fertility, climate mitigation).
- Explore the policy frameworks and governance mechanisms shaping restoration in Europe.
- Share experiences and lessons from restoration projects and practices across different regions.
- Identify barriers and opportunities for integrating ecosystem services into restoration policies and implementation.

Planned output / Deliverables:

- A synthesis of insights presented and discussed during the session, shared with ESP Europe participants and disseminated in SER Europe communication channels.
- A short policy- and practice-oriented briefing note summarising recommendations for better integration of ecosystem services into restoration planning and governance.
- Strengthened collaborations between ESP and SER networks to support future knowledge exchange.

Session format:

Estimated duration would be at least 7 presentations (each 15-20 minutes), but might be more, if suitable presentations are proposed + 30 minute discussion round.

Related to ESP Working Group:
TWG 13 – Role of ES in Ecosystem restoration

II. SESSION PROGRAM

Room: A1
Date of session: Friday 22, May 2026
Time of session: 11:00 – 12:30

Timetable speakers:

Time	First name	Surname	Organization	Title of presentation
9:00-9:10	Aveliina	Helm		introduction
9:10-9:20	Dr. Maria Soledad	Andrade-Diaz	Institute of Geographical Sciences, Freie Universität Berlin, Germany.	Drivers of woody encroachment in paleochannel grasslands of the Argentine Dry Chaco: insights from campesino knowledge and restoration strategies.
9:20-9:30	Dr. Caterina	Guidi	The Euro-Mediterranean Center on Climate Change (CMCC)	Restoring Soil Health: Policies and Incentives for Investment in Soil Ecosystem Services
9:30-9:40	Dr. Elisabeth	Prangel	University of Tartu	Grasslands to the rescue – supporting biodiversity and increasing the sustainability of ecosystem service supply through grassland restoration
9:40-9:50	Dr. Triin	Reitalu	University of Tartu	From haymaking sites to biodiversity hotspots: changing ecosystem service perceptions in wooded meadows
9:50-10:00	Johannes Tobias	Habermann	Bosch & Partner GmbH	Missing links – contribution of land ownership to habitat connectivity networks
10:00-10:10	Dr Alessandro	Gimona	The James Hutton Institute, UK	Transformative landscape change to tackle the climate and biodiversity crises: a Scotland-wide zonation for restoration
10:10-10:20	Giulia	Bellon	Leibniz Institute for Baltic Sea Research (IOW)/ Aalborg University, Denmark	Planning macroalgal recovery through spatially connected temperate reef restoration
10:20-10:30	Dr. Sofia	Wikström	Stockholm University	Sense of Place and Cultural Ecosystem Services in Coastal Bays of the Baltic Sea: effects of environmental degradation and implications for coastal restoration planning

11:00-11:10	Kara	Rüber	Aalborg University	Assessing ecosystem services of urban green corridors
11:10-11:20	Dr. Lenka	Dubova	Institute for Economic and Environmental Policy, Jan Evangelista Purkyne University in Usti nad Labem	Governance and Stakeholder Barriers to Urban Stream Restoration: Lessons for Ecosystem Service–Oriented Restoration in European Cities
11:20-11:30	Adeeba	Rashid	Institute of Landscape Ecology, Slovak Academy of Sciences, Bratislava	Green Infrastructure as a Bridge Between Ecosystem Services and Nature Conservation Narratives in Agricultural Landscapes: A Trnava Case Perspective
11:30-11:40	Dr Navid	Yaraghi	University of Oulu	From Footprint to Handprint: How Integrated Capitals Drive Nature-Positive Business Transformation.
11:40-11:50	Ph.D. Jan	Macháč	Jan Evangelista Purkyně University in Ústí nad Labem	Restoring Wetlands as Sponge Landscapes: Stakeholder Perceptions of Ecosystem Services and Innovative Financing Across Europe
11:50-12:00	Dr. Eliška	Vejchodská	Faculty of Social Sciences, Charles University	Governing Biodiversity Offsetting: Policy Effectiveness and Institutional Constraints in the Czech Republic
12:00-12:10	Ifeanyi Godwin	Clement	Faculty of Social Sciences, Charles University	Acceptance and Acceptability of Biodiversity Offsetting: A Scoping Review
12:10-12:30	All			General discussion

III. ABSTRACTS

The first author is the presenting author unless indicated otherwise

1. Drivers of woody encroachment in paleochannel grasslands of the Argentine Dry Chaco: insights from campesino knowledge and restoration strategies

***First author*:** María Soledad Andrade-Díaz
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Woody encroachment is a growing concern in dryland regions, threatening grassland conservation and generating social–ecological challenges. In the Argentine Dry Chaco—one of South America's most rapidly transforming dryland regions—this process is particularly pronounced in paleochannel systems, ancient riverbeds dominated by native grasslands. This study examines woody encroachment by integrating drivers identified through smallholder campesino knowledge with spatial analyses assessing how ecological and management factors influence grassland and woodland cover in protected and non-protected areas, and by describing proposed restoration and management strategies. We combined semi-structured interviews with spatial analyses of vegetation cover derived from satellite imagery, aridity,

livestock density, and fire-use. We used structural equation models to compare the influence of these drivers across protected and non-protected areas and interpret campesino narratives alongside ecological patterns. Across our study area, campesinos consistently identified increasing aridity as a pervasive driver of grassland degradation. They emphasized that changes in disturbance regimes—particularly restrictions on fire-use, land privatization associated with fencing, and reduced livestock mobility—have altered grassland cover. Clear contrasts emerged between protected and non-protected areas. In protected areas, where grazing systems remain largely extensive and livestock movement is less constrained, grasslands showed lower woody dominance under longer fire-return intervals. In non-protected areas, fenced grazing systems with higher livestock densities and more frequent fire-use were associated with stronger woody dominance, limiting grassland recovery. Goat-grazing emerged as an adaptive livelihood strategy under degraded and increasingly arid conditions; however, higher goat stocking densities were associated with increased grassland degradation. Campesinos identified prescribed burning as the preferred restoration strategy, alongside rotational grazing, mechanical clearing, and forage enrichment. Overall, woody encroachment emerges as a governance-dependent social–ecological process shaped by altered disturbance regimes, highlighting the need for restoration policies that support adaptive fire and grazing management grounded in local practices and knowledge systems.

Keywords: Woody encroachment, Local Knowledge, Fire-use, Extensive grazing, Dry Chaco

2. Restoring Soil Health: Policies and Incentives for Investment in Soil Ecosystem Services

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Healthy soils contribute to a wide range of services essential to the sustainable functioning of all ecosystems. However, globally land use and management practices, physical degradation, water management practices and climate change pose pressures on soil health. Therefore, critical ecosystem services, such as availability of safe, nutritious and sufficient food, biomass, clean water, nutrient cycling, carbon storage and a habitat for biodiversity are being challenged. The InBestSoil project co-creates a framework to support investments in restoring soil health by translating the ecosystem services provided by healthy soils into monetary values. The project uses economic valuations to design appropriate business models and incentives. It is based on a bottom-up learning experience from 9 case studies with different land use practices across 4 European biogeographical regions that function as models for co-designing policies and incentives for facilitating investments in soil health. This study focuses on conducting a horizontal mapping review of the existing EU-level and national policies, and relevant incentives. Local stakeholders are interviewed about opportunities and barriers for implementation and perform a SWOT analysis of their selected incentives based on their familiarity and suitability for the respective case studies. These processes feed into the development of a toolbox of selected incentives, combined with an in-depth analysis of EU-level, national and regional policies regulating and providing them. Local stakeholders provide insights about those particular policies by reflecting on their implementation. While EU-level frameworks set important strategic direction, their effectiveness ultimately depends on how well they translate into diverse territorial, ecological, and socio-economic contexts. The study shows that strengthening monitoring capacities, reducing administrative burdens, and integrating soil-type-specific guidance, particularly for underrepresented land uses, would significantly enhance the usability and uptake of incentive schemes for healthy soils. These findings provide a foundation for policy recommendations supporting scalable, stakeholder-centred, and soil-health-driven policy innovation across Europe.

Keywords: soil health, restoration policy, horizontal mapping review, toolbox of incentives, case studies

3. Grasslands to the rescue – supporting biodiversity and increasing the sustainability of ecosystem service supply through grassland restoration

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Semi-natural grasslands and the biodiversity they support are under growing pressure from afforestation, conversion to intensive agriculture, urban expansion, and the cessation of traditional management. Widespread grassland loss reduces habitat connectivity, limits species movement among remaining patches, and compromises the long-term supply of ecosystem services, ultimately diminishing overall ecosystem multifunctionality. To slow further degradation and recover lost functions, ecological restoration is needed.
We evaluated the effects of restoring overgrown and afforested semi-natural grasslands by comparing ecosystem service delivery before and after restoration. Specifically, we examined nine key services: habitat maintenance, soil condition maintenance, soil carbon storage, pollination, pest regulation, availability of wild foods and medicinal herbs, forage production, wood production, and recreation. We also investigated the relationship between restoration and ecosystem multifunctionality, as well as multitrophic species richness.
Our results show that species richness and ecosystem multifunctionality increased markedly within a few years following restoration, especially at study sites with higher habitat connectivity. However, although multitrophic diversity was strongly and positively associated with ecosystem multifunctionality prior to restoration, this relationship became weaker post-restoration. We propose that increased biodiversity homogenization across previously distinct habitat conditions, together with the ecosystem's transitional character, may account for this change. In addition, the severe drought in the year preceding post-restoration monitoring likely affected some species groups and service provision, masking part of the restoration's impact.
Overall, semi-natural grasslands represent major biodiversity and ecosystem service hotspots in European landscapes, and restoring them and increasing connectivity to croplands could substantially strengthen the capacity to deliver essential ecosystem services for agricultural landscapes and beyond.

Keywords: grassland restoration, ecosystem multifunctionality, ecosystem services, biodiversity, multitrophic species richness, climate change

4. From haymaking sites to biodiversity hotspots: changing ecosystem service perceptions in wooded meadows

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Semi-natural grasslands, once widespread across Europe, have lost most of their original extent and today persist largely through subsidised management. Tracing the historical use of these grasslands helps us understand how societal perceptions of their ecosystem services have changed over time. Estonian wooded meadows were once an integral part of rural landscapes and provided a wide range of ecosystem services, including haymaking, grazing, coppicing, and the collection of firewood, medicinal herbs, and berries. Today, the remaining wooded meadows are valued primarily for their high biodiversity, aesthetic qualities, and cultural significance.
Woodmeadowlife (LIFE20 NAT/EE/000074) is restoring 700 ha of wooded meadows in Estonia and Latvia. Multi-taxon inventories of plants, lichens, birds, bees, butterflies, and other groups across overgrown, recently restored, and continuously managed sites show that most groups benefit from restoration, with clear increases in species diversity. Integrating these biodiversity results with an ecosystem service assessment framework enables re-evaluation of the contribution of wooded meadows to current climate and biodiversity objectives and provides insights relevant to the EU Biodiversity Strategy and nature

restoration policies. The presentation discusses past, present, and potential future values of wooded meadows and outlines pathways to strengthen their ecological, cultural, and socio-economic relevance for modern society.

Keywords: semi-natural, grassland, restoration, changing values

5. Missing links – contribution of land ownership to habitat connectivity networks

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Habitat connectivity networks are essential for maintaining ecological processes, species movement and long-term biodiversity resilience across fragmented landscapes. In Europe, recent policy developments – from the EU Biodiversity Strategy 2030 to the Nature Restoration Law - emphasize the need to strengthen ecological connectivity both within and beyond protected areas. Achieving this goal, however, depends on the effective legal securement of land. Existing literature identifies four main strategies for land securement: protection areas, spatial planning, contractual arrangements, and land ownership.

Their spatial contributions to securing connectivity networks remain poorly understood. In particular, the role of public land ownership is largely overlooked in European contexts, where most protected areas lie on private land and conservation must operate within complex property-right regimes. It remains unclear to which extent valuable habitats are effectively secured and if land ownership acts mainly as a reinforcement of existing protected areas or as an independent lever in unprotected landscapes.

To address this gap, we conducted a geospatial analysis for the federal state in Schleswig-Holstein, Germany. Using the state-level concept as a reference layer, we intersected connectivity-relevant areas with datasets on protected areas, spatial planning designations, contractual instruments, land ownership patterns, and high-nature-value habitats. This allowed us to quantify the relative contribution of each instrument, assess the legal securement of valuable habitats, and examine the spatial relationship between public land ownership and formal protection.

Our results show that public land ownership covers more area than formal nature conservation designations and is strongly associated with high-nature-value habitats such as bogs and extensive grasslands. These findings indicate that public land represents a substantial yet under-recognized component for delivering restoration outcomes and associated ecosystem services on landscape scale. Strengthening its strategic use could significantly improve landscape-scale conservation outcomes.

Keywords: Ecological connectivity, Land securement, Public land ownership, Spatial planning

6. Transformative landscape change to tackle the climate and biodiversity crises: a Scotland-wide zonation for restoration

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Despite long-standing policy efforts, biodiversity loss and climate change are accelerating, exposing the limits of site-based conservation and farm-scale schemes. Effective responses require evidence-based, landscape-scale restoration that delivers multiple benefits for nature, climate, water, and people, especially where resources are constrained. Scotland exemplifies both the scale of degradation driven by intensive land use and the opportunity for integrated, multifunctional restoration focussed both on

ecosystem services and biodiversity.
We present a Scotland-wide, spatially explicit zonation designed to support strategic landscape restoration under the Scottish Biodiversity Strategy. Using a 100 m resolution national framework, we developed opportunity maps for seven focal habitat and land-use change types, including woodland expansion, agroforestry, hedgerows and field margins, high nature value grasslands, heathlands, and riparian woodlands. For each theme, multi-criteria spatial analyses combined tens of national datasets capturing biodiversity potential, ecosystem service delivery, pressures, and constraints. Priority areas were identified through opportunity maps for different types of landscape change, aggregated into a final national zonation and summarised at catchment and sub-catchment scales to support targeted, but non-prescriptive decision-making.
The results, which have contributed to targeting public funds towards restoration projects, show that substantial areas of Scotland present opportunities for restoration actions capable of delivering multiple benefits, with priority zones distributed across lowland and upland landscapes. The the zonation identifies where targeted interventions are most likely to be effective and complementary. Importantly, the maps highlight opportunity, not obligation, and are intended to guide dialogue, investment, and policy design rather than dictate outcomes.
Overall, the approach demonstrates how evidence-based, spatial targeting can underpin multifunctional restoration strategies. The framework provides a practical tool for aligning biodiversity, climate, and land-use policies, supporting more transparent allocation of public funds and more effective private investment in nature-based solutions.

Keywords: Landscape-scale restoration; Evidence-based spatial planning;
Nature conservation; Multifunctional land use; Biodiversity and ecosystem services.

7. Planning macroalgal recovery through spatially connected temperate reef restoration

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Reef restoration is increasingly recognised as a nature-based solution to counteract habitat degradation, biodiversity loss, and declining ecosystem services in coastal seas. The recovery of macroalgal habitats is central to restoring ecosystem functioning in degraded coastal systems, yet restoration efforts often remain spatially fragmented and weakly embedded in marine spatial planning (MSP). The ecological and societal benefits of restoration depend not only on local success but also on strategic spatial placement and connectivity among restored habitats. In temperate coastal waters, reef restoration can provide the hard-substrate conditions required for macroalgal establishment, while the macroalgae themselves drive key ecological processes by enhancing water clarity, stabilising sediments, and supporting benthic biodiversity.
This study explores how MSP principles and systematic conservation planning can be used to upscale macroalgae reef restoration in Greifswald Bay (south-western Baltic Sea), where a stone-reef restoration project was recently initiated. Building on this ongoing intervention, Marxan will be applied to identify additional priority areas for reef restoration that maximise macroalgal habitat suitability and ecological connectivity, thereby strengthening corridors among hard-substrate habitats.
Inspired by the scenario-based framework of Fabbrizzi et al. (2023), six alternative spatial planning scenarios will be developed to examine trade-offs between macroalgal recovery objectives, spatial connectivity targets, socio-economic constraints, and existing human uses. Environmental drivers relevant to macroalgal growth will be integrated alongside planning costs and area-based constraints.
Expected outputs include spatially explicit restoration priority maps and qualitative assessments of potential benefits for biodiversity and human-nature interactions. In Greifswald Bay, where coastal fishing – particularly for herring – holds strong historical and cultural significance yet continues to decline, improved macroalgal habitats may contribute to the recovery of nursery and spawning conditions

supporting fisheries-related cultural values. By linking macroalgae reef restoration with MSP and spatial prioritisation tools, this study aims to provide actionable guidance for scaling up restoration efforts in Greifswald Bay and similar coastal systems, supporting ecologically effective, transparent, and socially acceptable marine management.

Keywords: Macroalgae recovery, reef restoration, reef connectivity, marine spatial planning, nature-based solution

8. Sense of Place and Cultural Ecosystem Services in Coastal Bays of the Baltic Sea: effects of environmental degradation and implications for coastal restoration planning

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While conservation and restoration of coastal areas are increasingly promoted, there is limited understanding of how local people use, value, and emotionally connect to these environments. Cultural ecosystem services (CES) and sense of place (SOP) offer important lenses for capturing these human-nature relationships, yet remain underexplored in marine settings, and particularly in the Baltic Sea region. We investigated people–place relationships in shallow bays of the Baltic Sea prior to ecological restoration, with four main research objectives: 1) to conduct in-depth assessments of CES and SOP associated with coastal bays; 2) to assess if and how local property owners express emotional place attachment; 3) to examine property owners' perceptions of the environmental state of the bays, and to relate them to assessed biophysical conditions and 4) to identify potential impacts of environmental degradation on CES and SOP. Using a mixed-methods approach, we conducted surveys and in-depth interviews with residents living adjacent to selected bays in Sweden and assessed the environmental status using biophysical data. A wide variety of CES, place meanings and uses—both direct and indirect—were identified, with nature-based experiences emerging as the most prevalent. Emotional bonds and place attachment were found to exist, highlighting the cultural, relational and personal significance of these landscapes. Further, our results show empirical evidence on the interrelationships between CES/SOP and ecological status, as signs of environmental degradation were both observed as such and found to lead to a direct loss of CES and place meanings. Our study reveals largely favorable preconditions for local restoration support in order to ensure the continuation of valued CES/SOP. While ecological improvements will benefit a majority, our study also reveals that some existing recreational uses will be negatively impacted by related ecological changes. Our findings underscore the importance of early assessments of CES in restoration planning.

Keywords: restoration, Baltic Sea, cultural ecosystem services, sense of place

9. Assessing ecosystem services of urban green corridors

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Ensuring the provision of and access to ecosystem services is crucial to environmental health and human well-being. This study assesses the potential of urban green corridors (UGCs) to accommodate diverse interests, including by supplying ecosystem services, highlighting emerging socio-ecological conflicts. Five international UGCs are analyzed as case studies through an ecosystem service assessment. A mixed qualitative and quantitative methodology is applied. The role of local communities is explored in context with the ecosystem service results. The key findings indicate that multiple ecosystem services such as local climate regulation, air quality regulation, flood protection, pollination, and recreational and aesthetic values can be supplied by these UGCs, while some provide educational and scientific research

opportunities. However, the UGCs vary in their potential supply of ecosystem services due to unique case-specific characteristics. Achieving a balance between ecological and societal needs remains challenging due to conflicting interests, while infrastructure is often being prioritized, resulting in critical ecological impacts. Limited financial resources, expertise, and stakeholder collaboration challenges the long-term management of UGCs that impacts the supply of ecosystem services. The public's use of these spaces is both an asset and threat to the socio-ecological system, as it can result in disturbances and conflicts impacting the supply of ecosystem services. UGCs have the potential to serve as multifunctional spaces that address societal needs by providing ecosystem services and other benefits, such as connectivity and supporting social interaction and active mobility. However, further site-specific research is needed to investigate and enhance the supply of ecosystem services, including interactions between ecosystem services.

Keywords: Urban green infrastructure; sustainable urban planning; stakeholder participation; multifunctionality; nature-based solutions

10. Governance and Stakeholder Barriers to Urban Stream Restoration: Lessons for Ecosystem Service–Oriented Restoration in European Cities

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Ecosystem restoration is increasingly promoted as a key response to biodiversity loss, climate change, and declining ecosystem services in urban environments. Urban stream restoration, in particular, offers significant potential to enhance regulating, cultural, and supporting ecosystem services. Despite growing political momentum, including the EU Nature Restoration Law, implementation in cities remains challenging and uneven.
This study presents a comparative stakeholder and institutional analysis of urban stream restoration in four Central European cities—Dresden (DE), Jablonec nad Nisou (CZ), Poznań (PL), and Senica (SK). Using systematic stakeholder mapping and semi-structured interviews, the analysis examines actor roles, power relations, and levels of support, alongside institutional barriers and enabling conditions shaping restoration practice.
The results show strong normative support for restoration and ecosystem service enhancement across stakeholder groups. However, decision-making power is concentrated in municipal authorities and river basin agencies, while civil society actors, experts, and local communities—despite their high support—have limited formal influence. Key barriers include lengthy and complex administrative procedures, fragmented land ownership, conflicts with grey infrastructure, and unstable funding. Enabling factors comprise strong municipal leadership, targeted funding instruments, supportive legal frameworks, and strategic communication of restoration co-benefits such as flood regulation, climate adaptation, and urban liveability.
The findings highlight that the success of ecosystem service–oriented restoration depends not only on ecological design but fundamentally on governance arrangements and stakeholder coordination. Integrating ecosystem services into restoration policies requires adaptive institutional frameworks, early engagement with regulatory authorities, and inclusive processes that mobilise supportive but low-power actors. The study provides actionable lessons for aligning restoration goals with governance realities in European cities.

Keywords: Urban stream restoration, Stakeholder power asymmetries, Institutional capacity, Stakehodler Analysis, Institutional barriers

11. Green Infrastructure as a Bridge Between Ecosystem Services and Nature Conservation Narratives in Agricultural Landscapes: A Trnava Case Perspective

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Agricultural landscapes across Europe face growing pressures from land consolidation, biodiversity loss, and climate change. In Slovakia, these pressures are particularly visible in the Trnava region, where large, intensively farmed fields and the decline of semi-natural habitats threaten ecological stability. Green Infrastructure (GI) provides a framework to address these challenges, connecting nature conservation with tangible societal benefits and promoting multifunctional, resilient landscapes. This study examines how GI elements—such as hedgerows, riparian buffers, field margins, wetlands, and small woodlands—can strengthen conservation narratives by linking biodiversity protection with ecosystem services that matter to people.
Drawing on EU policies, including the Biodiversity Strategy 2030 and the post-2023 Common Agricultural Policy, the research shows how an ecosystem service perspective supports the restoration of GI in the intensively farmed Trnava region. Services such as pollination, soil retention, water purification, and carbon sequestration create a common language that unites farmers, policymakers, and conservationists. The transition from mandatory "greening" measures to performance-based eco-schemes demonstrates a shift toward rewarding land managers for measurable ecological outcomes, reinforcing this connection. Using national landscape planning tools like the Territorial System of Ecological Stability, combined with ecosystem service frameworks (MAES, CICES), the study illustrates how mapping and assessment make GI visible not only as ecological infrastructure but as a long-term investment in landscape resilience. By highlighting the co-benefits of GI for biodiversity, climate adaptation, and agricultural production in the Trnava region, this work shows that ecosystem service narratives can effectively strengthen conservation strategies while resonating with both environmental and farming communities. This work presents the collection of research findings and best practices of biodiversity-friendly farming in relation to green infrastructure, which was supported within the project FarmBioNet – funding from the European Union's Horizon Europe Framework Programme under project No. 101082102. Grant agreement ID: 101182942.

Keywords: Green Infrastructure, Ecosystem Services, Agricultural Landscapes, Biodiversity Conservation, Trnava Region

12. From Footprint to Handprint: How Integrated Capitals Drive Nature-Positive Business Transformation

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The shift from reducing environmental harm to actively restoring ecosystems is redefining corporate sustainability. This study examines how firms in the energy, ICT, and construction sectors in Northern Ostrobothnia, Finland, evolve toward nature-positive business models that aim to deliver measurable net-positive outcomes for nature. Using a multi-capital and systems-thinking lens, we conducted 21 semi-structured interviews with CEOs, sustainability managers, and operational leaders. A hybrid thematic analysis—combining deductive coding across six capitals (natural, financial, human, intellectual, social, and production) with inductive identification of emergent patterns—yields six propositions linking responsible leadership, cross-capital integration, innovation, stakeholder engagement, and governance feedback loops to nature-positive outcomes.
Findings indicate that leadership commitment and cross-capital synergies are essential for embedding restoration-oriented goals in strategy and operations. Innovation in clean technologies and circular practices supports the creation of positive handprints while footprints continue to be reduced. Stakeholder engagement strengthens relevance and accelerates adoption, and governance feedback

loops help align goals, incentives, and learning across organizational levels. Key challenges persist, including the measurement of non-financial capitals, the translation of stakeholder insights into governance routines, and securing consistent investment to scale promising practices.
The study contributes theoretically by clarifying the conceptual foundations of nature-positive business models and by articulating how integrated capitals and iterative learning support transitions. Practically, it offers actionable design principles and indicators needs to help firms and policymakers operationalize biodiversity goals within business strategy and emerging policy frameworks. Societally, it underscores the value of inclusive, participatory approaches for advancing nature-positive and people-positive outcomes at the regional scale.

Keywords: Multi-Capital Framework; Business Model Innovation; Biodiversity Restoration; Handprint; Stakeholder Engagement

13. Restoring Wetlands as Sponge Landscapes: Stakeholder Perceptions of Ecosystem Services and Innovative Financing Across Europe

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Ecosystem restoration, particularly wetland restoration, plays a key role in strengthening landscape "sponge functions" that enhance water retention, reduce flood risks, support biodiversity, and contribute to climate resilience. While policy frameworks such as the EU Nature Restoration Law emphasise the delivery of multiple ecosystem services, less attention has been paid to how different stakeholder groups perceive these benefits and how such perceptions shape the acceptance and implementation of restoration measures.
This contribution presents a comparative, stakeholder-based research approach applied across several European wetland restoration case studies. Using semi-structured interviews combined with an ecosystem service ranking exercise, we explore how key actors involved in wetland restoration (including landowners, public authorities, NGOs, project managers, and local beneficiaries) perceive the benefits, priorities, and societal relevance of sponge measures. Respondents are first asked to reflect freely on perceived benefits of restoration in their region, followed by a card-based ranking of ecosystem services (e.g. flood regulation, water purification, carbon sequestration, biodiversity support). This mixed qualitative–participatory method allows us to capture both articulated narratives and relative importance of ecosystem services across actor groups.
In addition, the study investigates pathways for scaling up restoration through innovative financing mechanisms. Stakeholders' experiences and views are analysed in relation to voluntary agreements, payments for ecosystem services, biodiversity and carbon offsets, and flood risk pooling schemes, as well as other emerging financing approaches. Particular attention is paid to perceived effectiveness, feasibility, and barriers to implementation and long-term maintenance.
By linking stakeholder perceptions of ecosystem service benefits with governance and financing instruments, this contribution bridges science, policy, and practice. It highlights how aligning restoration objectives with locally perceived benefits and suitable financial mechanisms can support more inclusive, effective, and socially accepted wetland restoration across Europe.

Keywords: Wetland restoration, Stakeholder perceptions, Sponge measures, Innovative financing

14. Governing Biodiversity Offsetting: Policy Effectiveness and Institutional Constraints in the Czech Republic

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Biodiversity offsets represent policy instruments designed to compensate for biodiversity losses caused by land development. Although environmental law often contains formal provisions requiring biodiversity compensation, their effectiveness is frequently limited, as implementation diverges substantially from policy-makers' intentions.
This paper examines the effectiveness of biodiversity offsetting policy in the Czech Republic, focusing on legal provisions related to the protection of endangered species and protected areas, as well as general nature protection. The analysis applies the Institutional Analysis and Development (IAD) Framework to explore how institutional arrangements and governance structures shape implementation processes and policy outcomes.
The study draws on semi-structured interviews with street-level bureaucrats responsible for policy implementation. The findings identify several governance-related factors that constrain the effectiveness of biodiversity protection policy. These include limitations on possible compensation measures arising from land property rights, uncertainty among street-level bureaucrats in their role as public authorities regarding how extensive and stringent biodiversity compensation requirements can be imposed while remaining feasible for investors, and conflicts of interest involving authorized experts who prepare biodiversity assessments and propose offsetting measures for public authorities while being simultaneously remunerated by developers.
Based on these findings, the paper formulates recommendations aimed at strengthening the governance and effectiveness of biodiversity protection policy within the Czech institutional context.

Keywords: biodiversity offsets, governance, policy implementation, IAD framework, street-level bureaucrats

15. Acceptance and Acceptability of Biodiversity Offsetting: A Scoping Review

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Globally, biodiversity offsetting has emerged as a prominent policy instrument aimed at counterbalancing the ecological impacts of development and contributing to ecosystem restoration objectives and associated ecosystem services outcomes. While its technical design has received considerable attention, the social and institutional dimensions of biodiversity offsetting remain less systematically synthesised, despite their central importance for effective and legitimate implementation. Stakeholder perceptions play a critical role in shaping how offsetting schemes are governed, and translated from policy ambitions into practice.

This paper provides a systematic mapping of academic research examining stakeholder perceptions of biodiversity offsetting. Using a scoping review approach, we identify and analyse peer-reviewed studies that address perceptions, attitudes, acceptance, and acceptability of biodiversity offsetting, based on searches conducted in Scopus, Web of Science, and Google Scholar. The review includes 22 English-language academic articles.

The analysis focuses on the determinants of acceptability of biodiversity offsetting across different stakeholder groups, the theoretical frameworks applied, the methodological approaches employed, and the key findings reported in the literature. By synthesising how social, governance, and contextual factors influence the perceived legitimacy and effectiveness of offsetting schemes, the review highlights insights relevant to the design and implementation of restoration-oriented policies.

Keywords: biodiversity offsetting; stakeholder perceptions; acceptability; ecosystem restoration; governance.