

FERI AT 10 YEARS

A DECADE OF
FOREST ECOSYSTEM
RESTORATION



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TABLE OF CONTENTS

Foreword from Secretariat of Convention on Biological Diversity	2
Foreword from Korea Forest Service	3
FERI essentials	4
What FERI is proud of	8
How FERI did it	10
Grounding forest restoration in evidence	10
Delivering capacity development to the regions	13
Building partnerships, communication and advocacy	17
From pilot projects to transformative impact	20
Looking Ahead	24
Annex: Knowledge archive	27
1. CBD documents listed in this publication	27
2. FERI publications and products	27
3. FERI's input to Information documents prepared by partners	27
4. Other Publications that received input from FERI	28



Foreword

SECRETARIAT OF THE CONVENTION ON BIOLOGICAL DIVERSITY

This year the Secretariat of the Convention on Biological Diversity marks the tenth anniversary of the launch of the Forest Ecosystem Restoration Initiative (FERI). Since its inception in 2014 with the generous support of the Korea Forest Service (KFS), FERI has pursued objectives that are crucial to the mandates of the Convention on Biological Diversity as well as other Rio Conventions addressing biodiversity, climate change and land degradation. It has also sought to contribute to the achievement of several Sustainable Development Goals.

Today, FERI is part of the mosaic of actions that support the implementation of the Kunming-Montreal Global Biodiversity Framework (KMGBF) and serve the aims of the United Nations Decade on Ecosystem Restoration (2021-2030).

As the world's masterplan to halt and reverse biodiversity loss, the KMGBF includes bringing 30% of the degraded ecosystems under effective restoration by 2030. FERI has already supported capacity building across the globe in support of accelerated ecosystem restoration.

FERI delivers a prototype of multi-pronged nature-based solutions that address the intertwined environmental degradation crises afflicting our planet. Activities supported by FERI, including those undertaken by indigenous peoples and local communities, demonstrate how forest ecosystem restoration contributes to creating jobs and improving livelihoods while underpinning disaster risk reduction and supporting the provision of essential food and medicine as well as cultural and spiritual fulfilment.

The Initiative has assisted countries in planning, implementing and monitoring forest biodiversity restoration. FERI has also deployed actions in response to decisions adopted by the Conference of Parties (COP) to the Convention on Biological Diversity (CBD), honing decision-support tools, packaging knowledge products, and delivering targeted communication.

We at the Secretariat of the CBD look forward to seeing the next phase of FERI support Parties in the achievement of the goals and targets of the KMGBF, particularly Targets 1, 2, 3, 10, 11, and 22. May FERI continue to drive progress on forest ecosystem restoration for nature and people.

Astrid Schomaker,
*Executive Secretary,
Convention on Biological Diversity (CBD)*



Foreword

KOREA FOREST SERVICE

Today, the Earth and humanity confront complex crises such as biodiversity loss, climate change, pollution, and land degradation. Forests offer a key solution to these challenges. They provide habitats for 80% of terrestrial biodiversity¹, including fauna, flora, and microbial species, and are estimated to store 861 gigatons of carbon². Furthermore, forest bio-resources—such as timber, food, and energy—are crucial for humanity to build a sustainable economy. In this light, the Kunming-Montreal Global Biodiversity Framework adopted at the 15th Conference of the Parties to the Convention on Biological Diversity, underscores the vital role of forests, with a significant number of its targets closely related to forest conservation.

In 2014, during COP12 of the CBD held in Pyeongchang, Republic of Korea, the Korea Forest Service (KFS) proposed the Forest Ecosystem Restoration Initiative (FERI) to support the achievement of Aichi Biodiversity Targets 5, 11, and 15. Over the past decade, FERI has contributed to the development of decision-support tools, forest restoration technologies, knowledge sharing, and capacity building for the rehabilitation of forest ecosystems in numerous countries. These accomplishments have been made possible through the dedicated efforts of the CBD Secretariat.

The year 2023 marked the 50th anniversary of Korea's national reforestation efforts. The restoration of what was once a completely devastated forest ecosystem was achieved through consistent government policies, active public participation, the introduction of technological and institutional innovations, and international assistance. As a result, Korea now enjoys numerous ecological, social, and economic benefits from its rich

forests, which cover more than 60% of the national territory. FERI was developed to share this successful experience and support developing countries, thus reciprocating the assistance Korea received from the international community in the past.

With only five years remaining until 2030, a crucial turning point for humanity's sustainable future, FERI—a leading program in technology and science cooperation for forest restoration—is poised to play an even greater role. I extend my heartfelt congratulations on the publication of the FERI at 10: a decade of forest ecosystem restoration and express my hope that, building on the achievements of the past decade, FERI will further contribute to the restoration, conservation, and sustainable management of global forests.

Lim Sang-seop,
*Minister of the Korea Forest Service
Of the Republic of Korea*

¹ FAO and UNEP. 2020. The State of the World's Forests 2020. Forests, biodiversity and people. Rome.

² UNESCO, WRI, IUCN, 2021. World Heritage forests: Carbon sinks under pressure, Paris, UNESCO; Washington, DC, WRI; Gland, IUCN.

FERI ESSENTIALS



Designed to support countries

At the Conference of Parties (COP) 12 of the Convention on Biological Diversity (CBD) held in the Republic of Korea in 2014, Parties adopted a decision on ecosystem conservation and restoration³ that called for enhanced support and cooperation towards implementing the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, especially in developing countries.

The Forest Ecosystem Restoration Initiative (FERI) was launched as a partnership between the Korea Forest Service (KFS) and the CBD Secretariat. The global Initiative is implemented by the CBD Secretariat which provides a unique opportunity for building necessary partnerships, ensuring a regionally balanced approach and linkages to the key CBD processes.

-
- 3 COP 12 Decision 19: <https://www.cbd.int/doc/decisions/cop-12/cop-12-dec-19-en.pdf>
 - 4 FAO. 2024. The State of the World's Forests 2024 – Forest-sector innovations towards a more sustainable future. Rome. <https://doi.org/10.4060/cd1211en>



Invaluable ecosystems

Forest ecosystems cover 31% of Earth's terrestrial surface and are crucial to global biodiversity. It is estimated that forests provide more than 86 million green jobs for 1.6 billion people, including 60 million among indigenous peoples and local communities. Despite their immense value, forest loss continues with an annual deforestation rate of 10 million hectares.⁴



The COP12 high-level segment meeting adopted the Gangwon declaration, which welcomed FERI



Forest-related Aichi Biodiversity Targets

In 2014, the Global Biodiversity Outlook 4 revealed that nineteen out of twenty Aichi targets were not on track to be realized. The assessment indicated that both forest-related targets Target 5 (Habitat loss halved or reduced) 14 (Ecosystem services) and 15 (Ecosystem restoration and resilience) had elements with no significant progress or moving away from the target.⁵

FERI was designed to assist developing countries in operationalizing national targets and plans for ecosystem conservation and restoration in line with Aichi Biodiversity Targets 5, 14 and 15. To ensure the effective delivery of these tasks, the Initiative is structured around four main pillars: i) producing knowledge products and developing decision support tools; ii) developing capacity through workshops and learning events; iii) providing direct support to countries to support the implementation of the targets; iv) enhancing partnerships, communication and awareness on forest restoration.

Right from the start, FERI hit the ground running. In 2014, the Strategic Plan for Biodiversity 2011-2020, including the Aichi Biodiversity Targets was almost halfway through its implementation.

FERI started by conducting a detailed assessment of the progress towards Aichi Biodiversity Targets 5 and 15, which was validated through the regional workshops. The assessment report⁶, which laid the ground for the FERI's implementation, underscored further actions needed to fill data gaps, establish baseline information, prioritize efforts, and leverage resources. The findings and recommendations of the report were made available to the Parties, which encouraged them to address ecosystem restoration during the negotiation process.

A pivotal point for FERI's work was the adoption of a Short-Term Action Plan on Ecosystem Restoration, known as STAPER, at COP13 in 2016⁷. Acknowledging the lack of progress towards the implementation of Aichi Biodiversity Targets 5 and 15, Parties recognized the urgency to address ecosystem degradation and restoration, calling for the development of national restoration plans when updating the National Biodiversity Strategy and Action Plans (NBSAPs).

Since the adoption of STAPER, FERI has focused on supporting countries to accelerate national commitments to forest landscape restoration. FERI has been building necessary partnerships with research institutions to produce tools, studies, and other knowledge products to help countries overcome bottlenecks in planning restoration activities effectively. By maintaining close interaction with the countries through regular regional workshops and carefully selected pilot projects, FERI ensured that the tools were adapted to the countries' needs and capacities.

Approaching the final phase of the Strategic Plan for Biodiversity and entering a new era of the post-2020 global biodiversity framework, FERI rose to the challenge of adapting to the changing global policy and the request of Parties for the renewal of support programs to assist in the development of the post-2020 global biodiversity targets.

The promulgation of the United Nations Decade on Ecosystem Restoration in 2019 was another significant milestone in FERI's journey. The Decade called for support and scaled-up efforts to prevent, halt, and reverse the degradation of ecosystems worldwide and to raise awareness and strengthen capacities on the importance of successful ecosystem restoration.

With the adoption of the Kunming-Montreal Global Biodiversity Framework (KMGBF) by COP15 in 2022⁸, and its new restoration target of 30% of all degraded ecosystems being under effective restoration by 2030, FERI embarked on a new mission—to assist countries with the implementation of KMGBF Target 2 and other related targets. This also includes strengthening countries' capacities to plan effective restoration for the balanced needs of biodiversity and people,

5 <https://www.cbd.int/gbo4>

6 COP 13 information note 12: <https://www.cbd.int/doc/meetings/cop/cop-13/information/cop-13-inf-12-en.pdf>

7 COP 13 decision 5: <https://www.cbd.int/doc/decisions/cop-13/cop-13-dec-05-en.pdf>

8 COP 15 decision 4: <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>



mainstreaming restoration across sectors, and applying new monitoring indicators in the national reporting.

In this historic moment for biodiversity, FERI has focused on amplifying its impact through partnerships that have a global reach. In 2022, a Massive Online Open Course (MOOC) on ecosystem restoration in the context of the KMGBF organized jointly by CBD Secretariat the United Nations Development Programme (UNDP) with the support of FERI, trained over 16,000 experts from 193 countries. As a part of its global mission, and in partnership with the United Nations (UN) Decade on Ecosystem Restoration, FERI contributes to the development of the KMGBF Target 2 Roadmap. The Target 2 Roadmap will include the Target 2 resource guide, and e-learning courses on ecosystem restoration as well as the organization of regional capacity development events tailored to the needs of CBD Parties.

To deliver on ambitious tasks, FERI relies on long-term partnerships with scientific and technical agencies such as the Society for Ecological Restoration (SER), the Food and Agriculture Organization of the United Nations (FAO), UNDP, the Institute for Capacity Exchange in Environmental Decisions (ICEED), and multistakeholder platforms such as the UN Decade on Ecosystem Restoration, Collaborative Partnership on Forests (CPF), Global Partnership on Forest and Landscape Restoration (GPFLR) and many others.

Based on the principles of whole-of-government and whole-of-society approaches, FERI carefully ensures the engagement of governments, civil society, representatives of indigenous peoples and local communities, gender, youth and academia in all its work.

10 YEARS AT A GLANCE



WHAT FERI IS PROUD OF

Staying true to its approach and based on its four delivery pillars, FERI can proudly share its achievements

Country-tailored activities grounded in COP decisions

Being welcomed by CBD Parties enables FERI to play a unique role in connecting the global biodiversity agenda to the national restoration policy. Lessons learned from FERI have informed the development of the Post-2020 Global Biodiversity Framework, particularly in designing and monitoring national-level restoration targets.

From local restoration actions to global outreach

Throughout its journey, FERI's actions expanded in scope, from focusing on local restoration such as supporting restoration projects in 12 countries, development of 62 national restoration dossiers and training over 700 experts, to global outreach through the MOOC on ecosystem restoration and contributions to the KMGBF Target 2 Roadmap.

Data-based actions

FERI has built the capacity of countries to develop area-specific and time-bound restoration targets through in-depth assessments and a series of regional workshops. A comparative analysis of the 6th and 5th national reports revealed that, in the 6th report, 37% of 71 countries improved the quality of the targets, while an additional 29% included restoration targets for the first time, demonstrating notable progress compared to the 5th report.

Mainstreaming biodiversity in the restoration agenda

The Initiative has raised awareness among national policymakers and international organizations through decision-support tools and platforms, analytical reports, and reference lists for technical and scientific resources on policies developed under the CBD, especially in the context of integrating biodiversity values, including ecosystem-based approaches, natural regeneration, in the forest ecosystem and landscape restoration agenda.

Consolidating partnerships for timely action

After the adoption of KMGBF, FERI assessed the needs of countries regarding Target 2, provided guidance notes unpacking the elements of the target, and facilitated co-learning to support countries in reviewing their national restoration targets, and built a Roadmap for KMGBF Target 2. The basis for the Roadmap is the Resource Guide to Target 2, which offers a detailed look into its key components and intended outcomes and explores and compiles a broad suite of globally relevant resources to support countries as they implement it.





Forest monitoring activities from the project
"Restoration initiatives of degraded humid forests in
the Rainforest of the Atsinanana World Heritage site"

HOW FERI DID IT



Translating internationally agreed targets and pledges into tangible forest ecosystem restoration outcomes is a multifaceted challenge that FERI has sought to meet. During the 2014-2024 decade, this involved considering ecological, socio-economic, political, financial, cultural, and technological factors in rolling out context-relevant activities.

Prior to the adoption of the KMGBF, FERI actively responded to decisions of the Parties to the CBD, supporting the implementation of their ecosystem restoration targets and building the capacity of CBD focal points on forest and ecosystem restoration to achieve commitments under the Aichi Biodiversity Targets 5 and 15.

As part of the provision of technical support and advice to CBD Parties, FERI has generated a collection of products bolstering knowledge and capacity in forest ecosystem restoration around the world.

Grounding forest restoration in evidence

The knowledge products developed in the context of FERI have contributed to advancing the global restoration agenda, notably by bringing biodiversity considerations to the forefront of restoration and reforestation endeavours.

The rigorous collecting of data and associated methodologies allow experts to evaluate progress and recommend corrective action, when required. FERI has built capacity in this field in full alignment with the monitoring framework of the KMGBF⁹. The Initiative's contributions also include equipping countries with robust methodological tools to optimize forest restoration areas and achieve balanced biodiversity, carbon sequestration, and cost-efficiency outcomes.

The development of FERI's knowledge products involved collaboration with the countries and users they intended to serve. Thus, the products were enriched with the best national data on biodiversity and ecosystems, making the tools relevant and practical for implementation in the field:

The “Updated Assessment of Progress towards Aichi Biodiversity Targets 5 and 15”¹⁰ (2016)

The assessment was accompanied by 62 country dossiers¹¹. This report provided an assessment of the national ecosystem restoration targets and actions submitted by the Parties in their NBSAPs and national reports to CBD. The assessment revealed gaps in national targets that hinder implementation. The country dossiers, which accompanied the publication, provided tailored information highlighting areas for improving national restoration targets, implementation, and reporting.

The Companion to Short-Term Action Plan on Ecosystem Restoration (STAPER)¹² (2019)

COP 13 decision 5 called for countries to create short-term action plans for ecosystem restoration. In response to the decision, FERI partnered with the Society for Ecological Restoration (SER) to produce the Companion to STAPER listing relevant resources and synthesizing scientific and practical information, thus supporting Parties in the implementation of the decision.

“Partnering with Nature: the case for natural regeneration in forest and landscape restoration” policy brief (2016)¹³

Considering that one of the key constraints to upscaling forest restoration is the associated implementation costs, the policy brief, produced in collaboration with

9 COP 15 decision 5: <https://www.cbd.int/doc/decisions/cop-13/cop-13-dec-05-en.pdf>

10 COP 13 information note 12: <https://www.cbd.int/doc/meetings/cop/cop-13/information/cop-13-inf-12-en.pdf>

11 Updated Assessment of Progress towards Aichi Biodiversity Targets 5 and 15: <https://chm.cbd.int/database?keywords=country%20dossier>

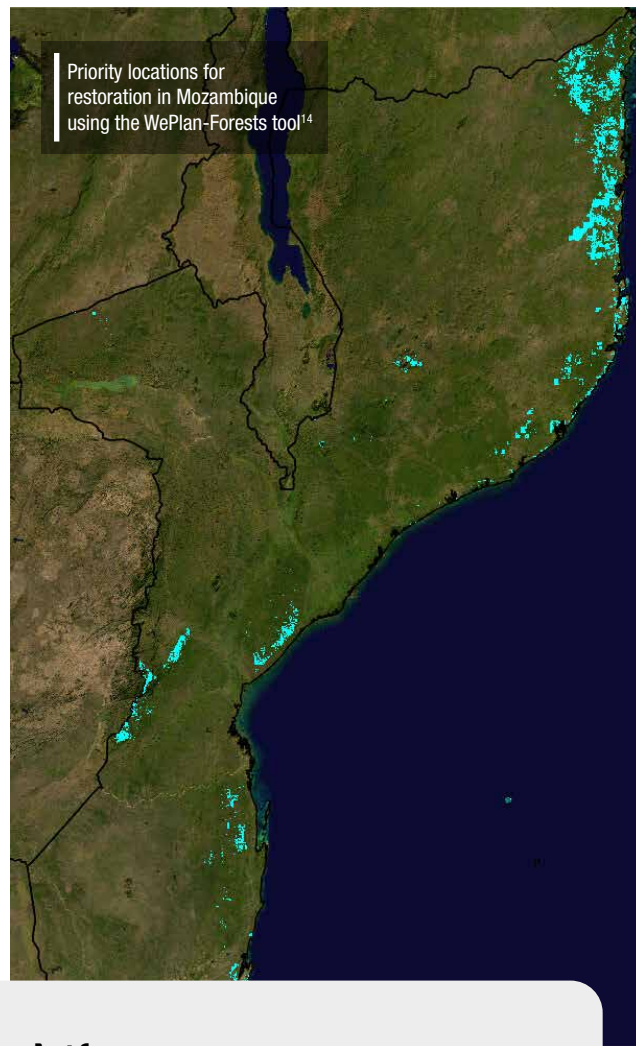
12 Companion to the STAPER: https://cdn.ymaws.com/www.ser.org/resource/resmgr/custompages/publications/ser_publications/staper_companion.pdf

13 Partnering with nature (policy brief): <https://www.cbd-feri.org/natural-regeneration>

SER, highlighted the economic and ecological advantages of employing assisted natural regeneration. The brief also recommended prioritizing natural regeneration in the most suitable areas to optimize resources, reserving resource-intensive interventions for areas where they are critically needed to restore forest cover and support local livelihoods.

The “WePlan-Forests” platform

The platform is part of a suite of decision-support tools supporting national target setting and ecosystem restoration planning, developed by ICEED. These tools also disseminate the best available scientific knowledge. The “WePlan-Forests” platform¹⁵ allows countries to evaluate a wide range of restoration scenarios and targets. The platform generates estimates of the climate mitigation and biodiversity benefits arising from forest restoration. The results have provided insights to decision-makers in 38 countries. The scope covers natural regeneration potential and carbon sequestration, as well as extinction risk reduction. One of the key contributions of this platform is that it enables the assessment of the amount of area to be restored while significantly increasing the climate mitigation and biodiversity outcomes and reducing implementation costs.



Hear it from the experts



Marina Schmoeler
Project Manager - ICEED

WePlan-Forests platform

How can the WePlan-Forests platform be helpful for countries in meeting the GBF targets?

“The WePlan-Forests platform provides scenarios that explore how forest restoration, a GBF target, can provide benefits for two other targets: reducing biodiversity’s risk of extinction and sequestering carbon. The platform offers multiple options to where a country could focus restoration to obtain different results for those targets, at different costs. Hence, it can help potentialize the benefit-per-cost relation when countries invest in restoration.”

What is needed to unlock the potential of natural regeneration for achieving global biodiversity targets?

“The potential of natural regeneration needs to be included in planning for achieving targets such as biodiversity conservation, due to its potential of reducing costs and improving results. WePlan-Forests helps by including a model of the potential for natural regeneration as a cost reduction factor in its estimates, tending to select areas with the highest potential for natural regeneration as the most cost-effective options for restoration.”

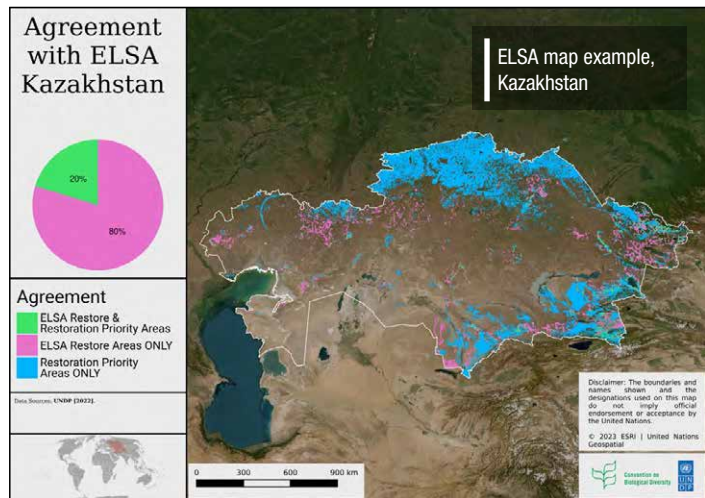
14 https://www.weplan-forests.org/reports/weplan_forests_restoration_planning_MOZ_v002.pdf

15 WePlan-forests platform: <https://www.weplan-forests.org>



The Restoring Hope project¹⁶

was conducted by UNDP, with FERI support, to assist countries in target setting and in testing a methodology for modelling priority areas for restoration using the UN Biodiversity Lab (UNBL) tool¹⁷. The project was instrumental in the optimization of national restoration priorities, providing key geospatial and policy-relevant information on ecosystem restoration and land degradation neutrality. The deliverables include a synthesis of restoration approaches, five national restoration dossiers, and national consultation processes that were organized between 2023 and 2024 to validate the findings. For each dossier, a map with priority areas for restoration was produced using the Essential Life Support Area (ELSA) methodology that, in turn, contributed to strengthening biodiversity-inclusive spatial planning.



By fostering collaborations and providing tailored technical support, FERI continues to drive progress in ecosystem restoration, helping countries transform international targets into tangible, impactful actions.

Hear it from the experts



Talgat Taukenov

National expert on environmental monitoring, Biodiversity Projects, UNDP

The restoring hope project and the Essential Life Support Areas (ELSA) methodology

How can ELSA be helpful for countries in meeting the GBF targets?

“Kazakhstan has enormous biodiversity, with many different ecosystems and species in need of conservation. To assess the status of biodiversity and decide on priority areas for action, it is important to have a reasoned, spatially based approach based on the best available scientific achievements. ELSA can help Kazakhstan achieve GBF goals by providing access to cutting-edge global data and building the capacity of government agencies, research institutes, and universities. The results of the ELSA project are important for conducting a comparative analysis of these goals with the goals of the KM-GBF to assess their consistency and identify possible gaps in legislation.”

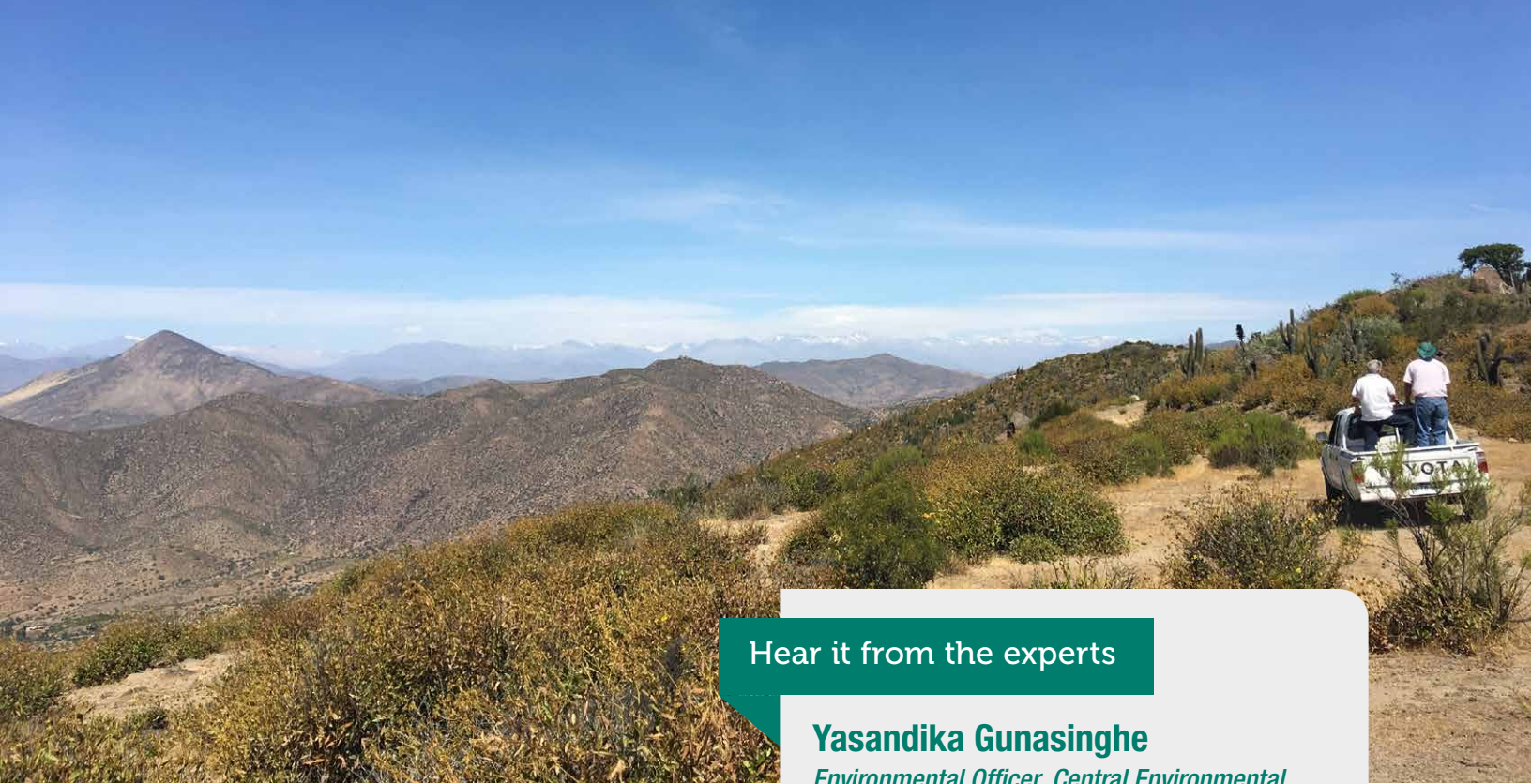
What is needed to unlock the full potential of spatial planning for biodiversity conservation?

“To unlock the full potential of spatial planning for the conservation of biodiversity in Kazakhstan, it is necessary to:

- Implement large-scale projects to identify areas that are particularly important for conserving critical biodiversity habitats and providing people with essential ecosystem services, such as carbon storage, food and freshwater provision, and disaster risk reduction.
- Develop a unified methodology for mapping ecosystems, landscapes, and their components, as well as ecosystem services, which serves as a scientific basis
- Spatial planning for biodiversity conservation.
- Involve more stakeholders in spatial planning for biodiversity conservation, highlighting priority areas and using expert opinion to determine mapping criteria”.

¹⁶ <https://www.learningfornature.org/en/restoring-hope-optimizing-and-aligning-restoration-goals-using-spatial-data/> Restoring hope project: <https://www.learningfornature.org/en/restoring-hope-optimizing-and-aligning-restoration-goals-using-spatial-data/>

¹⁷ UNBL platform: <https://unbiodiversitylab.org/>



Hear it from the experts

Yasandika Gunasinghe

Environmental Officer, Central Environmental Authority, Sri Lanka

“As I’m working in the field of environmental management and conservation, I have often witnessed the failures in attempts taken to ecosystem restoration-related works, which often ended up as just tree planting programs. This Massive Open Online Course showed me an in-depth review of how such efforts shall be designed and implemented. I love the structure and the flow of the course work, and the discussion platform. I think I would be able to apply things I learned from the course to give my opinions and contributions to future ecosystem restoration initiatives. I recommend this course to anyone who is interested in this area. Thank You all for the given opportunity.”

Testimonial from a MOOC participant

Delivering capacity development to the regions

Assisting countries in capacity development has been a key pillar of FERI’s implementation. The initiative has organized a series of workshops and training events targeting global, regional, sub-regional, and national audiences to support countries in meeting their ecosystem restoration targets.

Under the Strategic Plan for Biodiversity (2011–2020), FERI organized six workshops covering countries in Africa, Asia, and Latin America. The workshops facilitated knowledge exchange between the Parties, along with technical and scientific assistance in reviewing and updating the national targets for the convention.

Building on the outcomes of the workshops, the participating countries updated their ecosystem restoration targets. A comparative analysis of the 5th and 6th national reports submitted to the CBD revealed that participation in FERI workshops were associated with significant improvements in the “SMART¹⁸-ness” of these targets. By the time of the 6th national report, 37% of 71 countries examined had revised their restoration targets to meet SMART criteria, while an additional 29% included restoration targets for the

first time, showing notable progress compared to their 5th national reports.

Partner organizations played a crucial role in supporting the FERI workshops, providing necessary contextualization, supporting regional restoration initiatives, and ensuring restoration efforts are aligned with global targets.

FERI also supported the organization of a thematic workshop on Ecosystem Restoration (November 2019) in collaboration with the co-chairs of the Open-ended

18 SMART: specific, measurable, achievable, relevant and time-bound



1



2



3



4



5



6



7

Workshops engaged 705 people in total

FERI events enabled participation and engagement of indigenous peoples and local communities

FERI organized Side events at major forest related meetings including CBD COPs, and UNFF sessions

WORKSHOPS

1. Mediterranean and other countries, Agadir, Morocco (2017), involving 11 countries
2. West Africa sub-region, Accra, Ghana (2015), involving 15 countries
3. Caribbean Workshop (2020)
4. Latin America region, Bogota, Colombia (2016), involving 19 countries
5. Central, Eastern and Southern Africa, Durban, South Africa (2017), involving 24 countries
6. Subregions of Asia, Bangkok, Thailand (2016), involving 18 countries
7. Pacific Sub-region, Nadi, Fiji (2019), involving 8 countries

Hear it from the experts



Satrio Wicaksono
*International Union for
Conservation of Nature (IUCN)
Senior Programme Officer,
Forests*

Regional Capacity Development Workshops

“Knowledge-sharing events like the Forest Ecosystem Restoration Initiative (FERI) workshop are invaluable for Asia-Pacific countries striving to meet restoration and overall Kunming Montreal - Global Biodiversity Framework targets. The Bangkok workshop facilitated access to a wealth of resources, tools, and expertise, empowering countries to develop and implement effective restoration strategies tailored to their unique contexts. For example, the workshop introduced participants to the Restoration Opportunities Assessment Methodology (ROAM), a powerful tool developed by IUCN and World Resources Institute (WRI) to identify and prioritize areas for restoration. Additionally, the workshop showcased successful regional initiatives like Mangroves for the Future, demonstrating the effectiveness of community-based approaches in restoring critical ecosystems.”

“To enhance the impact of future capacity development programs in the region, a more targeted and context-specific approach is recommended. This could involve tailoring training modules to address the specific needs and priorities of individual countries as well as integrating hands-on, field-based learning opportunities and mentorship programs for practitioners and decision-makers. Linking FERI to Sustainable Development Goals (SDGs) and climate change mitigation can further amplify its impact, contributing to global efforts to combat climate change, enhance biodiversity, and promote sustainable development. IUCN's expertise in developing science-based tools, implementing successful restoration projects, and convening stakeholders through regional partnerships can be instrumental in guiding these efforts.”

Working Group on the Post-2020 Global Biodiversity Framework. The workshop convened key national government representatives and ecosystem restoration experts to facilitate a dialogue based on scientific inputs and practical experiences. The workshop outcomes were compiled in a report¹⁹ along with suggestions regarding potential goals, targets and indicators, as well as propositions for monitoring and reporting on ecosystem restoration.

Prior to COP15, FERI partnered with UNDP to conduct e-learning modules and a MOOC on ecosystem restoration. The MOOC was rolled out in October 2022 and received significant attention from the public, attracting 16,849 participants from 193 countries. The MOOC equipped participants with knowledge and skills that are essential to selecting the most context-appropriate interventions from a range of restoration practices. The course also developed a step-by-step action plan for ecosystem restoration, making restoration techniques, planning and implementation accessible to a global audience. The evaluation of the course showed

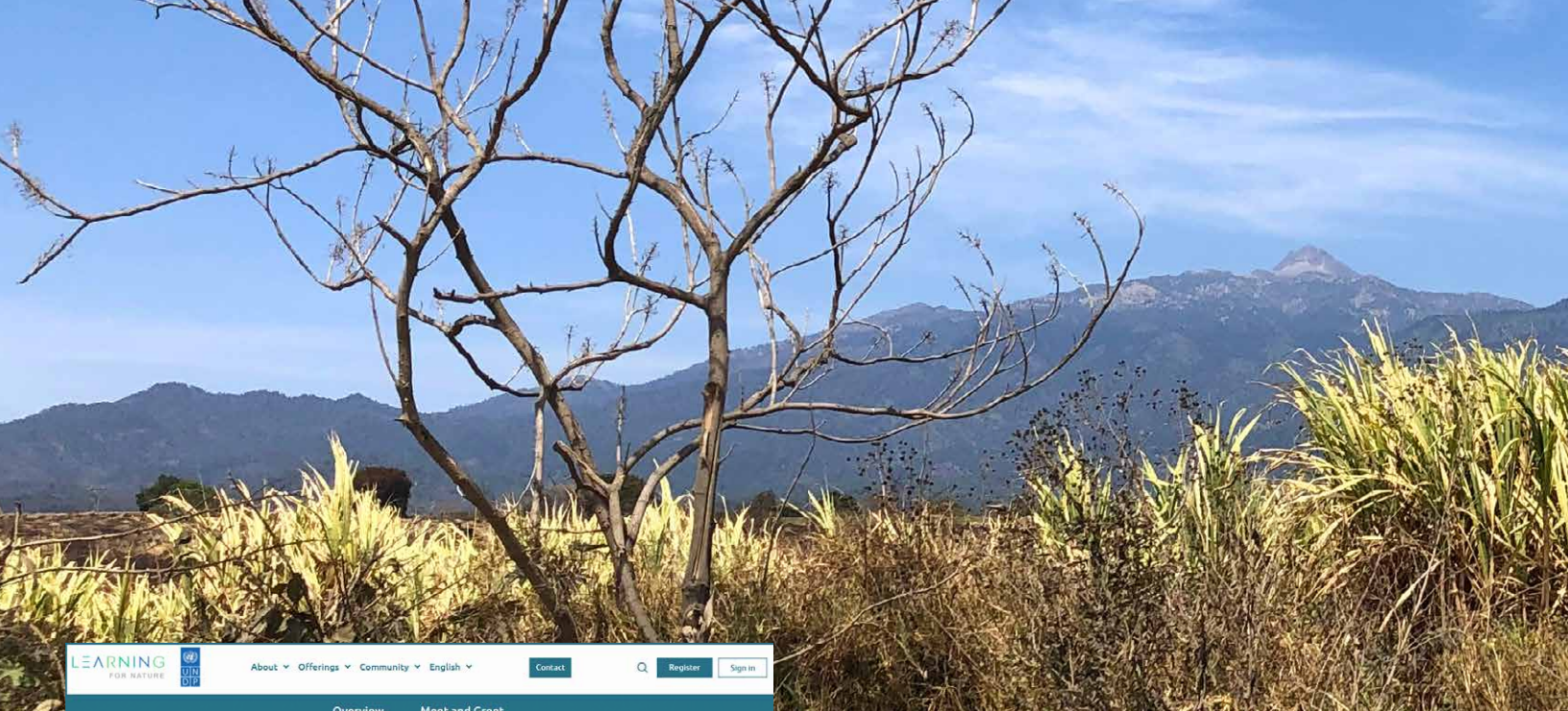
Hear it from the experts

Vonklauss Siwat
*Papua New Guinea University of Natural
Resources and Environment*

“I work for the Papua New Guinea University of Natural Resources and Environment. As the name of the university implies, our primary focus is on the conservation and sustainable utilization of our natural resources. Thus, I find the online course highly relevant not just for me but our university going forward. I am planning to immediately apply the skills and knowledge gained in this course into the undergraduate courses I deliver at our university for the benefit of our students. I am looking forward, and will be very happy, to join any course of similar nature in the near future.”

Testimonial from a MOOC participant

19 Post-2020 KMGBF target 2 Workshop report: <https://www.cbd.int/doc/c/5e65/4f18/cd311153ecfe4cba51a5d92f/post2020-ws-2019-11-05-en.docx>



MOOC landing page²¹

Hear it from the experts

Mario Campos Ugalde
*Environmental Administrative Tribunal-MINAE,
 Costa Rica*

“This course has novel information with clear approaches to ecosystem restoration, from the technical part to the political and legal segment to achieve success. Multiple examples from different countries around the world show that restoration can be a reality for the common good. Undoubtedly, a course worth taking.”

Testimonial from a MOOC participant

that 46.5% of the participants who completed the course improved their ability to influence policy in their job, demonstrating the impact of the course on actors across the globe.²⁰

Following the adoption of the KMGBF and Target 2 in December 2022, FERI joined forces with FAO to organize a workshop titled “Developing a Roadmap for the KMGBF Target 2”. The workshop focused on planning, implementing and monitoring Target 2, and sharing country experiences, tools and initiatives with 102 participants, including representatives from national governments, research and international organizations, and indigenous peoples and local communities. The participants representing different ecosystems discussed aspects for the monitoring indicators on ecosystem restoration, and shared knowledge for the future resource guide to Target 2.

FERI’s comprehensive capacity development workshops and events have significantly strengthened the technical expertise and strategic planning capabilities of national partners in several regions around the world. By pursuing its investment in capacity development, FERI can ensure that countries are well-equipped to contribute to the global effort to reverse ecosystem degradation and promote biodiversity conservation.

20 Ecosystem Restoration Massive Open Online Course Report (2022): https://www.learningfornature.org/wp-content/uploads/2020/07/Ecosystem_Restoration_MOOC_2022_Final_Report.pdf

21 <https://www.cbd.int/article/join-free-mooc-ecosystem-restoration-20September2022>



Building partnerships, communication and advocacy

FERI has served as an instrument to underpin the implementation of the CBD, disseminating knowledge and technical expertise on biodiversity considerations through the angle of forest ecosystem restoration. To achieve its aims, FERI has sought to leverage partnerships and to deploy a consistent narrative on the importance of forest conservation, restoration, and sustainable forest management.

Over the years, FERI has built strong partnerships and collaborations with key organizations in the forest restoration implementation, research and policy making. Including collaborations with FAO (in particular with the Forest Landscape Restoration Mechanism), UNEP, UNDP, SER, IUCN, ICEED, the International Institute for Sustainability (IIS), the International Tropical Timber Organization (ITTO) as well as many national and regional organizations.

Through regional capacity-building workshops, FERI has fostered collaborative networks to develop knowledge products and assist countries in designing national restoration plans. These networks continue to be crucial to the promotion of best practices and the enhancement of coordination.



Leveraging cooperation

The CBD COP decision 14/30 emphasized the importance of cooperation with other conventions and international organizations, requesting the Executive Secretary to work with diverse stakeholders. Effective collaborations are essential for successful ecosystem restoration, as they help leverage resources, share expertise, and align efforts towards common objectives.²²

National partners in implementing the pilot projects.

FERI has established successful partnerships for implementing projects on the ground including: Alexander Von Humboldt Institute in Colombia, Ugyen Wangchuck Institute for Conservation and Environment (UWICE) in Bhutan, Saint Joseph University in Beirut, Ministry of Housing, Spatial Planning and Environment of Uruguay, National Commission for Forests (CONAF) of Chile, Kenyan NGO Plants for Life International, Madagascar National Parks (MNP), the Peruvian Centro de Conservación, Investigación y Manejo de Areas Naturales (CIMA), the Permanent Interstate Committee for Drought Control in the Sahel (CILSS), the ITTO, Reforestamos México, and the General Directorate of Administration for Nature Conservation and Protection of the Ministry of Environment of Cambodia.

²² <https://www.cbd.int/doc/decisions/cop-14/cop-14-dec-30-en.pdf>



1

Other Events

- 1. 2019, Post-2020 Workshop
- 2. 2024, COP15 FERI side event
- 3. 2023, SBSTTA 25 side event
- 4. 2023, Target 2 Roadmap WS
- 5. 2023, UNFF – CBD side event



2



3



4

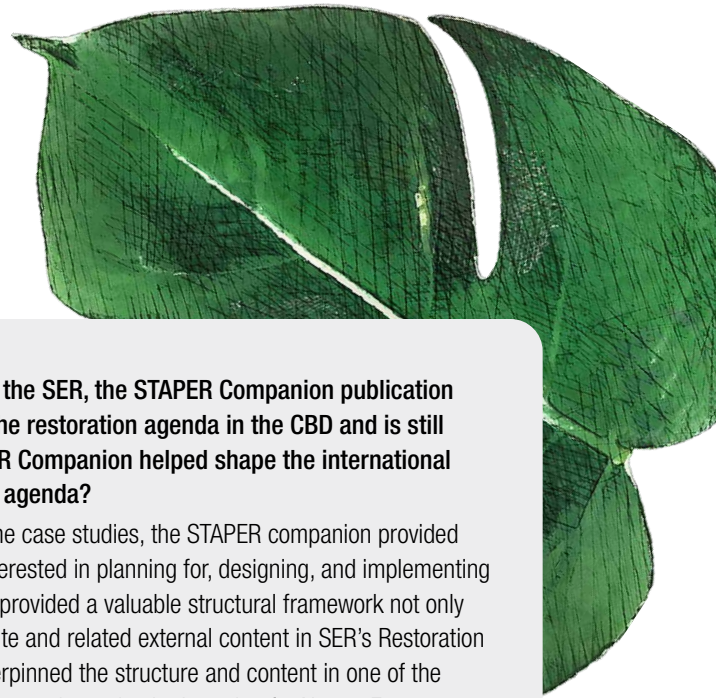


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Partnerships and collaborations have facilitated the production of knowledge products (see Annex), the execution of pilot projects, and capacity development. Remarkably, these FERI-led activities were also instrumental in advocating for the adoption of the ecosystem approach and the integration of key biodiversity considerations into the international ecosystem restoration agenda.

The FERI website²³ serves as a primary platform for the dissemination of information and maintaining communication with the collaborative networks established through FERI's activities. It is regularly updated with details on the events and activities, while also functioning as a repository for tools and knowledge resources produced by the initiative and its partners.

FERI held side events at key CBD meetings, including COPs and its subsidiary bodies meetings. It also participated in sessions of the United Nations Forum on Forest (UNFF), SER world conferences, and the Global Landscape Forum, among other prominent international gatherings. FERI leveraged the visibility conferred by these events to disseminate the Initiative's outputs and to advocate for accelerated forest ecosystem restoration.



Hear it from the experts



Bethanie Walder
*Executive Director of Society
for Ecological Restoration*

Developed in partnership with the SER, the STAPER Companion publication represents a cornerstone for the restoration agenda in the CBD and is still products. How has the STAPER Companion helped shape the international discussions on the restoration agenda?

From the terminology helper to the case studies, the STAPER companion provided practical guidance for entities interested in planning for, designing, and implementing restoration. The Companion also provided a valuable structural framework not only for the content on the FERI website and related external content in SER's Restoration Resource Center, but it also underpinned the structure and content in one of the most significant global discussions on the topic: the Learning for Nature Ecosystem Restoration online course which hosted more than 16,000 students. Its messages and content are also reiterated and referenced in the most relevant global guidance for ecological and ecosystem restoration (e.g. the SER and the UN Decade Standards of Practice).

Why do we need strong partnerships to implement the KM-GBF target 2?

At the local level, restoration starts in partnership with communities through meaningful and empowering stakeholder engagement. At the national, regional, and global level, building and maintaining strong partnerships between and among NGOs, government, industry, academia, and others, enhances and expands restoration capacity, and by extension, restoration effectiveness and impact. But perhaps the most important partnership is between people and nature. As we create the societal and ecological conditions needed for ecosystems to return to the dynamic trajectory they were on before they were degraded, the human act of restoration re-establishes the relationship between people and nature, catalyzing transformative societal change.

23 <https://www.cbd-feri.org>



From pilot projects to transformative impact

Over the past decade, FERI has provided co-funding and technical support to pilot restoration activities in developing countries. Responding to requests emanating from CBD COP 12²⁴, FERI provided implementation support to Parties with a view to achieving the Convention's forest-related targets.

Twelve projects were carefully selected through an open call for proposals submitted or validated by national governments. The projects were aligned with national commitments, biodiversity objectives, and had to support broad stakeholder consultation and engagement of indigenous peoples and local communities, gender and youth.

The pilot projects covered a wide array of tropical, sub-tropical and dryland forest ecosystems, tested innovative restoration techniques, and compiled and disseminated lessons learned ready to be used in similar restoration contexts across the globe. They continue to offer catalytic, replicable or scalable solutions, often within the context of larger co-funded projects.

Hear it from the experts



Prof. Magda Bou Dagher Kharrat

Principal Scientist, European Forest Institute, Saint Joseph University

“We applied scat DNA metabarcoding to analyze the seasonal plant diet of mammals in a biodiverse Lebanese forest. Identifying 18 vertebrate and 133 plant species from 54 families, the findings support the principle of restoration ecology: planting diverse native species promotes rich wildlife. Key species like Rosaceae and Fagaceae trees should be used in reforestation to attract wildlife and preserve biodiversity. The study highlights the importance of seed dispersers in habitat regeneration and recommends their inclusion in ecological restoration plans.”

“FERI funding was unique because it provided us with the flexibility to address a scientific question identified during our forest restoration fieldwork. Unlike rigid, top-down funding calls, FERI allowed us to customize our research to meet specific needs. Specifically, it enabled us to incorporate high-tech DNA metabarcoding techniques to identify seed dispersers and understand their roles within the food web and the community, ensuring the sustainability of the forest. This level of flexibility is not typically offered by other funding programs.”

²⁴ COP 12 Decision 19 <https://www.cbd.int/doc/decisions/cop-12/cop-12-dec-19-en.pdf> and COP 12 Decision 6 <https://www.cbd.int/doc/decisions/cop-12/cop-12-dec-06-en.pdf>



On-the-ground activities addressed different stages of restoration practice identified in the STAPER, particularly the initial steps of restoration planning with a focus on the full and effective participation of indigenous peoples and local communities.

Integrating biodiversity values in restoration activities was a common requirement for all pilot projects. This involved, among other solutions, testing online tools for species selection, using deoxyribonucleic acid (DNA)

samples to understand plant-wildlife interactions, applying participatory monitoring approaches, and using climate models to select and prioritize restoration sites.

In 2020, FERI published a booklet sharing lessons learned from each project. The case studies demonstrate what small-scale funding can achieve on the ground in diverse ecological and political contexts with adequate partners conducting research or undertaking related ecosystem restoration practices.

Hear it from the experts



Liliane Parany
*Program Coordinator;
Madagascar National Parks*

“The project supported by FERI achieved key results, including capacity building and fostering community ownership of restoration efforts among local communities. It also supported corrective measures to remove the ‘Atsinanana Rainforests’ from the list of World Heritage in Danger, and produced a rainforest restoration guide for managers of protected areas with similar ecosystems. Additionally, it inspired the creation of a restoration guide for dry forests.”

“FERI funding was unique in advancing biodiversity considerations in forest restoration actions, focusing on three National Parks in Madagascar with a high rate of biodiversity endemism. The project was implemented at a World Heritage site ‘in danger,’ where restoring degraded plots was a critical corrective measure. Restoration efforts in these national parks had to consider both forest restoration techniques and monitoring the health of biodiversity.”

Overview of FERI pilot projects and related innovative aspects



Mexico

PROJECT: Conservation of key species and restoration of ecosystems in the Nevado de Colima Manantlán El Corcovado corridor through social participation

NOVEL ASPECT OR APPROACH: Implemented a productive restoration model, incorporating ecological practices in agricultural sites.



Guatemala

PROJECT: Development of a forest landscape restoration programme for Guatemala based on ITTO guidelines

NOVEL ASPECT OR APPROACH: Supported a national course on landscape restoration.



Peru

PROJECT: Scalable strategies for landscape ecological restoration: models in a buffer zone of the Cordillera Azul National Park

NOVEL ASPECT OR APPROACH: Monitored wildlife species in the restoration plots using participatory monitoring and camera traps.



Colombia

PROJECT: Establishment of pilot restoration plots in the biodiversity compensation area of a hydroelectric power plant

NOVEL ASPECT OR APPROACH: Tested a web-based tool for species selection in forest restoration.



Chile

PROJECT: Designing a model of socio-environmental investment for restoration of degraded land in semi-arid zone

NOVEL ASPECT OR APPROACH: Tested a web-based tool for species selection in forest restoration.



Uruguay

PROJECT: Restoration of the riparian vegetation of Paso Severino's reservoir

NOVEL ASPECT OR APPROACH: Conducted a nutrient retention capacity study in the restoration sites.



Lebanon

PROJECT: Identification of biodiversity-related success factors for ecological restoration

NOVEL ASPECT OR APPROACH: Used DNA barcoding to understand plant-animal interactions, to inform species selection for restoration sites.



Bhutan

PROJECT: Restoration of Himalayan old growth oak forests through science-society interactions

NOVEL ASPECT OR APPROACH: Utilized long term climatic factors in the restoration planning phase, to better protect old growth oak forests.



Kenya

PROJECT: Ecological restoration in the sub-afromontane region of Kenya

NOVEL ASPECT OR APPROACH: Tested a model of eradication of invasive species.



Niger and Burkina Faso

PROJECT: Integrated assessment of the multiple benefits of biodiversity resulting from forest and land restoration in the Sahel region

NOVEL ASPECT OR APPROACH: Utilized planting pits and stone bunds to optimize water use.



Madagascar

PROJECT: Restoration initiatives of degraded humid forests in the Rainforest of the Atsinanana World Heritage site

NOVEL ASPECT OR APPROACH: Piloted natural regeneration interventions in a national park.



Cambodia

PROJECT: Restoration of ecosystem services in Phnom Kulen National Park

NOVEL ASPECT OR APPROACH: Assessed drivers of degradation in the national park.

LOOKING AHEAD

With the adoption of the KMGBF, FERI has embraced a new ambition: to underpin the delivery of the world's masterplan to halt and reverse biodiversity loss. In deploying this new phase, FERI will build on a decade of working with national institutions and partners.

FERI's scope—supporting forest restoration—has gradually broadened to encompass forest landscape restoration in the context of a wider environmental and socio-economic approach. Being a powerful nature-based solution, forest restoration is now a part of large-scale tree-planting campaigns and biodiversity-credits schemes. The importance of conserving and restoring forest biodiversity is increasing as we continue losing forests and especially natural and old-growth forests. Highlighting the critical role of forest biodiversity in building resilient landscapes and society should be a cornerstone of FERI implementation.

FERI's ambition has been to generate benefits that permeate the KMGBF as a whole, well beyond Target 2. Today, the initiative is well suited to link restoration with other forest-related targets of the KMGBF, namely spatial planning (Target 1), conserved and protected forest areas (Target 3), halting species extinction (Target 4), sustainable wildlife management (Targets 5 and 9), controlling invasive species (Target 6), and sustainable forest management (Target 10) among many others.

FERI will continue to provide support to countries in implementing the KMGBF targets in alignment with the CBD's revised programme of work on forest biodiversity as well as KMGBF monitoring and capacity-building frameworks, in addition to fostering co-learning and knowledge sharing, to support efficient, effective, and data-driven actions. Working closely with Parties, FERI will align with the CBD Strategy for Technical Capacity Development and the recently announced²⁵ regional and subregional technical and scientific cooperation support centres.

Collaborative multi-stakeholder networks are essential in supporting ecosystem restoration. In the lead-up to 2030, FERI will reinforce its partnership with the UN Decade on Ecosystem Restoration and other relevant global and regional networks. This will offer opportunities to amplify FERI's impact by leveraging additional partners and funding.

FERI's story so far serves to highlight the importance of building solid foundations with collaborative engagement, and FERI will continue to utilize this approach to support KMGBF implementation. As the international environmental community faces new and critical turning points for biodiversity, FERI embodies the belief that these turning points should be addressed collectively, and it will continue to build a united front for the restoration of our planet's ecosystems.



25 <https://www.cbd.int/article/sbi4-regional-centres-implementation-2024>





KNOWLEDGE ARCHIVE



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