Network Nature

Semester on Ecosystem Restoration – Outcomes -

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The NetworkNature Semester on Ecosystem Restoration - Outcomes

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Aims

This report is the output document of the expert input to the NetworkNature Semester Theme on Ecosystem Restoration. It provides an overview of the work carried out during the Ecosystem Restoration Semester, describes current work on ecosystem restoration based on experiences presented and collated during the semester, and identifies key messages arising and recommendations based on the activities implemented during the semester.

Environmental degradation and the decline of biodiversity and ecosystem services

Environmental degradation impacts the well-being of an estimated 3.2 billion people globally whilst the loss of ecosystem services reduces more than 10% of our global economic output (UNEP, 2021). A total of 33% of marine fish stocks are overfished and around one-third of the world's farmland is degraded. Trends of ecosystem degradation have also been recorded for ecosystems at the regional scale, with a recent EU-wide assessment concluding that the current potential of ecosystems to deliver timber, protection against floods, crop pollination, and nature-based recreation is equal to or lower than the baseline value for 2010.

An estimated 32 million hectares of primary and recovering forest were lost between 2010 and 2015, and approximately half the live coral cover on coral reefs has been lost since the 1870s, as indicated by the IPBES Global Assessment report on biodiversity and ecosystem services. Around 40% of all the world's species live and breed in wetlands but the world has lost 87% of its wetlands since 1700. One out of four mammal species and an estimated 41% of the amphibians are threatened with extinction and whilst globally only a small proportion of the insect species have been evaluated, local declines of pollinator species have been recorded.

Most of us would readily accept the notion that nature is essential for human existence and good quality of life, but in using and extracting resources from the environment we have damaged its ability to sustain human communities, with benefits and burdens being disproportionately shared and experienced differently among social groups, countries, and regions.

The United Nations Decade on Ecosystem Restoration

The United Nations Decade on Ecosystem Restoration 2021-2030 represents a distinct opportunity to collaborate and make meaningful headway in preventing, halting, and reversing the degradation of our planet's ecosystems.

Ecosystem restoration is defined by the UN Decade as *"the process of halting and reversing degradation, resulting in improved ecosystem services and recovered biodiversity. Ecosystem restoration encompasses a wide continuum of practices, depending on local conditions and societal choice"* (UNEP, 2021, p. 7).

In line with this definition identifying a continuum of restorative actions, the Society of Ecological Restoration identifies different categories of

ecosystem restoration actions that may be considered as part of a restorative continuum (Figure 1).

The Restorative Continuum includes four major categories of restorative practices, and it provides a context for understanding how different activities relate to each other and helps to identify practices best suited for a particular context. The four major categories of the restorative continuum are:

1. *Reduced societal impacts arising from societal consumption and use of ecosystem services and goods and pollution;*
2. *Remediation of polluted and contaminated sites through the removal or detoxification of contaminates or excess nutrients from soil and water;*
3. *Rehabilitation of areas, including those under production or having a human settlement, by restoring ecosystem functions of the site.*
4. *Ecological restoration is defined as the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed.*

Ecological restoration always addresses biodiversity conservation and ecological integrity while ecosystem restoration includes actions that reduce societal impacts, remediate and rehabilitate degraded areas, and may focus solely on the delivery of ecosystem services (Gann et al., 2019).

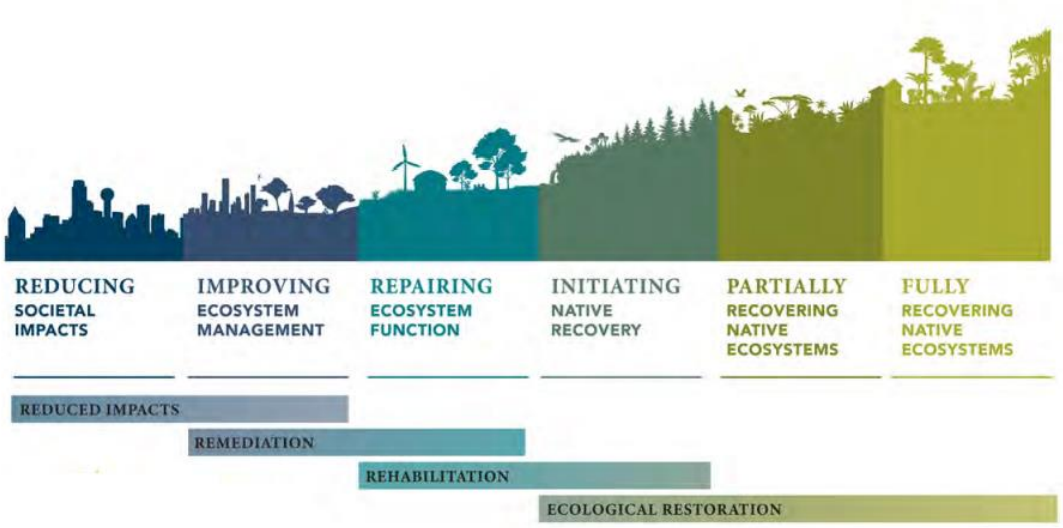


Figure 1 - The Society of Ecological Restoration Restorative Continuum.

The UN Decade has identified ten actions as part of its strategy for ecosystem restoration, namely:

1. *Empowering a global movement by connecting and empowering the actions of many.*
2. *Financing restoration on the ground through the support of Governments, international lenders, development agencies, private businesses and individuals.*
3. *Set the right incentives - not only are there direct up-front investments but caring for nature can also mean foregoing some of the financial gains of less sustainable practices.*
4. *Celebrate leadership and encourage others to step up*
5. *Shift behaviours – the UN Decade will work with all partners to identify and encourage restoration-friendly consumption. This can range from shifting diets to promotion restoration-based products.*
6. *Invest in research as restoration is complex and scientific understanding of how to restore and adapt ecosystems is still developing.*

Considerable investments are needed to identify the best practices to restore our planet – one plot at a time.

7. ***Build up capacity*** *– practitioners often face multiple barriers that keep them from taking their projects to scale while other critical sectors, such as finance, require more data and insights to make informed decisions. The UN Decade's strategy seeks to build the capacity of marginalized groups, such as indigenous peoples, women and youth to take an active role in restoration, who stand to lose most from the continued destruction of ecosystems.*
8. ***Celebrate a culture of restoration*** *- the UN Decade's strategy calls on artists, storytellers, producers, musicians and connectors to join the #GenerationRestoration.*
9. ***Build up the next generation*** *- education for restoration will turn today's children into ecosystem ambassadors, provide skills for sustainable jobs and ensure that the UN Decade's achievements far outlive its timeframe.*
10. ***Listen and learn*** *– by involving the restoration community and the wider community.*

The UN Decade on Ecosystem Restoration is in working conjunction with other global restoration goals, such as the Bonn Challenge, under which several countries have pledged to restore 210 million ha of degraded ecosystems, with the ultimate goal of restoring 350 million ha by 2030. Restoring 350 million ha of degraded land by 2030 could remove 13-26 gigatons of greenhouse gases from the atmosphere while generating $9 trillion worth in ecosystem services. It will take 1 trillion USD, or just 0.1% of the global economic output between now and 2030, to restore 350 million hectares.

Figure 2 - Ten principles that underpin ecosystem restoration

To support the UN Decade Strategy and to guide restoration initiatives, ten principles that underpin the full set of ecosystem restoration activities have been identified, namely:

1. *Ecosystem restoration contributes to the UN Sustainable Development Goals and the Goals of the RIO Conventions.*
2. *Ecosystem restoration promotes inclusive and participatory governance, social fairness and equity from the start and throughout the process and outcomes.*
3. *Ecosystem restoration includes a continuum of restorative activities.*
4. *Ecosystem restoration aims to achieve the highest level of recovery for biodiversity, ecosystem health and integrity, and human well-being.*
5. *Ecosystem restoration addresses the direct and indirect causes of ecosystem degradation.*
6. *Ecosystem restoration incorporates all types of knowledge and promotes their exchange and integration throughout the process.*

7. *Ecosystem restoration is based on well-defined short-, medium and long-term ecological, cultural and socio-economic objectives and goals.*
8. *Ecosystem restoration is tailored to the local ecological, cultural and socio-economic contexts while considering the larger landscape or seascape.*
9. *Ecosystem restoration includes monitoring, evaluation and adaptive management throughout and beyond the lifetime of the project or programme.*
10. *Ecosystem restoration is enabled by policies and measures that promote its long-term progress, fostering replication and scaling-up.*

Box 1 - The EU Nature Restoration Law

In line with the EU Biodiversity Strategy for 2030 recommendations, the European Commission will put forward a proposal for legally binding EU nature restoration targets in March 2022.

The main objective of the EU initiative is to restore degraded ecosystems, in particular those with the most potential to:

- *capture and store carbon*
- *prevent and reduce the impact of natural disasters*
- *deliver further benefits, such as soil health and pollination, and*
- *improve knowledge and monitoring of ecosystems and their services*

The EU Nature Restoration Law is expected to include a legally binding set of targets to restore diverse types of ecosystems in all member states.

Over 150 NGOs have recently written to the European Commission demanding that clear, measurable targets for land area, river length and sea area are the key elements to make this legislation as ambitious, fit-for-purpose, and effective as possible. These measurable targets should reflect the level of political priority given to this file through the European Green Deal.

In the Declaration 'Scientists in Support of an Ambitious European Union Nature

The NetworkNature Call for ecosystem restoration case-studies

By sharing experiences of ecological restoration from around the world, developing collaborations and co-creating knowledge, it is possible to replicate and scale-up ecosystem restoration and to reset our relationship with nature to one that fosters stewardship and sustainable management of our natural capital.

As part of the NetworkNature semester 'Nature-based solutions for ecosystem restoration', which aims to create opportunities for local, regional and international cooperation on nature-based solutions and to explore how ecosystem restoration can contribute to biodiversity conservation whilst fostering sustainable development, the international community working on ecosystem restoration was invited to submit case-studies and experiences of ecosystem restoration. Through this call we were interested to learn more about the objectives, context, actions carried out, societal challenges tackled, and the arising benefits to communities.

Through the analysis of the case studies, we hope to identify key messages and recommendations to mainstream and upscale ecosystem restoration action. The deadline for the submission of case studies was 17th December 2021.

A total of 43 unique case studies from 23 countries and 6 continents have been submitted as a response to this call. The project varied from relatively small community funded to major projects, and the budget for the ecosystem restoration project varied between around 10,000 € and 65 million €.

A preliminary analysis of these 43 case studies of ecosystem restoration was presented at the 'Sharing Experiences of Ecosystem Restoration as a Nature-based Solution' online workshop which was organised as part of the NetworkNature Semester on Ecosystem Restoration activities. The

case studies were also invited to the workshop and, following the analysis of the case-studies objectives, we invited 3 case studies to present their work at the workshop (read more from The *'Sharing Experiences of Ecosystem Restoration as a Nature-based Solution'* workshop).

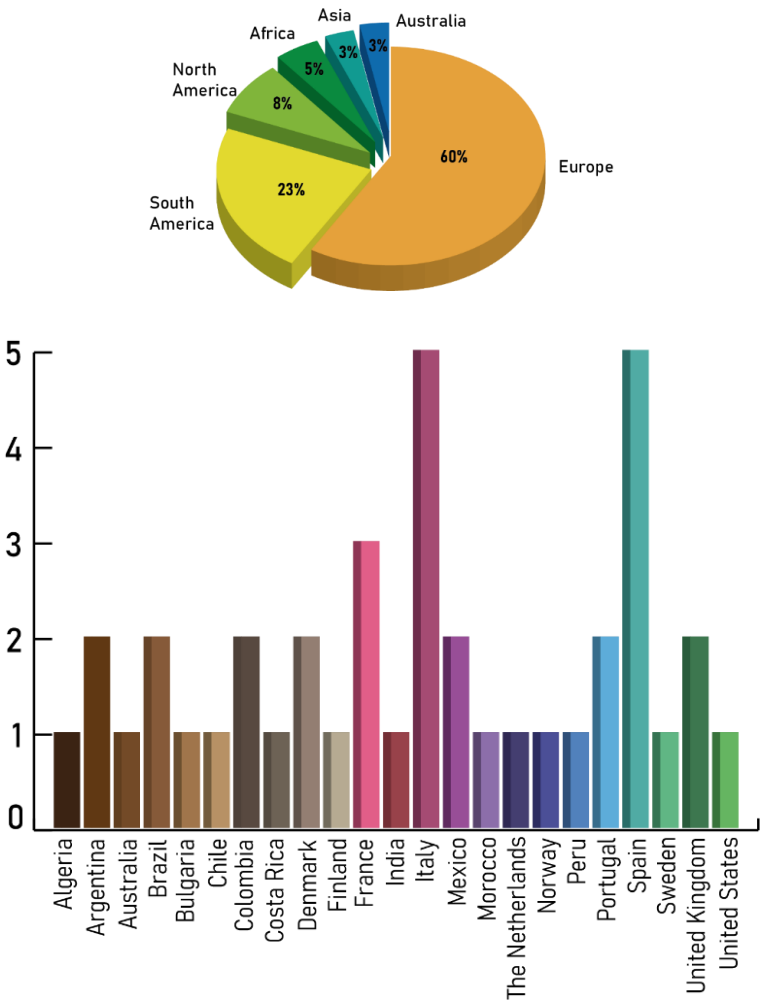


Figure 3 – The distribution of ecosystem restoration project as submitted to the NN call for case studies.

When presented with a classification of ecosystem types, based on the ecosystem type categorisation in the EU-wide Ecosystem Assessment (Maes et al., 2020), most of the case studies identified actions that were carried out in urban, marine and forest ecosystems but a wide range of ecosystems was identified (Figure 4). The ecosystem restoration case studies addressed most of the societal challenges areas for nature-based solutions (Dumitru & Wendling, 2021) but biodiversity enhancement and

building climate resilience were the two most frequently tackled societal challenges (Figure 5). This was also the case when only ecosystem restoration case studies in the two most common ecosystem types, that is marine and urban ecosystems, are considered. However, it is observed that there is variation in the goals of ecosystem restoration projects between the two ecosystem types, and, for example, tackling low air quality was primarily associated with case studies in urban ecosystems but providing new economic opportunities and green jobs was more commonly selected for ecosystem restoration case-studies in marine ecosystems (Figure 6).

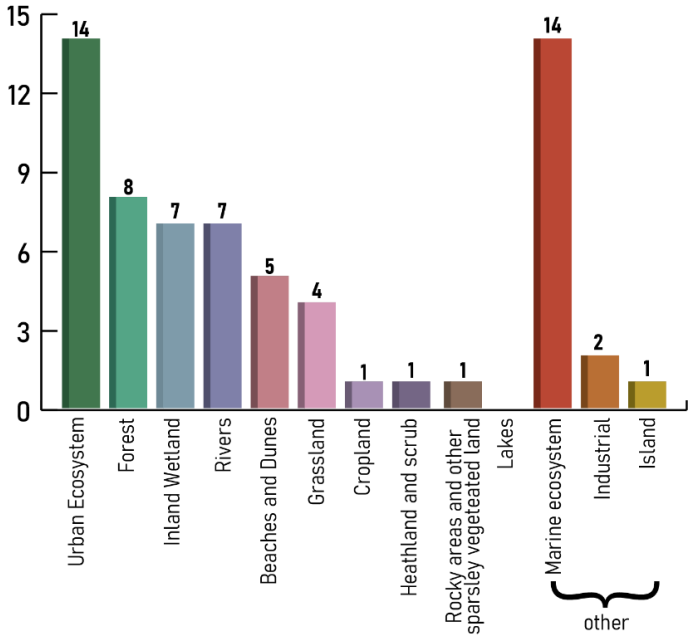


Figure 4 - Ecosystem types that have been restored during the ecosystem restoration case studies.

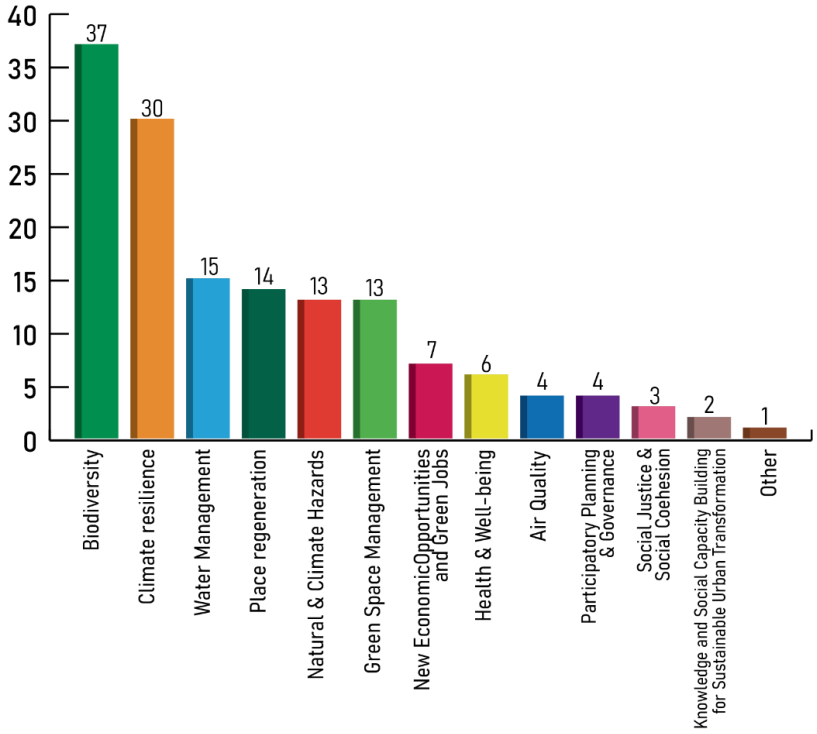
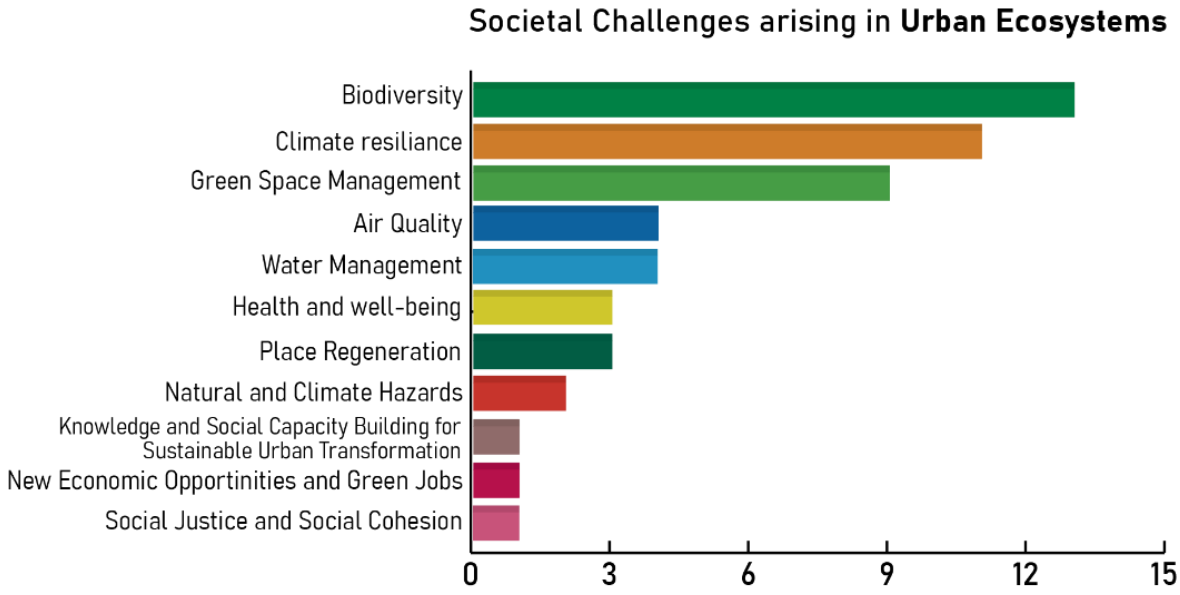


Figure 5 - Societal challenges addressed by the ecosystem restoration case studies.



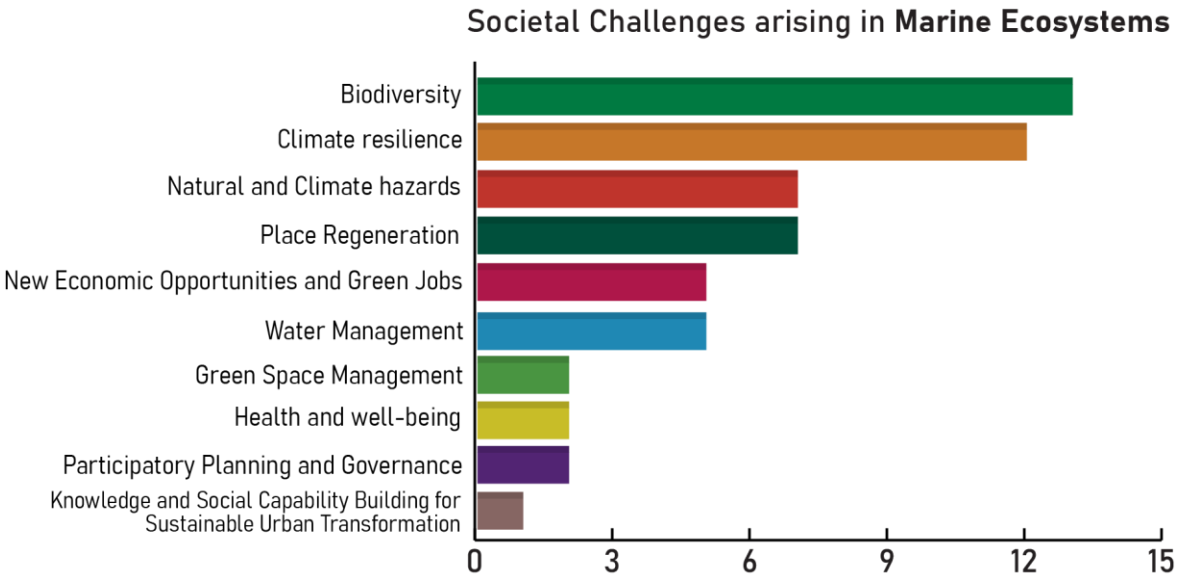


Figure 6 - A comparison of the societal challenges addressed by case studies in urban and marine ecosystems.

An evaluation of the societal challenges tackled by ecosystem restoration according to ecosystem types shows that while some of the challenges, that is primarily challenges associated with addressing climate resilience, biodiversity enhancement, and water management, are tackled by a signification proportion of the case studies, other challenges, and in most cases, those associated with social and economic factors, appear to be less often addressed through ecosystem restoration projects. These associations between ecosystem types and addressed societal challenges are presented in the heatmap shown in Figure 7, which uses hierarchical clustering with Euclidean distance to assess how frequently different response variables were identified together in case-study submissions.

Three case studies were invited to present their work of ecosystem restoration in an ecosystem restoration workshop organised by NetworkNature as part of the 'Nature-based solutions for ecosystem restoration' semester theme and held online on the 21st February 2022.

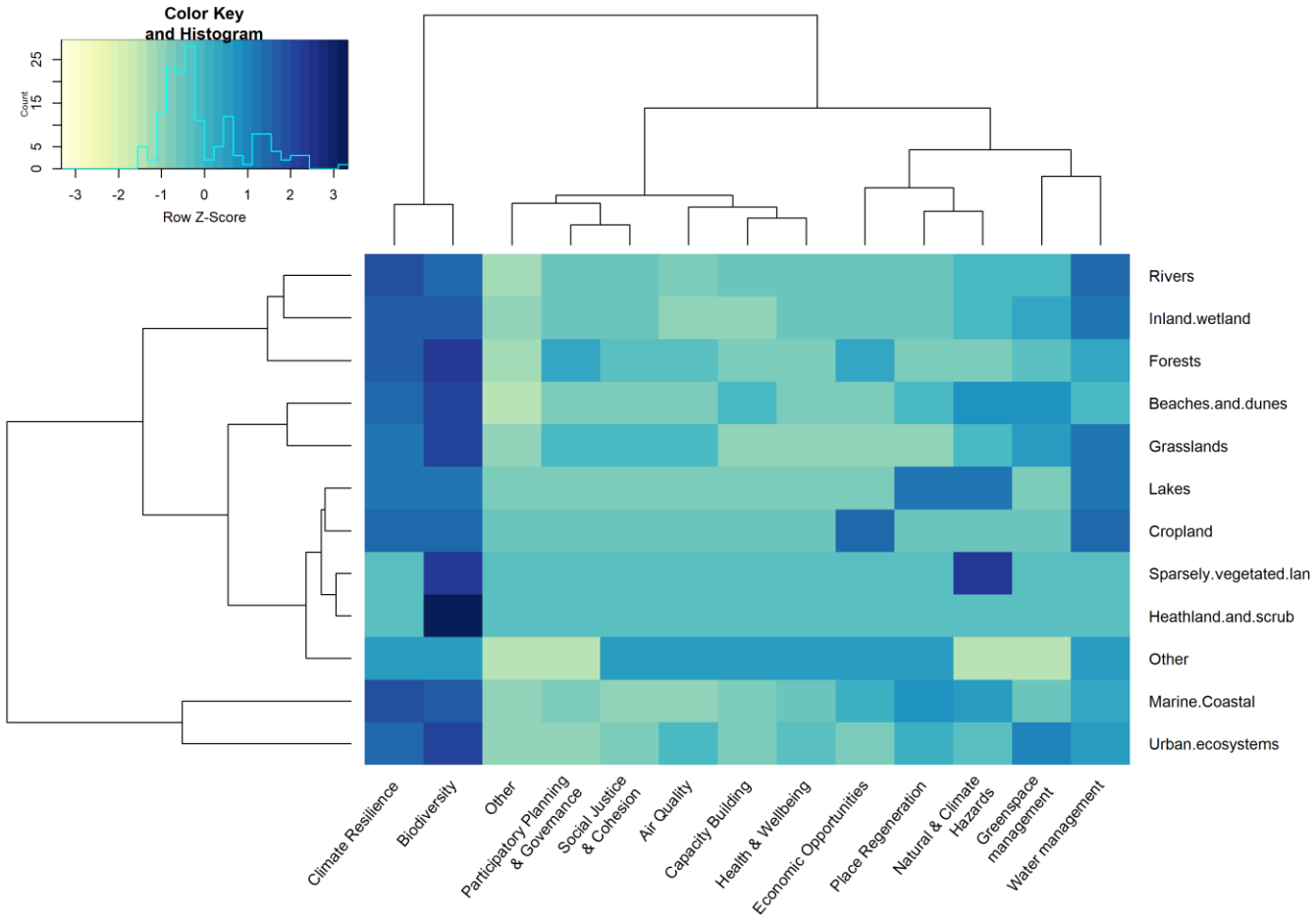


Figure 7 - Heatmap showing the association ecosystem type with societal challenges tackled by the ecosystem restoration case study. The dendrograms are obtained through hierarchical clustering and using a Euclidean distance measure, representing similar associations of studies in terms of the identified societal challenges/arising benefits (rows) and ecosystem types (columns).

The *'Sharing Experiences of Ecosystem Restoration as a Nature-based Solution'* workshop

In light of the United Nations Decade on Ecosystem Restoration and as part of the current semester theme, a NetworkNature workshop was organised to share international experiences on ecosystem restoration as a nature-based solution. The workshop aimed to bring together diverse stakeholders to reflect on the opportunities for ecosystem restoration at global, regional (EU) and local scales.

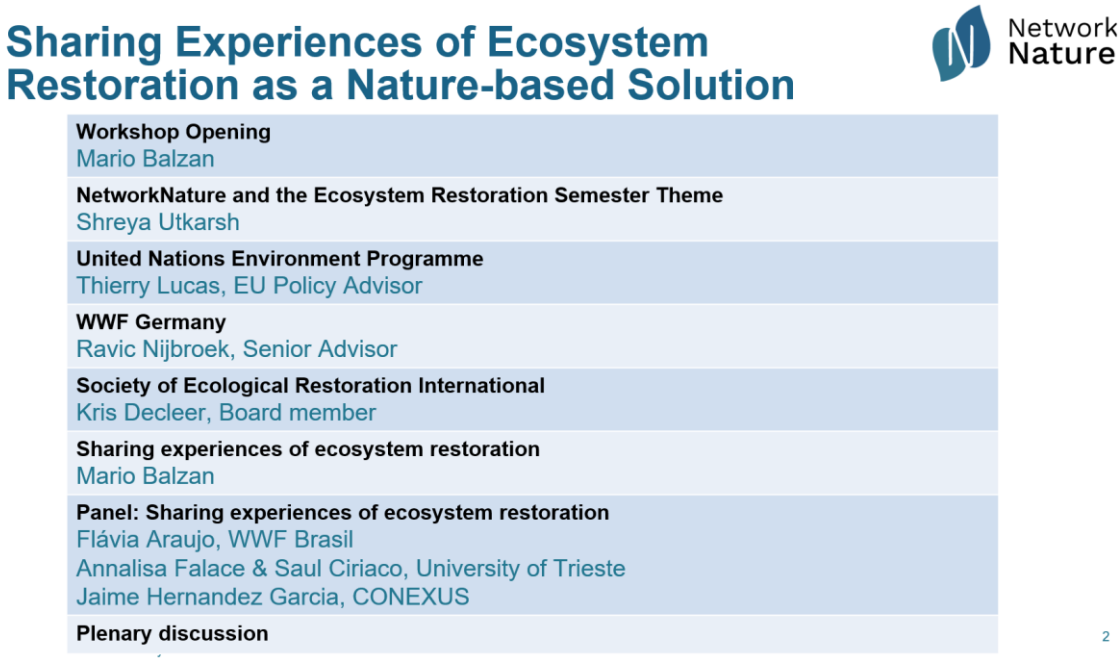


Figure 8 - The programme of the 'Sharing Experience of Ecosystem Restoration as a Nature-based Solution' workshop.

The workshop was hosted by Dr Mario Balzan and has attracted a diverse audience of around 120 participants and key policymakers working at global and European scale.

Key messages are shown below for each speaker:

- *Shreya Utkarsh, ICLEI, opened the workshop by providing an overview of the objectives of NetworkNature as a Horizon 2020 Coordination and Support Action and how it is consolidating, supporting,*

and expanding the community of practice and raising awareness of nature-based solutions to increase uptake and impact.

- *Thierry Lucas, EU Policy Advisor at United Nations Environment Programme (UNEP), described the objectives of the UN Decade on Ecosystem Restoration and explained how UNEP and FAO are co-leading the implementation of the Decade with a vision of worldwide health and wellbeing for all life on earth and future generations. He described the three pathways of achieving a global movement, political will and technical capacity to upscale and replicate existing restoration projects across ecosystems based on 10 principles for good ecosystem restoration.*
- *Benjamin Casper, Environmental Policy Advisor at the European Commission DG ENVIRONMENT, discussed the ambitions of the EU Nature Restoration Law, with the latter being described as groundbreaking since it will include a legally binding set of targets to restore diverse types of ecosystems in all member states.*
- *Dr Ravic Nijbroek, Senior Advisor from WWF Germany, focused on the importance of grasslands and rangelands, and the need to dedicate resources to develop a better understanding of the drivers and threats to ecological processes in these ecosystems. Around 54% of the land on our planet consists of grass-dominated ecosystems, and 80% of the total food-producing land is in grasslands or areas formally grasslands and yet they are conspicuously absent from global agendas, public and private sector commitments, and policies. He explained how WWF has recently established the Global Grasslands & Savannahs Initiative (GGSI) to strengthen the proposition for grasslands and savannahs, building a global coalition in support of natural ecosystems, beyond forests.*
- *Kris Decleer, Senior Researcher at the Research Institute for Nature and Forest (INBO) and a member of the Board of Directors at the*

Society for Ecological Restoration (SER) described the SER restoration continuum concept and explained how interventions vary according to the objectives of remediating and rehabilitating ecosystems or to assist the recovery of native ecosystems, the latter termed as ecosystem restoration. Kris also gave an overview of the work being carried out by SER who has prepared standards of good practice for planning and implementing ecological restoration.

- *Dr Mario Balzan gave an overview of the work that has been carried out during the NetworkNature Ecosystem Restoration semester and explained that, following an open call, a total of 43 case studies, from 23 countries and 5 continents, have been submitted by practitioners. The case studies were invited to the workshop, offering an opportunity to bring together global and regional policymakers with decision-makers and practitioners working at national and local scales. Mario discussed how some ecosystems appear to be better tackled by ecosystem restoration efforts and that while the societal challenges of ameliorating and restoring biodiversity and increasing resilience to climate change are addressed, other societal challenges, particularly those in the social-economic domain, appear to be less well covered. He then introduced three case studies from Brasil, Italy and the CONEXUS project that have participated in the NetworkNature Ecosystem Restoration open call.*
- *Flávia Araujo, WWF Brasil, gave an overview of ecological restoration efforts in the Guariroba basin, Brasil, and explained how extensive work has been carried out to establish partnerships with key stakeholders and create a seed network with local communities. This has brought extra income to families, empowered women and the appreciation towards traditional knowledge has grown. Active and passive ecological restoration methodologies were implemented within the project (Box 2).*

- *Saul Ciriaco, WWF Miramare MPA, gave an overview of the work carried out in the EU LIFE project Promoting biodiversity enhancement by Restoration Of Cystoseira POPulations (LIFE16 NAT/IT/000816). He explained how Cystoseira forests are important to sequester carbon dioxide, but they are dramatically declining due to anthropogenic impacts. Restoration actions carried out have included the reintroduction and implantation of Cystoseira cultured juveniles, with advantages in terms of time, costs and ecological impact (Box 3).*
- *Finally, the Horizon 2020 project CONEXUS, was presented by Juan David Amay and Jaime Hernandez. CONEXUS is a four-year project that will provide accessible knowledge on how to restore natural ecosystems; improve the quality of life in and around cities, and support collaboration between Latin America and Europe. Juan David presented a review of existing literature that has been carried out by the project that has identified the goals of existing nature-based solutions implementation and explained that tackling ecological connectivity, water management and access to green space were the 3 dominant challenges tackled using nature-based solutions in this review.*

Box 2 - Ecological restoration in the Guariroba basin

The Guariroba stream basin, with its 36,190 hectares, is in the Cerrado biome, which in the region presents typical phytophysiognomies, presenting a mosaic of savanna, rural and forest types, but is also characterized by the occurrence of areas of ecological tension represented by contact Cerrado/Seasonal Semideciduous Forest, having as an occurrence associated with edaphic and geomorphological factors.

The actions of this project in the Guariroba stream basin are part of the Water Producer Program of the National Water Agency, working together with a series of partners in favour of environmental preservation and care for water and soil, with projects which expand in soil recovery in productive areas and rural roads.

A total of 147 hectares were restored using active ecological restoration methodologies, benefiting 235 people and planting more than 89,000 seedlings. A further 15.368 hectares of vegetation close to water bodies were isolated through fencing, allowing for passive natural regeneration. The project had the participation of students from the Federal University of Mato Grosso do Sul (UFMS), with 8 groups carrying out studies in the area, both in ecological restoration and in hydro-sedimentological monitoring of the hydrographic basin. In the restoration actions, the students developed research and innovation, with this, different ecological restoration techniques were implemented, such as conducting natural regeneration with enrichment and densification; 3x2 planting and in nuclei, using innovative technologies such as the nuclear plant; the seed mob to gain scale, which made it possible to create a seed network, and agroforestry, which brings the rural producer even closer to the area under restoration.

Box 3 - Restoration Of Cystoseira POPulations (ROC-POPLife)

ROC-POPLife is a concrete conservation action aiming to restore the Habitat 1170 in two marine Natura2000 sites (that are Specially Protected Areas of Mediterranean Importance - SPAMI), by reintroducing *Cystoseira* s.l. species: the project involves the implantation of *Cystoseira* cultured juveniles, with advantages in terms of time, costs and ecological impact.

The non-destructive approach allowed restoration without damaging donor sites, which is essential, given the critical conservation status of the species.

All the *Cystoseira* species are part of a Habitat of Community Interest: the different species are used for the definition of the Natura2000 Habitat 1170 (Reef) and are a priority in SPAMI MPAs. Several *Cystoseira* are strictly protected in the Annex I of Bern Convention and the Mediterranean Action Plan (Barcelona Convention) identifies the conservation of all but one *Cystoseira* species as a priority.

Cystoseira is considered as vulnerable by IUCN, RAC/SPA and MedPAN, and is one of the indicators of ecological quality according to the Water Framework Directive.

This case-study has been presented by Mr Saul Ciriaco, WWF Miramare, during the 'Sharing Experiences of Ecosystem Restoration as a Nature-based Solution' workshop

Key messages and recommendations arising from Ecosystem Restoration milestone events

During the NetworkNature Ecosystem Restoration semester, a total of three milestone events were attended by the semester expert. These milestone events have included the participation of different target audiences and policy-makers and involved discussion focused on the

development of the EU Nature Restoration and regional and global action towards achieving the recovery of nature. Key messages and recommendations arising from these milestone events are summarised here:

GPSC Webinar Series: Bringing Nature to Cities. Mainstreaming Biodiversity and Climate Change into EU Urban Planning and Policy. 28th September 2021.

- *Within the EU, the new Green Deal for Europe is resulting in a stronger policy focus on protecting nature and climate change. Increased policy focus on nature, means that more of the EU funding for research, structural and agricultural funds can be dedicated to the protection and restoration whilst we ensure that funding does not cause further damage to biodiversity and nature.*
- *Most of the EU Biodiversity Strategy targets for 2020 were not met. There is now therefore an increased focus on having legally binding nature-restoration targets covering different ecosystems (and including urban ecosystems).*
- *Smart procurement processes have been instrumental for the city of Utrecht to implement green-roofed bus stops. It is thought that this has led to more enthusiasm towards having nature and the city has seen a drastic increase in applications for the funding of green roofs. By working with architects, it has also been possible to test greening measures on new developments and now this "building for nature" approach has become obligatory for all new housing developments.*
- *The city of Milan wants to have a green footprint, and the new city plan is supporting forestation and re-naturalisation both in public and private spaces. Several projects were shown but of particular importance is the Reinventing Cities approach in which teams are called to find solutions to 10 climate challenges, associated with*

carbon impact, resilience and sustainability, and inclusion and social benefits, through proposals for the redevelopment of sites.

- *For the Portuguese city of Cascais, having a Green Infrastructure plan has been critical to defining the possible land uses and activities and to enhancing habitat connectivity and restoring ecosystems. The city has also developed a multidisciplinary Climate Change plan, which updated climate change scenarios and established inter-institutional collaboration. A series of projects arising from the implementation of the GI plan has been presented, with benefits ranging from the restoration of natural and cultural heritage to education and involvement of local communities to site visitation for recreation and stewardship by local communities. Key messages arising from these experiences are the importance of a) using a GI plan as a road map for the future, b) obtaining political commitment, c) investing in data collection, d) having an enthusiastic team and e) engaging with the local community.*
- *The importance of working with cities as actors of change at the local scale was also discussed. Local governments are influenced by their national, regional (EU NbS projects; Biodiversity Partnership) and global (e.g., Post 2020 Biodiversity framework) but are also working with stakeholders to bring about action.*
- *Working across departments and with communities is important to ensure co-creation, but also improve the understanding of the benefits associated with having nature in cities.*
- *Systemic change is now necessary and new developments should incorporate a minimum requirement of nature and, if for some reason this is not possible, impacts should be offset.*

Achieving the European Green Deal through Nature-based Solutions. 21st October 2021

- *How can nature-based solutions enter everyday vocabulary? How can nature-based solutions become mainstream to restore habitats, bring back biodiversity and lead to the improved well-being of our communities? Which are the knowledge and implementation gaps that are limiting the use of nature-based solutions by decision-makers and businesses? These are some of the questions tackled during the NetworkNature Annual Event.*
- *Experiences presented during the workshop illustrate how nature provides us with an important opportunity to address the climate change and environmental degradation challenges whilst giving rise to economic benefits to communities, and advancing social justice and inclusion. Nature-based solutions also contribute towards the targets of the post-2020 Biodiversity Framework and their contribution must be recognised and scaled up globally.*
- *The misidentification of nature-based solutions based on a weak evidence base, or their misuse can lead to a reduction in public and political support for nature-based solutions. Nature-based solutions need to have biodiversity at their heart and are implemented and replicated at the appropriate scale and through suitable policies that lead to measurable impacts on biodiversity and well-being. The importance of carrying out an impact assessment of nature-based solutions, and of ensuring that nature-based solutions are adapted to the local conditions and are co-developed with cities and citizens was also discussed.*
- *Gaps associated with missing knowledge and limited data availability about the planning, design and implementation of nature-based solutions were identified. There are also gaps in capacities to imple-*

ment nature-based solutions and in the understanding of the potential contributions of nature-based solutions to improved biodiversity and ecosystem services supplies.

- *The importance of developing collaborations that involve cities, businesses, and researchers as part of networks that are working to re-green cities and that integrate nature with infrastructure development were identified. It is also important to revise the public sector procurement criteria to ensure that, in addition to the economic aspect, these also lead to positive social and nature returns on investment.*
- *The important role of businesses and SMEs in fostering nature-based solutions was also one of the main messages. SMEs are identified as intermediaries of knowledge working on the ground with stakeholders to foster co-learning and knowledge exchange opportunities whilst developing tools that can inform future nature-based solutions and practices.*

The rewards of nature restoration: Will the new EU law deliver? 10th March 2022

- *The Rewards of Nature Restoration webinar aims to showcase what has already been done and inspire people to do more. The webinar was addressed by people who have done restoration on the ground, to present some of the achievements from these projects.*
- *As part of the webinar's objective to showcase the rewards of nature restoration, a digital photo exhibition was shared during this event. Subsequent presentations focused on ongoing nature restoration work and highlighted some of the benefits of restoration.*
- *Discussions focused on the new EU Nature Restoration Law which will have ecosystem specific targets and will focus on the involvement of local stakeholders as part of ambitious nature restoration plans with long term objectives. The need for a clear definition of*

restoration, as well as ambitious and binding targets, and supporting measures and financing were also identified by the speakers.

- *Recent achievements, and in some cases the insufficient level of improvement of ecosystem condition, were discussed and it was recognised that some of the biggest challenges are associated with achieving an adequate level of enforcement of the EU Nature Restoration law in a relatively short time frame. The need to tackle subsidies that lead to negative impacts on the environment and greenwashing was also discussed as these are likely to lead to the loss and degradation of ecosystems.*

Semester Closing Event: the Nature-based Solutions for Ecosystem Restoration Seed Session at the TNOC Festival 2022

The closing event of the NetworkNature semester on ecosystem restoration will be held on the 30th March 2022 at 16:00 CET during The Nature of Cities (TNOC) Festival 2022.

After a recap of the main results of ecosystem restoration case studies submitted by the semester theme expert, we will have a keynote by Benjamin Caspar, Environmental Policy Advisor at DG ENV on the Nature Restoration Law. The session will include the participation of the European Green Deal projects, who have experience with initiating and leading ecosystem restoration projects, and also the other nature-based solutions projects. A total of 4 coordinators from these projects will facilitate the breakout sessions with the workshop participants.

Conclusions

This final output report has provided an overview of the work carried out during the Ecosystem Restoration Semester. This has included participation in key milestone events relevant to ecosystem restoration and nature-based solutions, and the identification of policy recommendations based on the high-level discussions between stakeholders from different NetworkNature target audiences.

As part of the NetworkNature Ecosystem Restoration semester, it was possible to share experiences by collecting and collating case studies of 43 ecosystem restoration projects from 6 continents and to identify the strengths and limitations of current projects. The restoration projects often included significant stakeholder involvement and ownership by communities, as, for example, can be observed from the work presented in Boxes 2 and 3. When analysed together, the case studies addressed the societal challenges of climate resilience and biodiversity enhancement but other challenges in the social and economic domain appear to be less often addressed through ecosystem restoration projects. This report has also discussed the role of the EU Nature Restoration Law, and how it is expected to include a legally binding set of targets to restore diverse types of ecosystems in all member states. There are certainly high expectations for this new legislative framework, and more generally for achieving the goals of the UN Decade of Ecosystem Restoration, as these offer an unprecedented opportunity to start reversing biodiversity loss whilst leading to positive impacts to human well-being, and particularly those who are more vulnerable and susceptible to global climate change and local environmental pressures.

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