Supporting the United Nations 2021-2030 Decade on Ecosystem Restoration

Overview of the tools available and opportunities for business to engage and support impact

Mangrove restoration project. Source: ©Akarawut / Adobe Stock

Key Messages

- Restoration of degraded ecosystems is carried out by the private sector either as a mandatory requirement to address impacts of mining, extractives and other disruptive activities or as a voluntary action towards corporate sustainability.
- The global restoration movement catalysed by the United Nations (UN) Decade on Ecosystem Restoration is an opportunity for the private sector to strengthen both environmental and social compliance and voluntary contributions to prevent, halt and reverse ecosystem degradation.
- The restorative actions undertaken by the private sector can minimise risks and promote new business opportunities generating economic gains and recognition of private sector contributions to the sustainable development agenda.
- Restoration interventions should result in multiple, long-lasting benefits for people, nature and the climate. It's crucial that peoples' rights and livelihoods are safeguarded, and restoration efforts should involve stakeholders from across society.
- Restoration can be carried out as a Nature-based Solution, in alignment with the Mitigation Hierarchy, and through Additional Conservation Actions – it should not be carried out without addressing underlying causes of ecosystem degradation.
- There are many opportunities, resources, and tools to support the private sector in contributing to the long-term impact of the UN Decade on Ecosystem Restoration, and there are resources and tools available to help drive forward the agenda for social, economic and environmental benefit.

Introduction

Both legal obligations and corporate commitments drive businesses to manage their impacts on biodiversity. Restoration of degraded ecosystems often forms part of mandatory, legal requirements and companies must demonstrate compliance with national legislation and align with international agreements. Industry best practice follows the widely adopted Mitigation Hierarchy, whereby actions to restore degraded ecosystems may be used to mitigate impacts that cannot be reasonably avoided or minimised. Multiple safeguards and financial standards require restoration activities to be undertaken through the Mitigation Hierarchy. These include the International Finance Corporation's Performance Standard 6 (IFC PS6), the World Bank's Environmental and Social Standard 6 (ESS6) and the European Bank for Reconstruction and Development's Performance Regulation 6 (EBRD PR6). Going beyond mandatory, legal requirements for ecosystem restoration, companies can also undertake voluntary ecosystem restoration actions as part of their approaches to corporate sustainability and managing their dependencies on nature.

Overview of the UN Decade and importance to Proteus Partners

The year 2021 marked the start of the UN Decade 2021-2030 on Ecosystem Restoration[1], hereafter the UN Decade - a global movement to prevent, halt and reverse the degradation of ecosystems and to contribute towards multiple goals and targets for people, nature, and the climate. Aiming to include all sectors and undertake action at all scales, the UN Decade has a wide partnership including governments, companies, investors, and academia as well as local communities, women, youth, and Indigenous Peoples. The UN Decade aims to catalyse action towards existing goals and targets, such as the 2030 Agenda for Sustainable Development and the three Rio Conventions[2], as well as the delivery of existing ecosystem restoration commitments by state and non-state actors around the world. At the time of the launch of the UN Decade, an estimated 1 billion hectares had been committed to restoration by governments[3], in addition to a growing number of initiatives aiming to engage non-state actors (Table 1).

Table 1 – Examples of restoration commitments and initiatives around the world.

Initiative	Commitment
Bonn Challenge	Restoration of 350 million hectares of degraded and deforested landscapes globally by 2030
New York Declaration on Forests	Restoration of 350 million hectares of landscapes and forestlands globally by 2030
Global Mangrove Alliance	Restoration, conservation, and sustainable management of mangroves globally achieving a 20% increase in area by 2030
Great Green Wall Initiative	Restoration of 100 million ha of degraded land by 2030 in the African Sahel's region

The UN Decade has identified a core vision and three goals that support its strategy for the coming decade. There are opportunities for Proteus Partners to contribute across these three goals, including: within Goal 1, for enhancing and delivering goals and actions, within Goal 2, for increasing the multiple benefits of restorative activities, and Goal 3, for applying knowledge within public and private sector decision making. Proteus Partners can also support the UN Decade's vision by raising awareness of the benefits of ecosystem restoration. Partners can help boost political will by encouraging leaders to champion restoration and can also contribute by helping to promote and increase technical capacity.

The Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP26) held in 2021 in Glasgow brought nature into the mainstream of discussions, showing that together with rapid fossil fuel reductions and decarbonisation of all sectors, the world needs to protect, manage and restore ecosystems for the multiple benefits they provide. The Glasgow Climate Pact[4] calls upon multilateral development banks, other financial institutions and the private sector to enhance finance mobilisation to achieve climate plans.

Figure 1: Benefits of engagement by the private sector in the UN Decade.

The UNFCCC COP26 outcomes are aligned with the UN Decade, and call on private sector companies to source only from sustainable sources; to eliminate deforestation from supply chains, and to minimise climate risks by investing in ecosystem conservation and restoration. The UNFCCC COP27, held in 2022 in Egypt, further emphasised the strong links between addressing climate change and biodiversity loss, encouraging parties to consider Nature-based Solutions (NbS) and ecosystem-based approaches in climate change mitigation and adaptation.

Contributions from the private sector towards the objectives of the UN Decade would be beneficial for the reasons highlighted in Figure 1.

Restoration for multiple benefits

The Launch Report of the UN Decade on Ecosystem Restoration highlights the importance of restoring ecosystems for the economy, food security, water security, health, security, biodiversity, and climate. The UN Decade stresses the importance of planning restoration in a holistic way, looking at the different actors that depend on and impact on ecosystems at varying scales (a landscape, a seascape, a catchment) to balance their needs, to minimise trade-offs and deliver multiple benefits for people, climate, and nature (Figure 2). The multiple benefits of NbS, including restoration actions, were collated from existing studies and made available in a policy brief launched at the UNFCCC COP26. Restoration actions should be designed and implemented to deliver those multiple benefits, including for climate change

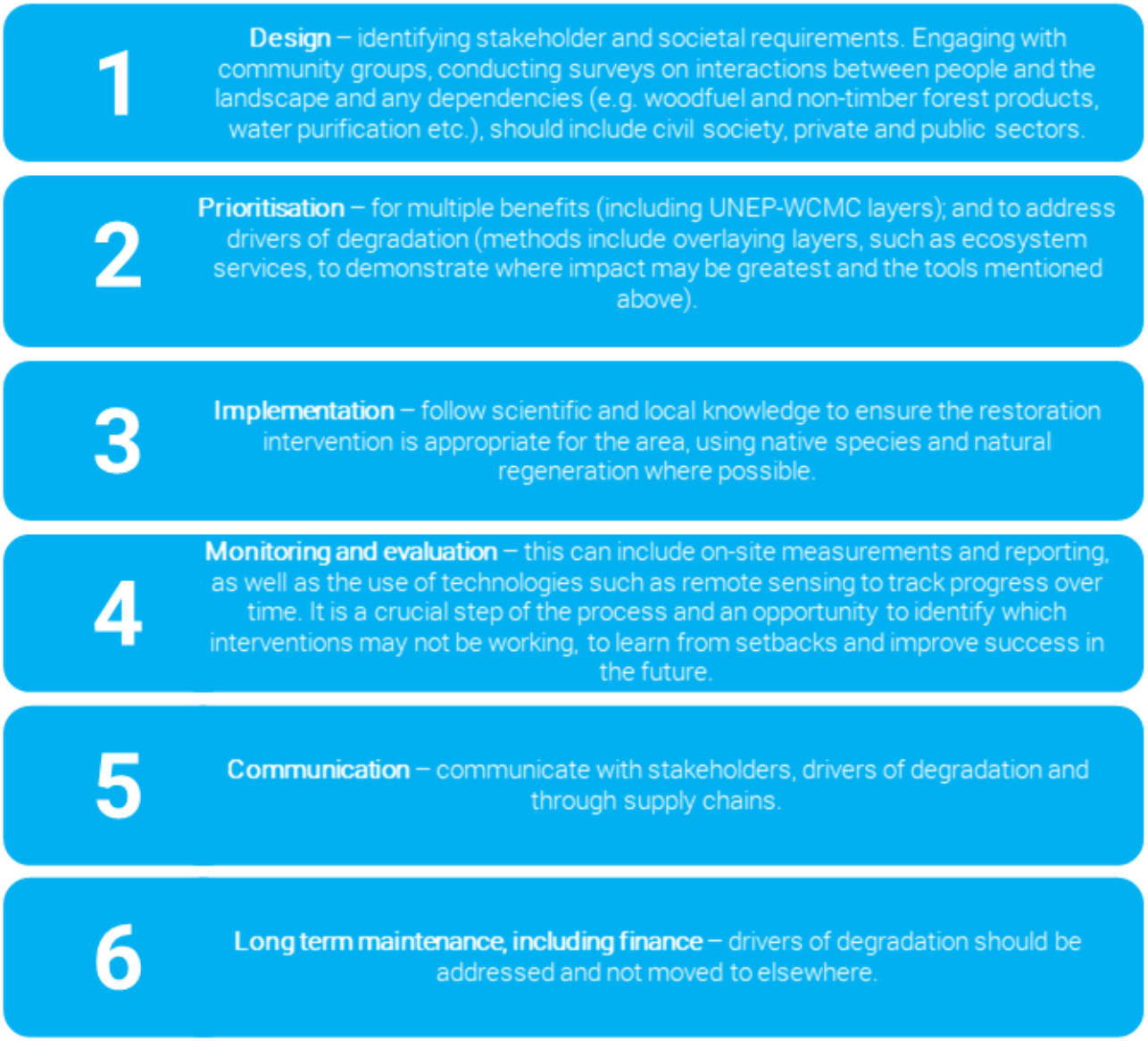


Figure 2: Stages of ecosystem restoration.

adaptation and biodiversity conservation (Figure 3). Some months after the UNFCCC COP26, a UN Environment Assembly (UNEA) resolution defined NbS, increasing global momentum for adopting NbS actions. In May 2022 the Conference of the Parties of the United Nations Convention to Combat Desertification (UNCCD COP15) held in Côte d'Ivoire emphasised the importance of upscaling land restoration to achieve sustainable development. The role of nature-based solutions in climate change mitigation and adaptation was emphasised at the recent UNFCCC COP27 in Egypt, with sustainable land use being a major topic. The Enhancing Nature-based Solutions for Climate Transformation (ENACT) initiative, launched by the COP27 presidency in collaboration with IUCN, will focus on coordinating global efforts to address climate change, land and ecosystem degradation, and biodiversity loss through NbS. The ENACT initiative aims to secure up to 2.4 billion hectares of healthy natural and sustainable agricultural ecosystems, in part through the restoration of 350 million ha. It also

aims to significantly increase global mitigation efforts through protecting, conserving and restoring carbon-rich terrestrial, freshwater and marine ecosystems. Furthermore, decisions that are expected to be taken at the 15th Conference of Parties of the Convention on Biological Diversity (CBD COP15) in Montreal and the Conference of Parties of the Ramsar Convention on Wetlands (Ramsar COP14) in Geneva are expected to galvanise collective action towards the restoration of degraded ecosystems. Specifically, the draft version of the Post-2020 Global Biodiversity Framework, on which the final decision will be taken at CBD COP15, includes the following quantitative target for restoring ecosystems: "*Target 2. Ensure that at least 20% of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems*".

Besides its corporate responsibility to report on decommissioning and restoration efforts, the private sector should take part in the UN Decade global movement, supporting restoration as an integrated response to face the interconnected challenges of climate change, biodiversity loss, food and energy security and other societal challenges.

The rest of this Technical Briefing outlines the tools and resources that can support Proteus Partners to minimise their overall footprint and to develop, implement and monitor restoration projects to allow for the delivery of social, economic and environmental benefits.

Tools and resources for the UN Decade

Tools for identifying degraded areas, monitoring restoration, and measuring success

Identifying degraded ecosystems is integral for planning, implementing and monitoring ecosystem restoration. There is an increasing number of powerful, often freely available, tools to identify degraded areas, prioritise where to restore, monitor ongoing restoration initiatives and help to measure their success. In particular, geospatial technologies allow us to identify where ecosystem degradation has been occurring historically, the main drivers and the extent of degradation. Tools, such as Google Earth Engine and OpenForis (including System for earth observation, data access, processing, analysis for land monitoring (SEPAL), Collect Earth and Earth Map), bring together datasets including Landsat remote sensed data, high-resolution satellite images and derived products. These can be used to assess the health of our ecosystems and to monitor ongoing protection and restoration efforts. Spatial layers derived from remote-sensed products, such as land use, land cover and tree canopy cover datasets, can also be used to identify degraded ecosystems, but may be limited in their coverage spatially, or of particular ecosystems.

Estimating the potential benefits of restoration

When implemented correctly, restoration should ensure multiple benefits, such as for food, water, and energy security for local communities, and biodiversity conservation. Modelling potential outcomes can estimate the changes restoration may bring about for people and the environment in terms of ecosystem services. Furthermore, such approaches may help us identify priority areas for restoration, those with multiple benefits for people, nature and the climate. For example, restoring a landscape may increase the availability of fuelwood, improve air and water quality for local people, while connecting habitat for biodiversity and sequestering carbon.

Several tools and methodologies are available to understand the multiple benefits of a restoration approach, including the conservation of ecosystems and the supply of provisioning,

regulating and cultural services. Freely available ecosystem service and valuation tools such as Integrated Valuation of Ecosystem Services and Trade-offs (InVEST), the Toolkit for Ecosystem Service Site-based Assessment (TESSA), the SEPAL forest restoration planning tool, the WePlan-Forests forest restoration planning tool, Artificial Intelligence for Environment & Sustainability (ARIES) and EX-ACT the EX-Ante Carbon Balance Tool, amongst many others, can be used to both plan restoration approaches and monitor their ongoing success. Biodiversity impacts may be measured through the Species Threat Abatement and Restoration (STAR) layer, which is available to Proteus Partners to download and integrate into a STAR report through the Integrated Biodiversity Assessment Tool (IBAT). The choice of the tool will depend on data and time requirements as well as on both the capacity and training needs.

Monitoring and evaluation

Effective monitoring is key to ensure restoration outcomes are long-term, allowing understanding of what is working and the benefits that are being realised. UNEP-WCMC has worked closely with UNEP and the Food and Agriculture Organisation (FAO) to identify key indicators for monitoring impacts of ecosystem restoration and showcase progress towards global goals, targets and commitments. A publication is now available that summarises the global-level indicators that could be used to report the progress of the UN Decade on an annual basis[5]. Such a framework can be used by Proteus Partners to understand linkages to global, regional and national monitoring frameworks.

Resources

A variety of platforms are available to connect restoration implementers, policy makers and funders, to share knowledge and scientific guidance and improve outcomes. Ensuring restoration projects are following the latest and best science improves our chances of a successful outcome. These include the Framework for Ecosystem Monitoring (FERM) platform, which brings together datasets, tools and indicators to monitor restoration projects. Furthermore, the UN Decade's Task Force on Best Practices have released ten guiding principles for restoration initiatives[6]. These principles, together with the Global IUCN Standard for NbS, provide useful guidance to ensure that conservation, restoration and protection of our ecosystems is effective in delivering multiple long-lasting benefits to people and nature.

Environmental and Social Safeguards

The legitimacy and long-term success of restoration projects depends on planning and implementing them to avoid harm to people and the environment, and in line with relevant safeguards. Project plans and outcomes should be produced with the involvement of local stakeholders and monitoring and grievance systems should be in place.

Opportunities for engagement

Supporting the UN Decade

Proteus Partners can contribute to the three goals of the UN Decade and, in particular, the three pathways for action (generating a global movement, political will and developing technical capacity). By doing so, Proteus Partners can benefit from partnerships, including opportunities to link with other projects in their site areas to have greater benefit, provide greater support for the delivery of goals, targets and commitments, and ensure the delivery of multiple benefits for people and nature.

Proteus Partners already engage in ecosystem restoration across the world, including under legal requirements and through voluntary action. Efforts to support the **global movement** can be taken through implementation of effective and sustainable actions within existing and upcoming

restoration efforts. Proteus Partners should continue to operate within the Mitigation Hierarchy to avoid impact on ecosystems and embed effective and sustainable restoration into mitigation practices. Opportunities also lie within engagement with other sectors and initiatives to catalyse greater impact from restoration efforts, benefitting from connectivity and cumulative impacts of healthy ecosystems. As part of the UN Decade's implementation, a total of ten on-the-ground Flagship Initiatives have been selected to advance key local restoration activities, while showcasing good practices for scaling up and replication[11]. These 10 Flagship Initiatives represent cases of success and are simultaneously landscape-level engagement and investment opportunities for the private sector.

To support **political will**, including the delivery of goals, targets and commitments and implementation of effective finance mechanisms, Proteus Partners can champion ecosystem restoration through changing market incentives, creating net positive practices through their supply chains and investing in ecosystem restoration in locations where they operate. Through Proteus, Partners can access the Species Threat Abatement and Restoration (STAR) layer via the Integrated Biodiversity Assessment Tool (IBAT). As well as screening for biodiversity risk, STAR can be used to screen for restoration opportunities, identifying areas where action and investment can reduce species extinction risk through restoration activities or threat abatement. Furthermore, restoration opportunities are highlighted in the Proteus Technical Brief on brownfield sites. This document explores how restoration, rehabilitation and conservation of brownfield sites present potentially untapped opportunities for businesses to achieve net gain and contribute to global goals on biodiversity.

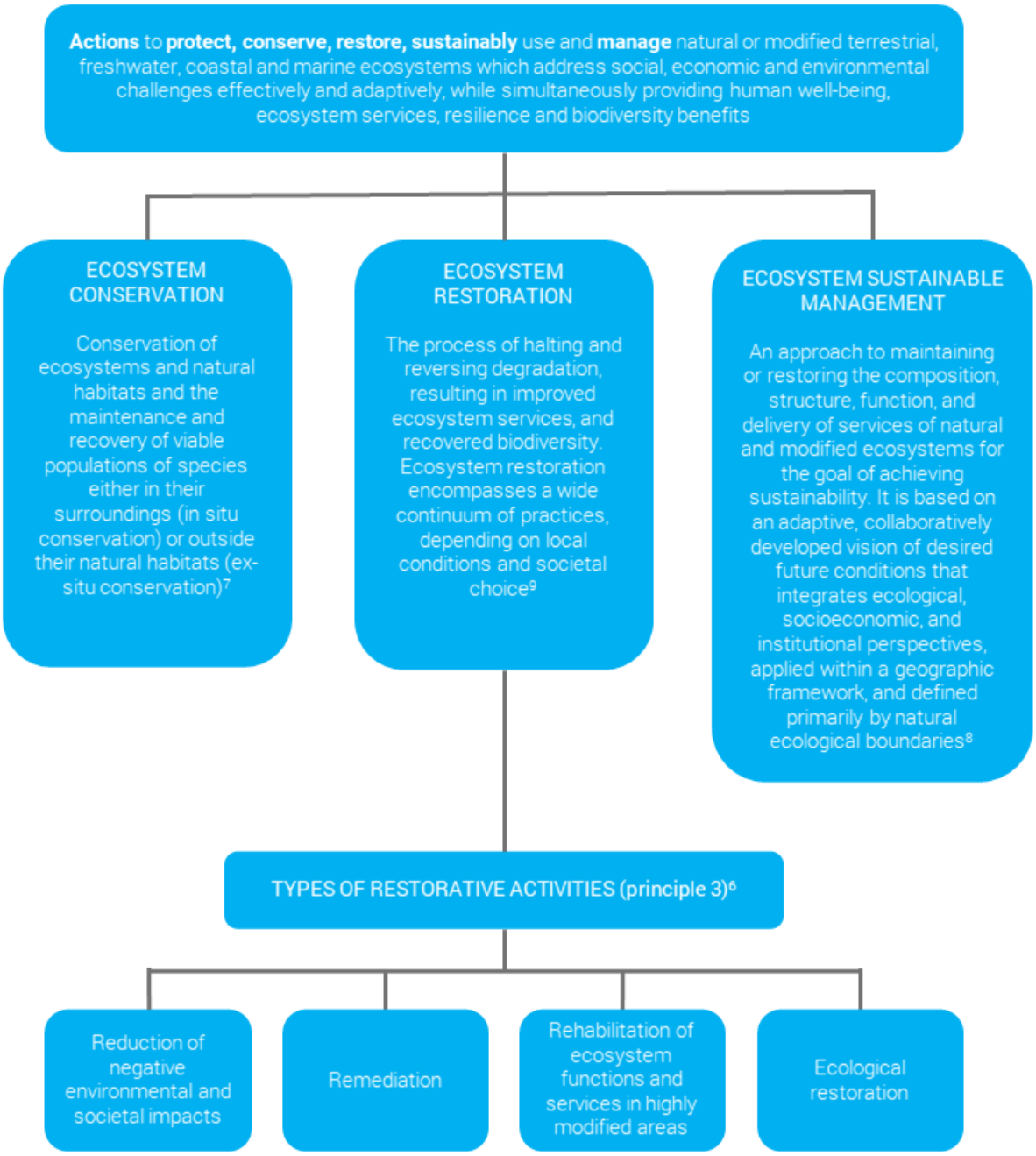
Initiatives such as the 1t.org Corporate Alliance, Restoration Seed Capital Facility, TERRA MATCH and the UN Programme on Reducing Emissions from Deforestation and Forest Degradation (UN-REDD) Programme can facilitate connections between funders (including the private sector) and restoration projects on the ground. Ecosystem-specific initiatives, such as the Global Mangrove Alliance bring together stakeholders from local communities to governments, the private sector and NGOs involved in ecosystem restoration to set targets and facilitate achieving them. UNEP-WCMC has been instrumental in developing Environmental and Social Operating Guidelines to measure positive social and environmental impact for UNEP's Restoration Seed Capital Facility. Additionally, UNEP-WCMC are working under The Restoration Initiative to develop guidance for restoration project developers to help them access finance and deliver training to banks on potential forest landscape restoration investment opportunities.

To support the **development of technical capacity**, Proteus Partners should continue to design, implement and monitor sustainable ecosystem restoration actions, including the long-term monitoring of the multiple benefits delivered from restoration and sharing of lessons learned within and across sectors. Opportunities also lie within engagement with the UN Decade Task Forces, particularly within Monitoring, Best Practices and Finance which work across sectors, ecosystems and geographies.

Collaboration with and support from UNEP-WCMC

Through our support to the UN Decade co-leads (UNEP and FAO), collaborating agencies and partners, UNEP-WCMC can support, engage and inform Proteus Partners throughout the 2021-2025 Proteus Strategy timeframe. By providing regular updates, UNEP--WCMC can summarise and highlight relevant updates and opportunities for engagement, as well as promote the importance and relevance of Proteus Partners to help deliver the aims of the UN Decade movement.

Current needs and interests identified by Proteus Partners during 2021 (as collated through data forum, horizon scan webinars and one-to-one discussions), have helped establish the 2022-2025 strategy including the development of spatial prioritisation layers for ecosystem restoration which will deliver updates through 2022-2025.



Related definitions:

Societal challenges: food security, water security, environmental degradation and biodiversity loss, human health, economic and social development, disaster risk reduction, climate change mitigation and adaptation.

Natural climate solutions: a subset of nature-based solutions focused on climate change mitigation.

Ecosystem-based approach: a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

Ecosystem services: The benefits people derive from ecosystems.

Figure 3: Placing Ecosystem Restoration within the wider context of Nature-based Solutions.

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