ACTION PLAN FOR THE UN DECADE ON ECOSYSTEM RESTORATION, 2021-2030

Version April 2023

FOREWORD

Ecosystems are the web of life on Earth. From a grain of soil to the entire planet, every interaction and each living organism is indispensable to enable key ecosystem functions and processes that we all depend on. As long as the world continues to lose forests, pollute rivers, drain peatlands and overfish the oceans, we are continuing to jeopardize the priceless benefits that ecosystems provide. These include clean air, water, food, raw materials, but also protection from global threats such as food insecurity, water insecurity, climate change, and global pandemics.

With a growing world population and rising demand for resources, nature is under increasing pressure. We are using the equivalent of 1.7 Earths to maintain our current lifestyle – with stark inequalities between and within countries and regions. The people who are least responsible for resource overexploitation are most often those who suffer the worst consequences. Humanity is facing a triple planetary crisis – climate change, pollution, and biodiversity loss - an unprecedented dilemma that brings unknown scenarios. Only by stepping forward together and uniting the strength of the entire world will we be able to address this challenge.

Parts of the planet are flooding while other parts are in flames. We are experiencing record droughts, famines and diseases, and millions of people displaced from their homes. This is a climate crisis created by humans. To rein in a climate catastrophe and mass extinction, nature must be repaired. Time is running out, but there is still so much we can do. We look to the future with determination, enthusiasm, and resolve. Beyond the grim scale of current ecosystem degradation, there is an inspiring truth: incredible progress is already being made to conserve and restore ecosystems on the ground.

The UN Decade on Ecosystem Restoration 2021-2030 represents a rallying call to action across the world. It is a call to everyone: from regional, national to local governments; from Indigenous Peoples and local communities – guardians of most of the world's ecosystems – to private companies; financial institutions, from elders to youth. Researchers, farmers, civil society, decision-makers, women, and every single player is needed to preserve and revitalize life on Earth.

This Action Plan is the invitation for concrete action, to join forces, and take leadership to achieve the objectives set by the UN Decade on Ecosystem Restoration up to 2030.

We already have the knowledge and tools we need to halt degradation and restore ecosystems. Willingness is necessary, and long-term success will depend on our ability to catalyse a global movement that outgrows and outlives the 10-year timeframe.

We, humanity, are called to heal nature's wounds and restore the balance of every ecosystem. Let's take action now; the present and future generations depend on us.

Lucy Mulenkei

Co-Chair, Advisory Board

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	Shan Shui Conservation Center	page 24
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	Foodthink	
	Society for Ecological Restoration (SER)	page 26
BUSINESS	UNEP	page 30
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CITIES	International Council for Local Environmental Initiatives (ICLEI)	page 35
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ABBREVIATIONS AND ACRONYMS

CBD	Convention on Biological Diversity
COP	Conference of the Parties
COVID-19	Coronavirus Disease 2019
CSO	Civil Society Organisation
FAO	Food and Agriculture Organization of the United Nations
FERM	Framework for Ecosystem Restoration Monitoring
GDP	Gross Domestic Product
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
MPTF	Multi-Partner Trust Fund
NAP	National Adaptation Plan
NBSAP	National Biodiversity Strategies and Action Plan
NDC	Nationally Determined Contributions
NGO	Non-governmental Organisation
OECD	Organisation for Economic Co-operation and Development
SDG	Sustainable Development Goal
SER	Society for Ecological Restoration
SOP	Standards of Practice
SEEA	System of Environmental Economic Accounting
UN	United Nations
UNCCD	United Nations Convention to Combat Desertification
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

INTRODUCTION

Today we are faced with a challenge that calls for a shift in our thinking, so that humanity stops threatening its life-support system. We are called to assist the Earth to heal her wounds and in the process heal our own.

— Wangari Maathai (2004 Nobel Peace Prize Laureate)

Ecosystems are the foundations of the planet – they sustain life on Earth. Protecting and restoring the world's ecosystems is critical to tackling biodiversity loss and climate change, while supporting livelihoods and wellbeing.

Healthy ecosystems provide food and clean water, mitigate climate change, support the pollination of crops and soil formation, and hold important recreational, cultural, and spiritual values. Yet from farmlands to forests, from oceans to urban areas, ecosystems are being degraded, driven by the unsustainable use and exploitation of nature. An estimated one million species of plants and animals face extinction, many within decades (IPBES, 2019). Forty per cent of the world's population are already negatively impacted by ecosystem degradation, the most vulnerable groups hardest hit. Every action that halts further damage is essential, and the sooner the better. Restoration offers the tools to recreate a balanced relationship with the ecosystems that sustain people and nature. It is also imperative for the economy; every dollar invested in ecosystem restoration creates up to 30 dollars in economic benefits.

To prevent, halt and reverse the degradation of ecosystems worldwide, the United Nations General Assembly, through Resolution 73/284, proclaimed 2021–2030 the UN Decade on Ecosystem Restoration (hereafter the "UN Decade"). Ecosystem restoration is vital to achieve the 2030 Agenda for Sustainable Development and the post-2020 global biodiversity framework. The Strategy for the UN Decade was developed throughout 2019 and 2020 in an open and collaborative process, built from input from over 1,000 organisations, institutions, governments, businesses and individuals. Since the UN Decade was publicly launched in June 2021, over a hundred and fifty organisations have joined as official partners and thousands of people are taking part in #GenerationRestoration – a science-based global movement for people and nature.

Between now and 2030, actions taken to restore ecosystems on every continent and in every ocean are critical to the mission of the UN Decade. It will only succeed if everyone plays a part. Countries have already committed to restoring a total of at least 1 billion hectares of degraded land by 2030. Protecting and restoring the earth's ecosystems is a mammoth task, with complex political, technical, and financial obstacles to overcome. But we are not starting from zero.

Generations of knowledge from local and indigenous communities, combined with cutting-edge science, can help chart a path toward a healthier, more symbiotic relationship with nature. Across the world, thousands of restoration initiatives, big and small, are underway, offering inspiration and best practices.

To demonstrate that large-scale and long-term ecosystem restoration is possible, the UN Decade on Ecosystem Restoration awards World Restoration Flagships as the first, best, or most promising initiatives. They show that bringing back ecosystems from the brink of degradation and loss is possible – and that people around the world are already making it happen. Restoration Flagships stand for both achievement and ambition, from restoring South America's Atlantic Forest to restoring the Ganges, India's most sacred river, and restoring Central Asia's vast grasslands. The 10 first World Restoration Flagships announced in 2022 illustrate the breadth and promise of restoration work already underway. Together, the 10 flagships aim to restore more than 60 million hectares – an area roughly equal to the whole of Madagascar or Ukraine – and create more than 13 million jobs.

PURPOSE AND STRUCTURE OF THE ACTION PLAN

This action plan sets out the next steps to collectively work towards the goals and vision of the UN Decade on Ecosystem Restoration. Moving from strategy to action, this plan aims to allow UN Decade partners to mobilise around key priority areas for restoration – the Restoration Challenges – and provide leadership. By defining thematic challenges, they call upon stakeholders to act and contribute to the achievements of these challenges, contributing to key international goals and setting in motion a wave of activity to protect and restore ecosystems and make peace with nature. Many of Challenges aim at World Restoration Flagships within their thematic areas to fill existing gaps or highlight successful initiatives such as large-scale restoration initiatives led by Indigenous People and local communities or Faith-groups.

This action plan is the outcome of consultations with the UN Decade on Ecosystem Restoration partner network in 2021 and 2022 and the collaborative input of the UN Decade core team, Strategy Group, Advisory Board, and Task Forces. This is a global action plan encompassing all regions of the world, all its diverse ecosystems, and inhabitants, both human and nonhuman. It is aimed at UN Decade partners and everyone who wants to be a part of restoring Earth by 2030. This includes policy makers, businesses, NGOs, civil society, scientists, educators, and donors.

Section 1 will present a background to ecosystem restoration and the vision, goals, and principles of the UN Decade on Ecosystem Restoration. Section 2 will introduce the Restoration Challenges and call for Action to stakeholders, while Section 3 describes how the action plan will be implemented, covering coordination, communication, and finance.

1. ECOSYSTEM RESTORATION AND THE UN DECADE

1.1. Ecosystem restoration: What is it and why do we need it?

Ecosystems are places where plants, animals, and other organisms, in conjunction with the landscape around them, come together to form the web of life. They exist at all scales, from a grain of soil to the entire planet (UNEP, 2021a). The UN Decade focuses on restoration in eight broad categories of ecosystems:

- farmlands
- forests
- freshwater
- grasslands, shrublands, and savannahs
- mountains
- oceans and coasts
- peatlands
- urban areas

In all countries of the world, ecosystems are being degraded, in many cases at an accelerating rate, driving biodiversity loss and climate change. Currently, 75 per cent of the terrestrial environment, 40 per cent of the marine environment, and 50 per cent of streams show severe impacts of degradation (IPBES, 2019).

What drives ecosystem degradation? Ecosystems become degraded as a direct result of human activity (e.g. changes in land and ocean use, resource extraction, pollution, introduction of invasive alien species and emission of greenhouse gases) and natural events (e.g. earthquakes and extreme weather events). Behind these are indirect drivers - economic, demographic, technological, governance and cultural factors – that lead to ecosystem degradation. (IPBES, 2018, 2019). For example, intensified farming techniques, human migration, an unsustainable economic model, and an increasing disconnect between people and nature, are all underlying and interconnected causes of degradation.

Ecosystem degradation, biodiversity loss and climate change are interconnected and must be tackled together. To address this complex challenge requires a massive portfolio of solutions, the collective action of diverse groups of people, and system-wide transformative change. Ecosystem restoration represents one fundamental part of this mission, offering promising opportunities to restore the health and resilience of ecosystems.

Ecosystem restoration refers to "the process of halting and reversing degradation, resulting in improved ecosystem services, and recovered biodiversity" (UNEP, 2021b, p. 7). In the context of the UN Decade, ecosystem restoration encompasses a wide continuum of activities that contribute to protecting intact ecosystems and repairing degraded ecosystems[1]. Examples include assisting natural regeneration, enhancing organic carbon in agricultural soils, increasing fish stocks in overfished zones, green infrastructure, or

[1] 'Degraded ecosystems' refers to terrestrial, freshwater and marine systems that have been converted or altered, including in agricultural landscapes and urban environments. 'Repair' encompasses processes and biotic/abiotic components. (UNEP and FAO, 2020)

removing pressures so that nature can recover on its own, for example, by controlling invasive species.

Benefits of action. Costs of inaction.
The benefits of investing in ecosystem restoration far exceed the costs. Life on Earth, our societies and economies all depend on healthy ecosystems. Currently, ecosystem degradation is negatively impacting the well-being of about 40 per cent of the global population, pushing the planet towards a sixth mass extinction and incurring losses of more than 10 per cent of the annual global gross product (IPBES, 2018a). If present trends continue, by 2050 the combined effects of land degradation and climate change could see 95 per cent of the world's land becoming degraded, half of the global population living in water scarce areas and the migration of between 50 to 700 million people (IPBES, 2018, 2019).

Restoring ecosystems, on the other hand, can improve access to clean water, enhance food security, provide jobs, reduce carbon emissions and build more resilient ecosystems and communities. Ecosystem restoration makes sound economic sense. More than half of the world's total GDP is dependent on nature (World Economic Forum, 2020) and every dollar invested in restoration creates up to 30 dollars in economic benefits (Ding *et al.*, 2017). Restoring forests, peatlands and mangroves, along with other natural solutions, can contribute to over one-third of the greenhouse gas mitigation needed by 2030 (Griscom *et al.*, 2017).

Restoration for people and nature
Humans are part of nature. People have inhabited and shaped most of terrestrial nature for at least 12,000 years (Ellis *et al.*, 2021). Biodiversity conservation and ecosystem restoration have been a part of life for many indigenous and local communities for centuries, long before these became formal scientific disciplines, fields of practice and global movements. At least 44 per cent of the Earth's terrestrial area, home to 1.8 billion people, has been identified as needing immediate conservation and restoration attention (Allan *et al.*, 2021). Indigenous peoples, who represent approximately 5 per cent of the global population, manage or have rights over about 40 per cent of all terrestrial protected areas and ecologically intact landscapes (Garnett *et al.*, 2018).

This means that efforts to protect and restore nature need to be designed in partnership with local communities. They must take into account social, cultural and economic dimensions such as power relations, inequalities, livelihood impacts and trade-offs. Central to all activities of the UN Decade is the need to recognise the human rights of all people. The efforts of the UN Decade will only be successful if indigenous peoples, local communities and women and girls are at the centre; if local wisdom, human rights, and tenure rights are respected and upheld. By learning from local experts, providing support and removing barriers, a generation of restoration champions can play a central role in achieving the UN Decade - from mountain to coastal communities, from city dwellers to rural farmers. Women's meaningful participation in the design and implementation of restoration projects is essential for effective and equitable outcomes. This will involve overcoming barriers so that women can lead restoration activities across grassroots, science and policy levels.

The rationale for taking action to protect and restore ecosystems is abundantly clear. The next section explains the overarching vision and goals that will guide actions under the UN Decade.

1.2. UN Decade goals and pathways to action

The vision for the UN Decade is a world where – for the health and wellbeing of all life on Earth and that of future generations – the relationship between humans and nature has been restored, where the area of healthy ecosystems is increasing, and where ecosystem loss, fragmentation and degradation has been ended.

Three main goals underpin the vision of the UN Decade's Strategy:

Goal 1: Enhancing global, regional, national, and local commitments and actions to prevent, halt and reverse the degradation of ecosystems.

Goal 2: Increasing our understanding of the multiple benefits of successful ecosystem restoration.

Goal 3: Applying this knowledge in our education systems and within all public and private sector decision-making.

By achieving these goals, the UN Decade will assist societies globally to embark on a new ecological, economic, and social trajectory throughout the 21st century and beyond.

The success of the UN Decade relies on the ambitious and collaborative efforts of society, combining diverse approaches, activities, perspectives, and knowledge . To achieve the widespread and meaningful impact that is needed, the UN Decade aims to catalyse and support a peer-driven, participatory global movement. The movement (branded #GenerationRestoration) self-organises and self-orchestrates in a decentralised way but follows clear guiding principles on appropriate ecosystem protection and restoration activities (see the principles for ecosystem restoration in section 1.4).

Barriers to progress

The UN Decade will address six primary barriers to catalysing a global movement that promotes and implements large-scale restoration. These barriers relate to public awareness, political will, legislative and policy environments, technical capacity, finance, and scientific research.

Barrier 1 - Public awareness: There is a great lack of awareness of the negative effects that ecosystem degradation is having on the well-being and livelihoods of billions of people, the financial costs of this degradation, and the profound societal benefits that would come from major investments in ecosystem restoration.

Barrier 2 – Political will: Despite the economic benefits that restoration investments would bring societies, decision-makers in public and private sector invest too little in long-term ecosystem restoration initiatives compared with investments in other sectors like health care, manufacturing, education, and defence.

Barrier 3 – Legislative and policy environments: There is a scarcity of legislation, policies, regulations, tax incentives and subsidies that incentivise a shift in investments towards large scale restoration and production systems, value chains and infrastructure that do not degrade ecosystems.

Barrier 4 – Technical capacity: National governments, local governments, local NGOs and private companies possess limited technical knowledge and capacity to design and implement large-scale restoration initiatives.

Barrier 5 – Finance: There is a lack of finance to invest in large scale restoration because of the perceived and/or real risks involved in such investments.

Barrier 6 – Scientific Research: Limited investment in long-term research, including social as well as natural sciences, that focuses on innovation to improve restoration protocols through time, is a barrier to progress.

Aside from these six primary barriers, participants in the global movement will encounter a range of barriers along the way, from local ecological, economic, and social factors within specific landscapes to global geopolitical factors and economic forces.

To overcome these barriers and achieve its vision, the UN Decade will work through three pathways:

Pathway I: Global movement

Through a peer-driven, participatory global movement, this pathway seeks to increase the intent of societies worldwide to restore degraded landscapes on a large scale. It will do this by raising awareness of the benefits of ecosystem restoration, showcasing the economic returns, and spreading knowledge to shift behaviours to reduce ecosystem degradation.

Pathway II: Political will

By empowering leaders in the public and private sectors to champion restoration and building on the momentum of the global movement, Pathway II focuses on fostering political will for ecosystem restoration. UN Decade partners and the core team will engage with government ministries and departments to mainstream restoration into national budgets, development plans and climate change strategies and amend legislative, regulatory and policy frameworks to halt fragmentation and degradation of ecosystems and catalyse large-scale ecosystem restoration.

Pathway III: **Technical capacity**

Pathway III aims to generate the technical capacity that is needed to effectively restore ecosystems at scale. It will do this by providing institutions and practitioners the best available methods for designing, implementing, monitoring and sustaining ecosystem restoration initiatives. The aim is to upscale ecosystem restoration globally by strengthening the role of science, indigenous knowledge and traditional practices and applying best technical knowledge and practice while building the capacity of a wide range of stakeholders.

1.3. Ecosystem restoration at the centre of local and global environmental action

The UN Decade is designed to complement and enhance existing environmental policies, goals, and commitments at local, national, regional, and international level. Specifically, it contributes to the Sustainable Development Goals (SDGs) and the 2030 Agenda, the post-2020 global biodiversity framework under the Convention on Biological Diversity, the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC), Land Degradation Neutrality targets under the United Nations Convention to Combat Desertification (UNCCD), and the Bonn Challenge target of restoring 350 million hectares of

degraded land. There are synergies with other international initiatives, among them the Global Mangrove Alliance and the Blue Carbon Initiative, which aim to conserve and restore mangrove habitats and coastal and marine ecosystems, respectively.

Governments around the world have already committed to restoring a total of nearly **1 billion hectares** of degraded land by 2030 (Sewell, van der Esch and Löwenhardt, 2020). Ecosystem restoration, complementing conservation, can make a significant contribution to all 17 Sustainable Development Goals, in particular life below water (SDG 14) and life on land (SDG 15), as well as ending poverty (SDG 1), hunger (SDG 2), good health and well-being (SDG 3) and clean water and sanitation (SDG 6). The post-2020 global biodiversity framework aims to halt the loss of biodiversity by 2030, and achieve recovery and restoration by 2050, with key targets for restoration and conservation by 2030 (targets 2 and 3)[2].

At regional level, increasing restoration targets are emerging through legal frameworks and voluntary initiatives. Examples include the Nature Restoration Law of the European Union, Initiative 20x20 in Latin America and the Caribbean, the African Forest Landscape Restoration Initiative, AFR100, and the Middle East Green Initiative. At national level, the UN Decade aims to mainstream restoration into national budgets, development plans and biodiversity and climate strategies. To ensure actions are translated to the local context, action plans are being developed by regional offices such as Latin America and the Caribbean.

There are opportunities for collaboration across the UN, linking with the UN Decade of Ocean Science for Sustainable Development (2021–2030) and the UN Decade of Family Farming (2019–2028), and the International Decade of Indigenous Languages (2022-2032).

Restoration is complementary to, not a replacement for, conservation and climate action

Ecosystem restoration is not a substitute for conservation, but they go hand in hand. Conservation is vital to prevent further degradation and biodiversity loss, while restoration can help recover endangered species and enhance ecosystem services. Close to half of the Earth's land has been identified as needing immediate conservation and restoration attention (Allan *et al.*, 2021). Restoration gains will be most effective when combined with the conservation of remaining natural ecosystems (Strassburg *et al.*, 2020) and it is often more cost-effective to conserve intact ecosystems rather than restore degraded ones (OECD, 2019). As such, the UN Decade has a dual focus on protecting as well as restoring ecosystems, so that shared goals and trade-offs are identified, and priorities are decided on jointly between conservation and restoration policy makers and practitioners. Likewise, while ecosystem restoration can contribute to climate mitigation, much more is needed to achieve net zero targets. Restoration can only be successful, in the long term, in the context of a wider socio-economic transition towards a nature-positive economy, by decarbonising economic activity and redesigning systems to put wellbeing at the centre (FAO *et al.*, 2021, OECD, 2022).

[2] The wording of the targets is yet to be agreed. The draft framework includes "Target 2. Ensure that at least 20 per cent of degraded freshwater, marine and terrestrial ecosystems are under restoration, ensuring connectivity among them and focusing on priority ecosystems." and "Target 3. Ensure that at least 30 per cent globally of land areas and of sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes." (CBD, 2021)

1.4. Principles for ecosystem restoration

What makes good restoration? The principles for ecosystem restoration underpin all of the restoration activities that are part of the UN Decade and are committed to by all UN Decade Partners. They are applicable across all sectors, biomes, and regions.

The principles are complementary and should be read and considered altogether by those implementing restoration activities. Regardless of the type of land ownership and the types of stakeholders engaged, these principles can improve restoration outcomes for all types of projects, programmes and initiatives.

Principle 1: Ecosystem restoration contributes to the UN Sustainable Development Goals and the goals of the Rio Conventions

Principle 2: Ecosystem restoration promotes inclusive and participatory governance, social fairness and equity from the start and throughout the process and outcomes

Principle 3: Ecosystem restoration includes a continuum of restorative activities

Principle 4: Ecosystem restoration aims to achieve the highest level of recovery for biodiversity, ecosystem health and integrity, and human well-being

Principle 5: Ecosystem restoration addresses the direct and indirect causes of ecosystem degradation

Principle 6: Ecosystem restoration incorporates all types of knowledge and promotes their exchange and integration throughout the process

Principle 7: Ecosystem restoration is based on well-defined short-, medium- and long-term ecological, cultural and socio-economic objectives and goals

Principle 8: Ecosystem restoration is tailored to the local ecological, cultural and socioeconomic contexts, while considering the larger landscape or seascape

Principle 9: Ecosystem restoration includes monitoring, evaluation and adaptive management throughout and beyond the lifetime of the project or programme

Principle 10: Ecosystem restoration is enabled by policies and measures that promote its long-term progress, fostering replication and scaling-up

Figure 1: Ten principles that underpin ecosystem restoration

Source: FAO, IUCN CEM & SER. 2021. *Principles for ecosystem restoration to guide the United Nations Decade 2021–2030.* Rome, FAO.

2. THE UN DECADE FRAMEWORK FOR ACTION

Section 2 of the Action Plan outlines the framework to guide restoration actions under the UN Decade. It introduces the Restoration Challenges, which will be led by UN Decade partners, and lays out the action framework to guide partners and collaborators. Finally, it describes how everyone can take part in the UN Decade.

2.1. Restoration Challenges

Ecosystem restoration is an immense challenge, with possible paths and actions to take. So, where to begin? The Restoration Challenges break down the mandate of the UN Decade and the UN Decade strategy into key priority areas. They aim to unite and mobilise partners and all stakeholders around ambitious thematic challenge targets, including calls to action for stakeholders, to achieve the outcomes of the Decade, contributing to the 2030 Agenda and other national, regional and international commitments, as described in Section 1. The overarching target of the Action Plan will align with targets 2 and 3 of the post-2020 global biodiversity framework and the Paris agreement.

UN Decade partners will come around and coordinate on challenges and one or several challenges lead(s) will be nominated. They are invited to empower others in their

contributions and make use of the existing UN Decade architecture, e.g. Task Forces. The co-leading agencies of the UN Decade, UNEP and FAO, invited UN Decade partners to submit their expression of interest to lead or co-lead one (or more) challenge(s) in 2022. Because ecosystem degradation affects all countries and sectors of society in different ways, restoring the web of life can only be achieved through wide collaboration across disciplines, economic sectors, societal groups and geographical borders. These include national governments, cities and local authorities, research and education institutions, the private sector, donors and financial institutions, NGOs and CSOs, individuals, and communities which are called upon to join, contribute, and take action in support. Everyone reading this action plan is invited to consider how you can (or already do) contribute to these restoration priorities. Gather your colleagues, friends and associates to build connections and tackle these challenges together!

The Restoration Challenges have been developed through consultations in 2021 and 2022 with the UN Decade partner network. In response to evolving priorities, feedback and experiences, the challenges may evolve and will be reviewed at key milestones throughout the decade (see 3.9). Ecosystem restoration can be more than these focus areas and if restoration work goes beyond these initially proposed twelve challenges, then even better.

Each proposed twelve restoration challenges is presented on the following pages, accompanied by a list of sample actions directed at key stakeholder groups. These are indicative rather than prescriptive actions, which will be expanded and elaborated on by challenge teams. All restoration actions should follow the Principles of Ecosystem Restoration and be embedded within the three pathways of the Decade (building a global movement, generating political will and building technical capacity). Each of the challenges will be featured in global campaigns as part of #GenerationRestoration throughout the decade and are considered for the Secretary-General's report on the UN Decade at the 81st session of the UN General Assembly. Challenge teams are encouraged to find synergies across thematic areas on a joint mission to restore Earth and humanity's relationship with nature.

(Co) Leading a Challenge

The Action has currently 29 individual challenges across the twelve thematic areas. Different partners and stakeholders have expressed their interest in taking the lead of a specific challenges. Every (co) lead organisation will be responsible for its own challenge, and proposed activities. They are not expected to take coordination role beyond their individual challenge within the thematic area.

Restoration Challenges

1. Restoration Challenge - Biodiversity
2. Restoration Challenge - Business & Philanthropy
3. Restoration Challenge - Cities
4. Restoration Challenge - Climate
5. Restoration Challenge - Communities
6. Restoration Challenge - Education
7. Restoration Challenge - Finance
8. Restoration Challenge - Food
9. Restoration Challenge - Human-Nature Relationship
10. Restoration Challenge - Marine & Freshwater
11. Restoration Challenge - Land
12. Restoration Challenge - Youth

<table>
<tr><td colspan="7">Vision: a world where – for the health and well-being of all life on Earth and that of future generations – the relationship between humans and nature has been restored, where the area of healthy ecosystems is increasing and where ecosystem loss, fragmentation and degradation has been ended.</td></tr>
<tr><td colspan="2">PATHWAY 1:
GLOBAL MOVEMENT</td><td colspan="2">PATHWAY 2:
POLITICAL WILL</td><td colspan="3">PATHWAY 3:
TECHNICAL CAPACITY</td></tr>
<tr><td colspan="2"><u>Outcome 1:</u>
A global movement is established that catalyses ecosystem restoration initiatives, political will, exchange of knowledge and cross sectoral collaboration for ecosystem restoration.</td><td colspan="2"><u>Outcome 2:</u>
Increased capacity and capability in private, public sector and civil society for policy reform to support and provide incentives for ecosystem restoration, to catalyse investments and to access resources, resulting in effective restoration actions on the ground and implementation within Flagship programmes.</td><td colspan="3"><u>Outcome 3</u>:
Strengthened capacity of individuals and organizations across sectors and scales to effectively plan, implement, monitor and sustain large-scale ecosystem restoration initiatives.
Results are documented and shared, through monitoring and reporting of biophysical and socio-economic elements of sustainable ecosystem restoration and influencing activities for ecosystem restoration.</td></tr>
<tr><td colspan="7">12 Restoration Challenges for:

1. Biodiversity
2. Business & Philanthropy
3. Cities
4. Climate
5. Communities
6. Education
7. Finance
8. Food
9. Human-Nature Relationship
10. Marine & Freshwater
11. Land
12. Youth</td></tr>
<tr><td colspan="7">UN Decade Partner network (Lead agencies, Collaborating Agencies, Global Partners, Supporting Partners, Actors, Funding partners)</td></tr>
<tr><td colspan="7">Stakeholders</td></tr>
<tr><td>National governments</td><td>Local authorities and cities</td><td>Private sector</td><td>Research and education</td><td>Donors and foundations</td><td>Civil society organisations</td><td>Individuals</td></tr>
<tr><td colspan="7">10 Principles of Ecosystem Restoration</td></tr>
</table>

Table visualising the connection between vision, pathways, challenges and calls to action

1. RESTORATION CHALLENGE – BIODIVERSITY

The Restoration Challenge for Biodiversity focuses on restoring ecosystems to prevent 60 per cent of expected species extinctions, contributing to halting the biodiversity crisis by 2030. Around one million plant and animal species are threatened with extinction (IPBES, 2019). Ecosystem restoration has the potential to prevent 60 per cent of these extinctions by restoring 15 per cent of converted lands in priority areas (Strassburg *et al.*, 2020). The Biodiversity challenge aims to inspire a range of interventions to restore biodiversity, including converting degraded ecosystems, enhancing connectivity and restoring or conserving ecosystem processes through two national pilot challenges in Brazil and the People's Republic of China and implementing training and capacity building for restoration projects.

1.1 Increase biodiversity in Brazil through large-scale restoration and building the world's largest biodiversity corridor

Brazil is at the top among the world's 17 megadiverse countries, and it contains two biodiversity hotspots (the Atlantic Forest and the Brazillian Savannah), six terrestrial biomes and three large marine ecosystems. At least 103,870 animal species and 43,020 plant species are currently known, comprising 70% of the world's catalogued animal and plant species. It is estimated that Brazil hosts between 15-20% of the world's biological diversity, with the greatest number of endemic species on a global scale. Ecosystem restoration efforts can not only contribute to mitigating climate change at a local and global scale, improve local communities livelihood but is needed for biodiversity in Brazil.

Deforestation has been one of the main threats, leading to fragmentation and biodiversity loss. To revert this scenario, this Challenge aims to promote ecosystem restoration in the main three biomes in Brazil, the Atlantic Forest, the Amazon Forest, and the Brazilian Savanna, contributing to enhancing biodiversity and ecosystem services.

More specifically, the Challenge will focus on two approaches:

1. Restoring the Atlantic Forest contributing to scaling up more than 30 years of restoration efforts in different ecological and socio-economic contexts within the Atlantic Forest. This is part of the UN World Restoration Flagship "Trinational Atlantic Forest Pact".

2. Restoring the Amazon rainforest and Brazilian Savannah to create a biodiversity corridor "Araguaia Biodiversity Corridor" enhancing habitat connectivity between existing protected areas and boosting wildlife populations, while recovering native vegetation across a matrix of farms on private lands.

The Challenge will be led by national and local UN Decade partners based in Brazil with the support from global partners.

Global goals and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration by 2030)
- Kunming-Montreal Global Biodiversity Framework Target 4 (Halt species extinction)

- Kunming-Montreal Global Biodiversity Framework Target 10 (Agriculture)
- SDG #13 (Climate Action)
- SDG#15 (Life on Land)

Timeline & KPIs

KPIs:

- Pilot Project in the Atlantic Forest
- Pilot Project in the Amazon rainforest and Brazilian Savannah
- Hec restored in Amazon rainforest, Brazilian Savannah and Atlantic Forest
- Number of species planted and fauna returned
- Local rural workers qualified for seed collection and nursery maintenance
- Local communities livelihood improved
- Job posts created/improved
- Number of restoration actors involved

Timeline:

Pilot Project in the Atlantic Forest:

2021: Identification of strategic landscape to restore Atlantic Forest.

2021-2025: Identification and training of actors in the restoration chain and sensibilization of rural property.

2023-2024: Identification of priority areas for restoration in strategic landscapes, joint/mobilisation of the restoration chain and understanding the local reality of each landscape.

2023-2025: Pilot restoration projects throughout the Atlantic Forest.

2024-2026: Connect donors and restorers to restore large areas.

2025-2030: Large scale restoration by restoration actors

Pilot Project in the Amazon rainforest and Brazilian Savannah:

2017-2020: Pilot project on three rural properties, with two nurseries producing 40.000 seedlings a year and planting 100.000 trees on 70 hectares.

2020-2022: Fully operational expending to Santana do Araguaia on 10 rural properties, with the construction of a third large scale nursery producing 500.000 seedlings a year and planting 1 million trees on 600 hectares.

2022-2025: Expectation to reach zero environmental deficit in Santana do Araguaia, reaching financial sustainability by planting 10 million trees.

(Co-)leading UN Decade partner(s):

Black Jaguar Foundation

Trinational Atlantic Forest Pact

Contacts:

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Alex Fernando Mendes, Atlantic Forest Pact, secretariaexecutiva@pactomataatlantica.org.br
Taruhim Quadros, World Wildlife Fund (WWF), taruhimquadros@wwf.org.br

1.2 Shift the world's largest agriculture and farmlands ecosystem to agro-biodiversity conservation (PR China)

For preventing, halting, and reversing the degradation of ecosystems worldwide, more efforts need to be devoted to the agriculture ecosystem. Agriculture is responsible for 80% of land conversion and the single largest driver of biodiversity loss worldwide. This is also the case in China which ranks first in worldwide farm outputs and employs over 300 million people. But farmlands are facing significant threats in China. Rapid land-use change and heavy use of pesticides and fertilisers threaten agro-ecosystem functions and services, putting both biodiversity and food safety at risk. Wildlife poaching and retaliatory killings also occur frequently in farmlands.

This challenge builds a multi-stakeholder coordination mechanism for science, practice, and policy on sustainable agricultural production and agro-biodiversity conservation in China. It involves community actors, farmers, NGOs, academic researchers, policymakers, media, and the public, improves knowledge-sharing and expertise exchange, and enhances communication and understanding. Based on the mechanism, this challenges promotes cross-discipline dialogues, refines and extends critical knowledge, identifies and fills research gaps, and improves policies with partners. The long-term target is to mainstream the awareness and practice of agro-biodiversity conservation in the world's largest agriculture and farmlands ecosystems.

The challenge is structured into three main field of actions:

- Action 1: To understand the challenges and status of biodiversity-friendly ecological agriculture and farmlands ecosystem in China.
- Action 2: To co-produce an advisory guideline and a case study of biodiversity-friendly ecological agriculture.
- Action 3: To establish the multi-stakeholder coordination mechanism.

The challenge will be led by the Shan Shui Conservation Center in partnership with Peking University, Foodthink, and others.

Global goals and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration by 2030)
- Kunming-Montreal Global Biodiversity Framework Target 4 (Halt species extinction)
- Kunming-Montreal Global Biodiversity Framework Target 10 (Agriculture)
- SDG #2 (Zero Hunger)
- SDG #15 (Life on land)

Timeline & KPIs

KPIs:

- Conduct a series of desktop research, field research, policy overview, and questionnaire analysis;
- Investigate and visit the field sites of 10+ typical cases;
- Write 1 investigation report on China's agricultural biodiversity;
- Organize 1-2 events/webinars;
- Develop 1 advisory guideline for China's agricultural biodiversity;
- Develop 1 case of study in China's agricultural biodiversity;
- Build a multi-stakeholder coordination mechanism with 10+ organizations, involving 7 types of stakeholders: community actors, farmers, NGOs, academic researchers, policymakers, media, and the public;
- Release 1 multi-stakeholder declaration.

Timeline:

2023

- Pre-establish the coordination mechanism and identify problems and key points by baseline review and discussions, as well as to present a detailed plan of this restoration challenge of the UN Decade
- Comprehensive overview conducted both at the science and policy level on challenges and status of biodiversity-friendly ecological agriculture and farmlands ecosystem in China, and at the practice level on the ground.
- Development of an advisory guideline and a case study of biodiversity-friendly ecological agriculture. The advisory guideline and a case study will guide practice and raise awareness. To reach better consensus and balance among different perspectives, the guideline will be highly compatible, based on knowledge from in and out of China, as well as understanding and feedback from related stakeholders including community actors, farmers, NGOs, academic researchers and government.
- Establish the multi-stakeholder coordination mechanism, provide a dialogue platform and release one multi-stakeholder declaration. This will include webinars/seminars or workshops with stakeholders, investigation of cases and gaps in biodiversity-friendly agricultural practices, a multi-stakeholder declaration on biodiversity-friendly ecological agriculture and farmland ecosystem, and collaboration with media.

(Co-)leading UN Decade partner(s):

Shan Shui Conservation Center, Peking University, Foodthink

Contacts:

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Zhi LÜ, Center for Nature and Society, Peking University, luzhi@pku.edu.cn
Tianle CHANG, Foodthink, tianle@foodthink.cn

1.3 Implement 100 certified restoration projects across the globe to increase biodiversity gains

The aim of this challenge is to increase biodiversity gains from restoration initiatives through training and capacity building for the implementation of standards-based ecological restoration as a core component of the UN Decade.

The challenge will:

- Train at least 100 local “trainers” to better understand, design, and implement standards-based ecological restoration as part of an initiative to implement and monitor 100 certified, standards-based ecological restoration projects across the world over 7 years;
- In conjunction with the Global Biodiversity Framework, elevate the role and importance of ecological restoration as the restoration approach that delivers the greatest biodiversity benefits while ensuring net gain for human wellbeing;
- Develop and expand the use of ecological restoration and biodiversity project certification by building on existing collaborations with World Wildlife Fund on the development of standards for ecological restoration project certification, and Botanical Gardens Conservation International on the Global Biodiversity Standard, as well as by engaging with SER global chapters, thematic groups, members, and key corporate partnerships;
- Align project monitoring with the Restoration Project Information Sharing Framework, developed by SER with the Global Restoration Observatory, to contribute to the Framework on Ecosystem Restoration Monitoring (FERM) and the Global Biodiversity Framework.

The challenge will implement the following activities:

- Implementation of standards-based ecological restoration in 100 projects across the world over 5-7 years;
- Training and capacity building for local organizations and community members to implement standards-based ecological restoration;
- Finalization and adoption of ecological restoration project certification in order to improve restoration outcomes;
- Certification of ecological restoration demonstration projects that qualify and meet all requirements;
- Assessment of the value of ecological restoration for improving biodiversity outcomes and delivering ecological and social net gain.

The Challenge will be led by Society for Ecological Restoration (SER) in partnership with WWF.

Global goals and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration by 2030)
- Kunming-Montreal Global Biodiversity Framework Target 4 (Halt species extinction)
- Kunming-Montreal Global Biodiversity Framework Target 10 (Agriculture)
- SDG #13 (Climate Action)
- SDG #15 (Life on land)

KPIs:

- 10 Training and capacity building
- 100 local actors as “trainers”
- 100 standards-based ecological restoration projects implemented

Timeline:

2023: Finalize operational plans, partners, and fundraising

- Finalize Guiding Committee

- Develop and implement first training program
- Secure additional funding for project certification development
- Finalize phase-based ecological restoration project certification program
- Complete 5 ecological restoration project certification pilots
- Develop project monitoring program aligned with the Restoration Project Information Sharing Framework (ISF)

2024 milestones: Launch program
- Identify and initiate first 20 projects, geographically distributed across globe
- Train trainers
- Complete project designs and where appropriate, begin project implementation
- Where appropriate, implement project monitoring consistent with the ISF
- Certify project plans
- Secure funding partners/supplemental project funding
- Seek proposals for second round of projects

2025 milestones: Implement program
- Continue with training and capacity building
- Continue implementation of first 20 projects
- Conduct project monitoring, consistent with the ISF, and adaptive management as appropriate, with emphasis on biodiversity and local community benefits
- Certify project plans and implementation
- Secure funding partners/supplemental project funding
- Initiate next 20 projects
- Seek proposals for third round of projects

2026: Implement and assess program
- Continue with training and capacity building
- Continue or complete implementation of first 40 projects
- Conduct project monitoring, consistent with the ISF, and adaptive management with emphasis on biodiversity and local community benefits
- Certify project plans, implementation, and monitoring
- Conduct overall program assessment and share results widely
- Modify program as needed in response to lessons learned from first 2 years
- Secure funding partners/supplemental project funding
- Initiate next 20 projects
- Seek proposals for fourth round of projects

2027: Implement and assess program
- Continue with training and capacity building
- Continue or complete implementation of first 60 projects
- Certify project plans, implementation, and monitoring
- Conduct project monitoring, consistent with the ISF, and adaptive management with emphasis on biodiversity and local community benefits
- Conduct overall program assessment and share results widely
- Modify program as needed in response to lessons learned from first 3 years
- Secure funding partners/supplemental project funding
- Initiate next 20 projects
- Seek proposals for fifth round of projects

2028: Implement and close out (or expand) program
- Continue with training and capacity building
- Continue or complete implementation of first 80 projects

- Conduct project monitoring, consistent with the ISF, and adaptive management with emphasis on biodiversity and local community benefits
- Certify project plans, implementation, and monitoring
- Conduct overall program assessment and share results widely
- Secure funding partners/supplemental project funding
- Initiate next 20 projects
- Determine future of program

2029: Certification and Monitoring
- Continue or complete implementation of first 100 projects
- Conduct project monitoring, consistent with the ISF, and adaptive management with emphasis on biodiversity and local community benefits
- Certify project plans, implementation, and monitoring
- Continue new project development if program is extended

2030 milestones: Certification and Monitoring
- Continue or complete implementation of first 100 projects
- Conduct project monitoring, consistent with the ISF, and adaptive management with emphasis on biodiversity and local community benefits
- Certify project plans, implementation, and monitoring
- Continue new project development if program is extended

(Co-)leading UN Decade partner(s):

Society for Ecological Restoration (SER)

Contacts:

Bethanie Walder, Society for Ecological Restoration (SER), bethanie@ser.org

What can YOU do to support this challenge?

Sample actions to support	Stakeholder(s)
Address and include ecosystem restoration into National Biodiversity Strategies and Action Plans (NBSAP)	• National governments
Sub-national governments share experiences, knowledge and commitments towards achieving national and global biodiversity targets through initiatives such as Regions with Nature and Cities with Nature.	• Cities and local authorities
Support the implementation and monitoring of restoration projects at large scale	• All stakeholders
Support nature-friendly food production through innovation, training and incentives.	• All stakeholders
Identify and channel investments to priority areas for conservation and restoration.	• Donors and financial institutions • Research and education institutions • National governments • Cities and local authorities • Private sector

Ensure cross-sector collaboration to align restoration with biodiversity conservation and climate action.	● Private sector ● National governments
Join restoration campaigns and volunteer projects to promote ecosystem restoration	● Individuals

2. RESTORATION CHALLENGE – BUSINESS & PHILANTHROPY

Despite the wide acceptance of the importance of needing to scale ecosystem restoration activities, an existing financing gap is hampering the implementation of urgently needed interventions (Coello and Frey 2023). The World Resources Institute (WRI) estimates that there is a funding shortfall for landscape restoration alone of about USD 300 billion per year (Ding et al 2018).

Similarly, State of Finance Nature report estimates that only approximately USD 133 billion/year currently flows into Nature-based solutions (NBS) with the vast majority from public funds (86%) while private finance contributes only to 14%. While not all ecosystem restoration activities are captured by climate finance or NbS financing flows, the figures show that finance flowing to the sector remains insufficient (Coello and Frey, 2023).

The magnitude of needed investments often overburdens the allocation of national budgets dedicated to advance environmental objectives, which is why the mobilization of capital from different levels and types of actors (private, philanthropic, civil society organizations) will be essential to make progress towards achieving the restoration goals, and on a wider scope the Sustainable Development Goals (Coello and Frey, 2023).

The restoration of ecosystems is a systemic, cost-efficient and multifunctional NbS that can make a significant contribution to addressing the climate and biodiversity crisis (Pörtner et al., 2021; Turney et al., 2020). For example, restoration of only 15% of the converted land areas could avoid 60% of the expected species extinctions when careful land use planning is conducted and further degradation is prevented (Strassburg et al. 2020). In the two most important global agreements on climate (UNFCCC) and biodiversity (CBD), NbS, including restoration measures, are gradually being taken into account. The UN Decade on Ecosystem Restoration (2021-2030) is an opportunity for policymakers to anchor restoration as an NbS more firmly in the conventions and demonstrate the potential synergies.

The overall aim of the Business and Philanthropy Challenges is to help direct investments from the private sector as well as from philanthropy and wealthy individuals into ecosystem restoration initiatives which help close the financial gaps and tackle climate change and biodiversity loss as well as create livelihoods.

2.1 Facilitating a minimum of 50 million US dollars of private and philanthropic donations to World Restoration Flagships

World Restoration Flagships of the UN Decade are the **first, best, or most promising examples of large-scale and long-term ecosystem restoration** in any country or region, embodying the 10 Restoration Principles of the UN Decade. They enable the UN Decade to make ecosystem restoration tangible for a broad audience and inspire a global movement to scale up efforts to '*prevent, halt and reverse the degradation of ecosystems worldwide*' and raise awareness of the importance of successful ecosystem restoration.

A World Restoration Flagship represents an important, inspiring restoration area, and has wider learning and restoration potential and scalability for which the UN Decade already facilitates coordination, learning, scaling, and brings more attention to the area and the obstacles it faces; it is strategic and innovative in nature and has the potential for triggering

transformational change. They are characterised by initial implementation successes which represent a precondition for the selection as World Restoration Flagships. They have therefore already a proven and well-documented record of achieved restoration.

Through a first successful call for nominations in 2022, the UN Decade on Ecosystem Restoration received 76 government-endorsed nominations. Following scientific selection criteria, the UN Decade's Task Forces on Science and Best Practices shortlisted 23 as "high technical quality" leading to the First 10 World Restoration Flagships being announced at CBD COP15 in December 2022. The responses received following the first call have demonstrated that it was a resounding success and future call will be launched according to available resources.

A Multi-Partner Trust Fund (MPTF) has been set-up as financial engine behind the UN Decade for the implementation of the strategy of the UN Decade. The primary aims of the Fund are to provide catalytic funding to support these World Restoration Flagships to combat declining biodiversity, support livelihoods and green jobs, enhance natural resource bases, and help societies adapt to and mitigate climate change through restoration of terrestrial, freshwater and marine ecosystems globally. The MPTF's Executive Board is responsible for the overall strategic guidance on the Fund and decides on fund allocations. Interested donors are invited to join the MPTF. Donors above USD 10 Million are invited to become a permanent Executive Board member and take funding decisions. See here for more information on the MPTF. The Multi-Partner Trust Fund provides numerous benefits to development partners including robust needs analyses ensuring effective prioritisation of activities and strategic allocation of funds, coordination and harmonisation of funding with other global funds including greater probability for effective use of funds and an increased probability of impact, and full transparency, using a public on-line platform Gateway which contains real-time financial information, and results-based reporting.

The estimated total of USD 133 billion currently flowing into nature-based solutions annually, with public funds representing 86% and private finance only 14%, will need to at least triple in real terms by 2030 if the world is to meet its climate change, biodiversity and land degradation targets. Restoration of ecosystems is the key investment opportunity within nature-based solutions. And now is the time for collective action as science tells us.

The World Restoration Flagships under the UN Decade provide a key opportunity beyond the MPTF also for private sector entities, philanthropic, and wealthy individuals to invest and contribute to closing this gap in Nature-based solutions investments which by 2050, the total investment needs of nature will amount to USD 8.1 trillion, and will be over USD 536 billion annually. This projected total is almost four times the amount invested today.

World Restoration Flagships as well as other nominations receiving high scores in the assessment processes represent a unique pool and pipeline restoration projects of significant scale and scientifically pre-assessed for quick investments. Therefore, the aim of this challenge is to create a **mechanism to facilitate at least 50 million US dollars of direct financial support by private sector entities, philanthropic and wealthy individuals to the World Restoration Flagships by 2030**.

This investment facilitation will be characterized by direct facilitation between donors and recipients, with minimal transaction costs. **Partners with expertise and credibility are being sought** to establish a 'light' investment facilitation mechanism.

The investment facilitation will start when an investor shows interest. The mechanism will then handle the inquiry, present investment opportunities, and facilitate exchanges. World

Restoration Flagship provide a unique investment opportunity allowing for measurable **benefits- and impact-driven investments** along **key metrics** of their choice, such as scientifally-identified priority restoration areas and benefits-specific support, e.g. investing in restoration for carbon storage, biodiversity-impact, livelihood creation, disaster risk reduction or industry impact among other. As World Restoration Flagships are already being tracked and showcased on FERM as well as on the Restor platform, investments can be linked directly to measurable impacts, including contributions to specific SDGs and Global Biodiversity Framework targets. Inspiration and lessons learnt can be drawn from restorationfunders and the Land Use Impact Hub.

Donors will further be invited to sign up to be part of the UN Decade Partnership Network and benefit from the network opportunities, if desired, as well as benefit from clear visibility at global and regional level as part of the UN Decade's communication and advocacy work through direct affiliation to World Restoration Flagships and their impact assessments. The mechanism will further include conferences and networking events as well as public event participation opportunities.

While tracking capital flows to nature has proven very challenging and a need for a comprehensive system and framework for labelling, tracking, reporting and verifying the state of finance for nature has been identified, this mechanism will track finance investments in a very 'light' way, remaining geared towards providing facilitating and pre-establishment services.

Global goals and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration by 2030)
- Kunming-Montreal Global Biodiversity Framework Target 19 (Financial resources)
- SDG #17 (Partnership for the goals)

KPIs:

- 50 million dollars raised by 2030
- 15 private sector entities as part of the UN Decade Partnership framework financially supporting the World Restoration Flagships by 2030
- 30 web stories/articles and 5 presentations at key events showcasing and honouring the supporters and Flagships

Timeline:

2023:

- Identifying co-leading entities and creation of (one) coordinator position with the Challenge (co-)leading partner

2024:

- First call for private entities to join the Challenge and support the Flagships

2025:

- Annual report on Flagship and finance achievements

(Co-)leading UN Decade partner(s):

UNEP and FAO

Contacts:

Jean-Philippe Salcedo Villanueva, UN Decade on Ecosystem Restoration Secretariat, jean-philippe.salcedo@un.org

2.2 200 companies to invest USD 10 billion to conserve and restore trees

Considering the key role played by private sector in ecosystem restoration, this challenge aims to mobilise 200 companies to make credible and accountable commitments to conserve and restore trees, with a combined investment of at least USD 10 billion for #GenerationRestoration.

The challenge is led by the 1t.org, which drives change by mobilising the private sector, facilitating multi-stakeholder partnerships in key regions, and supporting innovation and ecopreneurship on the ground for the UN Decade and the global #GenerationRestoration movement. 1t.org enables Paris Agreement-aligned companies to pledge activities that aim to conserve, restore, and grow trees and forest landscapes, and supports them in their journey to improving the social and ecological quality and ambition of their commitments.

Through its global and regional engagements, 1t.org has already mobilised more than 60 companies who have pledged the equivalent of over 6 billion trees in over 60 countries as of 2022. By providing companies with tailored guidance and support to design, plan, implement and monitor their activities, 1t.org accelerates impactful private sector investments that deliver positive climate, nature, and social outcomes.

Activities include:

- Convene private sector actors on a monthly basis for peer-to-peer and expert knowledge exchange on relevant topics such as responsible implementation, forest carbon and monitoring.
- Convene multi stakeholder coalitions in 1t.org's priority regions to address context-specific opportunities and challenges for private sector engagement.
- Convene a community of restoration implementation organisations to develop minimum criteria for effective private sector investments.
- Facilitate connections between private sector actors and relevant restoration implementation organisations.
- Drive collective private sector action at scale by supporting the identification of restoration investment opportunities in collaboration with restoration implementation organisations.
- Leverage the World Economic Forum's networks and events to raise awareness, drive commitments and accelerate action on ecosystem restoration with business and global leaders.

Global goals and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration by 2030)
- Kunming-Montreal Global Biodiversity Framework Target 19 (Financial resources)
- SDG #15 (Life on land)
- SDG #17 (Partnership for the goals)

KPIs:

- 575 companies with pledge by 2025

Timeline:

2023:

- World Economic Forum Annual Meeting: At least 75 companies with 1t.org pledges

2024:

- World Economic Forum Annual Meeting: At least 125 companies with 1t.org pledges

2025:

- World Economic Forum Annual Meeting: At least 175 companies with 1t.org pledges
- June 2025: At least 200 companies with 1t.org pledges

(Co-)leading UN Decade partner(s):

1t.org

Contacts:

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What can YOU do to support this challenge?

Sample actions to support	Stakeholder(s)
Support the creation of the funding facilitation mechanism for World Restoration Flagships	• Private sector
Create business models that are profitable and environmentally and socially beneficial, while updating training and curricula with the skill sets and values needed for ecosystem conservation and restoration.	• Research and education institutions • Private sector
Invest in and support local and regional conservation and restoration initiatives and include ecosystem restoration and avoided degradation in nationally determined contributions (NDCs).	• National governments • Cities and local authorities
Channel innovation and technology to find scalable solutions to ecosystem challenges, seek out new markets and boost the restoration economy.	• Private sector • Research and education institutions
Engage in jobs and business opportunities in ecosystem restoration and avoided degradation, especially for youth from marginalised backgrounds.	• Individuals
Join the Green Jobs for Youth Pact to accelerate young skills and talent for green jobs, in key countries and in high-impact sectors, such as ecosystem conservation and restoration.	• All stakeholders

3. RESTORATION CHALLENGE - CITIES

Urban areas are responsible for over 75% of global carbon emissions, as well as habitat loss and ecosystem degradation (World Economic Forum and Alexander von Humboldt Institute, 2022). However, cities across the world can change the paradigm by investing in NbS for infrastructure and restoration/land-sparing interventions improving urban sustainability and human wellbeing, while addressing climate change and biodiversity loss (World Economic Forum and Alexander von Humboldt Institute, 2022). The goal of the Restoration Challenge for Cities is to facilitate and support the exchanges among cities, trigger urban restoration action, and inspire through the identification of the world's flagship restoration initiatives in urban environments.

The Cities challenges outlined below invite innovative solutions to transform urban areas and improve the wellbeing of urban residents by conserving existing natural habitats, re-naturing degraded areas and greening infrastructure.

3.1 By 2030, at least 20 cities have been nominated as World Restoration Flagships and 100 cities are championing urban restoration

This challenge aims to create a unifying platform and activity space for all the cities that are contributing to the achievement of Restoration Challenge #4: Cities. The goal is to spread knowledge, share tools, and build capacity on how to mainstream ecosystem restoration activities and nature-based thinking into city management and planning practices, as well as to increase advocacy around the return-on-investment in nature-based solutions and make the business case for restoration.

As a quantitative target, the objective is to identify and involve at least 100 champion cities through educational high-level module webinars and online city-to-city learning exchanges. Furthermore, 20 cities from this cohort will be encouraged and given guidance on how to apply to have their projects or urban area become World Restoration Flagships, thus highlighting and raising the profile of urban restoration examples across the world.

Depending on budget availability if additional resources can be secured, a Community of Practice (CoP) on Ecosystem Restoration will also be developed and hosted on the CitiesWithNature platform. While the content will be globally applicable, a particular focus will be on cities in the Global South, Least Developed Countries (LDCs) and Small Island Developing States (SIDS), whose challenges and voices have been historically underrepresented, and participation under-resourced.

The challenge leads will work with cities in their existing networks and initiatives[3] (engaging in new ways) as well as recruit new cities. The aim is to scale-out engagement with cities to shift the prioritisation of budgets towards an ecosystem-based approach. The qualitative targets will include sharing feedback, stories, and lessons-learned from our 100 champion cities (and a broader communications reach of 1000 cities) through the the CitiesWithNature platform, and depending on available budget also the proposed global CoP on this platform.

Additionally, participating cities will be encouraged to pledge commitments towards restoration activities through the CitiesWithNature Action Platform.

[3] Examples are: ICLEI's INTERACT-Bio and Urban Natural Assets for Africa programme; FAO's Green Cities Initiative and Tree Cities of the World; UNEP's UrbanShift.

Concrete activities will include:

- Develop high-level educational modules with resources. Potential topics may encompass:
    - Practical tools and guidance on ecosystem restoration in cities (addressing different ecosystem types)
    - Guidance & resources on the return on investment in nature-based solutions and making the economic and business case for restoration
    - Methodologies for mapping natural assets, targets and planning ecosystem restoration projects, e.g.:
        - Urban tinkering, walking workshops & photo elicitation
        - Minecraft-type video game on landscape (re-)design and creation of urban forests
        - Thematic atlas mapping of ecosystem services and nature's contributions to people in addressing urban challenges and infrastructure needs
    - Innovation through transitional urbanism, where spaces are given to civil society for testing restoration initiatives
    - Policy and practice reform around urban natural assets and mainstreaming ecosystem restoration into city legislation, infrastructure development, plans, budgets and policy documents
    - Restoration and biodiversity financing guidance & tools

- Host City-to-City learning exchanges: where city stakeholders can share information, experiences, and lessons learned, to build and enhance their restoration practices.

    - To be hosted through upcoming or existing work such as UrbanShift, Generation Restoration, Green Cities Initiative, World Forum on Urban Forests, and relevant programmes (e.g. INTERACT-Bio, UNA Africa). Sessions on restoration can also be included in the FAO Regional and Global Fora and in the Tree Cities of the World network meetings. Can be virtual, hybrid, and/or in-person (taking advantage of existing meetings and available funding).

- Pending the availability of resources, establish and facilitate a Community of Practice (CoP): platform through which cities can access and engage with restoration-relevant news, tools and resources, guides and forums to share practices and innovations, learn, and inspire. UN Decade flagship cities and cities from existing co-leads' networks and projects will be included and a Directory of case-study restoration projects created.

    - To be hosted through the CitiesWithNature platform. For an example model, see the Coastal Community of Practice.

The challenge will be led by ICLEI - Local Governments for Sustainability, UN Environment Programme (UNEP) and Food and Agriculture Organization of the United Nations (FAO).

Global goals and SDG

- Kunming-Montreal Global Biodiversity Framework - Global Targets for 2030
    - Target 12 (Green and blue spaces in urban and densely populated areas)

    - Target 14 (Integration of biodiversity into policies, regulations, planning and development processes)
    - Target 2 (At least 30 per cent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration)
    - Target 3 (At least 30 per cent of terrestrial and inland water, and of coastal and marine areas are effectively conserved and managed)
    - Target 16 (Sustainable consumption choices)
- SDG#11 (Sustainable Cities and Communities)
- SDG#13 (Climate Action)
- SDG#15 (Life on Land)
- UNFCCC NDCs and UNCBD NBSAPs

Timeline & KPIs

KPIs:

- 1000 cities reached through communications on urban ecosystem restoration
    - 100 champion cities by 2030
    - 20 cities from the group of champion cities encouraged and given guidance on how to apply to become World Restoration Flagships
- 1 Event per year (e.g., webinar, meeting, etc.)
- 1 CoP presence (pending availability of resources)

Timeline:

2023-2025:
- Milestone 1: High-level educational modules
- Milestone 2: City-to-City Learning Exchanges
- Milestone 3: Launch and cultivation of CoP with CitiesWithNature (pending availability of resources)

2023-2030:
- Milestone 4: Ongoing engagement with and recruitment of cities through the CoP on the CitiesWithNature platform (pending availability of resources)

It is proposed to carry out the challenge from 2023 to 2030. The bulk of the educational high-level module webinars and online city-to-city learning exchanges will be held from 2023-2025. Work with the CoP and encouragement of action commitments for restoration from cities through the CitiesWithNature platform will be conducted for the full duration of the decade, 2023-2030.

(Co-)leading UN Decade partner(s):

ICLEI; UNEP; FAO

Additional partners to be invited:
Arbor Day Foundation; IUCN; The Nature Conservancy (TNC); World Wildlife Fund (WWF); Secretariat of the Convention on Biological Diversity (SCBD); World Economic Forum (WEF); UN-Habitat; Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat; Convention on the Conservation of Migratory Species; World Resources Institute (WRI) Cities4Forests; C40; European Forest Institute (EFI) Biocities Facility; Biophilic Cities Network

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3.2 Urban spaces restored in over 1000 cities by 2030

The overarching goal of this challenge is to restore urban spaces, such as industrial and institutional campuses, community gardens, urban food forests, wetlands, streams, beaches by building ecosystem restoration plots on or near campus grounds; in a minimum of 1000 cities across the globe.

The challenge will incentivize the power of students and volunteers to come together and collaborate to build ecosystem restoration plots in or near the campus grounds and start sustainable and climate change adaptation activities to restore urban spaces in collaboration with the UN Decade's University Alliance and APSCC's International Climate Change Adaptation & Resilience Program (ICCARP) with six Nature-Positive thematic programs;

1. Green Campus Initiatives @ Universities and Colleges
2. Lab-to-Land Environment Education @ Schools and HEIs
3. Regenerative Agriculture & Animal Farming
4. Conserving Fauna of Concern
5. Cooperation for Wetlands, Oceans, and Aquifer Restoration and Conservation
6. Industrial Symbiosis & Revitalising Village Industries for Sustenance

Given the nature of environmental crisis and diverse risk factors for cities, the scope of this challenge will be achieved through the following pathways by holding on to the Precautionary Principal 15 of the Rio Declaration 'Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation'.

- The mentioned programs will have tailor-made approaches, alliances, and networks to accommodate diverse actors across the globe and collaborating municipalities;
- To start with, multidisciplinary case studies, gap analysis, and institution-building on pollution-preventing pathways for a desirable future will be carried out in the organized sectors starting from educational institutions, industries, etc.;
- Create a scalable gamified capacity building and green skill development that can be delivered both online and offline to enable and empower with the tools and techniques to lead and implement this program;
- Effective outreach will be catalyzed through the Central/ National Ministries and Nodal Departments;
- Team up with Universities, higher education institutions, and schools in urban areas and deliver the program and sign-up volunteers;

- Catalyze the Urban Local Bodies and concerned Government Departments to implement the regional management action plans to effect the challenge;
- Adequate means of implementation, including educational resources, facilities, training, and technical know-how;
- Drafting Policies, Protocols, and Standard Operating Procedures for scientific cooperation, and access to and transfer of technology for transformation and attitude change;
- Volunteers to identify potential areas for restoration in their surrounding communities and chart out an action plan;
- Implement restoration initiatives by holding to traditional and region specific knowledge that are easy to implement and scalable;
- The challenge lead(s) will guide them in each step of the process from planning to actual restoration of the site and provide post-restoration support;
- Establish multiple awareness, assessment, and accreditation platforms for effective participation;
- Provide both monetary and other rewards and recognition for the best teams as a motivation tool.
- Establish a resource center/ hub for data storage and dissemination;
- Increase evidence-based grey literature, books, chapters, and articles;
- To jointly work with other leads and co-leads on the mentioned challenges of the UNDER both by supporting their initiatives and complimenting through our initiatives.

The Challenge will be led by the Association for Promoting Sustainability in Campuses and Communities (APSCC India).

Global goals and SDG

- Kunming-Montreal Global Biodiversity Framework Target 12 (Urban and densely populated areas)
- SDG#3 (Good Health and Wellbeing)
- SDG#4 (Quality Education)
- SDG#5 (Gender Equity)
- SDG#6 (Clean Water and Sanitation)
- SDG#7 (Affordable and Clean Energy)
- SDG#11 (Sustainable Cities and Communities)
- SDG#12 (Responsible Consumption and Production)
- SDG#13 (Climate Action)
- SDG#14 (Life below Water)
- SDG#15 (Life on Land)
- SDG #17 (Partnership for the goals)

Timeline & KPI

This will be a continuing challenge starting in 2023 and scaling up until 2030, with an initial focus on Asia & Pacific and then reach out to other parts of the globe. Half-yearly milestones are being defined to monitor the progress on the number of institutions/ organizations reached and ecosystems restored. Monitoring will be centralised with a dedicated portal for this challenge.

KPIs:

- 1000 restored spaces
- 250 Institution signed-up by 2025
- 1000 Volunteers signed-up by 2025

Timeline:

2023:

- Develop programs to pick the low hanging fruit through small actions
- Sign up at least 50 institutions from urban/ suburban areas
- Sign up at least 500 volunteers
- Assist and work with volunteering teams to build 25 ecosystem restoration plots on or near the campus grounds
- Assist and work with volunteering teams to restore at least 25 urban spaces, such as community gardens, urban food forests, wetlands & other water bodies

2024-2030:

- Scale up the numbers by at least 50% year-on-year growth through 2030 target covering more than 1000 cities
- Fundraise through donations, and establish partnerships with Regional/National Government, and the corporate sector for CSR support.
- Delivering the program in-person or online
- Enabling and empowering the identified volunteers
- Assess the progress and evaluate the restored site through qualitative and quantifiable measures
- Help with reporting and monitoring for post-restoration activities.
- Maintain a catalogue of ongoing and completed projects online and make use of social media for outreach.

(Co-)leading UN Decade partner(s):

Association for Promoting Sustainability in Campuses and Communities, UNEP (tbc)

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What can YOU do to support this challenge?

Sample fields of action	Stakeholder(s)
Ecosystem restoration helps cities to become resilient and climate neutral. Include restoration goals in territorial and urban development plans and create the enabling frameworks and incentive for all	• National governments • Cities and local authorities

stakeholders to act. Join UNFCCC's Race to Zero and FAO's Green Cities Initiative.	
Join the CitiesWithNature Action Platform and pledge commitments towards restoration activities	• Cities and local authorities
Join or start activities to restore and rewild urban spaces, such as campuses, community gardens, urban food forests, and beaches and volunteer tree planting initiatives.	• Individuals and communities
Create or restore green and blue corridors linking town centres with surrounding rural areas and raise awareness across the population about the importance of healthy ecosystems and urban green spaces.	• Cities and local authorities
Establish ecosystem restoration plots in or near school grounds and train teachers in restoration.	• Research and education institutions
Development of novel, multidisciplinary, and evidence-based case studies with relevant information and real-time data for non-duplicating policymaking	• National governments • Cities and local authorities • Research institutions/ organizations • Individuals and communities
Data storage and dissemination	• Research institutions/ organizations, • Government Departments • IT sector
Hosting International Conferences, Symposiums, Summits, Seminars, etc. Celebrating International Days of Importance Complement G20 Initiatives	• International Government and Bodies • National governments • Cities and local authorities • Research institutions/ organizations • Individuals and communities
Entrepreneurship/ Green Skill Development	• Youth

4. RESTORATION CHALLENGE – CLIMATE

The overall goal of the Restoration Challenge for Climate is to contribute to a third of climate mitigation needed by 2030 and to scale adaptation efforts to avoid damage and degradation of critical ecosystems and ecosystem services (Griscom *et al.*, 2017). The Climate challenges invite dual climate adaptation and mitigation solutions, providing a range of interventions to tackle climate change impacts by mobilising CO2 sequestration, catalyzing private and public support along with political engagement, and supporting vulnerable communities. Conservation, protection, and restoration of all priority ecosystems, together with targeted management to adapt to unavoidable impacts of climate change, will enhance ecosystem resilience and reduce vulnerability to climate change (IPCC, 2022).

4.1 350 M ha under restoration by 2030 while directly supporting over 100 million people from climate-vulnerable communities to adapt

This challenge aims at placing 350 M ha under restoration by 2030 while directly supporting at least 100 million people from climate-vulnerable communities to adapt to the impacts of climate change by 2030 through nature-based solutions that improve land management and restore ecosystems. It will kickstart through a series of conversations among co-leading entities and other challenge-interested organizations to refine the goal to have numerical targets in line with the latest climate science, of an ambition that is appropriate to meet the climate crisis, and that addresses both mitigation and adaptation needs. Indicators include the extent of area under restoration (Ha), the climate mitigation impact measured in Gt CO2e (ie, the estimated change in sequestered aboveground & belowground carbon, soil organic carbon, and blue carbon equivalents from pre-project baseline , accounting for additionality and leakage), and people from climate-vulnerable communities supported through adaptation and restoration activities.

Bronson Griscom's “Natural Climate Solutions” paper transformed the global conversation on nature's role in mitigating the climate crisis.[3] Conservation International’s Exponential Roadmap for Natural Climate Solutions[4] and network of country offices enable challenge leads to have a scientific frame through which to mount a fast, effective, and large-scale effort to demonstrate the benefits of underutilized restoration strategies worldwide to combat climate change In order to reach the scale needed to address this challenge, lead organizations will integrate the multiple perspectives needed for success and engage other UN Decade partners, international and regional networks.

For both mitigation and adaptation, key activities include stocktaking, understanding the current and projected activities of partners that can contribute to the goals to 2030, and aligning monitoring and best practices for permanence and sustained contributions of restoration activities to solving the climate crisis.

The proposed resulting challenge refinement would be a collective goal, with common reporting and projected contributions to the goal from different UN Decade organizations according to their self-defined capacities and interest. Other organizations can contribute and align to these efforts at any time. Reaching the immense scale and ambition of this challenge will be contingent on accelerating restoration finance towards this challenge and depend heavily on the capacities and support given to UN Decade partners engaged in

[3] Griscom B.W., etal., 2017. Natural climate solutions. PNAS 114 (44) 11645-11650
[4] Exponential Roadmap for Natural Climate Solutions.
https://www.conservation.org/priorities/exponential-roadmap-natural-climate-solutions

scaling restoration for climate mitigation and adaptation. It has many connections with other UN Decade Challenges and their goals.

Key activities may include:

Mitigation:

1. Establishing direct cost-effective, high-quality, tailored restoration strategies with potential for scale, rapid, widespread adoption of best practices, supporting natural regeneration-based strategies and IPLC-led approaches whenever possible;

2. 5+ year monitoring to ensure the establishment and basic reporting of restored areas (Example: CI-WRI Tree Restoration Monitoring Framework)[5];

3. Achieving/quantifying direct restoration and amplification of best practices through:
    a. Key networks,
    b. Policy and enabling conditions,
    c. Financial mechanisms (carbon, non-carbon),
    d. Catalytic science.

Adaptation:

1. Sharing information on best practices for integrating climate risk into project design (safeguards), determining vulnerable communities/people to establish baselines and monitoring (Example: Conservation International's climate risk safeguards tool and NbS adaptation outcome methodologies).

2. Facilitate prioritization, co-design, inclusion and support for restoration for climate-vulnerable communities, including IPLCs, where people are most dependent on degraded nature (Example: Nature Dependent People research, Fedele et al. 2021[6]).

3. Retrofitting, realigning and scaling the adaptation contributions of existing restoration projects by:
    a. Providing technical guidance, tools and monitoring to include/track adaptation benefits;
    b. Support inclusion of NbS, such as improved land management and restoration into national climate plans (NAPs, NBSAPs, NDCs)
    c. Develop innovative financial models proving the business case for adaptation and resilience through restorative economies or value chains.

Adaptation/Mitigation integration:

1. Demonstrate the feasibility of integrated approaches through transformative Nature-based Solutions projects.
2. Brainstorm and develop the most important restoration and climate-related scientific resources that will inform the decade

We propose a global but staged approach with regional intergovernmental organizations coordinating activities in their region and adapting and replicating the approaches across

[5] Tree Restoration Monitoring Framework - Field Test Edition (conservation.org)
[6] Nature-dependent people: Mapping human direct use of nature for basic needs across the tropics - ScienceDirect

the regions sharing of best practices over the years. The target areas will be informed by strategic mapping of climate (mitigation and adaptation), community and biodiversity (CCB) priorities in order to target limited resources to where they will have the most impact on the climate crisis. Potential sources can include existent carbon, communities and biodiversity (CCB) mapping by Conservation International for tree-based restoration (based on Cook Patton et al. 2020, IUCN red list data and predicted ecosystem services from restoration data layers), Fedele et al. 2021's work on Nature-dependent people, and prioritization work on mangrove restoration (new potential map forthcoming), rangelands restoration, or equivalent for other ecosystems.

The Challenge will be led by Conservation International (CI), who will focus Challenge efforts towards collaborating with the regional and thematic challenge co-leads and other UN Decade partners towards the activities necessary to drive progress on the three core Climate challenge indicators – hectares restored, GtCO2e sequestered, and climate-vulnerable people supported.

About Conservation International, Climate and Restoration

CI's Bronson Griscom's "Natural Climate Solutions" paper has transformed the global conversation on the role of nature in mitigating the climate crisis.[1] CI leads on science-driven restoration research and implementation through global thought leadership like our recently published Exponential Roadmap for Natural Climate Solutions (conservation.org)[2]. CI's network of 30 country offices enables the UN Decade on Ecosystem Restoration to mount a fast, effective, and large-scale effort to demonstrate the benefits of underutilized restoration strategies worldwide to address climate change issues. Because CI's global restoration, catalytic science and adaptation teams sit in its Natural Climate Solutions Center, CI is well positioned to lead the Climate Challenge in a way that integrates the multiple perspectives needed for success.

Global goals and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration by 2030)
- Kunming-Montreal Global Biodiversity Framework Target 8 (Climate change)
- UNFCCC (NDCs, NAPs, global goal on adaptation, race to resilience)
- Sendai Framework for Disaster Risk Reduction
- UNCCCD (LDNs)
- SDG#13 (Climate Action)
- SDG #15 (Life on land)
- National restoration pledges, e.g. Bonn Challenge (350 M ha by 2030), 20x20, AFR100
- National tree planting commitments

The alignment of the framing of the challenge goals in similar indicators (ha, CO2e, climate vulnerable people) to existing efforts, will create synergies between the actions taken by U.N. Decade partners and the numerous existing commitments in this space, reinforcing key goals and operationalizing/accelerating action towards them, as opposed to creating additional redundant commitments. In both the mitigation and adaptation space, it is widely recognized that while there are numerous existing commitments, action towards achieving them is too little, too slow and too late.

Timeline & KPI

KPIs:

- Ha under restoration
- Gt CO2e sequestered
- Adaptation: climate-vulnerable people supported

Timeline:

2023:

- Survey of UN Decade partners for interest in, capacity to participate and proposed resourcing of the Climate Challenge
- Develop thinking on alignment of UN Decade Climate Challenge goal with targets in major conventions (CBD [GBF, NBSAPs], UNCCD [LDNs], UNFCCC [NDCs]), Bonn Challenge and other national and regional commitments

2025:

- 35 M ha; 1 Gt CO2e; and 30 million people from climate-vulnerable communities supported (to be further revised in Q1-2 2023 with discussions with partners and informed by projections from Exponential Roadmap for NCS on what will keep us on track to 350 M by 2030)

2030:

- 350 M ha (aligns with Bonn Challenge goal, UN climate champions' 2030 breakthrough goal, in the Exponential Roadmap for NCS, ENACT partnership for NbS with Egypt/Germany/IUCN that came out of COP27), 50 M ha of this goal comes from 20x20 and 100 M ha of this goal comes from AFR100, such that this Challenge is a way to include and build upon existing commitments, but reaching the 350 M ha goal will depend on finding the resources to expand the ambitions of regional initiatives even further in the areas most strategic for climate, community and biodiversity.
- XGtCO2e (to be further revised in Q1-2 2023 with discussions with partners and informed by projections from Exponential Roadmap for NCS on what will keep us on track to 350 M by 2030)
- 100 million people from climate vulnerable communities supported

(Co-)leading UN Decade partner(s):

Conservation International
Co-Leads: AFR100, 20x20 Initiative, AFoCO, UNEP, FAO, Global Rewilding Alliance, Yale School of the Environment (tbc). Potential discussions to be held with other partners such as UNFCCC, GEF, IUCN, WRI, TNC, GRO.

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Regional Challenge Co-Leads

A staged approach, with regional intergovernmental organizations coordinating activities in their region, is proposed for this challenge, to encourage conversation and alignment

between regional initiatives and the UN Decade Climate Challenge, and build on the significant progress these regional initiatives have made in compiling commitments and promoting restoration action. CI will work with regional co-leads to integrate these important initiatives and their goals into the drive to scale needed for the UN Decade Climate Challenge, and understanding how the UN Decade Climate Challenge can help potentiate the scaling of existing regional and local initiatives.

Africa

AFR100

AFR100 (the African Forest Landscape Restoration Initiative) is a country-led effort to bring 100 million hectares of land in Africa into restoration by 2030. AFR100 contributes to the Bonn Challenge, the African Resilient Landscapes Initiative (ARLI), the African Union Agenda 2063, the Sustainable Development Goals and other targets. Follow #AFR1OO

For the Africa region, the AFR100 co—lead will build on its restoration expertise, networks, and existing projects in member countries such as Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Cote D'Ivoire, Democratic Republic of the Congo, Eswatini, Ethiopia, Federal Republic of Somalia, Ghana, Guinea, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Namibia, Niger, Nigeria, Republic of Congo, Republic of Sudan, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Togo, Uganda, Zambia and Zimbabwe, as well as many technical and financial partners (TFPs), aiming at:

- ∉ Scaling up climate mitigation and adaptation efforts through ecosystem restoration
- ∉ Capacity-building to disseminate knowledge. Operation of regional workshops, trainings and accelerators. Contribute to the development of joint publications
- ∉ Development of multi-country proposals

KPIs:

- Ha under restoration
- Gt CO2e sequestered
- Adaptation: climate-vulnerable people supported

(Co-)leading UN Decade partner(s):

AUDA-NEPAD (Secretariat of AFR100)

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Americas

Initiative 20x20 is a regional partnership to bring more than 50 million hectares of degraded land into the process of conservation and restoration by 2030. Restoration and conservation could deliver 60% of emissions reductions needed by 2050 in Latin America and the Caribbean. Initiative 20x20 combines expertise, intent, and capital in Latin America and the Caribbean to transform the dynamics of land degradation and advance restoration across the region.

For the Americas region, the 20x20 co—lead will contribute its existing restoration expertise, networks, and existing projects in member countries such as Argentina, Belize, Bolivia (Santa Cruz province), Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru and Uruguay, as well as many technical partners, aiming at:

- Scaling up climate mitigation and adaptation efforts through ecosystem restoration
- Through the 20x20 task forces, contribute to capacity-building and knowledge dissemination of best practices. Operation of regional workshops, trainings and accelerators. Contribution to the development of joint publications
- Encouraging 20x20 partners to develop multi-country proposals to support regional goals and priorities

KPIs:

- Ha under restoration
- Ha under new conservation areas
- Adaptation: climate-vulnerable people supported

(Co-)leading UN Decade partner(s):

WRI (Secretariat of 20x20)

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Asia-Pacific

For the Asia-Pacific region, the Asian Forest Cooperation Organization (AFoCO) co—lead will build on its restoration expertise, networks, and existing projects in member countries such as Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Thailand, Timor-Leste, and Viet Nam aiming at:

- Scaling up on mitigation efforts through reforestation and forest rehabilitation,
- Enhancing adaptation capabilities through sustainable forest management;
- Identification of community champions;
- Best practices identified for sharing of experiences and knowledge
- Capacity-building to disseminate knowledge. Operation of webinars and annual workshops and contribute to the development of joint publications
- Establishment of matchmaking platform on the UN Decade Digital Hub
- Launch of tree-planting campaign;
- Development of multi-country project proposals.

These activities will include parameters that will allow to measure contributions to and across many challenges, i.e. Forest areas restored and rehabilitated as a proportion of total land area (ha), GtCO2e sequestered, above and below ground biomass stock in forests, existence of national or sub-national policies/strategies/legislations/regulations/institutions explicitly encouraging SFM, employment related to the forest sector, persons trained through capacity building,climate-vulnerable people supported through restoration, etc.

KPIs:

- Ha under restoration

- Gt CO2e sequestered
- Adaptation: climate-vulnerable people supported
- Implementation of national/subnational policies encouraging SFM
- Capacity building
- Green jobs created

Timeline:

2023:

- Restoration-based webinar series preparation: AFoCO hosts a UN Decade Climate Action Webinar Series together with other interested co-leads, targeting 1 webinar per quarter. It is proposed that 2 webinars be held in the first half of 2023, while planning for a face-to-face 3-day workshop at the Gangwon Forestry Exhibition in September 2023.
  The webinar topics will be planned through consultations with other interested co-leads and the Capacity Development Division of AFoCO but could include sub-topics of Nature-based Solutions, biodiversity, and urban forestry.
- Stocktaking preparation: Learning sessions with other interested challenge leads will be conducted on a regular basis to develop a template for the stocktaking exercise so as to ensure reporting consistency.
- Planning for a private sector tree-planting programme:
  AFoCO will aim to initiate conversations with private sector initiatives to explore the possibility of implementing a large-scale restoration programme.
- Roadmap planning: If necessary/feasible, a face-to-face roadmap planning session can also take place at the Gangwon Forestry Exhibition in September 2023 alongside the workshop.
- Identification of local community champions in the restoration of different forest types (e.g. successful cases of communities managing to achieve both environmental and livelihood benefits in mangroves, peatlands, drylands ecosystems, etc.)

2024:

- Webinar series kickoff/launch:
  Based on the outcomes of the 2023 webinar series, the planning and implementation of the 2024 webinar series will proceed in consultations with the UN Decade team and other challenge leads.
- Stocktaking preparation/implementation:
  Once developed, the pilot testing of the stocktaking template will be done (and tried in one AFoCO project) before the template is disseminated to other members of the UN Decade.
- Engagement platform development
  Development of the matching-making platform to link restoration funders and implementers on the Digital Hub and fundraising campaign targeted at private entities, to support their tree-planting CSR campaigns.

(Co-)leading UN Decade partner(s):

Asian Forest Cooperation Organization (AFoCO)

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4.2 Help close the global adaptation finance gap and scale global adaptation efforts

Ecosystem-based adaptation is needed for adapting to climate change harnessing nature-based solutions and ecosystem services. For instance, restoring coastal habitats like mangroves provides natural flood defences and reforestation can hold back desertification.

International adaptation financing – despite progress in planning, financing and implementing adaptation actions as well as an increase in global financing commitments – remain insufficient, particularly flows to developing countries which are 5-10 times below estimated needs and the gap is widening. Estimated annual adaptation needs are USD 160-340 billion by 2030 and USD 315-565 billion by 2050.[7]

Ecosystem-based adaptation, particularly restoration, is a key response and opportunity. This challenge aims to catalyze public support and political engagement for climate action; strengthen South-South and South-North learning; develop new and deepen existing partnerships with organisations that have complementary areas of interest and where collaboration can have catalytic and synergistic on advancing the global goal on adaptation.

It will create a roadmap for the private sector to increase the private financing support available, produce missing knowledge products, and influence key climate processes, such as the Global Adaptation Goal (GAG). Key stakeholders include other UN agencies, international and national NGOs, research and academic institutions, the private sector, youth, non-traditional stakeholders and CSOs.

Goals include:

- Increasing the part of the global climate finance made available for adaptation (e.g., developing roadmaps or business plans for the private sector and governments to fund adaptation-focused restoration projects, conducting studies, and developing reports highlighting the cost-effectiveness of adaptation initiatives, particularly in terms of co-benefits, including climate mitigation and restoration).

- Scaling up the financial support of both public and private entities towards adaptation.

- Closing adaptation knowledge gaps in priority regions by building on the ongoing work/activities on LAKI together with the Nairobi work programme.

- Tracking, monitoring, evaluating, and informing the progress made on adaptation, in particular in the context of the Global Goal on Adaptation.

- Scaling up the number of adaptation initiatives and their size.

- Scaling up the number of mitigation projects, including adaptation components and benefits.

[7] Adaptation Gap Report 2022 (UNEP)

- Better informing and communicating on the many linkages between adaptation and mitigation, and between restoration activities and adaptation initiatives, and mitigation of trade-offs.

- Strengthening the role of adaptation in international and national laws and regulations, including through the support to countries' development of NAPs, NDCs and their implementation.

- Strengthening the communication about adaptation, in particular the cross-cutting benefits it represents for the populations through the development of specific knowledge and communication products, e.g. briefing notes, lessons learned, best practices, reports, podcasts, etc.

- Identifying flagship initiatives, including mitigation and adaptation activities as core activities.

Global goal and SDG

- SDG #11 (Sustainable cities and communities)
- SDG#13 (Climate Action)
- SDG #14 (Life below water)
- SDG #15 (Life on land)
- Sendai Framework, particularly "strengthening disaster risk governance to manage disaster risk, and Investing in disaster risk reduction for resilience."
- Paris Agreements
- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration by 2030)
- Kunming-Montreal Global Biodiversity Framework Target 8 (Climate change)
- Kunming-Montreal Global Biodiversity Framework Target 19 (Finance)

Timeline & KPIs

KPIs:

- Number of adaptation initiatives and their size
- Number of mitigation projects, including adaptation components
- Development of NAPs, mentioning of restoration for adaptive capacity and resilience in NDCs,
- Communication products, e.g. briefing notes, lessons learned, best practices, reports, podcasts, etc.

Timeline:

2023:
- Start the design and implementation of the challenge

2024:
- Update/revise the challenge based on the results from the GGA review/monitoring process

2025:
- Provide a first official review/monitoring of the activities in 2025

2026-2030:

- Readjusting the indicators and goals

(Co-)leading UN Decade partner(s):

UNEP, FAO, WWF (tbc), IUCN (tbc)

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4.3 Animation of the carbon cycle through rewilding as Nature-based Climate Solution

Wild animal species play a critical role in controlling the carbon cycle in many ecosystems on land, in freshwater, and in the oceans through foraging, nutrient deposition, disturbance, organic carbon deposition and seed dispersal. It is a process that has been called "Animating the Carbon Cycle (ACC)". Restoring the functional role of marine fish, whales, elephants, wolves, sharks, bison, and other wildlife species can in fact be a game changer by magnifying carbon uptake by 1.5 to 12.5 times across the world's terrestrial, freshwater, and marine ecosystems.

A recent study (Schmitz, O.J. et al. 2023: Trophic rewilding can expand natural climate solutions", Nature Climate Change, accepted for publication) of how larger wild vertebrates affect ecosystems shows that they are already playing a very significant climate role. Ten documented case studies of marine fish, whales, sharks, gray wolf, wildebeest, sea otter, muskox, African forest elephant and American bison demonstrate that by protecting or restoring the populations they could together facilitate the capture of 6.41 $GtCO_2$ annually. This would contribute with more than 95% of what is needed every year - 6.5 $GtCO_2$ - to meet the global target of removing 500 $GtCO_2$ from the atmosphere by 2100 and preventing climate warming beyond 1.5°C.

The ACC concept requires abandoning a static understanding of conservation and nature-based climate solutions, such as forest plantations, and replacing it with dynamic landscapes and seascapes, which enable wild animal species to reach meaningful densities through a conservation strategy - trophic rewilding - that aims to repair the food webs.

There is also a big advantage to focus on long-lived species like the studied wildlife group with average longevity between 20 and 200 years. This will ensure very significant carbon net contributions until the end of the century if the species are protected. If not, these ecosystems could flip from being carbon sinks to sources.

It is also essential to look at ecosystems and species beyond forests, including marine ones. The species studied are only the top of the ACC "iceberg"', with many more candidate species across the globe, such as African buffalo, white rhino, puma, dingo, Old- and New-world primates, hornbills, fruit bats, harbour & grey seals, and logger head & green turtles. Although the populations of many of these species have been heavily reduced through human impact, we can expect many to bounce back rapidly with the right enabling conditions.

The ACC concept is not restricted to protected areas and the most intact parts of the world's natural areas. It also works considering human welfare, cultural heritage, ancestral knowledge, and with the right tenure of land and sea in place. ACC through trophic rewilding does not exclude economic opportunities. It allows and promotes an economy that is in line with the needs for ecosystems to thrive, thereby securing the long-term availability of ecosystem services communities depend on. Overexploitation of natural resources - as is the norm now - erodes these services and makes it impossible for disadvantaged communities to live on and off their land and sea.

An ecological climate model is currently under development at the Yale School of the Environment financed through the Global Rewilding Alliance. It is intended as a practical tool to ascertain the feasibility of using specific on-the-ground rewilding projects to enhance carbon capture and storage. It will enhance the ability of policymakers to craft sound animal climate solutions as well as assist decision making by conservation aimed at rewilding nature for the dual purpose of mitigating climate change and reducing biodiversity loss.

Through ACC, rewilding serves as a prime example of a systemic solution to a systemic problem. By taking key wildlife species and the ACC potential into account, time has come for a paradigm shift in how we mobilise nature for the benefit of climate and society – an approach that also will help to strengthen functioning of nature to secure other ecosystem services, reduce the global loss of biodiversity, and to meet political commitments when it comes to the UN Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity (CBD), and the UN Sustainable Development Goals (SDGs).

Global goal and SDG

- SDG#13 (Climate Action)
- SDG #14 (Life below water)
- SDG #15 (Life on land)
- Paris Climate Agreement
- Kunming-Montreal Global Biodiversity Framework: Target 2 (Protection), Target 3 (Restoration), Target 8 (Climate Change)
- UNCLOS High Seas/BBNJ Treaty

Timeline & KPIs

2023:

- Two peer reviewed scientific papers – "*Trophic Rewilding can expand natural climate solutions*" & "*Animating the Carbon Cycle: How Wildlife Conservation Can be a Game-Changer for Climate Mitigation*" (Environment: Science and Policy for Sustainable Development) – published
- ACC model developed, demonstrating how to best implement ACC in different species/ecosystem constellations
- The ACC concept embedded in the CBD SBSTTA advisory on biodiversity and climate change, developed for COP16
- Chapter on "*Animating the carbon cycle through rewilding – a critical path for turning the tide for a healthier planet*" published in the UN Decade book "Nature Restoration"
- The critical role of ACC in the design and implementation of the UNCLOS High Seas/BBNJ Treaty communicated at the negotiations, United Nations in New York 20 February to 3 March

- The High Ambition Coalition for Nature and People and the High Ambition Coalition on Biodiversity Beyond National Jurisdiction have been informed about the strategic connection between the 30x30 biodiversity target and climate mitigation & adaptation, with the aim of having a ACC perspective adopted in their implementation plans

2024:

- ACC Reference Book covering science, socio-economic, financing, policy, legal aspects, and best practice has been published online
- Results considered fit for purpose by the academic community as well as policymakers
- The ACC is proving its value for a number of conservation initiatives by providing solid data and argumentation on the additional carbon sequestration impact of conservation projects and targets
- 5-10 practical ACC initiatives identified, covering Africa, Asia, Australia, Europe, Latin America, and North America – with focal species and ecosystems
- Financial mechanisms identified – rewilding/biodiversity/carbon credits, etc.
- ACC activities incorporated in UNFCCC: Nationally Determined Contributions (NDCs): (adding an ACC dimension to studies, like for Canada) and CBD: National Biodiversity Strategies and Action Plans (NSAPs)

2025:

- A longer-term ACC plan launched for how to meet the 500 $GtCO_2$ target by 2100 (or sooner)

KPIs:

- Inclusion of the ACC concept in CBD, UNFCCC & UNCLOS related processes
- Number of scientific and popular articles on ACC
- ACC reference book
- Number of practical ACC projects initiated
- An implementation plan for meeting the 500 $GtCO_2$ target by 2100

(Co-)leading UN Decade partner(s):

Global Rewilding Alliance, Yale School of the Environment (tbc)

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What can YOU do to support this challenge?

Sample actions in support	Stakeholder(s)
Incorporate nature-based solutions into national adaptation plans (NAPs), NBSAPs, and quantified restoration targets or actions into nationally determined contributions (NDCs).	• National governments

Hold governments, financial institutions and corporations to account by participating in local and international climate movements and advocacy campaigns.	• Local communities and individuals • NGOs and CSOs
Increase finance support for mitigation and adaptation-focused restoration projects.	• National governments • Donors and financial institutions
Create nature-based solutions to reduce the emissions gap and support mitigation and adaptation	• National governments • Private sector • Research and education institutions
Sharing best practices on climate adaptation and mitigation to a broad audience	• All stakeholders

5. RESTORATION CHALLENGE - COMMUNITIES

Indigenous peoples, women and local communities are pillars of conservation and ecosystem restoration across the world (Coello and Frey, 2023). Local communities and local level non-profit organizations including local community-based initiatives, civil society/ non-governmental organizations, or government-led initiatives and indigenous people and local communities (IPLC) hold critical knowledge about restoration needs and potential solutions (Coello and Frey, 2023). Participatory approaches and local restoration action are fundamental for achieving the needed restoration successes (Coello and Frey, 2023).

The strategy of the UN Decade expresses that ecosystem restoration must occur on different spatial scales from local to global levels. It is especially critical to include local communities and indigenous peoples in restoration activities since they hold valuable knowledge on restoration needs and potential solutions (IUCN 2021). It further highlights that "[t]he secret to global success [...] lies in boosting the capacity of local leaders." (Anderson 2021).

5.1 Restore and secure land and resource rights to Indigenous Peoples and local communities and recognise them as stewards of ecosystem restoration

Up to 2.5 billion women and men depend on land and natural resources that are held, used or managed in common. They are farmers, pastoralists, fisherfolk, and forest keepers. They protect more than 50% of the planet's land surface, but governments recognize their ownership rights over just 10%. Many of these communities are actively engaged in ecosystem restoration as part of customary practice and a wealth of intergenerational knowledge on the ecosystems on which they depend.

This challenge is to be led by and for Indigenous Peoples and local communities, coordinated by a coalition of partners, with the following aims:

- Advance and promote locally led ecosystem restoration through providing visibility, technical support, networks, access to funding and generation of community led restoration flagships.

- To secure land and territorial rights of Indigenous Peoples, local communities, pastoralists and small scale farmers, recognizing that such rights are the foundation of community led ecosystem restoration. To further support the development of other enabling policies that facilitate community based ecosystem management and restoration.

- To significantly increase the recognition of the critical role played by Indigenous Peoples, women, youth, family and peasant farmers, pastoralists, forest dwellers, hunter-gatherers, fisherfolk, afro-descendants in addressing our global restoration challenge. Currently, this contribution is largely ignored by most governments and the global restoration movement alike.

- To subsequently integrate and support community-led restoration practice in national, regional and international restoration planning, and with it, the recognition of the importance of tenure security for successful restoration practice.

The expected results are:

- Increased recognition of communities' contribution to restoration, both globally and nationally;
- Integration of communities in national, regional and global restoration planning;
- Tenure security becomes and integral part of restoration planning;
- Presentation of at least 30 community led restoration flagships based on increased tenure security, forming the basis of a global campaign celebrating community led restoration, with an emphasis on tenure security.

The actions will focus on National, Regional and Global Advocacy. Voices of community partners are amplified, community restoration flagships celebrated, and the impact of the work is further scaled.

It is envisaged to build an enabling environment for supporting tenure security in the context of restoration targets. In practice that means to mainstream the relevance of land tenure for ecosystem restoration in relevant national (in countries where National Land Coalitions exist), regional (such as regional conservation or climate summits) and intergovernmental settings, such as the CBD, UNEP, IPBES, UNFCCC, UNCCD, IUCN or other meetings with a restoration focus, and take advantage of opportunities such as the Global Year on Pastoralists and Rangelands in 2026.

Activities include:

1) The first step will be to develop an in-depth **work plan** as the basis in a transparent and inclusive process inviting stakeholder groups to contribute and particularly Indigenous Peoples and Communities organization to become partners of the UN Decade for this challenge. A draft work plan will be **consulted** among ILCs network and partners . Likely activities will include:

    a) facilitation of networks and peer-to-peer learning and good practice sharing opportunities among local - restoration partners as well as other members of the UN Decade.
    b) collective fundraising as a way to strengthen local restoration initiatives.
    c) scale the impact of initiatives through the collection of data, strategic storytelling and community led advocacy in specific national, regional and global policy fora.
    d) facilitation of community led restoration flagships.

A soft kickstarting event took place on 12 November 2022 at GLF Climate. See details here.

2) ILC's National Land Coalitions (NLCs) for Ecosystem Restoration will advance, recognize and promote tenure security of Indigenous Peoples, local communities, small scale farmers and pastoralists as a critical pillar for ecosystem restoration within national governments, together with partners. These NLCs are currently established and have an impact in more than 30 countries and will be key for the following activities:

    - Recognition of the important role of local and traditional knowledge for the protection and restoration of ecosystems, while highlighting the

inextricable link between tenure security and the preservation of such knowledge.

- Establishment of financing partnerships with conservation funders, governments and other actors to protect and restore ecosystems through the recognition of land rights and promotion of traditional knowledge and practices.

The aim is further to develop over 30 Indigenous Peoples and Local Community led Restoration Flagships over the course of the UN Decade.

3) Land Data for Ecosystem Monitoring – Building on experience with people-centered data generation for impact such as LANDex and LandMark, as well as indicator development. Network members could contribute unique datasets and information related to restoration, specifically the link to the tenure security of Indigenous peoples, local communities, small scale farmers and pastoralists. Collaboration with other geospatial initiatives such as with www.restor.org will be explored to demonstrate active restoration practices by communities.

The International Land Coalition (ILC) is co(leading) this challenge together in collaboration with some of its relevant regional platforms (which also include non ILC members), including the ILC Asia Platform on Ecosystem Restoration and the Latin American Semiarid Platform. More are likely to join.

Global goal and SDG

- United Nations Declaration on the Rights of Indigenous Peoples
- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration by 2030)
- Kunming-Montreal Global Biodiversity Framework Target 22 (Indigenous peoples and local communities)
- SDG#13 (Climate Action)
- SDG #14 (Life below water)
- SDG #15 (Life on land)
- UNFCCC
- UNCCD
- CBD Art. 8j - linking tenure to preservation of traditional knowledge, critical for community led conservation and restoration, engage in new Program of Work

Timeline & KPIs

KPIs:

- 1 work plan and strategy
- 10 policy/practices exchanges;
- Tenure security protection;
- Active restoration of ha;
- 30 successful community led restoration flagships;
- Peer to peer learning facilitation;
- Committees / councils / platforms equipped to address and mediating local land conflict;
- Women participation in relevant local governance structures;
- Targeted global campaigns

Timeline:

2023:

- Network wide consultations through targeted platforms including through at least three regional platforms (see above) on locally based ecosystem management and restoration as well as ILC's Indigenous Peoples, women, youth and pastoralists caucuses.
- Collective identification of clear targets and development of plan of work
- Programming and launching of global mobilization and awareness campaigns around the theme
- Identification of National Land Coalitions to engage on policy and advocacy on national level
- Engagement with existing datasets on tenure security and identifying critical data sets for ecosystem restoration to be added. Of significance will be:

    a) new global Prindex dataset collected via Gallup World Poll, expanding our understanding of tenure security globally.

    b) LANDex phase two collection begins, offering data in all National Land Coalition countries by 2025.

- Fundraising for plan of work
- Possible establishment of ecosystem specific working groups: drylands, rain forests, wetlands/marine, mountains for peer to peer learning/best practices

2024:

- Equipment of National Land Coalitions with skills, tools and knowledge to engage and report on UN Decade of Ecosystem Restoration
- Identification of community led restoration flagships, generation of baseline reports
- Identification of policy contexts most supportive of community based restoration and sharing of good practices
- Formal status quo presentation during CBD COP16 with a focus on Target 2 and Art 8j
- Possible side event at UNCCD COP16
- Possible presentation of ensuring community led restoration flagships are presented during 2024 Olympics awareness raising initiatives, in collaboration with UN Decade Partners

2025:

- Global Land Forum held in Colombia, providing a global venue for presenting consolidated data with a focus on tenure security and restoration
- Finalisation of LANDex data
- Implementation assessment

2026:

- Strategic Advocacy engagement during International Year of Pastoralists and Rangelands through presentation of ongoing pastoralist led restoration flagships, eg. during CBD COP 17

2028:

- Status quo report of restoration flagships

2029:

- Mainstream and scaling of good practices

2030:

- Targets achievement and presentation of results at a number of opportunities (tbc) and that correlate with end of UN Decade

(Co-)leading UN Decade partner(s):

International Land Coalition (ILC), ILC Asia Platform on Ecosystem Restoration, Semiaridos Platform, UNEP

International Citizens' Environment Network (RICE) (tbc), UNEP, CIFOR/ICRAF (tbc), IFAD (tbc), FAO (tbc), ICCA Consortium (tbc)

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5.2 Engagement and activation of faith communities and faith-led restoration flagships

Ecosystem restoration projects are critical to solving the biodiversity crisis and mitigating/adapting to the climate crisis. Despite massive investment in ecosystem restoration around the globe, many struggle to meet their targets. It has been demonstrated hat projects which have significant involvement from local communities - Indigenous or otherwise - are more likely to succeed because they extend into the social, cultural and indeed the spiritual fabric that stitch together people and place.

To help address the implementation gap and to contribute to the success of the UN Decade on Ecosystem Restoration, the Center for Earth Ethics and future collaborators (to be named) will embark on a dual pronged approach to 1) raise awareness in communities across the world through community based dialogue and education; and 2) partnering with ongoing restoration projects to discern, advise, and promote community engagement and outreach to promote the successful adoption and acceleration of ecosystem restoration.

At global level, it will increase the global restoration movement by raising awareness and increasing leadership of faith communities through 100 grassroots dialogues. Local faith communities will be contacted and trained to conduct dialogues with local stakeholders on ecosystem restoration. Formal training and guidance will be provided and an online platform will be created to track the dialogues.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration by 2030)
- SDG #6 (Clear water and sanitation)
- SDG #8 (Decent work and economic growth)
- SDG#13 (Climate Action)
- SDG #16 (Peace, justice and strong institutions)

KPI & Timeline:

KPIs:

- 5 World Restoration Restoration projects/flagships identified and working with the VCS methodology.

Timeline:

2023:

- Dialogue: 50 grassroot dialogues with faith groups conducted
- Flagships:
    - Confirm Partnerships
    - Site Visits (x2) and Analysis
    - Report and Strategy Development
    - Implementation

2024:

- Dialogues: 50 grassroot dialogues with faith groups conducted
- Create an online platform to track the dialogues.
- Train local leaders.
- Flagships: - Site Visit (x2)
    - Measurements of Growth and KPIs
    - Analysis and Reporting
    - Augmentation of Strategy to build on successes and to correct failures

2025:

- Flagships:
    - Final Site Visits
    - Culminating Report
    - Recommendations for further adoption across broader set of sites
    - Identify future sites, begin process again

Funding:

To successfully maintain this project at a level befitting the vision, it will cost an estimated $200,000. Costs include:

- Staffing: 145,000
- Travel and accommodation: 30,000
- Website Development: 15,000
- Equipment: 10,000

Total: 200,000

(Co-)leading UN Decade partner(s):

Center for Earth Ethics, UNEP Faith for Earth, United Religions Initiative (tbc)

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5.3 Impact assessment and visualization of #GenerationRestoration movement on terrestrial ecosystems

The aim of this challenge is to bring together all UN Decade partners and terrestrial restoration efforts on a UN Decade partner hub, Restor, to assess its impact along key metrics and help visualize the global movement. It will further link this community to an extended global community of restoration and conservation stakeholders. The challenge is led by the UN Decade Partner Restor, the largest network of conservation and restoration sites across the globe and a global hub for terrestrial nature restoration where thousands of local communities, NGOs, governments, and businesses share and monitor their projects.

Restor is developing impact reporting as premium functionality on the platform, which will serve for the UN Decade to get regular, aggregated analysis of the impact of UN Decade partner initiatives along key parameters such as carbon storage and potential supporting the scientific evidence and analysis of a global restoration movement. UN Decade partners joining the UN Decade portal on Restor will share data, knowledge and funding opportunities with one another and the wider global restoration movement, complementary to FERM and the Digital Hub.

Restor platform is also displaying the UN Decade Flagships Restoration case studies focused on the 2022 World Flagship Initiatives. These case studies provide valuable insights demonstrating how large-scale ecosystem restoration can be implemented through effective national and multi-national partnerships and based on the best science and technology available. These initiatives were selected based on their breadth and promise for restoring ecosystems at large scale and in ways that illustrate adherence to the principles of ecosystem restoration and adoption of best practices—both of these aspects will be emphasized in the case study narratives. Each case study is researched, verified, and updated in a systematized format by an independent group of researchers, including interviews with the main practitioners.

UN Decade partners can further tell the story of their UN Decade initiatives in a consistent and visually attractive way; access data to support remote-senses monitoring of progress and impact of initiatives consistently and cost-effectively; benefit from funding opportunities that arise through Restor's network of funders; connect to one another, and to the wider global community, for learning and collaboration opportunities.

Challenge actions include:

- Impact reporting providing metrics on biomes/ecosystems, canopy closure, hectares restored, carbon storage for UN Decade-affiliated sites and the World restoration Flagships (2022)
- Joint Communication and story-telling
- Outreach & relationship management to drive up engagement with the challenge
- Support for UN Decade partners who require any technical user support
- Learning sessions
- Connecting UN Decade partners with suitable funding opportunities

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 21 (Data)
- SDG#15 (Life on Land)

Timeline & KPIs

KPIs:

- Number of UN Decade Partners and projects deriving value from Restor through increased visibility, access to ecological insights and funding opportunities.

2023:

- Kick off customised and dedicated "outreach" campaign to UN Decade partners to join the UN Decade portal in Restor.
- Kick off customised and dedicated "engagement" campaign to UN Decade partners to drive active engagement on (and off) the UN Decade portal in Restor to ensure that UN Decade partners are optimally represented with visually attractive profiles and up-to-date data.

2024:

- Targeted communication campaigns around specific thematics e.g. mangrove restoration, biodiversity impacts etc. These thematic campaigns can be framed through UN Decade collections of theme-appropriate restoration projects.
- Kick off an impact reporting and analysis on the aggregate progress and impact of UN Decade partner projects.

(Co-)leading UN Decade partner(s):

Restor

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5.4 Rallying the international sports community to restore the planet, including the Planet 2024 Conference during Paris Olympics 2024

Major sport events such as the Olympics can represent a great celebration for humanity, but it also contributes to significantly accelerating nature degradation. Climate change, deforestation, water pollution – the Olympics have contributed to them all. The Rio 2016 Games, for example, produced between 6,000+ tons of waste according to the Post-Games sustainability report and 17,000+ tonnes according to other sources such as Forbes.

To bring awareness and drive the momentum of the Paris Olympics 2024 as 15 millions tourists, 15 000 athletes, 20 000 journalists and many private sponsors, a world campaign entitled PLANET 2030 will be launched in 2024 (Planet 2024). This is a campaign on ecosystem restoration and a major fundraising initiative from the private sector, dedicated to supporting the restoration effort of local communities including farmers, pastoralists, fisherfolk, and forest keepers. It aims to accelerate the nature restoration movement by involving civil society and businesses.

This challenge focus on bring together the international sports community to promote ecosystem restoration within the following aims:

- Using the **Paris Olympics 2024 to spur #GenerationRestoration** and highlight exemplary restoration work of local communities on the ground
- **Educating and raising public awareness on nature restoration** and promoting the benefits of nature restoration initiatives driven by local communities.
- **Raising between $1,8 billion and $3,6 billion from the private sector** until 2030 to support nature restoration initiatives (especially initiatives driven by local communities).
- **Creating and mobilising a network of businesses** (mainly large corporations) and helping them to accelerate their involvement in the nature restoration global movement.
- **Organising a world tour until 2030** (with the Free Spirit carbon free boat EXPLORE) to meet local communities and deliver improved techniques, expertise, tools and fundings to restore their ecosystems.
- **Organising a world tour until 2030** (with the Free Spirit carbon free boat EXPLORE) until 2030 to educate the youth and civil society on ecosystem restoration.
- **Planting 100 millions trees** especially in the areas with local and fragile communities.
- **Restoring coral reefs and more globally marine ecosystems**
- **Providing ecosystem restoration knowledge to communities** that have limited access to the internet, new technologies and information.
- **Educating the youth generations on nature restoration living** in the local communities.

PLANET 2024 (PLANET 2030 by extension) includes 6 activities (6 sub-projects) with are:

1) **The Nature Restoration Summit**

It will be the first Summit dedicated to nature restoration. The event will highlight The UN Decade on Ecosystem Restoration 2021-2030, implemented for 2 categories: large businesses and corporations, and civil society and NGOs.

The summit aims to:

- Accelerating the organisation model of companies in order to reduce their negative impact on nature
- Accelerating their carbon zero strategy
- Creating Task forces between businesses working in the same industry (energy, telecom, banking, hospitality, transportation, manufacturing)
- Accelerating the adoption of the circular economy
- Raising funds to support the local communities nature restoration initiatives
- Raising public awareness on nature restoration

- Promoting and sharing the solutions adopted by businesses that help to protect nature

The Nature Restoration Summit in 2024 will be the pilot and the objective is to replicate it by organising 6 summits per year (Europe, North America, South America, Asia, Africa, Australia).

About funding, the goal is to raise between $300M and $600M from the private companies after each summit. Therefore, by the end of 2030, the goal is to raise between 2024 and 2030 $1,8 billion and $3,6 billion.

2) The Ecosystem Restoration Center - Le Louvre in Paris

Raising public awareness on ecosystem restoration through digital campaigns is not enough. It is critical to offer the possibility to people to meet, discuss and learn from each other. Therefore, the Ecosystem Restoration Center will be a new concept in the world that will help to accelerate the ecosystem restoration movement.

The first Ecosystem Restoration Center should be in Le Carrousel du Louvre (at Le Louvre Museum in Paris) and will expect 2 millions visitors a year. The Center will be free for all visitors and financially supported by sponsors from the private sector. About the Center in Le Louvre (Paris, France);

- Educating 2 millions expected visitors within 12 months, on nature restoration
- Showroom with sustainable products
- Art exhibitions and documentary movies about nature
- Showroom of new tech helping to preserve nature
- Library and movies and games for families
- Virtual reality
- Conferences, talks and workshops

The Center will help to raise funds to plant 100 million trees in Africa through visitor donations. The Center in Paris would be a pilot and the objective is to replicate that initiative in several cities across the continents.

3) EXPLORE - The Carbon zero vessel dedicated to marine restoration

With a focus on innovation, EXPLORE is a NEXT GEN ship dedicated to marine ecosystem restoration, to driving expeditions to accelerate ocean conservation. Until 2030, EXPLORE will make a world tour to actively contribute to coral reef restoration and also to provide tools, training, techniques to coastal communities and local communities in order to amplify the nature restoration initiatives.

EXPLORE will drive an ambitious restoration initiative of the marine ecosystem without destroying the ocean. Concerned about the accelerating impacts of climate change, EXPLORE will also contribute to transforming the marine industry in order to reduce its greenhouse emissions.

Therefore EXPLORE will drive 4 majors missions:

- Driving marine ecosystems restoration initiatives with a team of experts
- Providing funding, technical expertise and training to coastal communities in order to help them to restore the marine ecosystem by themselves

- Organising a Nature ecosystem event for coastal and local communities (Conferences, movies, workshops, games, round tables, etc…). That event is called “O’DYSSEY - The Ocean Day”, created by Free Spirit Foundation. “O’DYSSEY - The Ocean Day” we organised in Paris in 2022 was officially endorsed by **Decade of Ocean** Science for Sustainable Development (2021-2030) lead by UNESCO
- Delivering workshops to the youth generations
- Attending the main marine events across the globe to meet the main actors of the vessel industry and share the technologies we use in order to accelerate ecological transition
- Driving scientific expeditions to find ocean-based solution to fight climate change

4) The Nature Restoration book

The Nature Restoration book will present the wisdom, the vision, best practices and recommendations of over one hundred experts –oceanographers, scientists indigenous leaders, engineers, economists, biologists and artists to equip us all with the knowledge we need to restore the world ecosystems: Forests, Oceans, Freshwaters, Grasslands, Mountains, peatlands, urban areas.

The book will help to:

- accelerate the global movement on ecosystem restoration;
- inspire more people and organisations across the globe to join the movement
- provide the knowledge to anybody who would like to take concrete actions to restore the ecosystems.

5) Restore the PLANET Business Network

RESTORE THE PLANET is Network of businesses and organizations in the public sector taking concrete actions to tackle climate change and build a healthy planet for the next generations. That initiative, launched by Free Spirit, was created to support the United Nations Decade on Ecosystem Restoration 2021-2030. The network will help to share best practices and highlight the benefits of nature restoration and the new climate economy.

6) Other activities

Free Spirit Foundation and its partners will organize, deploy and implement several activities dedicated to raising public awareness on nature restoration.

- Art exhibitions,
- conferences, talks
- planting tree concerts,
- videos, fine Art photography,
- Happenings,
- 3D mapping
- Podcasts

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 11 (Nature’s contributions to people)
- Kunming-Montreal Global Biodiversity Framework Target 20 (Capacity-building)

- SDG #2 (Zero Hunger)
- SDG #4 (Quality education)
- SDG #5 (Gender equality)
- SDG #6 (Clear water and sanitation)
- SDG #8 (Decent work and economic growth)
- SDG#10 (Reduced inequality)
- SDG#13 (Climate Action)
- SDG #14 (Life below water)
- SDG#15 (Life on Land)

KPI & Timeline:

KPI per activity

- **The Nature Restoration Summit:** raise between 2024 and 2030 $1,8 billion and $3,6 billion (by the end of 2030)
- **The Ecosystem Restoration Center - Le Louvre in Paris:**
    - Raising funds to plant 100 million trees in Africa through visitor donations
    - Educating 2 millions expected visitors within 12 months, on nature restoration
- **EXPLORE - The Carbon zero vessel dedicated to marine restoration:** training 100 000 individuals within coastal and local communities (1000 people per city/area) around the world by 2030 and educating 100 000 people across the globe in order to:
    - teach local communities how to preserve nature
    - support them to become marine ecosystem restoration experts
    - become forest or farmlands restoration experts
    - educate 10 000 children on nature restoration

Timeline:

2023:
- Dialogue with potential partners:
    - Confirm Partnerships
    - Site Visits

2024:
- 100 millions trees planted with fundings raised by the restoration center
- Between 50 and 100 million dollars raised from the private sector a the Restoration Summit in Paris
- 500 CEOs of big corporations at the Restoration Summit
- 1 billion people reached through the campaign (digital and physical campaigns on nature restoration)

2025:
- 5 restoration centers across the globe including the center in Paris/Le louvre museum
- 100 millions trees planted with fundings raised by the restoration center
- Between 300 and 600 million dollars raised from the private sector at each Nature Restoration Summit in 6 cities across the globe (Europe, North America, South America, Asia, Africa, Australia)
- Start of the world tour of the EXPLORE boat dedicated to restoration

2026/2027/2028/2029/2030:

- 5 restoration center across the globe including the center in Paris/Le louvre museum
- 100 millions trees planted with fundings raised by the restoration center
- Between 300 and 600 million dollars raised from the private sector at each Nature Restoration Summit in 6 cities across the globe (Europe, North America, South America, Asia, Africa, Australia)
- Start of the world tour of the EXPLORE boat dedicated to restoration. EXPLORE will help to educate 20 000 people across the globe in order to teach local communities how to preserve nature and it will help to:
    - educate 2 000 people to help them to become marine ecosystem restoration experts
    - educate 2 000 people to help them to become forest or farmlands restoration experts
    - educate 2 000 children on nature restoration

(Co-)leading UN Decade partner(s):

Free Spirit Foundation, UNEP

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Jean-Philippe Salcedo, UN Decade Secretariat, jean-philippe.salcedo@un.org; restorationdecade@un.org

What can YOU do to support this challenge?

Sample actions in support	Stakeholder(s)
Reform tenure systems for land, freshwater and marine environments to be inclusive, rights-based and incentivise local communities to invest in ecosystem restoration.	• National governments
Support the development of policies that facilitate the management and restoration of community-managed ecosystems	• National governments
Advance recognition, reparation and reconciliation efforts as part of the implementation of United Nations Declaration on the Rights of Indigenous Peoples, as a prerequisite to ecosystem restoration.	• National governments
Establish collaborative partnerships with indigenous peoples and local communities to co-design and implement plans and projects that protect and restore ecosystems and respect rights to free, prior and informed consent.	• Private sector • Local communities • NGOs and CSOs • Research and education institutions
Support indigenous peoples and local communities to secure their collective lands and territories, strengthen their governance systems and access funding and capacity building for natural resource management and restoration.	• Donors and financial institutions • NGOs and CSOs • Private sector • National governments • Cities and local authorities

Foster the co-creation of knowledge through collaboration with indigenous and local communities, and guide restoration approaches by indigenous and local worldviews, customary use, and management practices.	• Research and education institutions • Local communities
Communicate and advocate for community ecosystem restoration projects	• All stakeholders

6. RESTORATION CHALLENGE - EDUCATION:

Education is vital to ensuring that future generations benefit from a greater understanding of nature and an appreciation of its value (Dasgupta 2021). The overall goal of the Education challenge is to educate the next generation of citizens to be aware of the value of nature, and to train a generation of professionals who can scale up restoration efforts.

6.1 Embed ecosystem restoration into education systems globally by 2030

Education is fundamental to empowering a generation of restoration champions. The goal of the Restoration Challenge for Education is to embed ecosystem restoration into formal and non-formal education systems globally by 2030.

This Education Challenge goal is to embed Restoration Education (RE) within educational systems as a critical element of Education for Sustainable Development (ESD). Based on the development of a framework mapping existing initiatives, the leads build a common agreement on quality lifelong learning outcomes for #GenerationRestoration and working towards embedding Ecosystem Restoration into formal and non-formal educational settings synergistically with the ESD for 2030 framework & roadmap and the Greening Education Partnership.

Relevant resources exist in current educational systems but are labelled differently, i.e., nature, environmental, biodiversity education, climate education, nature-based solutions, etc and often do not include restoration. This challenge creates a dynamic framework, allowing for the evolution and adoption of good practices through collaborations at various levels. The activities include situational analysis and mapping; establishing synergies between existing efforts at multiple levels and in different regions; collecting and sharing existing good practices; co-developing, with key stakeholders, a framework adaptable in multiple contexts; demonstrating ways to embed it in diverse lifelong education contexts.

Key outputs will be a status report on RE in lifelong learning globally; a co-developed curricular framework; methodologies and advocacy tools to embed RE in national and regional education strategies.

Co-leading partners divide the challenge as follows:

- Foundation on Environmental Education (FEE) implements programmes at the grassroots level through its network of over 100 NGOs in 82 countries.
- UNESCO leads ESD policy formulation, multi-stakeholder collaboration and implementation in member states through the ESD for 2030 framework and roadmap .
- NAAEE brings in a global network and experience and resources in conservation education and non-formal perspectives globally.

Expected outcomes are:

- Increased awareness of the Decade of Ecosystem Restoration amongst environmental education NGOs and their audiences.
- Inclusion of Ecosystem Restoration Education within the environmental education/education for sustainable development frameworks (SDG 4.7)
- Synergies with the ESD for 2030 framework & roadmap and the Greening Education Partnership.
- Resources to help schools, NGOs, governments, and CSR to support the goals of the Decade, particularly to embed restoration education.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 20 (Capacity-building), Target 21 (Information, knowledge, education)
- SDG #4 Target 4.7 (Quality education)
- SDG #14 (Life below water)
- SDG#15 (Life on Land)

Timeline & KPIs:

KPIs:

- Number of key stakeholders and consortium partners mobilized at national, regional and global levels.
- Number of resources developed for capacity building and advocacy - exemplar curricular framework, a road map in synergy with the ESD for 2030 framework & roadmap and the Greening Education Partnership, collection of good practices.
- Number of countries adopting RE in their national education contexts
- Number of formal and non-formal education demonstration sites and pilots

Timeline:

2023:

- Establish an International Advisory Board to help guide the process. Together, we will conduct an in-depth situational analysis to highlight existing resources and initiatives and co-develop a toolkit with curricular recommendations, resources, and effective practices to advance RE in all aspects of educational practice. It will facilitate the development of an Action Plan, and its implementation, including fundraising, monitoring progress and achievement of KPIs and adjusting activities according to developments and changing situations. It will meet to discuss the educational challenge action plan through virtual meetings as required, but also meet physically through existing opportunities, including:

    a. the annual National Operators meeting of FEE's Educational Programmes (82 countries)
    b. selected environmental education/ESD events such as the 12th World Environmental Education Congress (WEEC).
    c. the NAAEE Annual Conference and GEEP meetings.

d. meetings and side events at UNFCCC/UNCBD/UNCCD COPs and UNESCO's global education conferences to present our plans, get feedback on the framework and conduct a situational analysis.

2023/24:

- Conduct a situational analysis and aggregation of existing tools and resources on Restoration Education, including curricular opportunities, projects, programmes and good practices.
- Develop a fundraising proposal that will include a detailed action plan, an evaluation plan and KPIs, and a dissemination and communication strategy.

2025:

- A Status Report, including good practices recommendations aligned with the ESD for 2030 framework & roadmap, and the Greening Education Partnership.

2025/27:

- Pilots and demonstration sites, including FEE's Eco-Schools, LEAF Schools and UNESCO Associated Schools, and those of various partners engaged with the Decade.

2027/30:

- Advocate for embedding Restoration Education in Educational Systems as a key component of the ESD for 2030 framework & roadmap and the Greening Education Partnership.

2030:

- Final Report on embedding Ecosystems Restoration in national and regional education contexts.

(Co-)leading UN Decade partner(s):

Foundation for Environmental Education (FEE), UNESCO, North American Association for Environmental Education (NAAEE)

To be invited:

- Youth United Nations Global Alliance - YUNGA/FAO
- Forestoration International/Schoolyard Ecosystem Restoration Initiative Terra Programme
- Greening School Grounds & Outdoor Learning initiative
- CSR Europe - The European business network for Corporate Sustainability and Responsibility
- Rainforest Alliance
- Rainforest Partnership
- World Wildlife Fund (WWF)
- FAO
- IUCN

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6.2 Build a global network of rewilding professionals

This challenge aims at building a global network of rewilding professionals to design and manage successful restoration and monitoring programmes benefiting local and global communities. A growing number of institutions, students, businesses, land managers, policy makers, investors and philanthropists are involved in efforts to help restore ecosystems. Knowledge, skills, and equitable access to information will be vital to ensure the success and sustainability of restoration efforts throughout the UN Decade and beyond.

This challenge is to mainstream restoration knowledge and skills, by developing capacities of individuals and organisations across sectors and scales in the quintuple helix to support ecosystem restoration initiatives. It proposes 4 work-packages:

1. Develop, scale and engage a rewilding community (Rewilding Community of Practice) of 2000 members focused on new knowledge creation and sharing.
2. Organise a minimum of 20 online and offline Rewilding Workshops / Events aimed at students, practitioners, researchers, youth, consultants, community leaders, government and NGO staff.
3. Develop a web-based Massive Open Online Course (MOOC) bringing together international experts and practitioners to explain principles, case studies and best practices.
4. Develop Ecosystem Restoration Curricula and courses that will prepare students and early-career professionals for work in this new sector, increasing employment and enterprise opportunities.

Key activities:

Rewilding Community of Practice

- Develop, scale and engage a rewilding community of 2000 members focused on new knowledge creation and sharing.
- Building up action-based subgroups based on members' interests, involvement in specific CoP themes, programmes, and volunteer groups.
- Build meaningful connections to catalyse and facilitate action on-the-ground.
- Organise meetings, presentations, Q&A sessions.

20 Rewilding Workshops/Events

- Organise workshops and events aimed at students, practitioners, researchers, youth, consultants, community leaders, government and NGO staff.
- Develop information resources geared towards using science communication as a way to disseminate knowledge generated from projects, particularly to non-science audiences.
- Rewilding MOOC
- Develop a web-based Massive Open Online Course bringing together international experts and practitioners to explain principles, case studies and best practices.

- Develop associated practical field work and internship opportunities that provide learning opportunities in ecosystem restoration.
- Ecosystem Restoration Curricula
- Create partnerships with Universities from each continent.
- Develop context-specific Ecosystem Restoration Curricula and courses that will prepare students and early-career professionals for work in this new sector, increasing employment and enterprise opportunities.

Assessment / Evaluation:

- Define a strategic Key Performance Indicator Framework for monitoring learning, engagement, short and long-term restoration impact.

The challenge will be by Rewilding Academy in partnership with Plant for the Planet and Environment Agency Abu Dhabi.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 20 (Capacity-building)
  SDG #4 (Quality education)
- SDG#13 (Climate Action)
  SDG #14 (Life below water)
- SDG#15 (Life on Land)
- SDG #16 (Peace, justice and strong institutions)

Timeline & KPIs

KPIs:

- Engagement, knowledge and skills development;
- Number of students graduated
- Number of global collaborators.

Timeline:

Rewilding Community of Practice:

- December 2022 – 500 COP members
- June 2023 – 1000 COP members
- December 2023 – 2000 COP members
- December 2022 - December 2030 – At least 12 meetings, presentations, Q&A sessions per year.

20 Rewilding Workshops / Events:

- December 2022 - December 2027 – At least 4 workshops / network events (online and offline) per year.
- December 2022 - December 2027 – Develop and disseminate 20 information sources (brochures, infographics, presentations, booklets and books, etc) per year.

Rewilding MOOC:

- January 2023 - August 2023 – Develop and launch a web-based MOOC with international experts and practitioners.

- May 2023 – Practical field work, internship and volunteer opportunities available and accessible.
  Ecosystem Restoration Curricula
- April 2023 – 1st curriculum launched
- December 2023 – 2nd curriculum developed and launched
- December 2024 – 3rd curriculum developed and launched
- December 2025 – 4th curriculum developed and launched

(Co-)leading UN Decade partner(s):

Rewilding Academy

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6.3 Interactive Ecosystem Restoration Curriculum for youth and 5000 collaborative partnerships

This challenge aims to empower Generation Restoration through an interactive Ecosystem Restoration Curriculum for youth and 5000 collaborative partnerships. Youth need knowledge and information based on solid science that addresses the huge environmental problems their generation faces. This Challenge is to empower #GenerationRestoration through an interactive Ecosystem Restoration Curriculum for youth between 10-16 and 16+ years. A modular framework with interactive, context specific learning materials, a programme of actions, project-based learning, workshops and real-life practical experiences will serve as the “backbone” for local ecosystem restoration projects undertaken by schools, classes and other organisations in a hands-on, collaborative setting. This framework will unite lessons and activities.

An online learning environment (the “nervous system”) will facilitate networking, knowledge sharing, collaborative problem solving, capacity-development, student conferences and engagement of learners in ecosystem restoration activities at the local, national and global levels. Prominent eco-influencers and local practitioners will provide key inputs in the form of first-person narratives that learners can identify themselves with. The project will connect with e.g. the restoration challenge badges (6.5) and develop a certification system.

The project will develop 5000 collaborative partnerships with youth educational institutions (3000), educators (2000) and influencers (100). Through these partnerships, we will adopt inclusive, culturally and linguistically sensitive practices, make community connections, and share new nature-based solutions.

The project partners will facilitate a consultative process and dialogue to reach broad consensus around a comprehensive ecosystem restoration curriculum for youth among youth groups, UN Decade partners, Universities, CSOs, influencers and other stakeholders. This process should also help inform options as well as increasing awareness of the Challenge goals. Workshops for collecting significant ideas or proposals will be conducted. This will provide well-defined strategic and practical directions, including organisation aspects, governance, financing of the programme as well concrete entry points to strengthen the relationship between educational institutes, the project implementers and the broader UN Decade partnership. The project will develop a multidirectional learning

environment and work with a modular structure that will allow for context-specific content and flexibility. This encourages customisation and innovation within the overall framework.

The challenge leaders will pilot the programme in a limited number of schools in different countries to collect feedback and revise content. When the curriculum development cycle ends, programme implementation will start, followed by an annual evaluation of the effectiveness and impact of the programme. Pilot results will be presented at UNFCCC COP 28 in Abu Dhabi. The “Ecosystem Restoration through Education” programme will be officially launched at the World Environmental Education Congress (WEEC) in Abu Dhabi in January/February 2024. The project partners will organise onboarding and evaluation sessions for teachers, educators and youth participants annually. An in-person regional networking and exchange meeting of educators and participants will be held in 2025. Local partners NGOs will be involved in the development, distribution and implementation of the project as they will ensure the sustainability of this project in the future.

Activities include:

1. Planning
   1.1 Forming the Curriculum Development Team
   1.2 Involving youth and schools in the Curriculum Development Team
   1.3 Stocktaking and needs assessment (already conducted by the Decade)

2. Content and Methods
   2.1 Establish intended outcomes and educational objectives
   2.2 Content selection, scope and sequence,
   2.3 Content development, design of learning experiences
   2.4 Programme of activities
   2.5 Handbook and worksheets for teachers/educators/facilitators

3. Implementation
   3.1 Pilot test and revise ecosystem restoration curriculum
   3.2 Establish 100 quality partnerships in phase 1
   3.3. Workshop for teachers/educators
   3.4 Disseminate educational content
   3.4.1 Virtually (text, video, infographics)
   3.4.2 In class, through partnered schools
   3.5 Networking, social media campaigning
   3.6 Webinars, online event organisation
   3.7 Implement curriculum

4. Evaluation and Reporting
   4.1 Design participatory evaluation strategies
   4.2 Data analysis and reporting
   4.3 Adaptive management

The immediate outcome will be significantly more youth with the skills, knowledge and qualifications to understand, develop and monitor ecosystem restoration projects. The programme will increase their capacity to contribute to a sustainable future as the curriculum will be built around four essential elements: participation, systems thinking, regeneration, and sustainability. A strong multiplier effect is achieved when this new Generation Restoration is connected with the innovative learning, networking and dissemination facilities that the project will consolidate and enhance as part of the UN Decade platform.

In addition, the programme will provide youth with academic and professional development opportunities.

Ecosystem restoration outcomes:

Learners and schools will collaborate with local communities to implement habitat restoration projects at school grounds and nearby natural areas that involve teachers, parents, researchers and practitioners. As youth participate in practical ecosystem restoration and monitoring activities, they relate to their natural environment and develop the attitudes, knowledge, and skills necessary to become ecologically literate citizens. In addition, a substantial body of educational material related to ecosystem restoration will be developed throughout the duration of the project as well as the infrastructure, e.g. MOOC, online courses and RCE, to promulgate and disseminate this information to a global audience. Ecosystem restoration requires an inclusive approach that appeals to and involves everyone.

The challenge will be led by Rewilding Academy, Plant for the Planet, and the Environment Agency Abu Dhabi.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 20 (Capacity-building)
- SDG #4 (Quality education)
- SDG#13 (Climate Action)
- SDG #14 (Life below water)
- SDG#15 (Life on Land)
- SDG #16 (Peace, justice and strong institutions)

Timeline & KPIs

KPIs:

- Develop 5000 collaborative partnerships with youth educational institutions (3000), educators (2000) and influencers (100)

Timeline:

2023:

- Delivery of curriculum and education materials
- Delivery of teacher / educators workshops and MOOC (quarterly)
- Piloting two courses in two countries for two different age groups.
- Present pilot results at UNFCCC COP 28, Abu Dhabi

2024:

- Launch of “Ecosystem Restoration through Education” programme at the World Environmental Education Congress (WEEC) in Abu Dhabi.
- Onboarding session for teachers, educators and youth participants (quarterly)
- UN Environment Assembly of the UN Environment Programme, Nairobi
- Start of school-based ecosystem restoration projects
- Online dialogue session for educators
- Participatory evaluation of programme and platforms (annually)

2025:

- Presentation on progress of school-based ecosystem restoration projects
- In-person regional networking and exchange meeting of educators and participants

2024-2030:

- Partnerships with eco-influencers, institutions, educators and practitioners developed
- Deliver additional education modules and language versions

(Co-)leading UN Decade partner(s):

Rewilding Academy, Plant for the Planet, Environment Agency Abu Dhabi

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Regional chapter: Regional Centre of Expertise

This effort is supported through the establishment of a Regional Centre of Expertise in Education for Sustainable Development within the Emirate of Abu Dhabi that will consolidate and make widely available materials and serve as a Hub for the inclusion of ecosystem restoration as a core subject in regional curricula. This effort is led by the Environment Agency - Abu Dhabi - who works with ecosystem restoration practitioners to provide (additional) expertise and technical information as well as with NGOs such as Emirates Nature WWF. To this end, EAD will expand its environmental education programmes on restoration such as Enviro-Spellathon, Sustainable Schools Initiative (SSI) and Sustainable Campus Initiative (SCI) including the development of nature gardens, Connect with Nature, Citizen Science, and Murshed Eco-Rangers that aim to encourage youth to get involved with nature.

The 12th World Environmental Education Congress (WEEC) in Abu Dhabi early 2024 represents a unique opportunity and first milestone for this challenge in promoting Ecosystem Restoration as part of the global environmental education agenda and presenting the challenge. The annual Abu Dhabi Environmental Film Festival will also raise awareness along the decade.

For 2026–2029, it is envisaged that EAD will develop an online training platform for schools and the wider community called E-Green, for which modules can be developed that provide additional support for those involved in ecosystem restoration.

KPIs & Timeline

KPIs (tbc):

2023:

- The establishment of a Regional Centre of Expertise (RCE)
- Build case and submit application for Regional Centre of Expertise (RCE) status)

2024: Announce launch of RCE at World Environmental Education Congress in Abu Dhabi)

2025: Build content and partnerships for RCE)

2026: Promulgating Best Practice in education for sustainable development with a focus on ecosystem restoration)

2027: Continue to expand membership of RCE

2028: Formally embed ecosystem restoration in curricula

2029: Continual review and improvement

2030: Final Reporting and lesson learnt

(Co-)leading UN Decade partner(s):

Environment Agency - Abu Dhabi

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6.4 Create a global Nature Positive Universities Alliance

This challenge establishes a global network of Nature Positive Universities to prioritise nature restoration in their operations, on campuses and by addressing the impacts of their supply chains. The vision is for universities to act as leaders in their cities and communities by publicly tackling their own biodiversity impacts, promoting volunteering around nature restoration, providing green skills and training, and advocating for a global Nature Positive goal.

Universities have a substantial role to play in urgently moving from degrading nature to restoring it: our students are our future leaders, we create knowledge and nurture thinkers, and we directly impact the planet as landowners and consumers. Uniting universities for ecosystem restoration therefore has a wider impact into our local communities and beyond.

The aim is to have universities who have committed to a Nature Positive Journey on every continent, measuring their baseline, setting ambitious targets for nature, carrying out actions and using their influence to meet their targets, and reporting publicly on their progress. In addition we will work with students around the world to enable them to take action for nature on their campuses, while also supporting them to advocate for their institutions, and other actors within their communities, to join the Nature Positive journey.

Universities pledge to carry out the following actions:

1. Carry out a baseline assessment
2. Set smart targets
3. Take action
4. Report annually

Activities include:

1. University Pledges: The core of the initiative is Universities making a high level Nature Positive Pledge, to complement climate targets such as net zero. The Pledge must be taken by senior management, and has four aspects:

- To carry out a biodiversity baseline
- To set SMART targets for nature
- To carry out actions and use their influence to meet targets
- To transparently report on progress each year

2. Producing Guidance: This would then be reported on by universities on an annual basis. They will be assisted in meeting these targets by providing guidance around how to carry out a biodiversity baseline, how to set nature positive targets, cost-guidance, various trainings (e.g. green skills training) and more.

3. Regional Hubs: In support of making the Nature Positive Pledge, regional hubs are established to share best practice and experience from our wider network, within regional contexts, as they progress on their Nature Positive journeys.

4. Student Engagement: A supporting aspect of the programme is the Nature Positive Student Ambassadors programme. This is a global network of students committing to take action on their campuses, such as setting up a nature group, asking their Vice Chancellors to make the Nature Positive Pledge and assisting their universities with aspects of fulfilling the Pledge, organising a Bioblitz or litter pick event on campus, helping to develop a biodiversity action plan and volunteering around nature restoration.

The challenge will be led by the University of Oxford and UNEP.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 20 (Capacity-building)
- SDG #4 (Quality education)
- SDG #11 (Sustainable Cities and Communities)
- SDG #12 (Responsible Consumption and Production)
- SDG#13 (Climate Action)
- SDG #14 (Life below water)
- SDG #15 (Life on land)

KPI & Timeline:

KPIs:

- Number of 1) universities pledged, 2) student ambassadors, 3) universities in wider network, 4) regional hubs

Timeline:

2022: Launch pledge campaign at COP15 with 100 university pledges on board, with members from 500 universities having joined the wider network and 150 student ambassadors championing this across the world.

2023: Wider network expanded to 600; 150 university pledges across 50 countries; 200 student ambassadors engaged; 2 regional hubs set up; Nature Positive guidance and Student Toolkit produced.

2024: Progress reported on university pledges with clear reporting mechanism in place; Clear student ambassador Theory of Change developed; 3 regional hubs set up.

2025: Wider network expanded to 1000 members; 200 university pledges across 50 countries; 250 active student ambassadors; 5 regional hubs in total set up and maintained; All pledged universities report on progress annually.

2026-2030: Scale up

(Co-)leading UN Decade partner(s):

University of Oxford, UNEP

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6.5 Youth to enact change and create local #GenerationRestoration networks across the globe

This challenge aims to inform, involve and empower the global #GenerationRestoration Youth to enact change within their local communities and develop local networks of ecosystem restorers across the globe. Based on the success of YUNGA Challenge badges, this challenge aims to positively changing behaviours of young people between the ages of 5 - 18. These behaviours include the destruction of ecosystems indirectly through our actions, including through overconsumption and pollution. Whilst also developing the capacities and skill sets required to effectively contribute to ecosystem restoration, these include project management, time management, risk assessment, plant and species identification, etc.

Groups that decide to undertake the challenge badge will be provided with the challenge badge booklet. This has 2 main sections (background information and challenge badge curriculum). Both of these sections are broken down into 4 sub sections (Understanding the basics of ecosystems, main threats to ecosystems, what ecosystem restoration is, and taking action for the decade). Background Information will be used for teachers, guides, and older students interested in understanding the topics.

The curriculum section will have activities related to each of the sub sections. In each

subsection there are 2 compulsory activities and several optional activities. Participants must choose one compulsory activity and one optional activity in each section. Once each section has been completed, the groups can be rewarded with their challenge badge. The curriculum section is further divided into age categories. There are activities specifically designed for ages 5-10, 11-15 and 16+.

Integrated into all activities is the notion of behaviour change. These activities not only inform young people around specific issues in the UN Decade but also aim to develop their capacities to become agents of change and help protect and restore ecosystems in their local communities.

Expected results are:

1. The challenge badge is successfully delivered to every sub region of the world through at least one local group
2. Individuals that successfully complete the challenge badge begin to take on restoration roles outside of the badge's activities within their local communities (further increasing the reach of the badge),
3. Every youth group that joins the UN Decade is introduced to the badge as one an introductory activity

The challenge will be led by the Youth United Nations Global Alliance (YUNGA), UN Decade Youth Task Force, UNESCO.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 20 (Capacity-building), Target 21 (Information, knowledge, education)
- SDG #3 (Good Health and well-being)
- SDG #4 (Quality education)
- SDG #12 (Responsible consumption and production)
- SDG#13 (Climate Action)
- SDG #14 (Life below water)
- SDG#15 (Life on Land)
- SDG #17 (Partnership for the goals)

Timeline & KPIs

KPIs:

- Deliver the challenge badge to every sub region of the world through at least one local group
- Engage x young people between the ages of 5-18

Timeline:

2022

- Official Launch via learning session
- Complete draft process

2023

- Offer pilot opportunity to groups
- Begin pilot of badge curriculum

- Incorporate feedback from pilot and publishing process
- Official full release of the challenge badge
- 5 groups successfully deliver the challenge badge (counting the number of activities undertaken per each group)

2024
- Successfully delivered the challenge badge to one group in every sub region of the world

2025
- Local groups continue to deliver the challenge badge in every sub region of the world

(Co-)leading UN Decade partner(s):

Youth United Nations Global Alliance (YUNGA), UN Decade Youth Task Force, UNESCO,

World Association of Girl Guides and Girl Scouts (tbc)

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What can YOU do to support this challenge?

Sample actions in support	Stakeholder(s)
Join the global network of Nature Positive Universities and assess the impact of your institution on ecosystems, as well as equipping youth with ecosystem restoration skills/intrapreneurship and entrepreneurship mindsets.	• Research and education institutions
Include ecosystem restoration in school curricula of 193 Member States, as well as extra-curricular activities.	• Research and education institutions
Run citizen science programmes to monitor and evaluate ecosystem restoration initiatives.	• Research and education institutions • National governments • Cities and local authorities
Collect and share existing best practices on formal and nonformal education towards environmental conservation and sustainability	• National governments • Research institutions • NGOs
Join online courses on ecosystem restoration and sustainability	• Individuals

Become a restoration investigator. Explore, observe and read up on your local environment and biodiversity, take a course or connect with local elders, stewards and mentors.	● Individuals
Learn about rewilding and start your own rewilding project. Join the Rewilding Academy.	● Individuals and communities

7. RESTORATION CHALLENGE FINANCE

The importance of ecosystem restoration is increasingly recognized, as restoration plays an important role in providing goods and services and helping to tackle the climate change crisis. As part of the nature-based solutions (NbS) set of interventions, restoration can contribute to generate market and non-market benefits. Every dollar invested in restoration can reap up to 30 dollars in economic benefits (Ding et al., 2017), while also creating 395 million jobs (Stewart et al., 2022).

Restoration has also been signalled as a necessary component of meeting multiple sustainable development and international agreements as Convention on Biological Diversity (CBD), UN Convention to Combat Desertification Land Degradation (UNCCD) and the Bonn Challenge. However, many pledges remain unfunded and financing restoration at scale remains a challenge.

According to the State of Finance for Nature Report (2021) "to meet future climate, biodiversity and land degradation targets, public and private actors will need to scale up their annual investments by at least four times over the next three decades. By 2050, total investment needs will amount to USD 8.4 trillion cumulatively, reaching over USD 536 billion per year, four times the amount invested today." Most of the assessed ecosystem services are already declining globally (IPBES 2019), posing an additional challenge since WEF 2020 estimates that more than half the world's GDP (USD 44 trillion) is generated by sectors that are directly dependent on ecosystem services.

The need for more action and funding to scale up restoration are urgent. Considering the current scenario, the UN Decade Finance challenge aims to support closing the financial gap for restoration by working on stakeholders' engagement at the government and sectoral policy levers, financial sector regulation, and markets and investment instruments.

7.1 Close the financial gap for #GenerationRestoration

The Challenge is structured in 3 main pathways:

1) GOVERNMENT AND SECTORAL POLICY LEVERS: to make restoration initiatives investment ready, or 'bankable', creating a supportive policy environment is crucial. All sectors, including government, multi- and bilateral organizations, the private sector, and NGOs, need to collaborate to create a governance conducive to investment in restoration (Gheyssens et al., 2020). Focus on raising awareness of these issues, and highlighting the supporting policy environment needed to scale restoration finance.

Activities:

- Identification and promotion of relevant work by partners

2) FINANCIAL SECTOR REGULATION AND INITIATIVES: ensure restoration is fully incorporated and supported by the developing international sustainable finance regulatory architecture.

Activities:

- Review of key financial sector regulation, guidance, and analytical tools to ensure restoration is appropriately accounted for (i.e. taxonomies, credit rating methodologies, risk assessment approaches, etc.)

3) FINANCIAL MARKETS AND INVESTMENT INSTRUMENTS: working with partners to develop the biodiversity credit markets which can unlock restoration financing and showcase emerging good practices in blended finance and restorative NBS.

Activities:

- Templates for replicable or scalable investment structures (typology of restoration investments)
- Publication assessing Monitoring, Reporting and Verification (MRV) cost reduction trends and barriers.

The Finance Challenge represents the work of the UN Decade's Finance Task Force which is chaired by the World Bank and has been providing guidance to reorient subsidies towards ecosystem restoration in an appropriate manner; countering economic forces and vested interests that result in ecosystem degradation; and, incentivizing public and corporate investors to co-invest in ecosystem restoration, including in areas where the benefits from restoration are predominantly public goods. This represents a unique opportunity to work closely with the World Bank, a "unique global partnership fighting poverty worldwide through sustainable solutions". Among the Finance TF contributions, the "Scaling up ecosystem restoration finance – A Stocktake Report" stands out by highlighting the current challenges and opportunities for increasing public and private investment in restoration.

To achieve this ambitious challenge, UN Decade TF will be working in partnership with other UN Decade Partners volunteering to be part of this challenge.

Global goal and SDG

The Challenge goals indicated above will directly contribute and are aligned with the:

- Kunming-Montreal Global Biodiversity Framework Target 19 (Finance)
- SDG #17 (Partnership for the goals)
- Paris Agreement

KPI & Timeline:

KPIs:

- Identify X partners to promote their work in restoration
- Review of key financial sector regulation, guidance, and analytical tools
- X Templates for replicable or scalable investment structures
- Publish assessing Monitoring, Reporting and Verification (MRV) cost reductions trends and barriers

(Co-)leading UN Decade partner(s):

Finance Task Force (led by World Bank Group)

Contacts:

Ines Angulo, World Bank, iangulo@worldbank.org (Finance Task Force)

What can YOU do to support this challenge?

Sample actions in support	Stakeholder(s)
Establish a policy and regulatory framework and private-public sector cooperation to create a market for restoration and other nature-based solutions.	• National governments • Private sector • Donors and financial institutions • NGOs and CSOs
Develop and adopt innovative financial tools and approaches to promote restoration, such as debt-for-nature swaps and impact investments.	• Donors and financial institutions
Connect donors with the people restoring ecosystems on the ground, through the UN Decade Digital Hub and other platforms such as Restor and the World Resources Institute's Global Restoration Initiative.	• Private sector • NGOs and CSOs • Individuals and communities • Donors and financial institutions
Shift incentives from land degradation towards restoration using subsidies and taxes and provide risk mitigating mechanisms to incentivise private investment in restoration (e.g. green, blue, and resilience bonds, credit guarantees). Direct revenues from carbon pricing to protect and restore ecosystems.	• National governments • Donors and financial institutions
Harmonise restoration indicators to facilitate greater investment and cost-benefit analysis in ecosystem restoration.	• Research and education institutions • NGOs and CSOs
Include ecosystem restoration in national accounting systems and plans (e.g. System of Environmental-Economic Accounting, SEEA) .	• National governments • Research and education institutions • Donors and financial institutions

8. RESTORATION CHALLENGE - FOOD

The global food system is the primary driver of biodiversity loss and contributes around 30 per cent of total anthropogenic emissions (Benton *et al.*, 2021). Restoration is essential to ensure food security for a growing population. It is estimated that restoration through agroforestry alone has the potential to increase food security for 1.3 billion people (UNEP 2021). The goal of Restoration Challenge for Food is to restore and regenerate productive ecosystems contributing to achieve zero hunger.

8.1 Restore and regenerate productive ecosystems to increase local communities food security

The Decade Eco-Restoration Camps is a proposed multi-stakeholder, multi-sector, grassroots-focused, multidimensional, intergenerational managed, and youth-led challenge for food that will convene diverse stakeholders and partners from the local communities; governments; other public sector entities such institutions of higher learning and research institutes; private sector such as corporate firms and media; civil society sector including NGOs; academia and researchers; and other bilateral/multilateral development partners to synergistically work together in establishing five new world-class eco-restoration model camps, upgrading five existing eco-camps to world class eco-restoration model camps that will serve as newer world eco-tour destinations while transforming ten existing refugee camps into zero hunger hubs that empower the refugees to govern the refugee-specific eco-agri-food value chain that guarantees zero hunger across those refugee camps.

The overarching goal of this challenge is to create and upscaling world-class eco-restoration model camps which will systemically increase food security, strengthen local communities' resilience, and create job opportunities through entrepreneurial agri-culture, agroforestry, eco-tourism, agro-tourism, and eco-agri-food awareness & education . It specifically aims at:

- Operationalizing a broad-based multi-stakeholder in the form of a global consortium (Consortium of Community-led Eco-Restoration Camps – **CERC)** with 50+ partners/actors.
- Run twenty world-class Eco-Restoration Camps
- Generating xxx-thousands decent restorative jobs for vulnerable youth.
- Mobilising xxx million dollars for the program success.
- Restoring xxx hectares of land for the regenerative economy.
- Empowering twenty community-based organisations/groups/local actors as country local anchors to gain maximum institutional capacity and ownership for community resilience beyond 2030.

For maximum impact and sustainability, the challenge is institutionalized and guided by well-thought mission, goals, objectives, vision and theme as highlighted below:

- **The Theme:** Restore and regenerate productive ecosystems to achieve zero hunger by 2030.
- **The Overall Goal:** To create and upscaling world-class eco-restoration model camps which will systemically increase food security, strengthen local communities' resilience, and create decent job opportunities.

- **Main Aim:** To establish five new world-class eco-restoration model camps, upgrading five existing eco-camps to world class eco-restoration model camps that will serve as

newer world eco-tour destinations while transforming ten existing refugee camps into zero hunger hubs that empower the refugees to govern the refugee-specific eco-agri-food value chain that guarantees zero hunger across specific refugee camps.

- **The Vision:** To co-create vibrant and newer restorative grassroots-communities that invest in cross-cutting eco-restoration camps as the most viable solution to the overarching socio-economic and ecological problems of the twenty first century.
- **The Mission:** To spur community-led, inclusive, participatory and sustainable socio-economic development through systemic implementation of the eco-restoration model camps.

The Action Pathways:

The Challenge is structured in three (3) main pathways: New Eco-Restoration Camps, Zero Hunger-Refugee Camps, and Existing Eco-Camps.

Pathway I: New Eco-Restoration Camps - establishing world class eco-restoration model camps, especially across vulnerable rural communities, that boldly restore and regenerate productive ecosystems while serving as global eco-tourism destinations as will be guided by this challenge's Standard of Practice on what "world class eco-restoration camps look like".

Pathway II: Zero Hunger-Refugee Camps - transforming existing refugee camps into zero hunger hubs that empower the refugees to govern the refugee-specific eco-agri-food value chain that guarantees zero hunger and decent restorative job opportunities across those refugee camps and beyond. They are further multi-dimensionally refashioned to serve as the global eco-tourism destinations. The on-the-ground ecosystem restoration activities will strengthen beyond the refugee camps to restoring degraded land while regenerating productive ecosystems.

Pathway III: Existing Eco-Camps – upgrading existing eco-camps into world class eco-restoration model camps that serve as the global eco-tourism destinations. They are further standardized into sustainable avenues of zero hunger and decent restorative job opportunities. These existing eco-camps will broaden their operation to intricately restore degraded land while regenerating productive ecosystems.

The Partnership and Implementation Approach:

Achieving systemic ecosystem restoration requires innovative ideas, creativity and actionable commitments in shifting decision-making power and agenda-setting to the people affected directly by degraded ecosystems. The individuals and institutions championing for effective ecosystem restoration need to create their effort in partnership with the local communities; by strengthening the capacities of local communities themselves through empowerment of the local actors and local partners to lead from the centre of networked planning and design, implementation, monitoring and evaluation, and maintenance by a means of collaborative sensemaking.

The consortium's leadership structure will be established by the challenge/consortium lead, co-leads, the UN Decade Secretariat (consortium convener) and other key consortium members (challenge partners).

For example, the consortium could decide to establish the global Advisory Council Team (**ACT)** at the highest level, comprising 5-9 members. The ACT will provide high-level coordination, strategic advice, and elicit the commitments needed for the realization of the UN Decade food challenge's consortium goals and priorities. At the second level, the more broad consortium's global Co-Management Committee (**CMC**) chaired by the consortium's

lead agency with two co-chairs from the co-lead agencies and having its operation-focused sub-committees such as Resource Mobilization Sub-committee, is envisioned to provide more direct leadership oversight on this food challenge and the consortium, confirming that the consortium practices and programming increasingly reflect the principles laid out in the challenge/consortium policy and approving the priority actions provided in annual implementation plans.

At the working level, the global consortium's secretariat (**The Secretariat**) will be responsible for developing the annual plans and coordinating their implementation. At the country-level, the consortium shall establish the Country Implementation Committee (**CIC**) with representation from the lead agency's country office, co-lead agencies' country offices, two country local anchor's representatives, and representatives from any other key consortium member. The CIC is to provide more direct leadership oversight on the implementation of specific projects implemented within the selected country (say, Victoria Eco-Restoration Camp Project and Zero Hunger-Refugee Camp Kakuma Project in Kenya) while the day-to-day activities will be carried out by the Project Implementation Committee (**PIC**) led by the Project Manager and as will be established by the consortium's lead and co-leads.

The Country Local Anchoring Approach:

Relational power imbalances continue to dominate global development challenges while efforts to find amicable solutions to such challenges tend to entrench such existing power imbalances as most current interventions or partnership models are based on "power over others" instead of "power with others".

Based on recurring concerns by local actors about how international donors and other international organizations usually comprehend and support them, CERC is embracing horizontal power-sharing dynamics that bring together and enable diverse stakeholders/partners/actors across sectors (private sector, public sector, nonprofit sector, and funding/donor community) across all levels (community, sub-national, national, regional and international levels) to leverage collective expertise and resources. This kind of working together inherently involves identifying and actionizing jointly set objectives, strengthening capacities, and measuring change over time.

This relational power-shift by the CERC intends to empower country local actors to support more robust and resilient communities that are more inclusive of diverse voices and backgrounds for expanded regenerative opportunities that bring about transformational change for sustainable development; focusing on empowering the most vulnerable communities and promising local organizations who may otherwise face discrimination, legal and socio-economic exclusion, and institutional incapacities as the local champions of change. The consortium will (preferably) empower one promising indigenous community/country-based nonprofit organization (small or big, established or startup) as its country local anchor to host all the consortium activities at the country level.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 14 (Policies and planning)
- SDG#1 (No poverty)
- SDG #2 (Zero Hunger)
- SDG#3 (Good Health and Wellbeing)
- SDG #4 (Quality education)
- SDG #5 (Gender equality)
- SDG#7 (Affordable and clean energy)

- SDG #8 (Decent work and economic growth
- SDG #9 (Industry, innovation and infrastructure)
- SDG#10 (Reduced inequality)
- SDG #12 (Responsible consumption and production)
- SDG#13 (Climate Action)
- SDG#15 (Life on Land)
- SDG #17 (Partnership for the goals)

Timeline & KPI

KPI:

- Twenty-model-camps operationalized.
- xxx-thousand decent youth-restorative-jobs generated.
- xxx-billion-dollars mobilised.
- Twenty-country-local-anchors empowered.

Timeline:

Jan – Dec 2023:

- The consortium stakeholders' needs identified; the consortium assembled and operationalized.
- Challenge criteria defined and challenge concept finalised.
- xxx-million dollars for the implementation of the first eco-restoration model camp as a pilot, the Victoria Eco-Restoration Camp, mobilised.

January 2024 – December 2030:

- To be co-created by the consortium during this ongoing designing and planning phase.

In a nutshell, the specific immediate actions include:

- Drawing a comprehensive stakeholders' map – including all the relevant stakeholders and their anticipated roles/contributions in this challenge.
- Identifying 50+ strategic stakeholders to join the consortium in various categories such as the consortium convener, proposed co-leads, funding partners, knowledge partners, collaborating partners, supporting partners, program actors, community anchors among others.
- Assembling and operationalizing the CERC Consortium.
- Co-creating, co-defining and co-finalizing the program criteria and concept.
- Challenge implementation from 2024 -2030.

The challenge implementation roadmap:

The challenge opts to pilot its first two eco-restoration model camps in Kenya under the proposed name "Victoria Eco-Restoration Camp" for Pathway I and Kakuma Zero Hunger-Refugee Camp" for Pathway II thereafter the remaining eighteen (18) proposed eco-restoration camps will be implemented as will be agreed, up to the year 2030 or beyond.

The 1ST Demo for Pathway I "*Victoria Eco-Restoration Camp"*

The proposed activities for the Victoria Eco-Restoration Camp are organized around five project components include:

Component 1: Victoria Agroecology Farm – (Delegated Lead: FAO)

Activity 1.1: Establishing Fruit Tree Nursery Plots (4.0 acres)

Activity 1.2: Establishing Victoria Organic Farm (50.0 acres)

Activity 1.3: Operationalizing Agroecology Field School (6.0 acres)

Activity 1.4: Establishing Bee-Farm (10.0 acres)

Component 2: Integrated School Ecosystem Restoration – (Delegated Lead: FEE)

Activity 2.1: Actualizing the "One School, Five Thousand Trees" drive

Activity 2.2: Implementing Holistic School Ecosystem Restoration Education for both learners and teachers

Activity 2.3: Capacity building for the selected teachers, class representatives, and school-based eco-clubs/environment club leaders

Component 3: Victoria Generation Restoration Tourism Belt – (Delegated Lead: UNWTO)

Activity 3.1: Generation Restoration Hotel (10.0 acres)

Activity 3.2: Generation Restoration Camping Packages

Activity 3.3: Institutional-focused Eco-tours

Component 4: Generation Restoration Art Center and Generation Restoration Library – (Delegated Lead: UNESCO)

Activity 4.1: Establishment of the Generation Restoration Park (10.0 acres)

Activity 4.2: The Generation Restoration Amphitheatre & Eco-Restoration Exhibition Halls (7.0 acres)

Activity 4.3: Generation Restoration Business Park (10.0 acres)

Activity 4.4: Generation Restoration Garden (5.0 acres)

Activity 4.5: Generation Restoration Open Space and Beautification Drive (3 acres)

Activity 4.6: Establishing the Generation Restoration Library (10.0 acres)

Activity 4.7: Decade Eco-Restoration Magazine

Component 5: Institutional Capacity Strengthening for local actors as restoration champions – (Delegated Lead: GIZ)

Activity 5.1: Empowering a local partner /Grassroots AgriFood Ventures (GAV) as the Community Anchor for this project

Activity 5.2: Empowering village-based self-help youth groups as the community eco-preneurship focal points

Activity 5.3: Sensitizing host and local communities within the Great Lake Region about the Victoria Eco-Restoration Camp Project and the UN Decade on Ecosystem Restoration call

The 2ND Demo for Pathway II "*Zero Hunger–Refugee Camps*"

The proposed activities for the Kakuma Zero Hunger -Refugee Camp are organized around five project components include:

Component 1: Local based, refugee-led Hydroponic Farming

Activity 1.1: Establishing 1,000 hydroponic units (?) for sustained food security with *"Objectives 1.1.1, 1.1.2, 1.2.1, and 1.2.2"*

Component 2: Refugee Camp-and-Host Community Eco-Restoration Belts with *"Objectives 2.1.1, 2.2.1, and 2.3.1"*

Component 3: School-based Eco-Restoration & Camp-based Food and Nutrition Security (FNS) Education "*Objectives 3.1.1, 3.1.2, 3.1.3 and 3.1.4"*

Component 4: Zero Hunger Demo/ Model Farms and Community Food and Nutrition Champions with "*Objectives 4.1.1 and 4.1.2"*

Component 5: Comprehensive Monitoring, Evaluation, Accounting, and Learning (MEAL) Platform with "*Objective 5.1.1 with others to be co-created by partners/actors"*.

(Co-)leading UN Decade partner(s):

The UN Decade Youth Task Force, Ecosystem Restoration Camps Movement, Food and Agriculture Organization (FAO)

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What can YOU do to support this challenge?

Sample fields of action	Stakeholder(s)
Support farmers to shift to agroecological and regenerative practices to protect and restore ecosystems and ensure food security.	● Private sector ● NGOs and CSOs ● Research and education institutions
Redirect investments and public spending towards regenerative ecosystem management solutions.	● Financial institutions ● National governments
Prioritise land and resources for local food producers and domestic consumption by changing regulatory or fiscal frameworks.	● National governments
Choose foods that are seasonal, local and plant-rich.	● Individuals

Support nature-friendly food production through innovation, training and incentives.	● All stakeholders
Avoid converting land for agriculture and restore native ecosystems on spared agricultural land.	● Private sector ● National governments ● Cities and local authorities ● Local communities and individuals

9. RESTORATION CHALLENGE - HUMAN-NATURE RELATIONSHIP

Addressing Earth's environmental crises calls for a transformative shift in humanity's relationship with nature, such as the economic system driving ecosystem degradation and deepening social inequalities across the world. The challenge to restore the relationship between humans and nature will require a better understanding of this relationship, the provision of alternative scenarios and a combination of individual and collective actions, as well as systems change.

9.1 Humanity to live in harmony with nature - A "Humanature Pathway" for #GenerationRestoration through Ethics, Education and Culture.

The strategy of the UN Decade suggests the creation of a Panel comprising a multi-disciplinary team of thought leaders, leading cultural voices, environmental activists, Indigenous Peoples, experts and opinion-makers to be established at the outset of the UN Decade.

Under the heading 'Our Humanature Pathways', the panel will provide a platform for discussions addressing core questions on humanity's role in establishing a healthy and harmonic relationship with nature. The appropriate format and outputs remain the Panel's decision with administrative support from UNESCO as leading UN Decade partner, in collaboration with UNEP and FAO.

The panel will build on the 2030 Sustainable Development Agenda and the updated global agenda on Biodiversity, including the post-2020 global biodiversity framework (CBD COP15, IUCN 2021 Congress), Climate Change (UNFCCC COP26) and the UNCCD Land Degradation Neutrality targets.

The Panel will run over the course of two years (2023-2025). It will not aim to define restoration goals or predict the future, but instead at providing an analysis on how humanity has reached the threshold point where ecosystems worldwide are degraded in its majority and the planet pushed beyond its boundaries, thereby threatening the ecosystem services which sustain humanity's own survival.

Actions will include:

1) Set up the Panel and ensure that it is enabled to fulfill its stated functions.
2) With a grounding in interactive and transdisciplinary approaches, assemble, consider and analyse diverse visions and understandings of the major challenges of humanity.
3) Publish a series of papers, statements and other and materials reflecting the Panel's work.
4) Share knowledge and reflect on the importance of the three pillars for achieving the ambitious goal of having 100% of humans living in harmony with nature (Ethics, Education and Culture).
5) Identify bottlenecks holding back the attainment of sustainability and provide possible solutions, best practices, and successful stories around the world in order to address transformational change collectively.

6) Drawing on the international sustainability agenda, establish and apply a set of indicators relating to the transformation of the human-nature relationship that can be used to inform the implementation of the UN Decade.
7) Agree on concrete actions to reach the overarching goal of having all human beings committed to protect and restore nature.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 14 (Policies and planning)
- Kunming-Montreal Global Biodiversity Framework Target 21 (Data)
- SDG #17 (Partnership for the goals)

Timeline & KPIs

KPIs:
Four outputs will be delivered:

1) Publication of principles for humanity and the living environment;
2) Publication of report comprising stories about humanity's relation with nature;
3) Measurable increase in public engagement on the human-nature relationship;
4) Documentary feature tracking the Panel's work, outputs and impact

Timeline:

2022:
- Panel announcement at the Restoration Day held at the Rio Pavilion, CBD COP15 in Montreal, Canada

2023:
- First formal meeting of panel, early 2023
- Consolidation of panel workplan, list of major international events, April 2023
- Interactive dialogue with stakeholders, media, May 2023
- Intervention of Panel at key events (UNFCCC COP, CBD COP, agency governing bodies), November-December 2023

2024:
- Dissemination of key findings and evaluation, August 2024
- Final interactive dialogue with stakeholders, presentation of findings, reports and publications, December 2024
- Launch of documentary feature, 2025.

(Co-)leading UN Decade partner(s):

UNESCO, UNEP, FAO

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9.2 100 partners develop strategies and implement actions for valuing, accounting for and sustainably utilizing nature

This challenge aims to contribute substantially to three 'shifts' identified as essential for the world to protect biodiversity, enhance the resilience of ecosystems and harness the power of nature towards achievement of the 2030 Agenda. These three systematic shifts are: Global Narrative (Valuing Nature); Economic and Finance (Accounting for Nature); and Policy and Practice (Harnessing the Power of Nature); led by UNDP.

This will be done this by pursuing several action tracks under each of these:

On the Global Narrative Shift, UNDP will pursue two action tracks: Creating new norms and enabling conditions for nature-positive development and nature-positive economic decision-making; and catalysing rapid global behaviour shifts through strategic engagements, local action and leveraging legal and human rights instruments.

For the Economic and Finance Shift, UNDP will contribute to a transformation of financial and economic systems to redirect flows from nature-negative to nature-positive, by: accelerating adoption of tailored economic, fiscal and monetary policies, tools and plans integrating nature-positive goals and actions in national and sub-national recovery and development programmes, and key economic sector investment and subsidy plans; and mobilizing and upscaling private investment in nature-positive actions, while reducing financing of nature-negative business processes.

For the Policy and Practice Shift, the goal of which is to harness the power of nature to tackle multi development challenges, UNDP will pursue four action tracks: Upscaling nature-based solutions targeting climate action, poverty reduction and inclusive growth, job creation, disaster and conflict prevention and pandemic prevention; mainstreaming nature into development, production sectors and land/water/marine area policy, planning and practices; strengthening coverage, governance, and management of terrestrial and marine protected and conserved areas, including indigenous and community conserved areas; and accelerating and upscaling sustainable land and water management and ecosystem restoration.

Actions:

This challenge will seek to engage governments, real sector companies and financial institutions to reform the financial system to become more nature-positive, and for economic decision-making to transition towards more regenerative investments and to internalise environmental externalities. UNDP is part of a large coalition of diverse partners that form the Taskforce on Nature-related Financial Disclosure (TNFD) Forum, a global multi-disciplinary consultative group of institutions with over 700 Forum members from a broad range of institutional types, including corporates, financial institutions, public sector institutions including regulators, pension funds and sovereign wealth funds, academic and research organisations, business associations, inter-governmental organisations, as well as conservation and civil society organisations. UNDP has already worked with a few governments to assess their readiness for nature-related disclosures National readiness for

nature-related disclosures in emerging markets | BIOFIN and has extensive work under the broader programme called Biodiversity Finance Initiative (BIOFIN) that is designed to support this type of work. UNDP also has a corporate offer on SDG finance/sustainable finance that also focuses on risk insurance, including insurance for natural capital and will continue to grow this work as part of its new and emerging Nature Strategy in line with UNDP's 2022-2025.

Activities:

Integrating nature into the SDGs, and in particular national development plans of countries is a key step towards triggering systemic shifts in how nature is valued, accounted for and used at all levels of society. UNDP will therefore focus its support towards influencing national development and financing frameworks of countries, including at sub-national levels, as well as the financing and investment decisions of private sector entities. UNDP will partner with multiple entities, including CSOs, scientific research and academic communities, Indigenous People and Local Communities (IPLCs) to collect, analyse, package data and information and disseminate it to contribute to global shifts in awareness, attitudes, actions and behaviours to better account for the value of nature. The following activities will be key:

A. Countries will be supported to develop baseline diagnostics, capacity, institutional arrangements, and prepare finance plans for mobilizing resources at scale to implement the post-2020 Global Biodiversity Framework, nature-related NDC targets (nature-based solutions) and Land Degradation Neutrality targets as articulated in their voluntary commitments and goals.

B. Countries will be supported to prepare restoration plans (restoration dossiers) and implement them.

C. UNDP will continue to support awareness-raising on human-nature relationship, including through the annual joint events on Nature for Life Hub 2022 – Events page – Learning for Nature and MOOCs (Massive Open Online Course) on restoration - Ecosystem Restoration (2022) – Learning for Nature

D. UNDP will develop a global tool for monitoring progress towards terrestrial ecosystem restoration for use by its partners, including government and CSOs implementing restoration initiatives.

Implementation of this challenge will facilitate increased awareness, dialogue and inspire action for individuals, groups, communities, governments and private entities to take steps to reduce nature-negative investments, repurpose current investments that contribute to nature loss and degradation of ecosystems towards those that protect, conserve and restore nature and sustainably use the goods and services from natural ecosystems. By promoting the valuation of nature and the formal recognition of its role in the economic development of countries and the financial performance of companies and organisations, the challenge will contribute towards informed decision-making by these entities to invest more in its protection, conservation and sustainable use. It will also raise increased awareness about the benefits of investing in the restoration of degraded ecosystems to generate ecosystem goods and services that are essential for livelihoods, economic development and financial performance of communities, countries and businesses, respectively.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 14 (Policies and planning)
- Kunming-Montreal Global Biodiversity Framework Target 21 (Data)
- UNFCCC NDC targets
- UNCCD Land Degradation Neutrality targets
- SDG #6 (Clear water and sanitation)
- SDG #12 (Responsible consumption and production)
- SDG#13 (Climate Action)
  SDG #14 (Life below water)
- SDG#15 (Life on Land)

Timeline & KPIs

KPIs:

- 100 partners (governments, entities) develop strategies and implement actions for valuing, accounting for and sustainably utilizing nature.

Timeline:

2022:

- Contribute to the development of a risk management and disclosure framework for organisations to report and act on evolving nature-related risks.

2023:

- Identify the 100 countries and entities to work closely with on the Economic and Finance Systemic Shift.

2027:

- 100 countries complete their national biodiversity finance plans.

2030:

- UNDP contributes to the elimination, redirection or repurposing toward nature-positive outcomes, of at least $500 billion in the value of subsidies and other incentives that are harmful to biodiversity.

(Co-)leading UN Decade partner(s):

United Nations Development Programme (UNDP), 1000 Landscapes for 1 Billion People (tbc)

Contacts:

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9.3 Our Spiritual Garden Tradition for #GenerationRestoration

Religious and spiritual traditions view nature, species, the environment, and the proper functioning of ecosystems as expressions of - and critical to - their faith and values. UNEP Faith for Earth intends to lead a series of consultative studies about at least 5 garden traditions (Islam, Christianity, Hinduism and 2 others) towards producing a toolkit on spiritual, green spaces demonstrating both small scale (community-level) and large scale (large areas/landscapes) good practices for restoration.

Through a series of webinars, "Our Spiritual Garden Tradition" will explore how each of the faith traditions conceptualise, celebrate and rely on green spaces– from its spiritual relevance, to significant design elements, and where relevant central species (plants and animals).

The crux of this project is the inclusion of practical examples – how institutions belonging to each faith tradition actualise the 'spiritual garden' with an interest in resource and energy efficiency, water management, contribute to cooling, provide a model for food production, soil health, improving air quality, and more, demonstrating how modern techniques work in support of spiritual expressions through nature. The toolkit will demonstrate how spirituality enhances an understanding of cultural and ecosystem services and is a driver for a revitalised way of designing spaces.

The consultation and resulting toolkit will provide individuals, communities and institutions with a guide for intentional, spiritual and sustainable green spaces.

This project leverages both the technical and scholarly (religion and ecology) expertise of institutions like the Quranic Botanic Garden, Aga Khan Trust for Culture, Yale Forum for Religion and Ecology, Living Chapel (all tbc) and FBOs exploring 'spiritual gardens' as symbols of peace, sustainability, resource efficiency, and faith.

The Challenge will be led by UNEP Faith for Earth Initiative, whose mission is to encourage, empower and engage with faith-based organizations as partners, at all levels, toward achieving the Sustainable Development Goals and fulfilling the 2030 Agenda.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 12 (Urban)
- Kunming-Montreal Global Biodiversity Framework Target 22 (Participation)
- SDG#15 (Life on Land)
- UNESCO Initiative on Heritage of Religious Interest relating to biodiversity and ecosystems (tbc)

Timeline & KPIs

KPIs:

- 5 concept notes and corresponding consultative studies (webinars): Explore faith-garden tradition, applied resource efficient practices, impact of the green space on faith communities, ecosystems, and other groups surrounding the spiritual garden.

- 1 toolkit: a guide for individuals, communities and institutions for sustainable spiritual gardens in urban areas.

- Engage 5-7 thematic partners on sustainable green spaces and the role of faith and spirituality enriching literature about the impact of cultural services on ecosystems and communities.

- Identify at least 3 thematic challenges in developing sustainable spiritual green spaces in urban areas.

Timeline:

- January 2023 – April 2023: Scoping of spiritual gardens and applied sustainable practices. Engage institutional focal points to strengthen preliminary concept notes.
- April 2023 – May 2023: Engage technical partners in preparation for the consultative study.
- May 2023: Introductory webinar (framing, objectives, how to engage, what to expect).
- June 2023 – September 2023: Facilitate 5 webinars exploring the nexus between garden traditions, sustainable green spaces, and urban areas.
- September 2023 – October 2023: Design and publish a toolkit bringing together the results of the consultative study.
- October/November 2023: Launch of the toolkit

(Co-)leading UN Decade partner(s):

UNEP

Contacts:

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What can YOU do to support this challenge?

Sample actions in support	Stakeholder(s)
Transdisciplinary cooperation of scientific, indigenous peoples and local communities, education for sustainable development and the protection of cultural and natural heritage.	• Research and education institutions • Communities
Integrate nature-positive goals and actions in national and sub-national recovery and development programmes	• National governments • Cities and local authorities
Identify bottlenecks holding back the attainment of sustainability and provide possible solutions and best practices for human-nature relationship	• Research and education institutions • NGO
Communicate ecosystem benefits and contributions to people and businesses.	• NGOs, CSOs • National governments • Cities and local authorities
Participate in community-led initiatives to conserve and restore nature, transformative landscape governance networks and awareness campaigns to influence citizen behaviour.	• NGOs and CSOs • Communities and individuals

10. RESTORATION CHALLENGE – MARINE & FRESHWATER

The need to revive healthy coastal, marine and freshwater ecosystems by 2030 is clear. Wetlands are disappearing 3 times faster than forests, while freshwater biodiversity is declining twice as fast as terrestrial and marine biodiversity (WWF, 2020).

Covering more than 70 per cent of the Earth's surface, our Ocean and seas support the livelihoods and nutritional needs of billions of people and are home to millions of species. Marine ecosystem services provide more than 60% of the economic value of the global biosphere with 1 in 10 people relying on marine fisheries and aquaculture for their livelihoods. The Ocean, from which life itself emerged, also makes life on earth habitable, regulating weather and temperature patterns while serving as a critically important carbon sink through ecosystems such as mangroves, seagrasses, salt marshes and chemical processes. Some estimates say that the Ocean is currently absorbing as much as 90% of the additional heat that carbon emissions have trapped in our atmosphere - which has slowed the visible impacts of a warming planet – but at its own peril.

2/3 of the Ocean has been negatively impacted by human activity - from pollution, coastal development and unsustainable fisheries to climate change - driven by unstainable consumption and production and perverse subsidies. Governments are still paying more to exploit nature than to protect it. Globally, countries spend some 4 to 6 trillion dollars a year on subsidies that damage the environment. Altogether, these drivers jeopardize the ability of the ocean to provide ecosystem services for human and planetary well-being. Reversing this trend requires widespread changes in how we manage our economic activities in and around marine and coastal areas. There is a need for immediate intervention and innovation by governments and the private sector to transform our relationship with the Ocean from business as usual; from irresponsible, careless consumption to informed custodianship.

The Restoration Challenge for Marine & Freshwater aims to revive healthy coastal, marine and freshwater ecosystems by 2030.

10.1 Blue Ecosystems Innovation and Restoration Challenge on Oceans

80% of life on our blue planet is found in the Ocean. Yet, 80% of the Ocean remains unexplored, with 91% of its species still undescribed. We know more about the moon, and continue to spend more to understand and explore it. However, opportunities and services to humanity that rely on the Ocean are massive; limited only by our imagination and will. To date, we have taken these services for granted and followed opportunity with total disregard for Ocean health. We are now at a tipping point: either we transition to a new model – a model that considers the Whole Ocean, from its coastal ecosystems to its hadal depths, and that navigates a sustainable blue economy where our activities sustain both human aspiration and Ocean health - or risk it all at our own peril. There has never been a better- or even possible -time given the advances in science and technology that are necessary for safely exploring, mapping, monitoring and leveraging these opportunities. Beyond this, we are also now living in the UN Decades of Ocean Science for Sustainable Development and Ecosystem Restoration. As stated by the UN Secretary- General, “it’s time to make peace with nature.” We believe it’s time for a (sustainable) moonshot for our Ocean.

The UN Decade on Ecosystem Restoration 2021-2030 and UN Decade of Ocean Science for Sustainable Development 2021-2030 jointly provide a unique opportunity to catalyze the

transformation we need for the Ocean and we want through an Ocean Innovation and Restoration Challenge towards 2030 that will ambitiously innovate solutions to conserve and restore the world's marine and coastal ecosystems, in turn enhancing the resilience of the coastal communities and the societies depending on them.

The Ocean Challenge will aim to:

- Catalyse momentum for activities that support the objectives of the decades of ecosystem restoration and ocean science for sustainability;
- Champion an overarching SMART global goal for marine and coastal ecosystem restoration (EEZ), leveraging the best available science and aligned to the UNFCCC Ocean and Climate programme (Under the Marakesh and others);
- Identify specific and measurable restoration goals by ecosystem; e.g.,cold and warm water corals, sponges, seagrass (mapping/representing in MPAs and other conservation management tools as underrepresented), kelp, salt marsh, mangrove, etc.;
- Prioritize those hotpots in need of the most urgent restoration action through the challenge - focus on climate refugia across most vulnerable systems to climate change identified by IPCC- tropical coral reefs, seagrass, kelp;
- Complement and help deliver the CBD Global Biodiversity Framework – innovate, fast track, measure, monitor;
- Accelerate the commitment of governments, non-governmental organizations and the private sector for the protection and restoration of specific marine and coastal ecosystems by 2030.

The Ocean Challenge can also:

- Build ocean literacy and innovative solutions to halt ocean degradation and restore ecosystems;
- Synergize and build on evidence-base knowledge reports, e.g. UNEP's Coral Reef Restoration Report etc.;
- Catalyze & link targeted and policy-oriented research initiatives;
- Identify strategic partners and champions to raise awareness and serve as advocates;
- Develop and realize a resource mobilization strategy and plan;
- Support the Decade of Restoration three action pathways:
    - Pathway I "Global movement" will generate a peer-driven, participatory global movement that focuses on upscaling restoration.
    - Pathway II "Political will" will empower leaders in the public and private sectors to champion restoration.
    - Pathway III "Delivery at scale" will generate the technical capacity that is needed to restore ecosystems at scale.
- Position Country Champions as leaders in the movement towards 100% responsibly managed ocean with 30x30 + Challenge restoration targets as the engines for ocean replenishment.

The Ocean Challenge is inspired by the Bonn Challenge, which was established in 2011 by the Government of Germany and IUCN, as a global goal to bring 350 million hectares of degraded and deforested landscapes into restoration by 2030. To date, the initiative has been instrumental in gaining the commitment of 74 countries, conservation alliances and private entities to bring over 210 million hectares of land under restoration. While the spatial target of 30x30 is gaining traction, no restoration target for the ocean currently exists.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration)
- SDG #14 (Life below water)

Timeline & KPIs

KPIs:

- Develop at least 10 activities to support the decades of ecosystem restoration and ocean science for sustainability;
- Identify at least 10 hotposts to prioritise restoration action
- Identify at least 10 partners to raise awareness and advocate

Timeline (tbc)

(Co-)leading UN Decade partner(s):

UNEP

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10.2 Bringing 300,000 km of rivers and 350 million hectares of wetlands under restoration by 2030

Healthy freshwater[1] ecosystems are essential for all aspects of life, central to tackling the climate and nature crises, and fundamental to sustainable development. These ecosystems supply water and food to billions of people; drive water, carbon and nutrient cycles; provide habitats for 10 percent of all species; and enable the productive use of water for agriculture, energy generation, navigation and employment. Yet they continue to be damaged and degraded.

Only 1/3rd of long rivers are still free flowing and the world has lost 1/3rd of its wetlands since 1970. Meanwhile, pollution poses a grave threat to people and nature. The Intergovernmental Panel on Climate Change (IPCC) concluded that climate change is already impacting freshwater systems by altering rainfall patterns, melting glaciers and changing river flows - and that the situation is only going to get worse.

Restoring healthy freshwater ecosystems is critical to global efforts to mitigate and adapt to climate change, including extreme floods, droughts and storms. These disasters result in loss of lives, livelihoods, food security and infrastructure, and indirectly cause unemployment, migration and social unrest. Investing in healthy rivers, lakes and wetlands, especially ensuring their connectivity, and particularly through Nature-based Solutions (NbS), will build more climate resilient societies and economies. It will also help to tackle nature loss and reverse the 83 percent fall in freshwater species populations since 1970.

The important role of healthy freshwater ecosystems has been recognized in key international development frameworks, including the Sustainable Development Goals (SDGs), Convention on Biological Diversity (CBD), UN Framework Convention on Climate Change (UNFCCC), UN Convention to Combat Desertification (UNCCD), Ramsar Convention on Wetlands and Sendai Framework for Disaster Risk Reduction. But these ecosystems are still undervalued and overlooked, undermining efforts to tackle the climate and nature crises, and drive sustainable development.

For this reason, the government of Colombia, together with the governments of the Democratic Republic of Congo, Ecuador, Kazakhstan, Gabon, Mexico, and The Netherlands launched a Freshwater Challenge Call for Action at the CBD Conference of the Parties (COP15) in 2022 in Montreal. Under the Decade of Ecosystem Restoration, the Freshwater Challenge calls on governments and partners to bring 300,000 km of rivers and 350 million hectares of wetlands under restoration by 2030 to reverse nature loss, safeguard the delivery of critical ecosystem services, and strengthen climate resilience.

The aim of this Challenge is a country-driven initiative that aims at leveraging the support needed to **bring 300,000 km of rivers and 350 million hectares of wetlands under restoration by 2030**. These figures equal 30 percent of degraded freshwater ecosystems.[2] Based on nationally-identified priorities, the Challenge will take an inclusive and collaborative approach to implementation where governments and their partners will mobilize resources and expertise to support the definition and implementation of freshwater restoration targets and co-create solutions with indigenous people, local communities and other national and international stakeholders.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration)
- SDG #6 (Clear water and sanitation): 6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

KPIs (tbc):

- Hectares of wetlands under restoration
- Freshwater biodiversity identified
- Freshwater biodiversity lost quantified
- Aquifers under restoration
- x Priority areas for freshwater ecosystem restoration identified
- x amount of blended support mobilized

Timeline:

2030

(Co-)leading UN Decade partner(s):

WWF, IUCN, Ramsar Convention Secretariat, UNEP

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10.3 #GenerationRestoration coral reef restoration training hub

This challenge aims at creating a training hub for functional restoration of tropical marine ecosystems to deliver scalable impact from restoration activity in Indonesia and Timor-Leste, knowledge and best practices hub for the global restoration movement. The lessons learned, such as from workshops and learning exchanges will enhance restoration projects not only in the Coral Triangle but globally by sharing these through the UN Decade's digital hub, and ensure practitioners take a scientifically rigorous approach to their projects that deliver on restoration of ecosystem function and the services provided to coastal communities.

The first achievement is to have a fully functional coral reef restoration training hub established in Sanur, Bali, Indonesia, to be followed by training dedicated members of from coastal communities from Nusa Penida, Banda Islands, and Timor-Leste to engage in workshops and gain significant proficiency in implementing successful coral reef restoration projects. Lessons learned from these coral restoration workshop will guide further workshops and online modules for both mangrove and seagrass ecosystems. The location in Sanur, Bali, gives our team access to important seagrass and mangroves habitats in both Sanur and Nusa Lembongan.

Indonesia is chosen on purpose. The country has the most coral reef restoration projects in the world, yet despite the good intentions of the projects, they often result in failure because of poor design and implementation. Many projects do not have clear goals or objectives, lack scientific rigour, and do not have foresight to maintain and/or monitor success after their implementation. The Coral Triangle Center, the lead of this challenge, with their partners Mars Sustainable Solutions, and the Nusa Dua Reef Foundation, founded Indonesia's first Coral Reef Restoration Task Force (CRRTF), which aims to help provide a capacity building framework for coral restoration projects that restore the ecological function of coral reefs in Indonesia and the Coral Triangle at meaningful geographical scales. The training hub in Bali helps in ecological assessments identifying suitable sites for scaled up restoration and train groups working in ecosystem restoration within Indonesia and beyond how to create long lasting tropical marine ecosystem restoration projects that deliver in returning coral reefs, mangroves, and seagrass beds to a state that provides ecosystem services towards the marine lie and human communities that depend on them.

Tropical marine ecosystem restoration workshops held at the training hub would be conducted by the existing coral reef restoration task force and other experts in the field of Mangroves and Seagrass beds. The training outcomes of the workshops will be as follows:

- Learn where restoration activities should be implemented based on geographical location
- Lessons learned from failed restoration projects (i.e. wrong location, wrong method, lack of funding for maintenance or monitoring)
- Sourcing materials
- Stakeholder engagement
- Project planning and implementation
- How and when to maintain restoration structures.
- Monitoring using novel technologies.
- Monitoring and evaluation.
- Sharing lessons learned.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration)
- Kunming-Montreal Global Biodiversity Framework Target 20 (Capacity-building)
- SDG #2 (Zero Hunger)
- SDG #4 (Quality education)
- SDG #8 (Decent work and economic growth)
- SDG #14 (Life below water)

Timeline & KPIs

KPIs:

- Implementation of training hubs for coral reef restoration, for restoration of mangrove and seagrass
- X Learning exchanges and workshops deliver to regional organisations

Timeline:

2023:

- Find appropriate sights in Indonesia (preferably Bali) to be a training hub in the Coral Triangle. This involves ecosystem assessments, stakeholder consultations, sourcing of materials etc.
- Develop work plan including amplifying channels, coordination with UN decade Task Forces and Advisory Board, and establish coral restoration chapter on the Digital Hub

2024:

- Launch training hub, which provides training to Marine Protected Area staff from Nusa Penida (Bali), Banda Islands (Maluku province), and Atauro Island (Timor-Leste) for coral reef restoration such as the Mars Assisted Reef Restoration System (MARRS) method, which entails using sand coated reef stars in unconsolidated rubble habitats where ecosystem function has not been able to recover from previous disturbances. Other methods such as fish domes, and rubble stabilization structure will be considered where applicable.

2025:

- Oversee the implementation of large-scale coral restoration projects in the Nusa Penida, Banda Islands, and Timor-Leste.
- Establish training hub for restoration of mangrove (Sanur, Nusa Lembongan) and seagrass ecosystems (Sanur, Lease Islands)
- Provide Learning exchanges and workshops to regional organisations

2026:

- Oversee the implementation of large-scale mangrove/seagrass restoration projects in Sanur, Nusa Lembongan, Lease Islands, and Timor-Leste.
- Provide Learning exchanges and workshops to regional organisations
- Monitor success of restoration based on biophysical monitoring surveys and focus group discussions with local communities

2027-2028:

- Provide learning exchanges and workshops to regional organisations
- Scale to global learning and knowledge (tbc)

(Co-)leading UN Decade partner(s):

Coral Triangle Center

Reef Resilience Network/The Nature Conservancy (RNN-TNC) (tbc),

Mars Sustainable Solutions (tbc), International Coral Reef Initiative (ICRI) (tbc)

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What can YOU do to support this challenge?

Sample actions in support	Stakeholder(s)
Make restoration commitments to ensure the restoration of coastal, marine and freshwater areas.	• National governments • Cities and local authorities • Private sector • NGOs
Develop and adopt innovative finance mechanisms such as blue bonds and blue carbon credits.	• Financial institutions
Establish community-based management of coastal, freshwater and marine resources. Invest in capacity development for long term sustainable management. Build on local/indigenous traditions and knowledge.	• Communities • Cities and local authorities • NGOs and CSOs
Support the development of marine restoration projects	• National governments • Cities and local authorities • Private sector • NGOs
Build evidence-base knowledge in marine and freshwater ecosystems, and innovative solutions to halt ocean degradation and restore ecosystems	• Research institutions • National governments • Cities and local authorities

Get involved in citizen science projects, beach clean ups and other community initiatives to protect oceans, lakes and rivers.	• Individuals and communities

11. RESTORATION CHALLENGE - LAND

The world's land area has been severely degraded, impacting not only communities that rely on agriculture but everyone by reducing food production and security, intensifying climate change and biodiversity loss (UNEP). To revert this scenario land degradation neutrality (LDN) aims to maintain or enhance land-based natural capital and its associated ecosystem services (UNCCD). A land-degradation neutral world specifically incorporates a global shift towards land stewardship to avoid degradation of new areas, and ensures that unavoidable degradation is offset by rehabilitating at least an equal amount of already degraded land in the same time span and in the same landscape (or at least in the same ecosystem) (UNCCD).

11. Decade challenge: Land Degradation Neutrality by 2030

This challenge aims to achieve a target of Land Degradation Neutrality by 2030, ensuring that 30% land is under restoration by 2030 and 50% reduction in land degradation by 2040.

These targets are based on the commitments given by the Members of the UN Convention to Combat Desertification, the new Target (2) in the Kunming-Montreal Biodiversity Framework (30% land under restoration by 2030) and the G20 Global Initiative on Reducing Land Restoration and Enhancing Conservation of Terrestrial Habitats (50% reduction in degraded land by 2040).

The UN Convention to Combat Desertification (UNCCD) as the lead of this challenge is already hosting the Reducing Land Restoration and Enhancing Conservation of Terrestrial Habitats which aims to support G20 Members and non Members to achieve a global ambition of 50 % reduction in degraded land by 2040. UNCCD will partner with other UN Conventions as well as UN and other organisations to join this challenge and invites interested parties to work collaboratively together to help countries to achieve this target. The challenge includes several pathways for which strategic collaborations are sought, i.e. sharing best practices (FAO, UNEP, IUCN), private sector (WEF, IFC), civil society (Youth, Women, Faith group, academia, media, and others), capacity-building (Universities, online platforms), as well as across other challenges. To leverage the restoration work, the challenge group will work with G20 Member States, the Great Green Wall Initiative, Saudi Arabia, and the Middle East Green Initiative.

Global goal and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration)
- SDG #5 (Gender equality)
- SDG #6 (Clear water and sanitation)
- SDG #8 (Decent work and economic growth)
- SDG #9 (Industry, innovation and infrastructure)
- SDG #11 (Sustainable cities and communities)
- SDG#13 (Climate Action)
- SDG#15 (Life on Land)
- SDG #17 (Partnership for the goals)

KPI & Timeline:

KPIs:

- 30 percent areas under effective restoration by 2030
- Land Degradation Neutrality Achieved by 2030
- Curriculum on land-based ecosystem restoration implemented in 1000 universities
- A five-year plan to reach at least 10000 participants in 100 countries with training programs on ecosystem restoration
- Develop a plan to build capacity for at least 10,000 Ecopreneurs around the world

Timeline:

2023:

- Invite expression of interest from other partners of Decade for Ecosystem Restoration to be part of the Restoration Challenge.
- Engage with other restoration challenges, especially Finance, Business, Education, Cities, Communities, and Youth so as to leverage each other's work.
- Organize in personal partner meeting in Bonn to think strategically about the possibilities and collaboratively develop a work plan.
- Compile restoration commitments from all countries under various international conventions (UNCCD, UNCBD, and UNFCCC) and other global initiatives (Bonn Challenge, AFR100, Middle East Green Initiative).
- Organise an event for Parliamentarians from around the world to sensitize them about the legal and policy developments in the domain of land restoration.
- Provide media fellowships to journalists around the world to write stories, including video blogs, on restoration and have them published around the world
- Working with the Education challenge team, to develop a concept to reach 1000 universities with a curriculum on land-based ecosystem restoration
- Work with the Center of Excellence in Sustainable Land Management (India), to develop a five-year plan to reach at least 10000 participants in 100 countries with training programs on ecosystem restoration
- Prepare specific approaches for restoration of abandoned mines and quarries
- Working with World Economic Forum or similar partners, develop a plan to build capacity for at least 10,000 Ecopreneurs around the world and implement the plan

2024:

- Create a platform for collaborative working on the restoration challenge, coordinating with the Decade for Ecosystem Restoration.
- Review existing national legislations which mandate restoration in various countries and work with the countries to consider new framework legislation.
- Create a framework for analyzing the country's commitments to understand what are the opportunities and constraints to achieving commitments in various countries.
- Create a framework for "Opportunity Mapping" for land restoration, factoring in the potential for incorporating Nature Based Solutions for DRR and Climate Change.
- Create partnerships to support National Governments in achieving their own commitments based on the identified constraints and opportunities.

- Organize a series of consultative meetings with the leads of other restoration challenges, in particular Biodiversity, Business, Climate, Cities, Communities, Education, Finance, and Youth.
- Organize a series of events to discuss the challenges in specific landforms, such as arid areas, wetlands, agricultural areas, and forests.
- Organise an event for Parliamentarians from around the world to sensitize them about the legal and policy developments in the domain of land restoration.
- Develop a new thematic area on “Technology and Restoration” to harness emerging technologies such as AI, Robotics, IoT, and Drones into the restoration domain
- Create a platform for sharing best practices on land restoration, including technical approaches, legislations, financial innovations and community mobilization.
- Develop training programs to be delivered in person and online to National Governments, experts, and local communities on land restoration, including working with the University Challenge.
- Reach at least 200 universities with Train the Trainer Programme
- Train at least 1000 ecopreneurs on land restoration including project management, technology and marketing
- Compile best practices and promote them through an information sharing hub
- Review progress made in countries on land restoration based on their publically available writing

2025

- Working with the Global Mechanism of the UNCCD and their project preparation partners, identify key Transformative Projects on restoration which can be promoted for resource mobilization.
- Working with the group on Finance, identify the key financing opportunities for large-scale restoration projects on land
- Train at least 1000 ecopreneurs on land restoration including project management, technology, and marketing
- Support implementation of large scale projects such as the Great Green Wall, Middle East Green Initiative
- Introduce new technologies such as Artificial Intelligence, Robotics, and Drones for the restoration
- Work with major mining companies to initiate large scale mine site restoration projects
- Work with small-scale quarries to increase quarry restoration after the completion of productive lives
- Compile best practices and promote them through an information-sharing hub
- Review progress made in countries on land restoration based on their publicly available writing

2026: Interim review

2026-2031: Revised strategy and actions

(Co-)leading UN Decade partner(s):

UNCCD, G20 Global Initiative

Partners invited among others: UNEP, FAO, CBD, WEF, UNFCC, IUCN, WEF, PBL, ITU, Google, Universities, Training Institutions, Bezos Foundation, National Governments, and all interested partners

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What can YOU do to support this challenge?

Sample actions in support	Stakeholder(s)
Support framework legislations in countries to mandate land restoration and prevent land degradation.	● Member States
Support the development of large scale national projects for land restoration	● Member States ● Private Sector ● Community Organisations ● GEF/GCF
Support the development of large scale and transboundary projects for land restoration	● Member States ● Public Sector ● Private Sector
Increase resource flows within countries for land restoration	● National Governments ● Local and City Governments ● Private Sector ● International Financial Corporations
Build a cadre of private sector institutions specializing in restoration which are also capable of providing service across the countries	● Private Sector ● Banks ● Governments
Build technical expertise around the world to plan and implement restoration projects at every scale	● Universities ● Training Institutions
Share best practices on land restoration to inspire new projects	● All stakeholders

12. RESTORATION CHALLENGE – YOUTH

Young people have enormous potential and play a crucial role in preserving biodiversity, conserving forests, and restoring ecosystems. In addition to having a desire and capacity to contribute with their own experiences to the outcomes of restoration. To achieve the goals of the UN Decade on Ecosystem Restoration and a global #GenerationRestoration requires growth of the ecosystem restoration sector, in which Youth can play an important role.

12.1 Job-train and mentor over 600 youths as restoration practitioners by 2030

This challenge is aimed at developing an intensive study curriculum for job training utilizing project-based-learning and hands-on skill development to empower youth to engage in nature-based employment.

Through collaboration with 3-5 partners in each region, job training, business management and agricultural skills will be imparted to local youth in order to close the skills gap between community needs and the skill set of unemployed persons. Individual partners will be able to catalyze existing programming using the expertise provided by the Challenge Team, while most funding to pay youth participants will go from local economic activities or through funding from the National Youth Ministry.

Stakeholders include

- Program Hosts: National Youth corps/Youth Ministries, social enterprises, universities or technical institutes, conservation organizations, start-up incubators.
- Local Youth: refugees/migrants,
- Peoples of color, indigenous people, frontline community members, eco-preneurs, disabled persons, recent graduates, etc.
- Community Partners: agricultural or food businesses, land managers, food banks, plant nurseries, ecologists, etc.

During the training, students would develop a Project Plan and/or Business model for their ecopreneurship venture or community service contribution, that could support Green Jobs and meet local needs. Project Planning would include:

- Developing their Theory of Change, Value-Add Proposition and/or a mission and vision statement
- Setting SMART Goals for the short, medium and long term
- Creating a Transformational Change Chart and mapping the power players in their community
- Writing an Elevator Pitch and drafting a grant proposal, including budgeting for financial and other resource needs.
- Submitting a Gantt chart or timeline to accomplish their restoration goals.

Program Activities may also include participating in Online and/or In-person modules for skill development, project-based Internships/apprenticeship for on-the-job learning, policy advocacy workshop & consultations, the formation of a LinkedIn alumni group, Green Jobs board & resume review services, mentorship, and case studies of sustainable business models.

Youth and youth organisations also have an important role to play in political activities as the local, national and international level. Support for Challenge participants and other youth to attend high level events may be a part of the implementation, marketing and/or fundraising components of the challenge. Youth organisations can also become engaged in restoration work through grant-making. On-ground consultations are further encouraged to continue the dialogue between the Task Force and youth restoration practitioners.

This program will partner with existing similar programs, such as through the UNEP Nature Positive University Alliance, Restoration Academy & ILO's Green Jobs Programme. While these programs each address one element of the Challenge's goals, the Task Force aims to close the gaps between these entities, help to scale up their work, and include non-traditional students, refugees/climate migrants, Indigenous youth, etc.

Support will be needed in the following ways: in-kind contributions, direct funding/matches, and/or job placement for the implementation of the Challenge. Please see the budget below which separated out the funds required for minimal operating levels as well as additional desired funding to be able to optimize the program. Further In-kind contributions and partnerships will also be needed for the success of this challenge. Partner entities can offer support with curriculum development, job placement, as well as serve as host sites for in-person training. Interested parties may communicate to un-decade-ytf@unmgcy.org their interest.

Donors will further be invited to sign up to be part of the UN Decade Partnership Network and benefit from the network opportunities, if desired, as well as benefit from clear visibility at global and regional level as part of the UN Decade's communication and advocacy work through direct affiliation to the Youth Challenge.

This challenge will be led by the UN Decade Youth Task Force and therefore Youth itself. The required a minimum of funds is 495,000 USD (Project funding, publication, administration) and a desired additional 923,000 USD (Project and mentor stipends, Workshops, Printing, Shipping, and Contingency costs).

Global goals and SDG

- SDG 1 - No Poverty
- SDG 2 - Zero Hunger
- SDG 8 - Decent Work & Economic Growth
- SDG 13 - Climate Action
- SDG 14 - Life Below Water
- SDG 15 - Life on Land
- SDG 17 - Partnership for the goals

KPIs:

- 600 program participants over the 7 years of the program.
    - Annual Workshops (in-person or online, pending resource availability & health/safety precautions)
    - Micro-grants offered to 10% of graduates to implement their community restoration projects or support their social enterprise.
- 60% of graduates employed within 1 year of program completion
    - # of jobs facilitated for young people in the restoration field.

Timeline:

2023:
- Identifying co-leading entities and curriculum development

2024:
- LAC Regional launch

2025:
- Africa Regional launch

2026:
- Asia/Pacific Regional launch

2027:
- MENA & Western Asia Regional launch

2028:
- SIDS Regional launch

2029:
- Europe, Oceania & N.America Regional launch

(Co-)leading UN Decade partner(s):

Major Group for Children & Youth, SER, Plant For the Planet, SOS Mata Atlantica

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12.2 Restore 10,000 schoolyards and reach 100 Million posts with #GenerationRestoration

Based on the principle of intergenerational equity: "as members of the present generation, we hold the earth in full trust for future generations." Today's youths are the future generation and are therefore most impacted by our current trajectory in the global environmental crisis. UNEP has just released guidelines and principles highlighting the importance of protecting the environment for future generations and ensuring that children have access to a clean, healthy, and sustainable environment, in line with the Paris Agreement and the triple planetary challenges of climate change, biodiversity loss, and pollution & waste.

The restoration challenge YOUTH focus on the young champions and youth led restoration initiatives and youth organizations, participate in restoration activities, decision-making and propel the #GenerationRestoration movement. The Challenge YOUTH in this Action Plan is the invitation for concrete joint action forces to take leadership in achieving the objectives set by the UN Decade on Ecosystem Restoration by 2030. The required knowledge and tools we need to halt degradation and restore ecosystems are already in place, except for our willingness for a long-term commitment. The APSCC's youth-centered initiative titled "International Climate Change Adaptation & Resilience Program (ICCARP)" with several Nature-Positive programs will catalyze a global willingness that complements the 10-year

timeframe to restore 10,000 schoolyards and reach 1Million posts with #GenerationRestoration.

Having around 1.2 billion young people aged 15 to 24 years, accounting for 16% of the global population, YOUTH and YOUNG PEOPLE have a crucial role to play, in driving action across all pillars of this overall plan in the following pathways:

- provide environmental education to inculcate environment-conscious behavior for attitude change and transformation, raising awareness of the triple planetary crisis and promotion of intergenerational equity and empowerment of young people
- develop integrated soil-water-food-energy-biodiversity-resources centered programs and initiatives for on-campus action-oriented programs and handout resources for knowledge sharing on the successfully implemented programs
- facilitate youth with an inclusive platform for networks and forums to lead, join, showcase, and share innovative actions related to ecosystem restoration.
- create opportunity for meaningful engagement of young people across the pillars of policy advocacy bringing together youth advocates, youth associations, youth-led restoration initiatives, and a wide range of formal and informal youth groups
- provide a platform for pitching green business ideas to promote green entrepreneurship with an intent to achieve a circular economy, revitalizing small-scale to cottage and village industries to include marginalized sections of the society
- provide training and capacity building for young people aimed at enhancing understanding, knowledge and green skills on regenerative agriculture, sustainable animal farming and industrial symbiosis. Engage in FAO's Soil Doctor Program and APSCC's Soil Scientist Program for pollution prevention, soil ecology restoration, and organic food production.

Global goals and SDG

- Kunming-Montreal Global Biodiversity Framework Target 2 (30% restoration)
- Paris Agreement
- IUCN - Reverse the RED
- UN Decade of Family Farming

KPI & Timeline:

2023-2030

- Reaching out to schools and universities through Central Ministries
- Establishing alliances and networks for lab-to-land environment education
- Catalyzed through green campus clubs, eco clubs, green forums, etc.: provide awareness, hands-on-training for waste minimization and management, Kick-start plastic pollution prevention drive and implement on-campus conservation and environment protection initiatives
- Catalyze the Central/ State Government's microfinancing schemes for youth-led projects

- Kick-start green business ideas: development, competition, and recognition. Work closely with the incubation center for youth entrepreneur development
- Accelerate platforms for innovations to reduce overall footprint (water, energy, waste, and ecological)
- Establish International Centers in Association with Universities and other International Organizations/ Bodies for Soft, Hard and Thematic Interventions favoring agro-food products, village and cottage industries, livelihood security, and ecosystem sustenance

(Co-)leading UN Decade partner(s):

Association for Promoting Sustainability in Campuses and Communities (APSCC India), UN Decade Youth Task Force

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What can YOU do to support this challenge?

Sample fields of action	Stakeholder(s)
Improve capacity building and knowledge among young people on ecosystem restoration, through training courses and awareness building.	● Research and education institutions ● Government Ministries and Nodal Departments and Agencies
Offer micro-financing schemes for youth-led restoration projects	● Donors and financial institutions ● Private sector
Ensure young people meaningfully participate in environmental policy development and implementation.	● NGOs and CSOs ● National governments ● Cities and local authorities ● Research and education institutions
Create a platform for youth around the world to engage in non-partisan political engagement with national governments and the UN on ecosystem restoration.	● NGOs and CSOs ● National governments
Join a group or movement – explore the UN Decade Digital Hub.	● Individuals
micro-financing schemes for youth-led restoration projects.	● Government Bodies ● Corporates ● Donors and financial institutions ● Private sector

2.2. Timeline for challenge action

Below are five steps Challenge leads are taking.

Step 1: Take up the challenge

- UN Decade partners were invited to express interest in leading on one or several challenges. Complete the expression of interest form by **30 September 2022**.
- Challenges can run over several years or the entire decade. Up to three entities are suggested to lead per challenge which are encouraged to represent different partner categories.

Step 2: Challenge teams unite

- Join the multi-stakeholder meeting for your Restoration Challenge. Parallel kick-off meetings were set up by the designated entity from the expressions of interest.
- If needed, groups nominated a challenge lead, an organisation responsible for leading on the challenge, and organised supporting organisations and stakeholders into sub-groups.

Step 3: Create a challenge-specific action plan

- After confirmation, challenge (co-)leads were invited to present a simple roadmap and concept, including the challenge goal, for their respective challenge by **30 November 2022.** A template was shared by the Secretariat.
- Actions can be big and small acts that respond to the challenge and address one or more of the three pathways of the Decade. They can be calls for actions directed to stakeholder groups.
- Identify potential synergies and trade-offs between restoration actions and commitments at the global, regional and national level.
- Teams are provided with plenty of flexibility in designing and implementing the challenges, encouraging them to innovate and use their comparative advantage. To ensure alignment with the overall UN Decade strategy and communication and advocacy work, the Strategy group of the UN Decade will approve the concept notes.

Step 4: Get stuck in

- Register concrete restoration initiatives and share stories, ideas, knowledge and experiences with the entire #GenerationRestoration ecosystem on the Digital Hub.
- If desired, monitor and report on progress using the Framework for Ecosystem Restoration Monitoring (FERM) registry.
- Teams will be asked to provide an update upon invitation by the Secretariat. The reporting duties will remain low overall. Opportunities to report and showcase the work in the Secretray-General's report in 2025 and 2030 is desired.

Step 5: Review, Adapt and Refine

- Review progress. In both planning and implementation, the challenge leads should work closely with, and use the expertise of, the UN Decade Task Forces, as well as the core group of the co-leading agencies FAO and UNEP.
- Test, adapt and refine the action plan, learning from what went well and what didn't

2.3. How individuals and entities can get involved beyond the challenge

Restoring ecosystems and humanity's relationship with the rest of nature requires the collective effort of people all across the world. Restoration is not only for ecologists or restoration practitioners. The motivation to be part of restoration efforts is often deeply personal[8], driven in many cases by a desire for greater connection with nature. The UN Decade calls on all parts of society to take action, including governments, businesses, citizens and organisations of all kinds, from urban areas to mountains, coasts and peatlands, from forests and farmlands to grasslands and savannahs.

There are different ways to get involved – as an official partner, donor or by participating in the global movement.

There are many things ordinary citizens can do. For inspiration, download the Ecosystem Restoration Playbook. A practical guide to healing the planet

Find more about the UN Decade on www.decadeonrestoration.com and on social media by following #GenerationRestoration and sharing your own restoration activities and ideas. What actions are needed? Tell us on social media or write to us at restorationdecade@un.org

Do you work on ecosystem restoration on the ground or know someone who does? Join the UN Decade as a Restoration Initiative.

Organisations are invited to apply as official partner of the UN Decade with long-term commitments. To apply as partner, consult the partner framework and write to restorationdecade@un.org

[8] A survey by UNEP found that 68 per cent of respondents said their interest in restoration is primarily personal.

3. IMPLEMENTING THE ACTION PLAN

Section 3 describes how the Action Plan will be implemented – the coordination between the co-leading agencies, partners, and Task Forces, how it will be financed, how progress is monitored, and how knowledge and best practices are gathered and communicated. Finally, a timeline for the UN Decade to 2030 is presented.

3.1. Governance and coordination

UNEP and FAO are the lead implementing agencies of the UN Decade on Ecosystem Restoration. The governance structure comprises a core team, Strategy Group, Coordination Group, Task Forces, Partners, and Advisory Board (see Figure 2).

Five task forces (on Best Practices, Finance, Monitoring, Science and Youth) have been established to connect leading institutions, partners and other external entities. These task forces focus on critical restoration-related topics by executing joint activities, facilitating dialogue, and developing best practices and guidance.

The Advisory Board is the main external body of the UN Decade's governance structure, which includes representatives varying from indigenous peoples, local communities, ecosystem restoration experts, to media and culture workers, private sectors, etc. The Board's main objective is to offer relevant perspectives and schools of thought in response to the challenges for implementing the UN Decade, as well as inspire and amplify the UN Decade's goals through diverse channels and networks.

As described in Section 2, designated UN Decade partners will lead the implementation of the Restoration Challenges, working closely with the rest of the UN Decade governance structure.

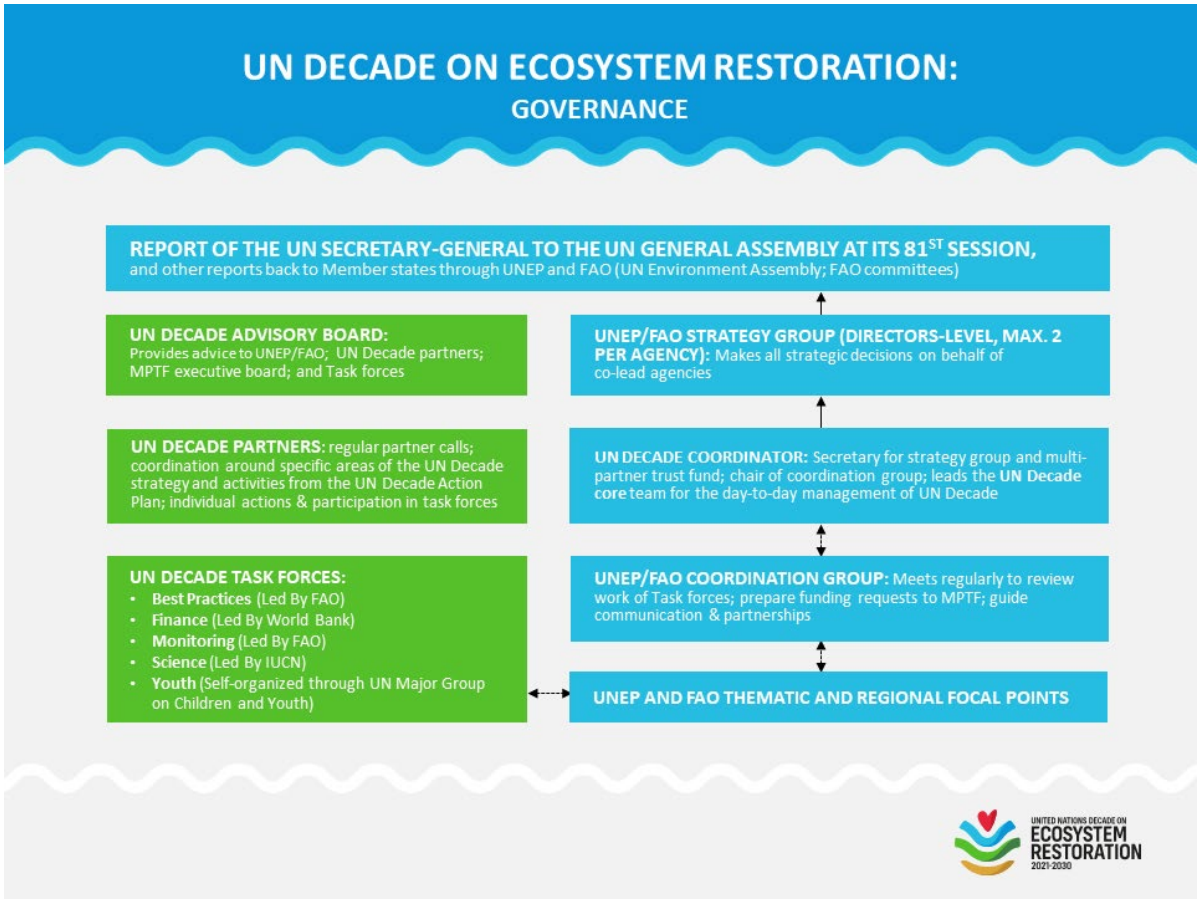

Figure 2: Governance structure of the UN Decade on Ecosystem Restoration

3.2. Financing

To achieve the vision of the UN Decade requires catalysing private and public investments in ecosystem restoration. Governments around the world have already committed to restoring a total of nearly 1 billion hectares of degraded land by 2030 (Sewell, van der Esch and Löwenhardt, 2020). However, the implementation of these commitments is lagging, partly due to a major funding gap (Ding *et al.*, 2017). Financing restoration actions under the UN Decade will require policies and financial mechanisms to overcome existing financial barriers. The **Restoration Challenge for Finance** aims to mobilise investments in restoration over the coming decade. There are a range of potential sources of finance from the private sector - sustainable supply chains, biodiversity offsets, equity impact investing, payment for ecosystem services, voluntary carbon markets, REDD+ and philanthropy (UNEP, 2021c). Meanwhile, public finance can work for restoration through leveraging carbon pricing, climate finance and redirecting incentives towards restoration, among others (Ding *et al.*, 2017).

Within the UN Decade governance structure, the Multi-Partner Trust Fund (MPTF) acts as the catalytic financial mechanism serving the purpose to kick start and facilitate actions supporting World Restoration Flagships, while the **Finance Task Force** provides expert guidance to support and incentivise ecosystem restoration and will work with Challenge leads. The MPTF was established in 2021 by FAO and UNEP. Importantly, the Fund is not designed to be a funding facility that finances all activities needed to implement the full strategy of the Decade; it will rather encourage and support strategic interventions, which contribute to an informed and coordinated movement for turning the tide of ecosystem degradation. It seeks to provide constructive avenues for actions and routes to overcome barriers.

Larger restoration programmes around the world are funded through national governments, development banks, impact investors, the European Union, the Global Environment Facility and the

Green Climate Fund. Major initiatives are implemented and funded by UN Decade partners, like the International Union for the Conservation of Nature (IUCN), the World Resources Institute, the Global Landscapes Forum, the World Wide Fund for Nature, 1t.org and other global and national civil society organisations. These organisations mobilise support for restoration, fund programmes to prevent, halt and reverse degradation of ecosystems, and help remove barriers for restoration. As such, these organisations and their programmes are critical to bringing restoration initiatives to scale. Domestic funding is also increasingly mobilised for restoration such as the watershed restoration programme to secure drinking water for Sao Paulo City in Brazil.

The World Bank chairs the Finance Task Force, which has the following functions and will play a key role in this endeavour:

1) provide guidance to reorient subsidies towards ecosystem restoration in an appropriate manner;

2) counter economic forces and vested interests that result in ecosystem degradation; and,

3) incentivise public and corporate investors to co-invest in ecosystem restoration, including in areas where the benefits from restoration are predominantly public goods.

3.3. Best practices

An FAO-led Task Force on Best Practices, working across more than 130 global leading organisations, has been established to enhance knowledge dissemination and system-wide capacity development efforts. To guide and support restoration initiatives throughout the UN Decade, the Task Force developed ten principles for ecosystem restoration through a collaborative effort of multiple organizations (see section 1.4), and conducted a global capacity needs assessment to identify the key gaps and capacity priorities for restoration. The Task Force on Best Practices is currently undertaking several efforts, including the development of:

1) Standards of practice (SoPs) to provide guidance on the application of the ten principles for ecosystem restoration to the planning, implementation, monitoring and ongoing management of restoration projects;

2) a Capacity, Knowledge and Learning Action Plan for the Decade, that proposes the implementation of eight key capacity- and knowledge-development initiatives to address major gaps identified through the global capacity needs assessment, aiming to achieve three main objectives: i) develop individual and organizational capacity across sectors and scales; ii) foster networks, partnerships and collective action mechanisms; and, iii) strengthen the enabling environment for ecosystem restoration; and

3) a framework for documentation and dissemination of good practices, that will facilitate exchange of, and access to knowledge among restoration practitioners. It promotes collaboration between several platforms including the FERM Registry, GoProFor, Panorama Solutions, and WOCAT. For more information on the Task Force on Best Practices, visit the webpage.

3.4. Monitoring progress

Monitoring progress towards the achievement of the Action Plan will be guided by the work of the Monitoring Task Force[9]. Led by FAO and with support from over 330 experts across 110 organisations, the task force is identifying the best options for monitoring global progress of the UN Decade and how to fill current information gaps. To avoid extra reporting burdens, the UN Decade will not establish formal country monitoring and reporting. Instead, it will employ and build on existing

[9] Find more information on the Monitoring Task Force here: https://www.fao.org/3/cb0424en/cb0424en.pdf

data reporting systems within relevant international commitments, conventions and plans, such as the post-2020 global biodiversity framework and the Global Forest Resource Assessment (FRA). The Monitoring Task Force has drafted a first global framework for monitoring and reporting progress in relation to the UN Decade[10], and a set of headline indicators (Figure 3). The FERM registry will be used to report on global restoration progress as part of the UN Decade and to the CBD post-2020 global biodiversity framework Target 2. It intends to support ecosystem monitoring by all actors, people, communities and countries. The specific objectives of the Monitoring Task Force are to:

a) Develop and propose a framework (including indicators, available tools/databases, reporting lines and timelines) for operational monitoring and for reporting the progress and achievements on both biophysical and socio-economic benefits of restoration which occur throughout the duration of UN Decade, and advise stakeholders as necessary.

b) Serve as focal point for providing technical guidance and assistance on restoration monitoring for UN Decade flagships.

c) Foster collaboration between conventions, frameworks, and emerging monitoring initiatives, which monitor and report elements of restoration in various ecosystems and seek synergies and avoid duplication of effort.

d) Identify key gaps and areas of critical importance to restoration monitoring which require further research and development and targeted investment to ensure all ecosystems can be adequately monitored through the decade.

Indicator code (Sustainable Development Goal (SDG[3]))	Indicator name	Decade's ecosystem restoration types[2]	Update frequency[3]	Institution
SDG[3] 1.2.1	Proportion of population living below the national poverty line, by sex and age	All types	Twice a year	World Bank
SDG[3] 2.1.1	Prevalence of undernourishment	All types	Annually	Food and Agriculture Organization of the United Nations (FAO)
SDG[3] 2.4.1	Proportion of agricultural area under productive and sustainable agriculture	Farmlands	Every 3 years	FAO
SDG[3] 6.1.1	Proportion of population using safely managed drinking water services	All types	Every 2 years	United Nations Children's Fund (UNICEF); World Health Organization (WHO)
SDG[3] 6.3.2	Proportion of bodies of water with good ambient water quality	Freshwater	Every 3 years	United Nations Environment Programme (UNEP)
SDG[3] 6.4.2	Level of water stress: freshwater withdrawal as a proportion of available freshwater resources	Freshwater; Farmlands; Mountains; Grasslands, Shrublands and Savannahs; Peatlands	Annually	FAO
SDG[3] 6.5.1	Degree of integrated water resources management	Freshwater	Every 3-4 years	UNEP
SDG[3] 6.6.1 (Ramsar[1] 8.6)	Change in the extent of water-related ecosystems over time	Freshwater; Farmlands; Mountains; Grasslands, Shrublands and Savannahs; Peatlands	Annually	UNEP, RAMSAR[1]
SDG[3] 7.2.1	Renewable energy share in the total final energy consumption	All types	Annually	International Energy Agency (IEA); United Nations Statistics Division (UNSD); International Renewable Energy Agency (IRENA)
SDG[3] 12.b.1	Implementation of standard accounting tools to monitor the economic and environmental aspects of tourism sustainability	All types	Annually	United Nations World Tourism Organization (UNWTO)
SDG[3] 13.2.2 (UNFCCC)	"Total greenhouse gas emissions per year" as reported to UNFCCC as part of the enhanced transparency framework (ETF) mechanism	All types	Annually (Annex I Parties); Every 2 years (Non-Annex I Parties)	United Nations Framework Convention on Climate change (UNFCCC)
SDG[3] 14.4.1	Proportion of fish stocks within biologically sustainable levels	Oceans and coasts	Every 2 years	FAO
SDG[3] 14.5.1	Coverage of protected areas in relation to marine areas	Oceans and coasts	Annually	United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC); Bird Life International (BLI); International Union for Conservation of Nature (IUCN)
SDG[3] 14.b.1	Degree of application of a legal/regulatory/ policy/institutional framework which recognizes and protects access rights for small-scale fisheries	Oceans and coasts	Every 2 years from 2018	FAO
SDG[3] 15.1.1	Forest area as a proportion of total land area	Forests	Annually from 2015	FAO
SDG[3] 15.1.2	Proportion of important sites for terrestrial and freshwater biodiversity that are covered by protected areas, by ecosystem type	Forests; Freshwater; Grasslands, Shrublands and Savannahs; Mountains; Peatlands	Annually	UNEP-WCMC; BLI; IUCN
SDG[3] 15.2.1	Progress towards sustainable forest management	Forests	Annually from 2015	FAO
SDG[3] 15.3.1 (UNCCD)	Proportion of land that is degraded over total land area	Farmland; Forests; Grasslands, Shrublands and Savannahs; Peatlands	Every 4 years from 2018	United Nations Convention to Combat Desertification (UNCCD); FAO; CBD; UNSD; UNEP; UNFCCC
SDG[3] 15.4.2	Mountain Green Cover Index	Mountains	Every 3 years	FAO
SDG[3] 15.5.1	Red List Index	All types	Annually	IUCN; BLI

Notes: UN Decade on Ecosystem Restoration focal ecosystems include: Farmlands; Forests; Freshwater; Grasslands, Shrublands, Savannahs; Mountains; Oceans and coasts; Peatlands; and Urban areas.

Sources: [1] Ramsar. 2021. National Report on the Implementation of the Ramsar Convention on Wetlands. 20 April 2022. https://www.ramsar.org/document/national-report-form-for-cop14-offline-version

[2] United Nations Decade on Ecosystem Restoration. 2022. Types of Ecosystem Restoration. 20 April 2022. https://www.decadeonrestoration.org/types-ecosystem-restoration;

[3] United Nations Statistics Division. 2022. SDG Indicators. New York, United Nations Department of Economic and Social Affairs. Cited 20 April 2022. https://unstats.un.org/sdgs/metadata/;

Figure 3: Summary of headline indicators for the UN Decade

Source: *FAO and UNEP. 2022. Global indicators for monitoring ecosystem restoration – A contribution to the UN Decade on Ecosystem Restoration. Rome, FAO. https://doi.org/10.4060/cb9982en*

[10] FAO and UNEP, 2022. Global indicators for monitoring ecosystem restoration – A contribution to the UN Decade on Ecosystem Restoration. Rome, FAO: https://www.fao.org/documents/card/en/c/cb9982en

3.5. Science

The IUCN-led Science Task Force provides an authoritative scientific reference for the UN Decade. It will produce, collate and convey concise information and concepts of terrestrial, freshwater and marine ecosystem restoration based on rigorous evidence. The Task Force aims to address pertinent scientific questions that might arise during the implementation of the UN Decade and provide guidance to all partners.

3.6. Youth

The involvement of youth in the UN Decade and #GenerationRestoration movement is critically important, not only for the sustainability of restoration initiatives beyond 2030 but also for the promotion of intergenerational equity and empowerment of young people. During the UN Decade, the Major Group for Children and Youth through the Children and Youth Organisation accredited to UNEP and SDG 2 Working Group will facilitate the engagement of youth advocates, youth-led restoration initiatives, and a wide range of formal and informal youth groups.

Young people have been engaged in the processes of the UN Decade since its inception. Among other things, this has entailed hosting several on-ground and virtual consultations on the engagement of young people in the UN Decade and the inaugural #GenerationRestoration Youth Assembly alongside the public launch of the Decade in 2021. There have been ongoing internal consultations, working group meetings and mobilisation that garner and advance the meaningful engagement of young people across the pillars of *policy advocacy, knowledge, action and capacity building.*

The UN Decade Youth Task Force and the Youth Focus Group serve as the mandated and self-organised youth mechanism that facilitates young people and is part of the UN Decade governance. The Youth Focus Group, universally structured, allows young people across several constituencies, movements and young individuals to engage with the UN Decade. Young people and youth organisations will continue to play a crucial role in driving action for the UN Decade and engaging across all pillars and activities of this Action Plan.

3.7. Communication

Communication is central to the UN Decade, to mobilise society, increase awareness of the benefits of restoration and the costs of degradation and shift behaviours to scale up restoration around the world.

The **UN Decade's Digital Hub** connects the restoration community. It serves as the central location to register actions, showcase activities, and connect with other participants. The Digital Hub aims to be the **largest single database of ecosystem restoration initiatives**, a platform uniquely focused on the grassroots perspectives and needs of restoration implementers, and lastly, a focal point on the web dedicated to uniting trusted restoration resources. The Digital Hub allows the upscaling and replication of existing restoration projects. Through this digital site, people can access different events, conferences, workshops, training, good practices, monitoring and data platforms, and support to on-the-ground initiatives and activities through a growing network of connectors, partners, funders, and voices.

3.8. World Restoration Flagships

UN Decade Flagships are the **first, best, or most promising examples of ecosystem restoration**, adding value and embodying the ten restoration principles, while inspiring others to undertake or accelerate restoration at significant scale. The first call for flagships received 154 expressions of interest and 76 government-endorsed nominations. Together, they cover 74 countries and represent almost all the major ecosystem types (except urban areas). They represent 96 million hectares of achieved restoration and almost 160 million ha are expected to be under restoration by 2030. With an estimated potential of creating 17 million direct and indirect green jobs such as eco-tourism, restoration project management and monitoring, they are expected to increase the resilience of over 76 million households by 2030.

Following a long list of selection criteria and evaluations, the UN Decade's Task Forces on Science and Best Practices recommended that out of the 76 full applications, 23 were of "high technical quality". Among those, the **UN's First Ten World Restoration Flagships** were selected to represent ecosystem and regional diversity.

The first Ten Flagships were successfully launched at CBD COP15 to show pathways for implementation of the Global Biodiversity Framework, and celebrate winning solutions worldwide. The global campaign reached over 1 million viewers of the Virtual Launch Gala – a record for UNEP and similar award ceremonies – and over 4 billion readers of 1,000+ news stories in 13 languages.

Going forward, progress towards implementation will be monitored through the UN Decade's satellite-based monitoring system "Framework for Ecosystem Restoration Monitoring" (FERM) and in collaboration with partners such as the Crowther Lab and their Restor platform. In 2023, a series of scientific case studies will be published around the flagships.

3.9 Timeline

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
UN Decade on Ecosystem Restoration										
Multi-Partner Trust Fund 5-year programme										
Secretary General's report, UN General Assembly										
Global capacity needs assessment										
World Restoration Flagships		Launch								
Action Plan launch and updates		Launch	Updated Action Plan		Updated Action Plan			Updated Action Plan		
Restoration Challenges and Campaigns		Launch								
UN Decade review and report by UN Secretary General					Mid-term review					Final review
International processes and events										
SDG Global Report										
CBD COP										
UNFCCC COP										
UNCCD COP										
UN Environmental Assembly										
UN General Assembly										
Conventions on Migratory Species										
UN Ocean Conference										
UN Forum on Forests										
World Urban Forum										
UN Food Systems Summit										
IPCC Plenary Sessions										
IPBES Plenary Sessions										

Figure 4: UN Decade on Ecosystem Restoration – Key Milestones, Events and Reports

3.10 Action Compass

The UN Decade Secretariat coordinates an ACTION COMPASS providing a space where the UN Decade Partners, organisations, decision-makers, and individuals find engaging opportunities and milestones related to Ecosystem Restoration triggering a lever for action and for their challenges. Please check it out here.

What will you find here? Among other things: Action plan; key events; opportunities calendar; and much more.

Would you like to add anything to this ACTION COMPASS? WRITE US! If you know of an opportunity/event/conference/report… not listed here and relevant for the UN Decade on Ecosystem Restoration, please **write to us at **restorationdecade@un.org under the subject ACTION COMPASS. Our team will contact you.

REFERENCES

Allan, J.R. *et al.* (2022) 'The minimum land area requiring conservation attention to safeguard biodiversity', *Science*, 376(6597), pp. 1094–1101. Available at: https://doi.org/10.1126/science.abl9127.

Anderson. 2021. Pressing Questions About Ecosystem Restoration. WRI. Answered

Benton, T.G. *et al.* (2021) *Food system impacts on biodiversity loss. Three levers for food system transformation in support of nature*. London: Chatham House.

CBD (2021) *First draft of the post-2020 global biodiversity framework (Issue CBD/WG2020/3/3)*. Montreal: Secretariat of the Convention on Biological Diversity. Available at: cbd.int/doc/c/abb5/591f/2e46096d3f0330b08ce87a45/wg2020-03-03-en.pdf.

Coello, J. and Frey, L. (2023) *Funding options for Ecosystem Restoration in Central America and Africa • Unique Land Use GmbH*, *unique land use GmbH*. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. Available at: https://www.unique-landuse.de/news/2023/funding-options-for-ecosystem-restoration-in-central-america-and-africa/ (Accessed: April 14, 2023).

Ding, H. *et al.* (2017) *Roots of Prosperity: The Economics and Finance of Restoring Land*. Washington, DC: World Resources Institute.

Ellis, E.C. *et al.* (2021) 'People have shaped most of terrestrial nature for at least 12,000 years', *Proceedings of the National Academy of Sciences*, 118(17), p. e2023483118. Available at: https://doi.org/10.1073/pnas.2023483118.

FAO, IUCN CEM and SER (2021) *Principles for ecosystem restoration to guide the United Nations Decade 2021–2030*. Rome: Food and Agriculture Organization of the United Nations, International Union for Conservation of Nature's Commission on Ecosystem Management and Society for Ecological Restoration.

FAO and UNEP (2022) *Global indicators for monitoring ecosystem restoration – A contribution to the UN Decade on Ecosystem Restoration*. Rome: Food and Agriculture Organization of the United Nations and United Nations Environment Programme. Available at: https://doi.org/10.4060/cb9982en.

Garnett, S.T. *et al.* (2018) 'A spatial overview of the global importance of Indigenous lands for conservation', *Nature Sustainability*, 1(7), pp. 369–374. Available at: https://doi.org/10.1038/s41893-018-0100-6.

Gheyssens, J., Garrett, L. and Iweins, M. 2020. Mobilizing restoration finance at the local level. Unasylva. 71(252), pp.42–50.

Griscom, B.W. *et al.* (2017) 'Natural climate solutions', *Proceedings of the National Academy of Sciences*, 114(44), pp. 11645–11650. Available at: https://doi.org/10.1073/pnas.1710465114.

IPBES (2018) *The IPBES assessment report on land degradation and restoration.Montanarella, L., Scholes, R., and Brainich, A. (eds.)*. Bonn, Germany: Secretariat of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, p. 744.

IPBES (2019) *Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Brondizio, Eduardo;*

Diaz, Sandra; Settele, Josef; Ngo, Hien T. (eds). Bonn, Germany: IPBES secretariat. Available at: https://doi.org/10.5281/zenodo.6417333.

IPCC (2022) *Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)].* Cambridge, UK and New York, NY, USA: Cambridge University Press, pp. 3–33. Available at: doi:10.1017/9781009325844.001.

IUCN (2020) *IUCN Global Ecosystem Typology 2.0: descriptive profiles for biomes and ecosystem functional groups.* Gland: IUCN. Available at: https://doi.org/10.2305/IUCN.CH.2020.13.en.

IUCN. 2021. What is high quality ecosystem restoration

OECD (2019) *Biodiversity: Finance and the Economic and Business Case for Action*. OECD. Available at: https://doi.org/10.1787/a3147942-en.

OECD (2022) *Systems innovation for net zero*. Available at: https://www.oecd.org/climate-change/systems-innovation/.

Pörtner, H. O., Scholes, R. J., Agard, J., Archer, E., Arneth, A., Bai, X., ... & Ngo, H. (2021). Scientific outcome of the IPBES-IPCC co-sponsored workshop on biodiversity and climate change.

Root, Tik (2018) 'How One Country Is Restoring Its Damaged Ocean', *National Geographic*, 11 April. Available at: https://www.nationalgeographic.com/science/article/belize-restores-coral-reefs-oil-drilling-ban-environment#close.

Sewell, A., van der Esch, S. and Löwenhardt, H. (2020) *Goals and Commitments for the Restoration Decade. A global overview of countries' restoration commitments under the Rio Conventions and other pledges*. the Hague: PBL Netherlands Environmental Assessment Agency, p. 38.

Strassburg, B.B.N. *et al.* (2020) 'Global priority areas for ecosystem restoration', *Nature*, 586(7831), pp. 724–729. Available at: https://doi.org/10.1038/s41586-020-2784-9.

Turney, C., Ausseil, A. G., & Broadhurst, L. (2020). Urgent need for an integrated policy framework for biodiversity loss and climate change. Nature Ecology & Evolution, 4(8), 996-996.

UNEP (2019) *Planting fragments of hope*, *UNEP*. Available at: http://www.unep.org/news-and-stories/story/planting-fragments-hope (Accessed: 28 July 2022).

UNEP (2021a) *A beginner's guide to ecosystem restoration*, *United Nations Environment Programme*. Available at: http://www.unep.org/news-and-stories/story/beginners-guide-ecosystem-restoration (Accessed: 29 July 2022).

UNEP (2021b) *Becoming #GenerationRestoration: Ecosystem restoration for people, nature and climate*. Nairobi: United Nations Environment Programme.

UNEP (2021c) *State of Finance for Nature*. Nairobi: United Nations Environment Programme.

UNEP (2022) 'In Pakistan, a once-threatened pine tree is staging a comeback'. Available at: https://www.unep.org/fr/node/29527 (Accessed: 4 August 2022).

UNEP and FAO (2020) *Strategy for the UN Decade on Ecosystem Restoration*. United Nations Environment Programme and Food and Agriculture Organization of the United Nations. Available at: https://www.decadeonrestoration.org/strategy.

WEF 2022. The Global Risks Report 2022 [Online] 17th ed. Geneva: World Economic Forum. [Accessed 22 December 2022]. Available from: https://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2022.pdf

World Economic Forum (2020) *The Future of Nature and Business. New Nature Economy Report II*. World Economic Forum in collaboration with AlphaBeta. Available at: https://www3.weforum.org/docs/WEF_The_Future_Of_Nature_And_Business_2020.pdf.

World Economic Forum and Alexander von Humboldt Institute (2022) *BiodiverCities by 2030: Transforming Cities' Relationship with Nature*. Geneva: WEF.

WWF (2020) *Freshwater Biodiversity*, *WWF - World Wide Fund For Nature*. Available at: https://wwf.panda.org/discover/our_focus/freshwater_practice/freshwater_biodiversity_222/ (Accessed: 4 August 2022).

ANNEX: List of contributions to global goals

Kunming-Montreal Global Biodiversity Framework

- Kunming-Montreal Global Biodiversity Framework Target 2: Kunming-Montreal Global Biodiversity Framework Target 2: “Ensure that by 2030 at least 30 per cent of areas of degraded terrestrial, inland water, and coastal and marine ecosystems are under effective restoration, in order to enhance biodiversity and ecosystem functions and services, ecological integrity and connectivity.”

- Kunming-Montreal Global Biodiversity Framework Target 4: “Ensure urgent management actions, to halt human induced extinction of known threatened species and for the recovery and conservation of species, in particular threatened species, to significantly reduce extinction risk, as well as to maintain and restore the genetic diversity within and between populations of native, wild and domesticated species to maintain their adaptive potential, including through in situ and ex situ conservation and sustainable management practices, and effectively manage human-wildlife interactions to minimise human-wildlife conflict for coexistence.”

- Kunming-Montreal Global Biodiversity Framework Target 8: “Minimize the impact of climate change and ocean acidification on biodiversity and increase its resilience through mitigation, adaptation, and disaster risk reduction actions, including through nature-based solution and/or ecosystem-based approaches, while minimizing negative and fostering positive impacts of climate action on biodiversity.”

- Kunming-Montreal Global Biodiversity Framework Target 10: “Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, in particular through the sustainable use of biodiversity, including through a substantial increase of the application of biodiversity friendly practices, such as sustainable intensification, agroecological and other innovative approaches contributing to the resilience and long-term efficiency and productivity of these production systems and to food security, conserving and restoring biodiversity and maintaining nature’s contributions to people, including ecosystem functions and services.”

- Kunming-Montreal Global Biodiversity Framework Target 11 “Restore, maintain and enhance nature’s contributions to people, including ecosystem functions and services, such as regulation of air, water, and climate, soil health, pollination and reduction of disease risk, as well as protection from natural hazards and disasters, through nature-based solutions and ecosystem based approaches for the benefit of all people and nature”.

- Kunming-Montreal Global Biodiversity Framework Target 12: “Significantly increase the area and quality and connectivity of, access to, and benefits from green and blue spaces in urban and densely populated areas sustainably, by mainstreaming the conservation and sustainable use of biodiversity, and ensure biodiversity-inclusive urban planning, enhancing native biodiversity, ecological connectivity and integrity, and improving human health and well-being and connection to nature and contributing to inclusive and sustainable urbanisation and the provision of ecosystem functions and services.”

- Kunming-Montreal Global Biodiversity Framework Target 14: “Ensure the full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting, within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity, progressively aligning all relevant public and private activities, fiscal and financial flows with the goals and targets of this framework.”

- Kunming-Montreal Global Biodiversity Framework Target 19: ““Substantially and progressively increase the level of financial resources from all sources, in an effective, timely and easily accessible manner, including domestic, international, public and private resources, in accordance with Article 20 of the Convention, to implement national biodiversity strategies and action plans, by 2030 mobilizing at least 200 billion United States dollars per year, including by:

  (a) Increasing total biodiversity related international financial resources from developed countries, including official development assistance, and from countries that voluntarily assume obligations of developed country Parties, to developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition, to at leastUS$ 20 billion per year by 2025, and to at least US$ 30 billion per year by 2030;

  (b) Significantly increasing domestic resource mobilization, facilitated by the preparation and implementation of national biodiversity finance plans or similar instruments according to national needs, priorities and circumstances

  (c) Leveraging private finance, promoting blended finance, implementing strategies for raising new and additional resources, and encouraging the private sector to invest in biodiversity, including through impact funds and other instruments; (...)”

- Kunming-Montreal Global Biodiversity Framework Target 20: “Strengthen capacity-building and development, access to and transfer of technology, and promote development of and access to innovation and technical and scientific cooperation, including through South- South, North-South and triangular cooperation, to meet the needs for effective implementation,particularly in developing countries, fostering joint technology development and joint scientific research programmes for the conservation and sustainable use of biodiversity and strengthening scientific research and monitoring capacities,commensurate with the ambition of the goals and targets of the framework.”

- Kunming-Montreal Global Biodiversity Framework Target 21: “Ensure that the best available data, information and knowledge, are accessible to decision makers, practitioners and the public to guide effective and equitable governance, integrated and participatory management of biodiversity, and to strengthen communication, awareness-raising, education, monitoring, research and knowledge management and, also in this context, traditional knowledge, innovations, practices and technologies of indigenous peoples and local communities should only be accessed with their free, prior and informedconsent20, in accordance with national legislation.”

- Kunming-Montreal Global Biodiversity Framework Target 22: “Ensure the full, equitable, inclusive, effective and gender-responsive representation and participation in decision-

making, and access to justice and information related to biodiversity by indigenous peoples and local communities, respecting their cultures and their rights over lands, territories, resources, and traditional knowledge, as well as by women and girls, children and youth, and persons with disabilities and ensure the full protection of environmental human rights defenders."

SUSTAINABLE DEVELOPMENT GOALS

- SDG#1 (No poverty): "to end poverty in all its forms everywhere".
- SDG #2 (Zero Hunger): to "end hunger, achieve food security and improve nutrition and promote sustainable agriculture".
- SDG#3 (Good Health and Wellbeing): to "ensure healthy lives and promote well-being for all at all ages".
- SDG#4 (Quality Education): to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all".
- SDG#5 (Gender Equity): to "achieve gender equality and empower all women and girls".
- SDG #6 (Clear water and sanitation): to "ensure access to water and sanitation for all".
- SDG#7 (Affordable and clean energy): to "ensure access to affordable, reliable, sustainable and modern energy for all".
- SDG #8 (Decent work and economic growth): to "promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- SDG #9 (Industry, innovation and infrastructure): to "build resilient infrastructure, promote sustainable industrialization and foster innovation".
- SDG#10 (Reduced inequality): to "reduce inequality within and among countries".
- SDG#11 (Sustainable Cities and Communities): to "make cities inclusive, safe, resilient and sustainable".
- SDG#12 (Responsible Consumption and Production): to "ensure sustainable consumption and production patterns"
- SDG#13 (Climate Action): to "take urgent action to combat climate change and its impacts".
- SDG#14 (Life below Water): to "conserve and sustainably use the oceans, seas and marine resources for sustainable development".
- SDG #15 (Life on land): to "protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss".
- SDG #16 (Peace, justice and strong institutions): to "promote just, peaceful and inclusive societies".
- SDG #17 (Partnership for the goals): to "strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development".

United Nations Framework Convention on Climate Change (UNFCCC): NDCs, NAPs and Paris Agreements

Sendai Framework for Disaster Risk Reduction

United Nations Convention to Combat Desertification (UNCDD): LDNs

National restoration pledges: Bonn Challenge, Initiative 20x20, AFR100

United Nations Convention on the Law of the Sea (UNCLOS)

United Nations Declaration on the Rights of Indigenous Peoples

UNESCO Initiative on Heritage of Religious Interest