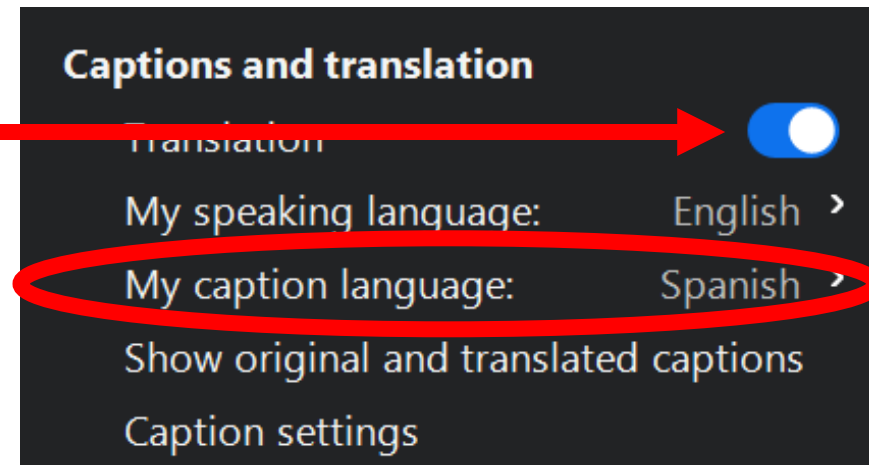
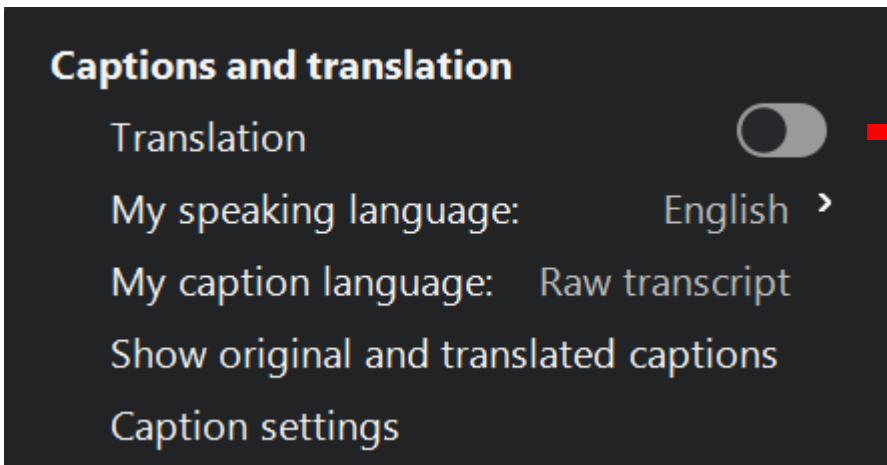


Turning on Live Translations



IUCN and the UN Decade Ecosystem Restoration Hub: Success Stories and Guidance

Asia and Oceania



UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030



Webinar Agenda

1. **The UN Decade Ecosystem Restoration Hub Explained**
2. **IUCN Contribution to Ecosystem Restoration – Focus on Asia and Oceania**
3. **Project Example: Increasing Coastal Resilience in the Mekong Delta**
4. **Project Example: Tiger Recovery in Thailand**
5. **Project Example: Climate-smart Opportunities through Restoration and Education**
6. **Project Example: KIWA Initiative**
7. **Audience Q&A**

Speakers



Dindo Campilan
Regional Hub Director, Asia
and Oceania, IUCN



Thanh Phong Nguyen
Mekong Delta Programme
Manager, IUCN Vietnam
Country Programme



Phattareeya Suanrattanachai
Manager, IUCN Thailand
Country Programme



Dinithi Samarathunga
Senior Officer, Water, Wetland &
Nature Based Solutions, IUCN
Sri Lanka Programme



Martin Child
Project Coordinator, Kiwa Initiative
Local Component A, IUCN Oceania



Katherine Poe
Programme Officer, IUCN
Forest and Grasslands



Audrey Platt
Programme Associate, IUCN
Forest and Grasslands

UN Decade on Ecosystem Restoration

- The [UN Decade on Ecosystem Restoration \(2021-2030\)](#) is a rallying call for the protection and revival of ecosystems all around the world, for the benefit of people and nature. It aims to halt the degradation of ecosystems and restore them to achieve global goals.
- IUCN is a **Global Partner** of the UN Decade on Ecosystem Restoration, contributing through Secretariat, Member, and Commission work.
- Aligned with **Kunming-Montreal Global Biodiversity Framework (GBF) Target 2**: Restore 30% of all Degraded Ecosystems by 2030.



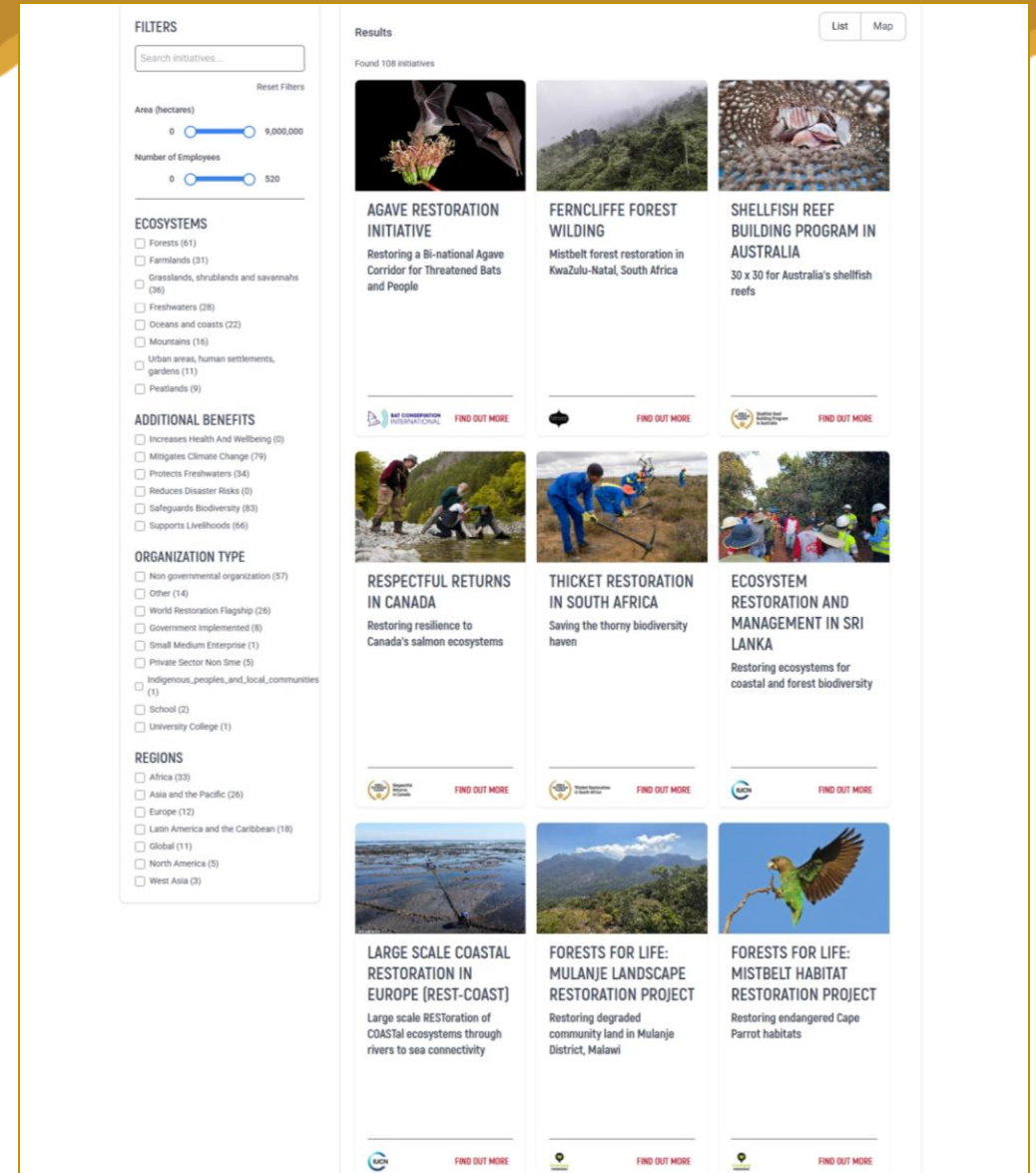
Why the UN Decade Matters

- Up to **40%** of the world's land is degraded, affecting **3 billion** people.
- There is an **urgent need to revive damaged ecosystems** for the sake of people, biodiversity, climate, and economies.
- Government, civil society, the private sector, local communities, and diverse stakeholders must be involved in solutions.
- Many challenges remain—but considerable progress has been made halfway through the Decade.



UN Decade Ecosystem Restoration Hub

- The [UN Decade Ecosystem Restoration Hub](#) is a digital platform that enables restoration implementers to showcase their contributions to the UN Decade on Ecosystem Restoration.
- The Hub enables restoration practitioners and stakeholders to connect with one another, find initiatives to support or volunteer with, register ecosystem restoration projects, and share knowledge and best practices.
- IUCN is a [Referring Partner](#).



UN Decade Ecosystem Restoration Hub

**COUNTRIES HAVE ALREADY COMMITTED TO RESTORING AT LEAST
1 BILLION HECTARES OF DEGRADED LAND AND COASTS BY 2030**

It is time to move from promising action to acting on promises. The Ecosystem Restoration Hub is the space to convert online enthusiasm to action on the ground. Initiatives linked to the UN Decade on Ecosystem Restoration report (self-reported data*):

33,311,463*



HECTARES UNDER RESTORATION

1,173,387



PEOPLE RESTORING

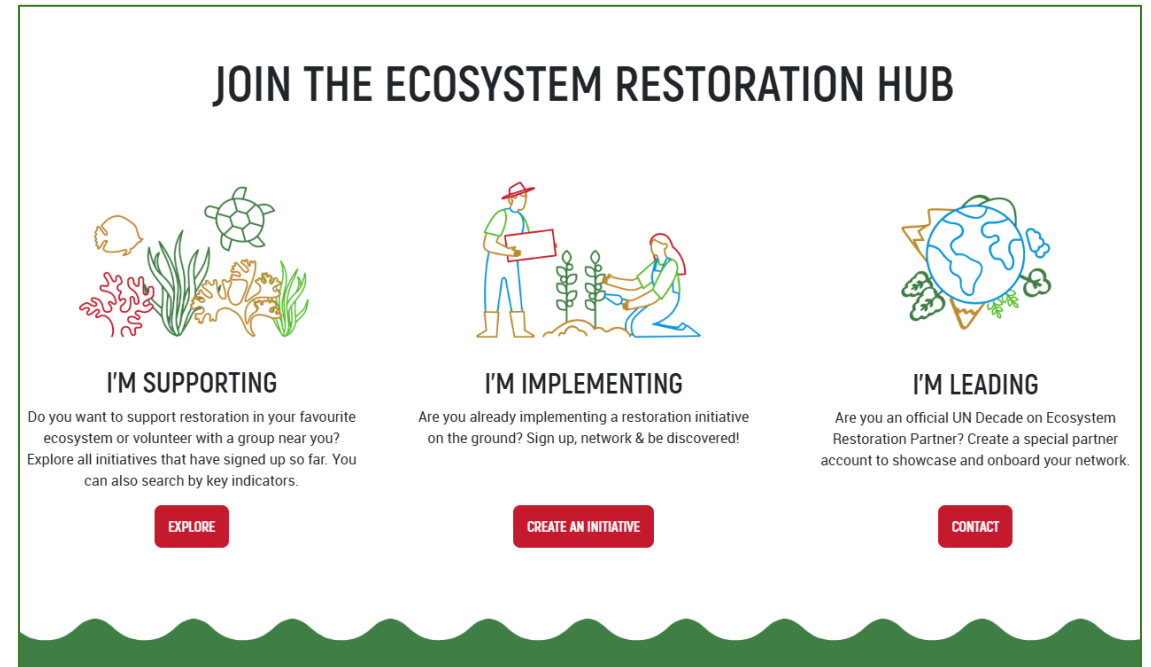
108



INITIATIVES

Uploading Your Initiative to the Hub

- All constituents of the Union—**IUCN Members, Secretariat, Commissions, and partners**—can upload restoration initiatives to the Ecosystem Restoration Hub.
- Share your work while connecting with others.
- Show how you're contributing to the UN Decade, gaining wider **recognition and support** for your work.



Example Initiative

- When uploading your initiative, **you'll share:**
 - Your mission;
 - Donor and partner info;
 - The geographic and ecosystem scope;
 - Area under restoration;
 - Environmental and socioeconomic benefits;
 - Fundraising goals;
 - Plus contact information!

Create Initiative My Dashboard Log out

ECOSYSTEM RESTORATION HUB

UN Environment Programme Food and Agriculture Organization of the United Nations

EN

Back to Initiative

INCREASING COASTAL RESILIENCE IN THE MEKONG DELTA THROUGH HYBRID NATURE-BASED SOLUTIONS

INNOVATIVELY RESTORING MANGROVES AT SCALE

OUR MISSION

The coastal communes of Bac Lieu and Soc Trang are home to about 250,000 people, of which 20% or about 10,000 households are involved in shrimp farming. This project is expanding the area of mangroves inside the sea dike in coastal communities in Soc Trang and Bac Lieu by testing and then scaling up a **hybrid nature-based solution (NbS)** concept that combines mangrove restoration and the conversion of shrimp farms from large, open-air ponds to hyper-intensive Recirculating Aquaculture Systems (RAS).

Donor

IUCN-US

Partners

Thy Bac Lieu

CLASSIFICATION

REGION Asia and the Pacific	ORGANISATION TYPE Other
ECOSYSTEM TYPES - Freshwaters - Oceans and coasts	HECTARES UNDER RESTORATION 18 ha
TIMELINE From 1 January 2024 to 31 December 2026	ADDITIONAL BENEFITS - Protects Freshwaters - Reduces Disaster Risks - Safeguards Biodiversity - Supports Livelihoods

ORGANISATIONS INVOLVED

IMPLEMENTER

IUCN

REFERRING PARTNER

IUCN

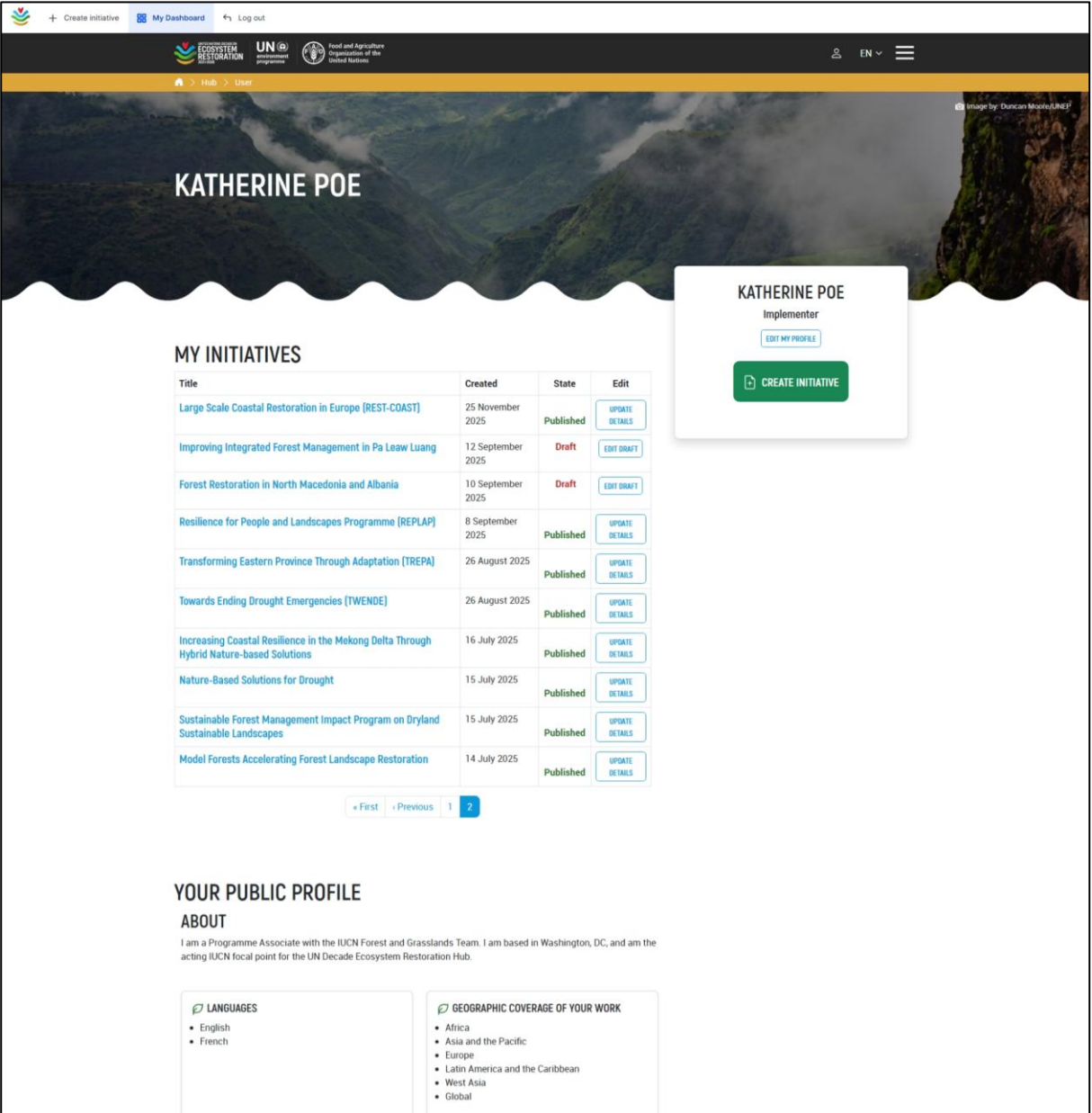
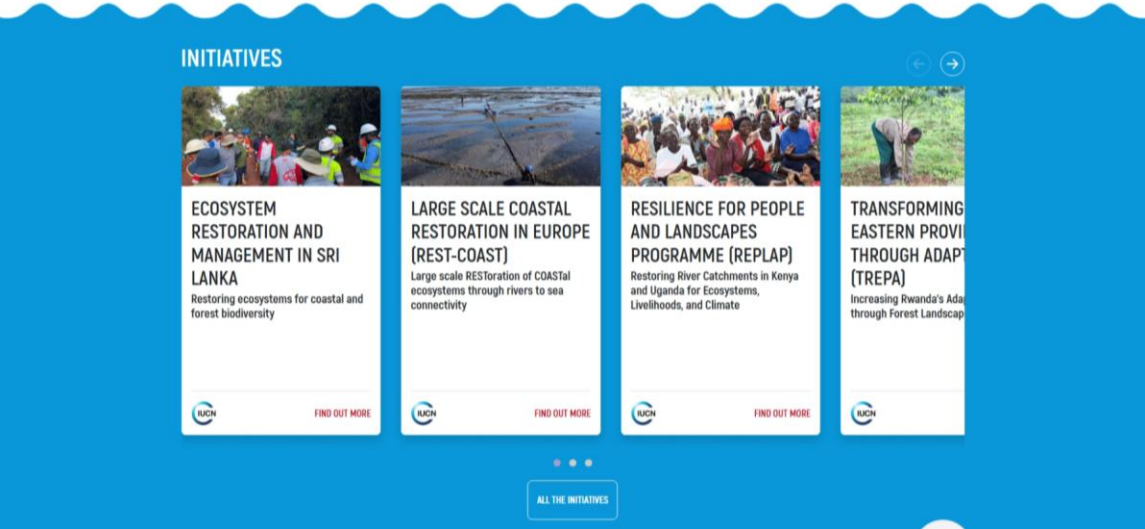
LEARN MORE

Share this initiative

f X in @

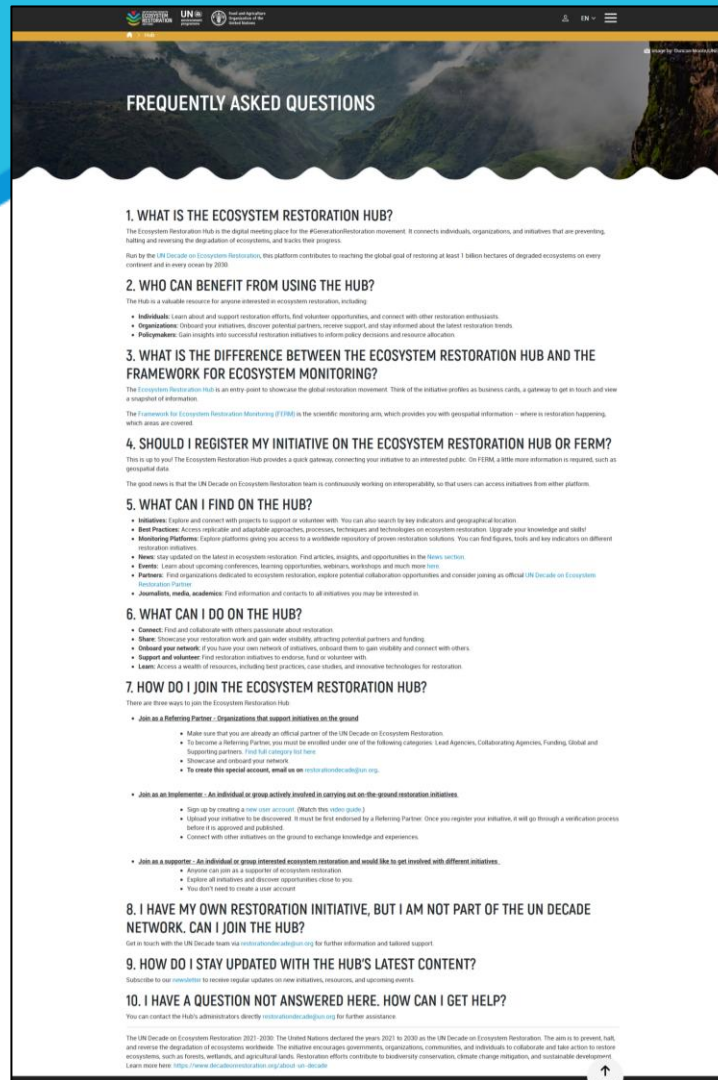
Example Dashboard

- All of your initiatives are displayed in the Hub and on your dashboard, allowing other users to explore your work and get in touch.



Online Guidance

- Explore additional resources online, including **step-by-step guidance** on how to submit initiatives to the Ecosystem Restoration Hub.



Frequently Asked Questions



UN Decade on Ecosystem Restoration Hub: IUCN Referral Process for the Union

What is the Ecosystem Restoration Hub?

The UN Decade on Ecosystem Restoration is a rallying call for the protection and revival of ecosystems all around the world, for the benefit of people and nature. It aims to halt the degradation of ecosystems and restore them to achieve global goals. Only with healthy ecosystems can we enhance people's livelihoods, counteract climate change, and stop the collapse of biodiversity. The UN Decade runs from 2021 through 2030, which is also the deadline for the Sustainable Development Goals and the timeline scientists have identified as the last chance to prevent catastrophic climate change.

The [Ecosystem Restoration Hub](#) is a digital platform hosted by the [UN Environment Programme \(UNEP\)](#) that enables restoration implementers to showcase their contributions to the UN Decade on Ecosystem Restoration and connect with others in the global restoration community.

How does IUCN engage with the Ecosystem Restoration Hub?

[IUCN](#) is a Global Partner of the UN Decade on Ecosystem Restoration and a [Referring Partner](#) through the Ecosystem Restoration Hub. IUCN invites IUCN Members and Secretariat staff to showcase their work on this platform by submitting their restoration initiatives to the Ecosystem Restoration Hub and listing IUCN as the Referring Partner.

For more information about IUCN's engagement with the Ecosystem Restoration Hub, please contact [Katherine Poe](#), Programme Associate, IUCN Forest and Grasslands Team.

Submission Process for the Union

IUCN Members, Commission experts, Secretariat staff, and other Union constituents interested in showcasing their work on the Ecosystem Restoration Hub should follow the directions outlined below. These directions are intended for use by the project manager or focal point of the relevant restoration initiative:

- First, project or initiative focal points should submit an expression of interest to IUCN using the following form, which can be accessed through [this link](#) (<https://forms.office.com/e/3P2PDV2Aq7>) or through the QR code shown below. This will allow project focal points to establish a direct channel of communication with IUCN.



1 | INTERNATIONAL UNION FOR CONSERVATION OF NATURE

UN Decade Ecosystem Restoration Hub: IUCN Referral Process for the Union - resource | IUCN



Video Resources



[UN Decade Ecosystem Restoration Hub: Uploading Initiatives when IUCN is the Referring Partner – YouTube](https://www.youtube.com/watch?v=852IEWWpF9g)
<https://www.youtube.com/watch?v=852IEWWpF9g>

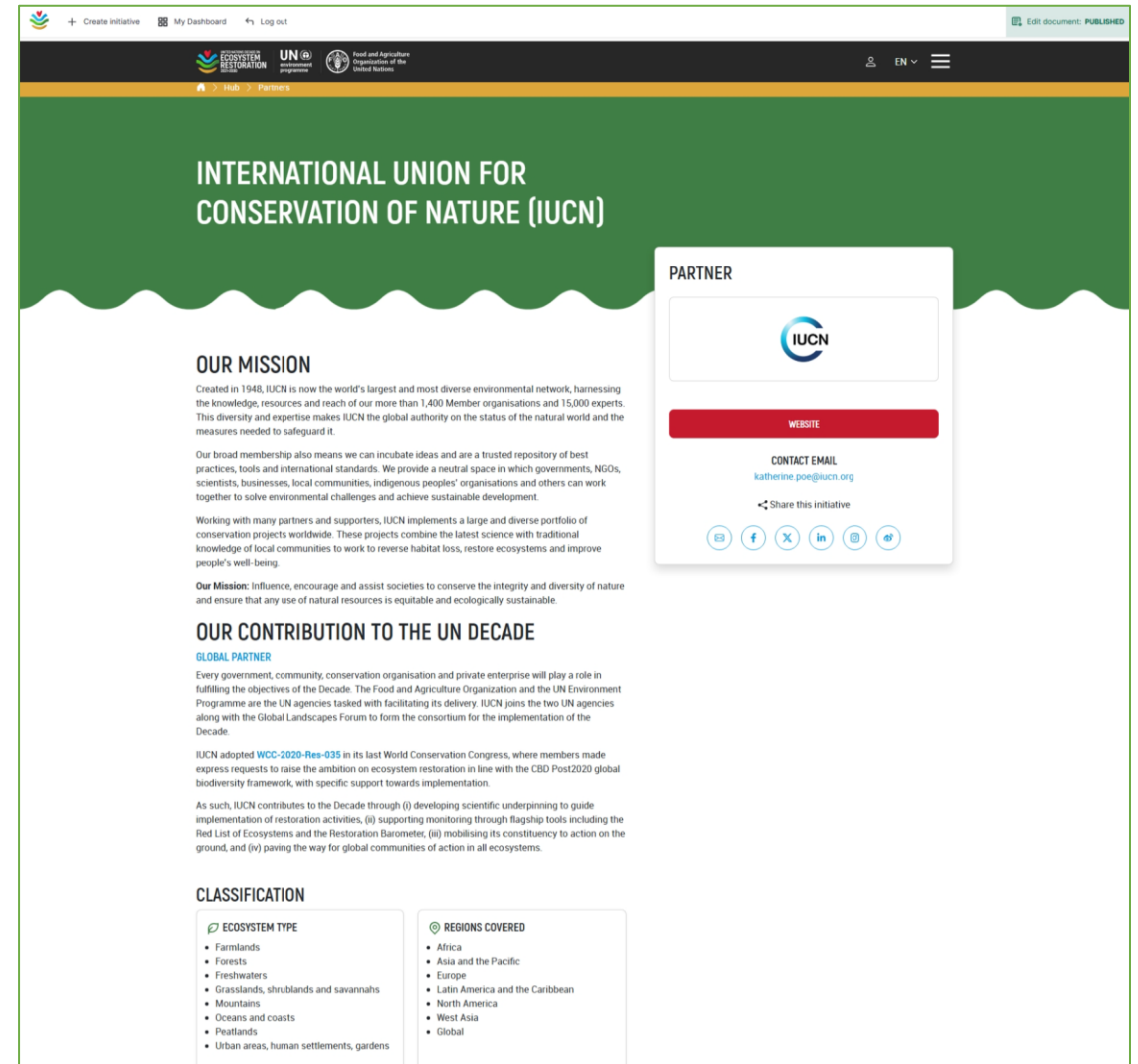
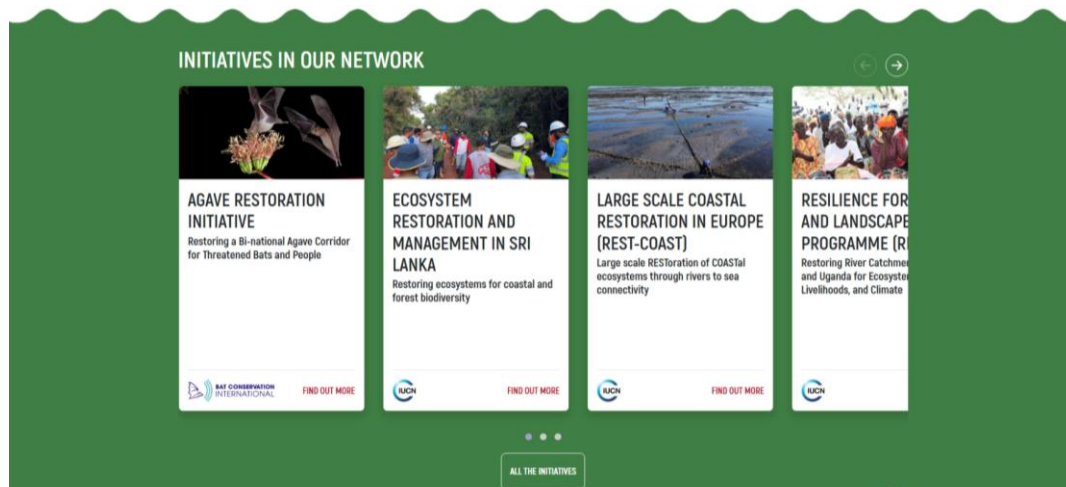


[How to Upload Your Initiative to the Ecosystem Restoration Hub – YouTube](https://www.youtube.com/watch?v=fkT0-4NpCgA)
<https://www.youtube.com/watch?v=fkT0-4NpCgA>



IUCN Community on the Ecosystem Restoration Hub

- All IUCN-referred projects are captured in one place—showing the extensive network of restoration projects taking place **regionally** and **globally**.
- Visit: <https://hub.decadeonrestoration.org/partners/international-union-conservation-nature-iucn>



IUCN Contribution to Ecosystem Restoration

DINDO CAMPILAN

Regional Hub Director, IUCN Asia and Oceania



UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030





- **What does it mean** to undertake ecosystem restoration?
- Why have previous restoration efforts been only partially successful and **what needs to change**?
- How can individuals, groups, and sectors contribute to effective ecosystem **restoration actions**?
- What key actions can multiple sectors of society take to ignite and **sustain long-lasting ecosystem restoration** movement?



World's largest and oldest environmental network

IUCN is a Union of

1,500+

IUCN Members
from 170+ countries

States / Government Agencies /
Subnational governments /
NGOs / Indigenous Peoples
Organizations

7

Global
Commissions



CEESP



19,000+
Volunteer
experts

1,100

IUCN Secretariat staff
and offices in
50+ countries

IUCN is governed by the

IUCN Council

39 representatives

&

IUCN World Conservation
Congress



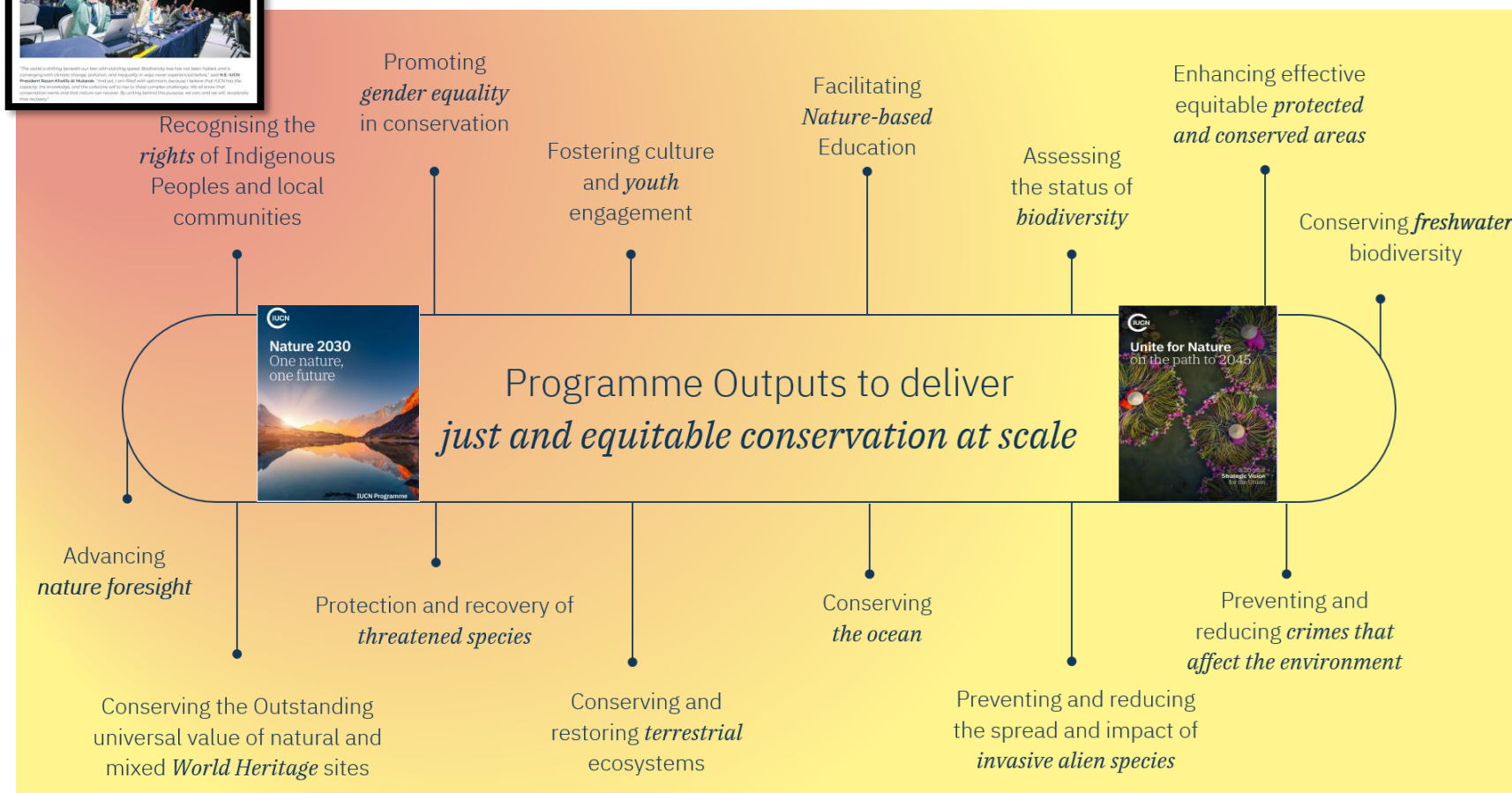
For a just world that conserves and values nature

For over eight decades since 1948 To 2030 and beyond



Without conservation action, extinction rates for birds and mammals would have been **3-4 times higher.**

Our action on conservation led to expansion of protected areas. **A sixfold increase.**





For a just world that conserves and values nature

For over eight decades since 1948

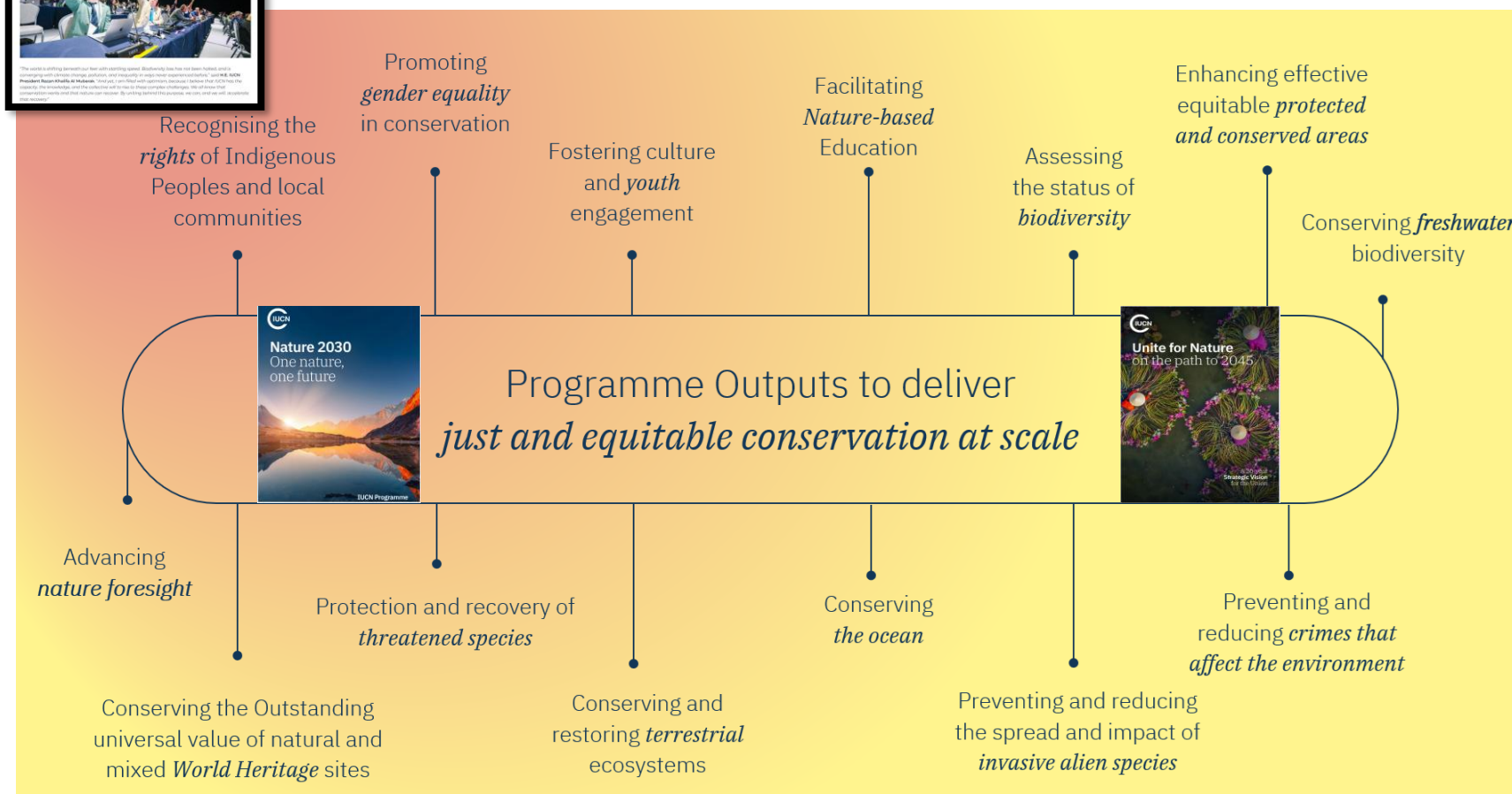
To 2030 and beyond

Contributing to



Without conservation action, extinction rates for birds and mammals would have been **3-4 times higher.**

Our action on conservation led to expansion of protected areas. **A sixfold increase.**



Restoration Barometer
Restoration Opportunities Assessment Methodology (ROAM)
The Restoration Initiative (TRI)
Ecosystem Restoration Hub

How ecosystem restoration success looks like



How ecosystem restoration success looks like



Halt and reverse **nature loss** by 2030
and achieve full recovery by 2050



Convention on
Biological Diversity



United Nations
Convention to Combat
Desertification

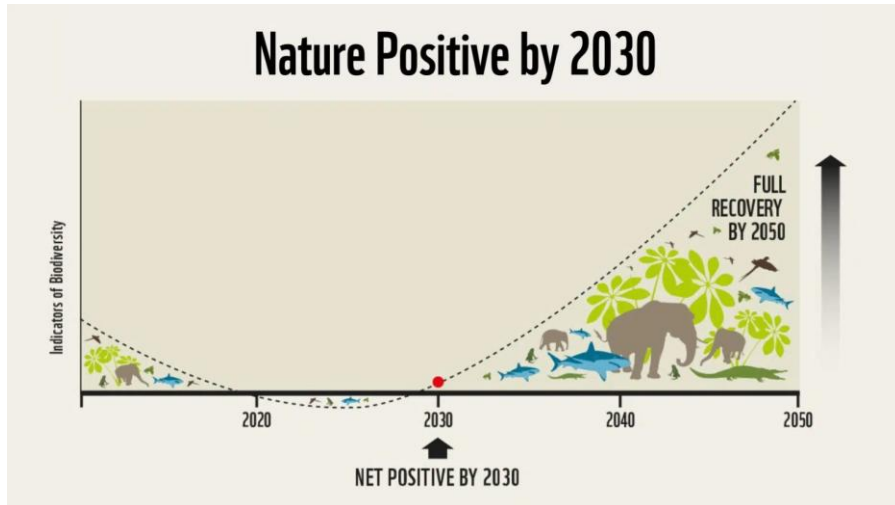


United Nations
Framework Convention on
Climate Change



Actions to protect, sustainably manage, and **restore ecosystems**, that address societal challenges while providing human wellbeing and biodiversity benefits

Ecosystem restoration for nature positive future



halt and reverse nature loss measured from a baseline of 2020, through increasing the health, abundance, diversity and resilience of species, populations and ecosystems, so that

- ✓ **by 2030** nature is visibly and measurably on the path of recovery, and
- ✓ **by 2050** nature must recover so that thriving ecosystems and nature-based solutions continue supporting future generations.



deliver **rapid, significant, measurable and verifiable contributions** to the KMGBF and the Nature Positive Global Goal, specifically in reducing species extinction risk and risk of ecosystem collapse.

Ecosystem restoration for nature-based solutions

1. Ecosystem restoration approaches



2. Issue-specific ecosystem-related



3. Infrastructure-related approaches



4. Ecosystem-based management



5. Ecosystem protection approaches



© IUCN

- ✓ Does it work on restoring, managing, conserving **ecosystems**/ecosystem services?
 - ✓ Does it aim to solve a **societal challenge**, beyond purely conservation issue?
 - ✓ Does it provide **biodiversity benefits** along with development outcomes?

High-integrity, impactful and scaleable NbS through IUCN Global Standard



IUCN Global Standard for Nature-based Solutions

A user-friendly framework for the verification, design and scaling up of NbS

First edition

INTERNATIONAL UNION FOR CONSERVATION OF NATURE



C1. Societal challenges

- 1.1 The societal challenges addressed are clearly identified, understood, and documented
- 1.2 Prioritise societal challenges
- 1.3 Identify, benchmark and assess NbS outcomes for people and nature



C4. Financial feasibility and economic justification

- 4.1 Understand and document the distribution of financial and societal costs and benefits to ensure distributional equity
- 4.2 NbS are economically and financially justifiable against alternative solutions
- 4.3 Identify and secure financial mechanisms to ensure NbS long-term viability



C7. Adaptive management

- 7.1 Define and make explicit the assumptions on how desired NbS outcomes are achieved
- 7.2 Periodically test the validity of the assumptions
- 7.3 Define and implement the necessary changes to the management of the NbS through an inclusive and participatory approach



C2. Integrated systems perspective

- 2.1 Recognise and respond to interactions between the economy, society, ecosystems, and cultural norms
- 2.2 Seek synergies across sectors and with complementary interventions
- 2.3 Incorporate risk identification and management



C5. Inclusive governance and equity

- 5.1 Identify and invite stakeholders, rights-holders, and Indigenous peoples to participate in all processes
- 5.2 Grievance and conflict resolution mechanism are available, accessible and implemented
- 5.3 NbS are based on inclusive participation, mutual respect, and equality
- 5.4 Decision-making processes document and respond to the rights and interests of affected stakeholders, rights-holders, and IPLCs
- 5.5 Establish mechanisms for joint decision-making beyond NbS jurisdictional boundaries (optional)



C3. Enhanced biodiversity, ecosystem integrity and connectivity

- 3.1 Identify, assess, and document the state of ecosystems, and drivers of ecosystem degradation and biodiversity loss
- 3.2 Identify, assess, and document opportunities to enhance ecosystem integrity
- 3.3 Identify, benchmark, assess, and review measurable biodiversity outcomes, according to evidence-based assessments
- 3.4 Periodically assess and address unintended consequences on nature arising from the NbS



C6. Balancing goals and impacts

- 6.1 Establish safeguards and associated corrective actions to address the intended and unintended negative social or environmental impacts of NbS
- 6.2 Document, make available and accessible, and implement safeguards and corrective actions
- 6.3 Periodically review safeguards and corrective action



C8. Enhancing sustainability and mainstreaming

- 8.1 Capture and document lessons learnt from NbS design and implementation
- 8.2 NbS inform and enhance the policy, finance and regulatory frameworks enabling their mainstreaming
- 8.3 NbS contribute to relevant jurisdictional environmental, economic, and social targets and frameworks participatory approach

IUCN Global Standard for Nature-based Solutions™ (Second edition)

8 Criteria and 27 Indicators
(including one optional indicator)

Ecosystem restoration *practices and actions*

FOREST AND DRYLAND

- *Deploying and advancing IUCN Forest Landscape Restoration (FLR) and dryland restoration-related tools*



- *Leveraging global and regional partnerships to mobilise FLR at scale*
 - Global Partnerships on Forest and Landscape Restoration (GPFLR) and Bonn Challenge
 - International Model Forest Network (IMFN)
 - Asia Protected Areas Partnership (APAP)
 - Landscape Partnership Asia (LPA)
 - Restoring and Sustaining Landscapes Together Asia-Pacific Implementers Network (RAIN)





Ecosystem restoration *practices and actions*

FRESHWATER



**FRESHWATER
CHALLENGE**

A country-led initiative that aims to integrate, substantiate, and accelerate the **restoration of 300,000 km of degraded rivers and 350 million hectares of degraded wetlands by 2030**, as well as conserve intact freshwater ecosystems

Implementing freshwater ecosystem restoration at scale

- GCF - Wetlands-based Adaptation in South and South-East Asia
- GCF - Improving Climate Resilience of Vulnerable Communities and Ecosystems in the Gandaki River Basin, Nepal
- GEF IW - Enhancing transboundary fisheries management in the Lower Mekong Basin
- GEF IW - Fostering Water and Environmental Security in the Ma and Neun/Ca Transboundary River Basins
- Adaptation Fund - Enhancing Climate Resilience in the Greater Mekong Sub-region through Ecosystem-based Adaptation (Thailand, Vietnam)
- IKI-URBAN: Innovating Urban Planning for Resiliency with Nature-based Solutions and Climate Risk Models in Thailand





Ecosystem restoration *knowledge and innovation*

MARINE AND COASTAL

Leveraging global and regional partnerships for

Regenerative blue economy

Marine spatial planning

Reducing marine plastic pollution

Integrated coastal resources management

Marine protected and conserved areas mgt

Red List of Ecosystems (RLE) for mangroves

Ecological mangrove restoration

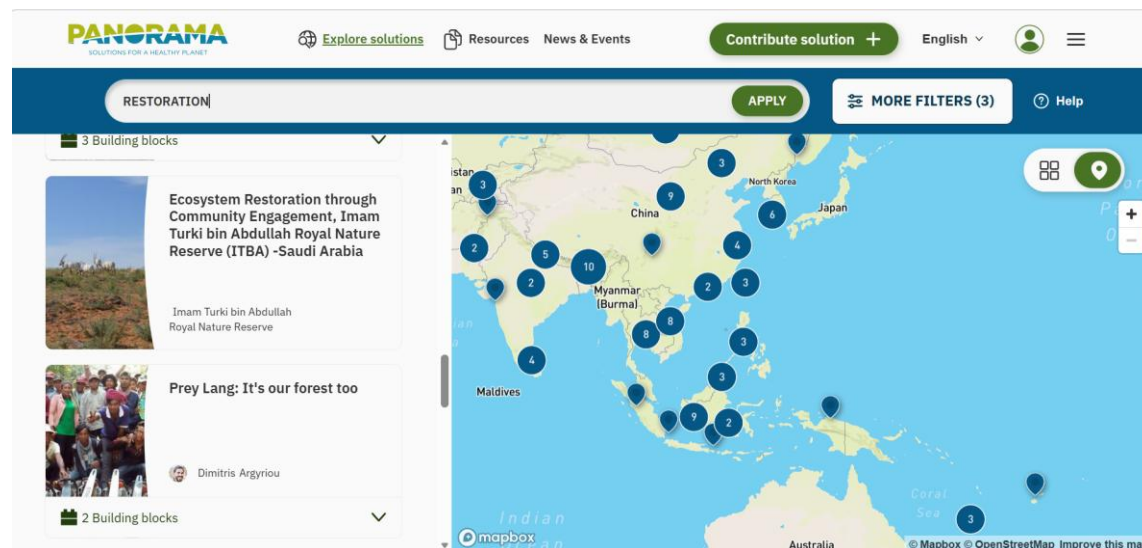
Restoration mainstreaming and scaling

- Bay of Bengal Large Marine Ecosystem (BOBLME) Programme 2023-2028
- Coral Triangle Initiative Coral Reefs, Fisheries, and Food Security, or the Coral Triangle Initiative (CTI-CFF) SOMACORE Project
- ASEAN member states, ASEAN Secretariat and ASEAN WG on Coastal and Marine Ecosystems (AWGCME)
- Partnerships in Environmental Management for the Seas of East Asia (PEMSEA)
- South China Sea Regional Seas Strategic Action Programme (SCS-SAP) Programme
- The Coordinating Body on the Seas of East Asia (COBSEA)
- South Asia Co-operative Environment Programme (SACEP) / UNOPs
- Partnership with Ministry of Oceans and Fisheries RoK and KOEM – Coastal and Marine Ecosystems Conservation Programme (2021-2025)
- Mangroves for the Future Initiative (2006-2018) National Coordinating Body and Experts





UN Decade Science Task Force



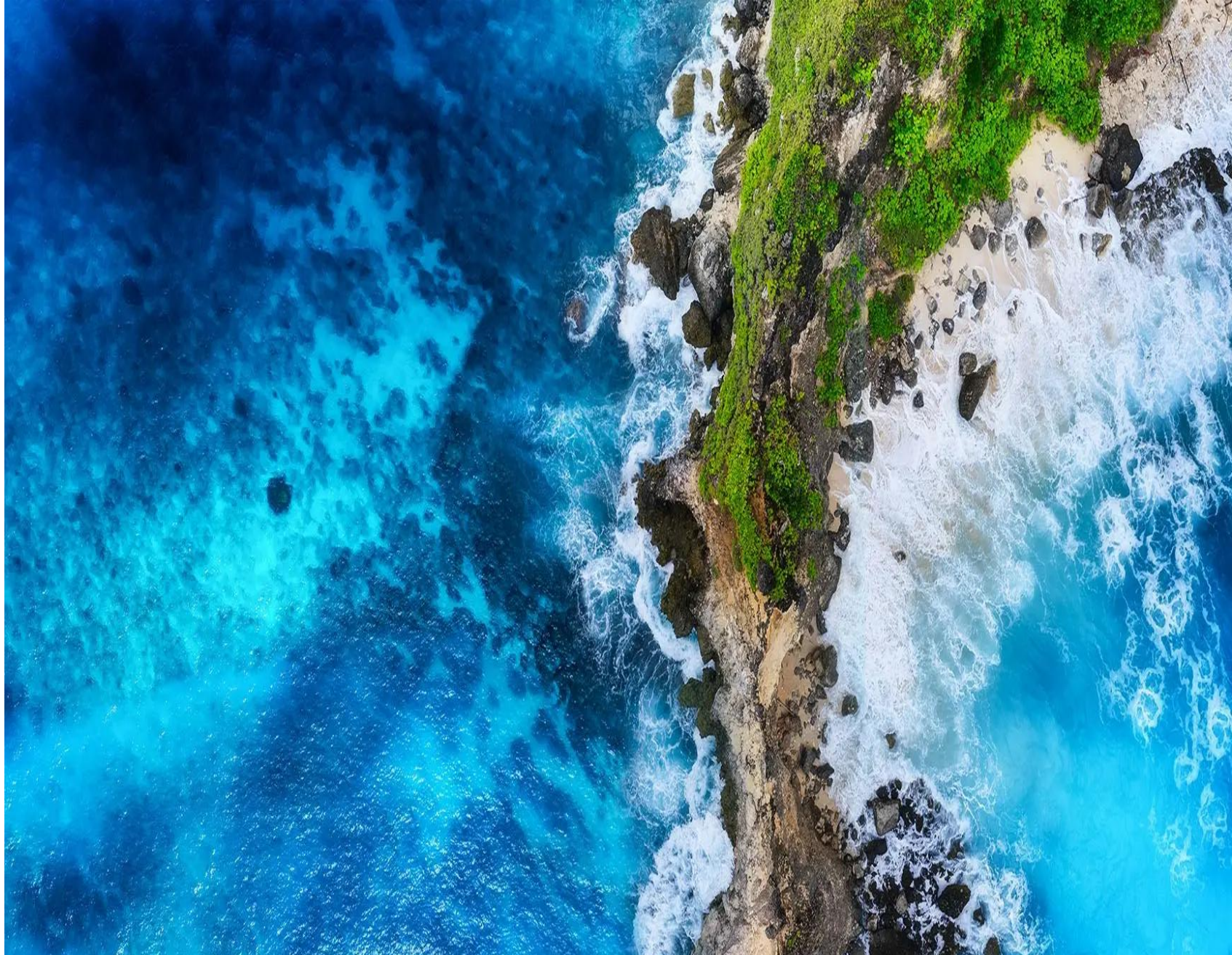
PANORAMA Solutions Platform



Promising FLR Cases Asia-Pacific

www.iucn.org

Asia Regional Office, *Bangkok, Thailand*
Oceania Regional Office, *Suva, Fiji*
Global Headquarters, *Gland, Switzerland*



Increasing coastal resilience in the Mekong Delta through mangrove restoration and hybrid nature-based solutions

UN Decade Ecosystem Restoration Hub



UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030



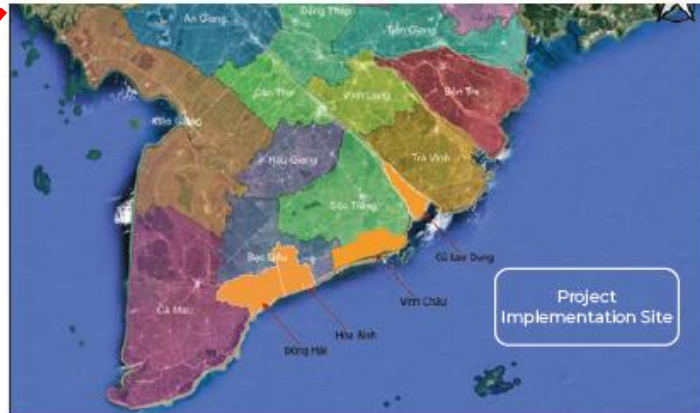
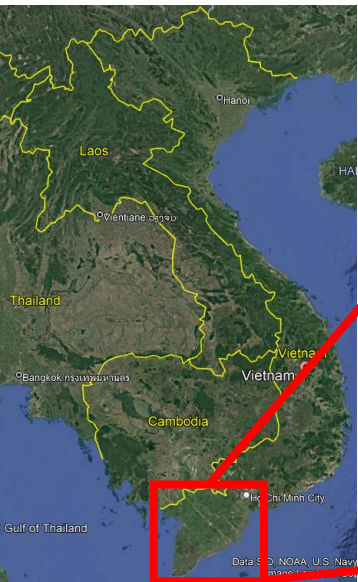
Speaker Bio

Thanh Phong Nguyen is an environmental and agricultural professional (D.Sc.) with 15 years of research experience. He earned his PhD from the Institute of Crop Science and Resource Conservation (INRES) at the University of Bonn.

Since 2022, he has been with the International Union for Conservation of Nature in Vietnam (IUCN VN), where his work focuses on Nature-based Solution (NbS) to mitigate the impacts of climate change, developing mangrove polyculture systems to strengthen the resilience of coastal mangrove landscapes, and advising on ecosystem-based adaptation.



Project Context and Location

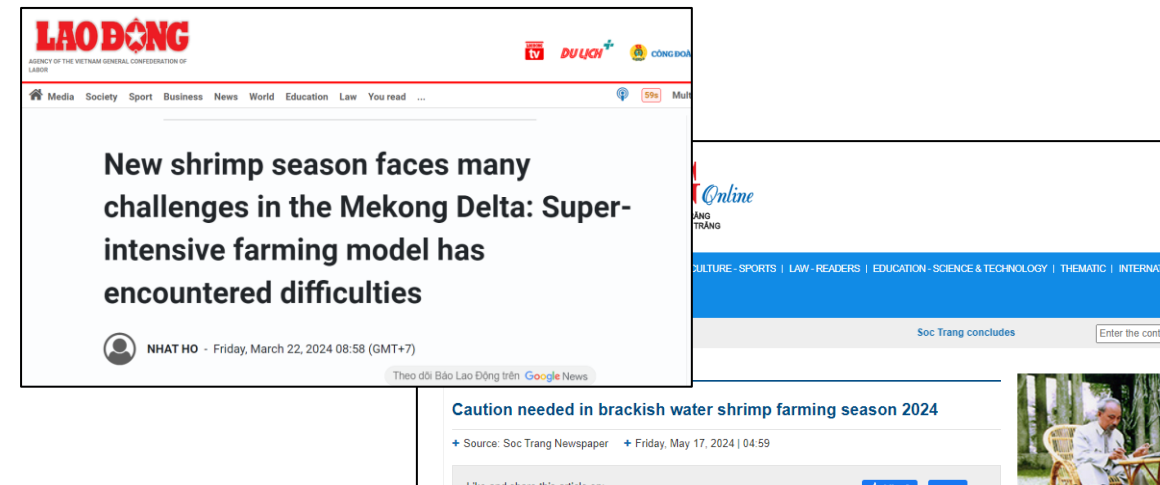


Mekong Delta and project sites

Geographic focus: The coastal communes of Soc Trang and Bac Lieu Provinces are the geographic focus because of their extreme vulnerability to climate change and SLR.



(1) Highly eroded mangrove forests due to **coastal squeeze**



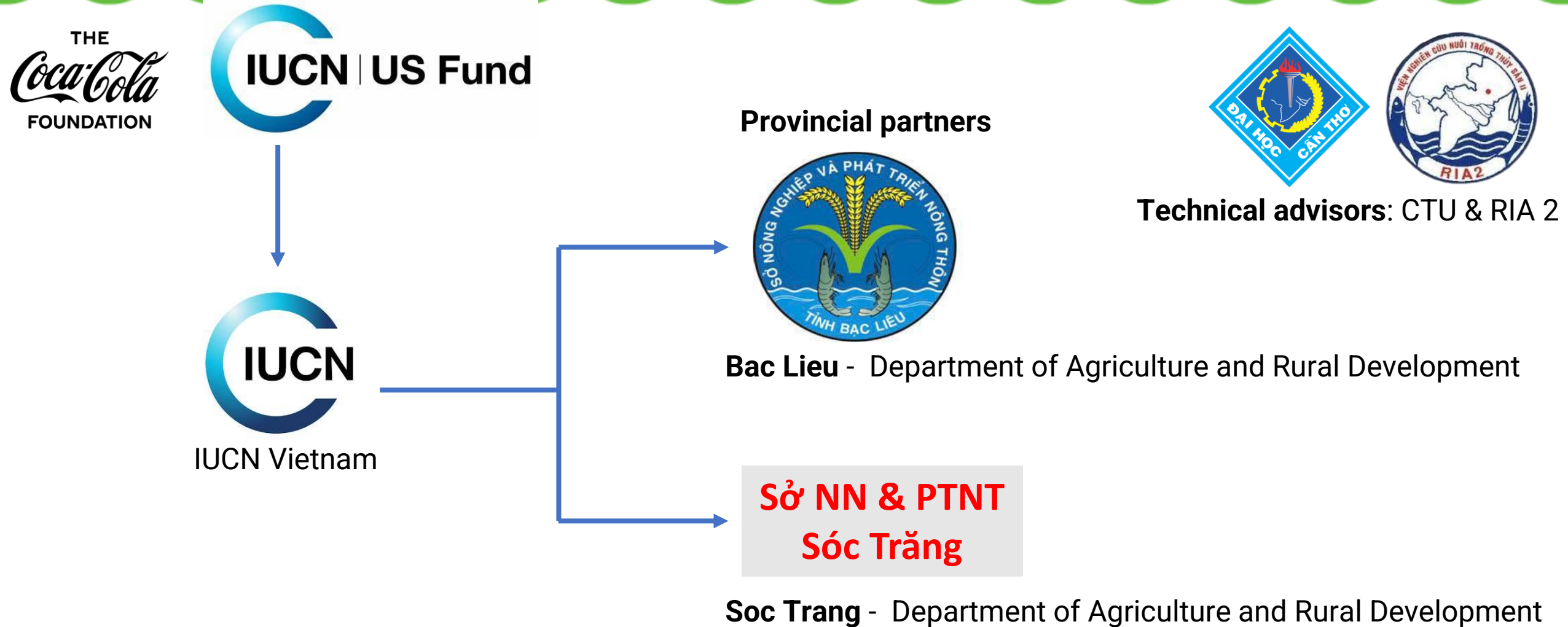
(2) Disease outbreak due to **water pollution**

Project Statistics

Timeframe:	Start Date: 1/1/2024 End Date: 12/31/2026 Duration: 3 years
2030 Restoration Goal:	18 hectares of mangroves under restoration
Hectares Under Restoration:	20 hectares of mangroves under restoration
Number of individuals working on this project:	Employees: 9 Volunteers: 19
Ecosystem Type:	Mangroves, Aquaculture
Funds Mobilized:	\$1,000,000



Partners and Donors



Misson

This **project aims to expand the area of mangroves inside the sea dike** in coastal communities in Soc Trang and Bac Lieu by testing and then scaling up a hybrid nature-based solution (NbS) concept that combines mangrove restoration and the conversion of shrimp farms from large, open-air ponds to hyper-intensive Recirculating Aquaculture Systems (RAS).

Why is this project important?

If this pilot programme proves successful, it demonstrates the **technical and financial viability of hybrid Nature-based Solutions (hybrid-NbS) for aquaculture**, creating a scalable pathway for mangrove restoration in partnership with shrimp farmers across Viet Nam. Beyond restoring critical mangrove habitats in the Mekong Delta and delivering direct biodiversity benefits, the project will provide a replicable model for sustainable livelihood generation among shrimp-farming households.



What does hybrid Nature-based Solutions (hybrid-NbS) for aquaculture mean?



RAS + mangroves



Mangroves in aquaculture land

IUCN provides to farmers:

- Financial support to convert the conventional intensive shrimp farm to a recirculating aquaculture system (RAS) farm
- Technical assistance for the conversion
- Technical assistance on aquaculture in the first/ second production cycles
- Continuous training seminars on aquaculture and hybrid NbS

Project Impact – First achievement

Accumulative values: 21 farms

Livelihoods
> 4,400 USD
(Average Net Profit/Cycle)

Restoration
20 hectares
(Mangrove under restoration)

Environment
> 200,000 m³
(Non-discharge water)

tCO₂ - e
estimated
5,103
(annual)

Project Impact – First achievement



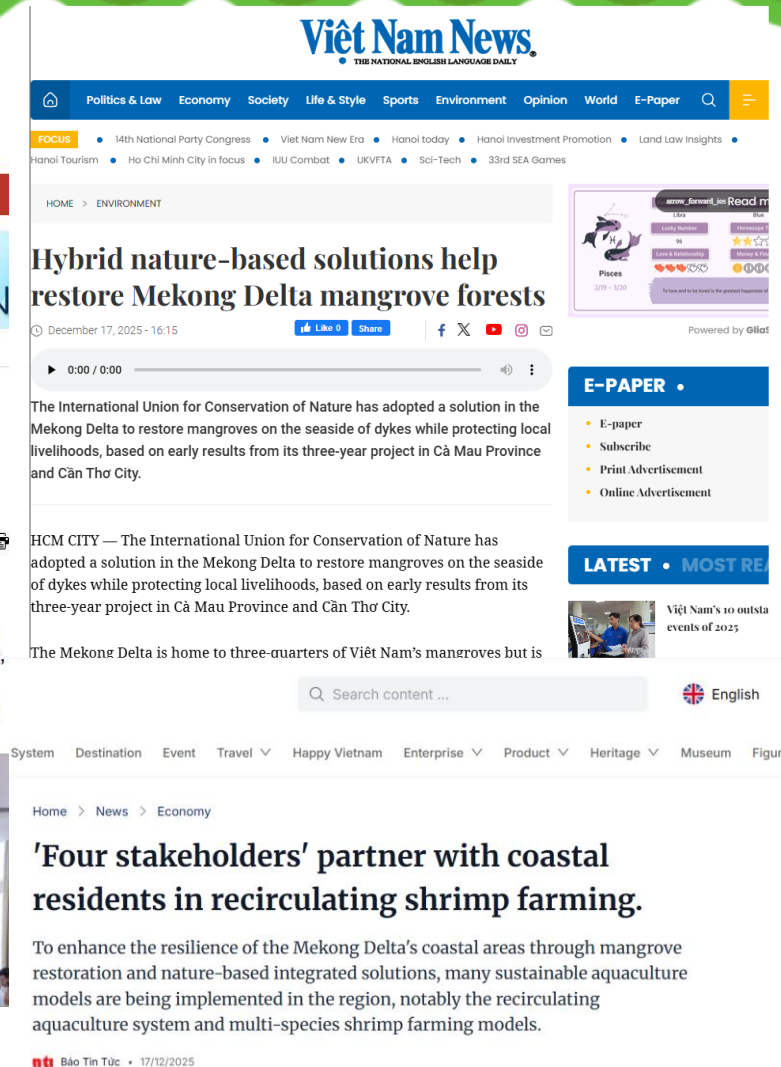
Unlocking sustainable financing for hybrid nature-based solutions to increase coastal resilience event



Journalists at a farm (left), farm owner and equipment funded by the project (right)



Articles on Business Forum and Vietnam News



Challenges and next steps

First results: (1) Several RAS have been piloted and demonstrated promising technical and operational performance; (2) Mangrove restoration within aquaculture areas has achieved encouraging ecological outcomes, contributing to improved environmental conditions; (3) Strong engagement from financial institutions and private-sector partners has highlighted significant potential for scaling up the project.

Challenges: RAS remains a relatively new approach in the MD, and securing farmers' acceptance and adoption of this technology remains a challenge.

Next steps: Disseminate and showcase project results to a broader audience, while engaging government agencies, financial institutions, and private-sector stakeholders to explore opportunities for scaling up. Discussions will also focus on developing enabling policies and financing mechanisms to support the wider adoption of hybrid NbS in aquaculture.

Contact Information

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Mekong Delta Programme Manager
IUCN Vietnam

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Email: phong.nguyenthanh@iucn.org

Mobile: 0084(0) 939370514



Recovering tiger population and landscape through sustainable land use and ecosystem restoration, Thailand

UN Decade Ecosystem Restoration Hub



UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030



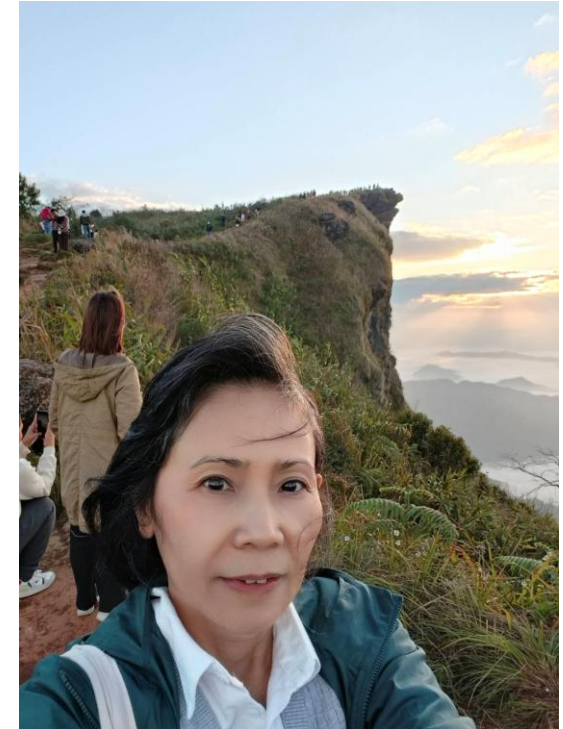
Speaker Bio

Phattareeya Suanrattanachai, Manager, Thailand Country Programme, IUCN, based in Bangkok.

Lead and coordinate programmes on forest landscape restoration, biodiversity conservation, ecosystem connectivity, and community-based natural resource management.

Manage and oversee implementation of donor-funded projects focused on sustainable development, ecosystem restoration, and biodiversity outcomes.

Collaborate closely with government agencies, development partners, academic institutions, local communities, and civil society organizations.



Mission



Overall goal : To effectively manage DPKYFC and sWEFCOM as key landscapes in mainland SE Asia for reviving the Indochinese tiger's historical range and abundance

Trying to achieve:

- Protected areas under improved management 953,500 ha,
- People benefiting from GEF investments 22,000 (11,000 female) in DPKY and sWEFCOM, Number of tigers in DPKYFC increases by 20%

The main activities:

- **Outcome 1.1:** Protected areas are well connected, effectively managed and restored in DPKY and sWEFCOM,
- **Outcome 2.1** Law enforcement and criminal justice system capacities to combat wildlife crime are strengthened, and domestic and international cooperation is improved to disrupt poaching and trafficking networks
- **Outcome 3.1:** Wildlife conservation financing mechanisms are diversified, public-private-community partnerships are built and sustainable livelihood opportunities are increased
- **Outcome 4.1:** Knowledge exchange, learning, capacity, and cooperation are developed to promote innovation and leverage implementation/practice to achieve tiger restoration and conservation

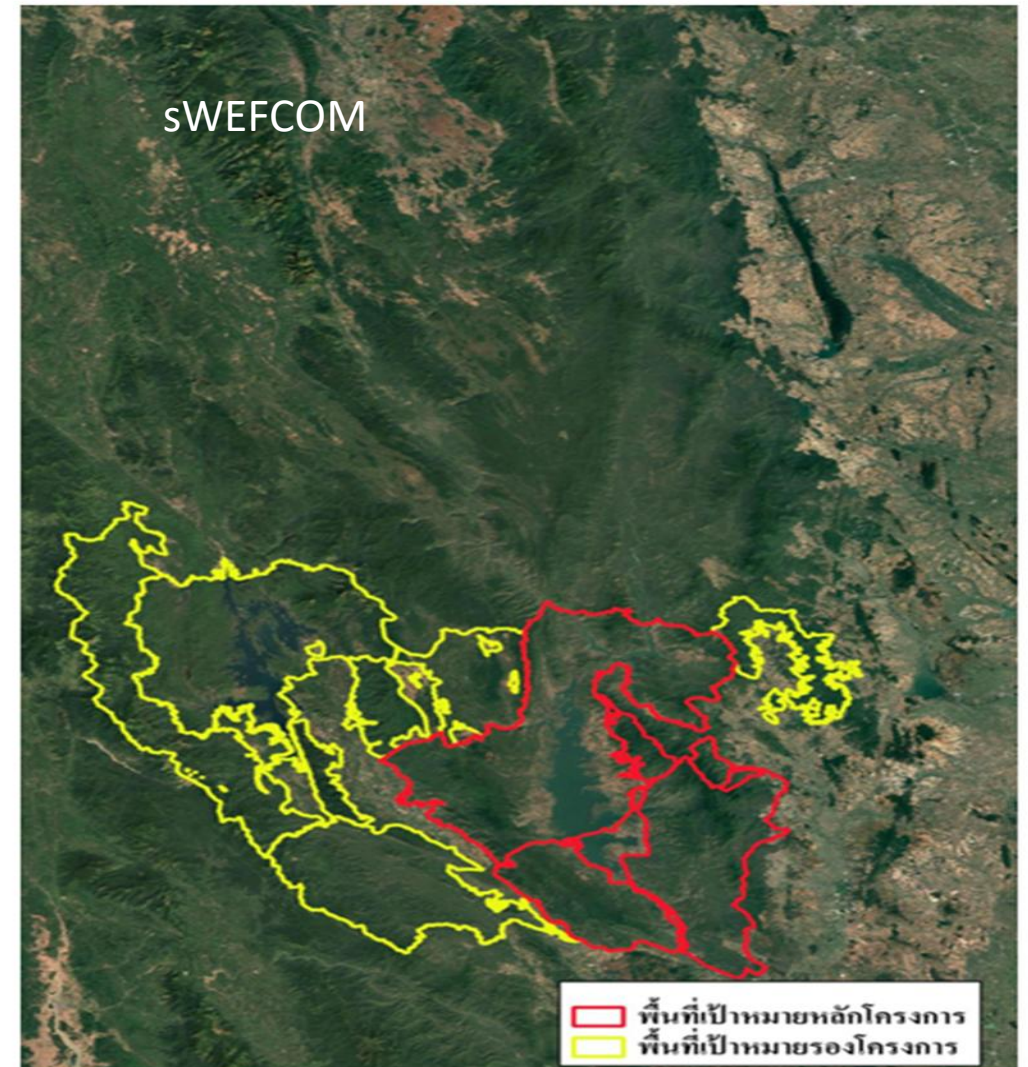
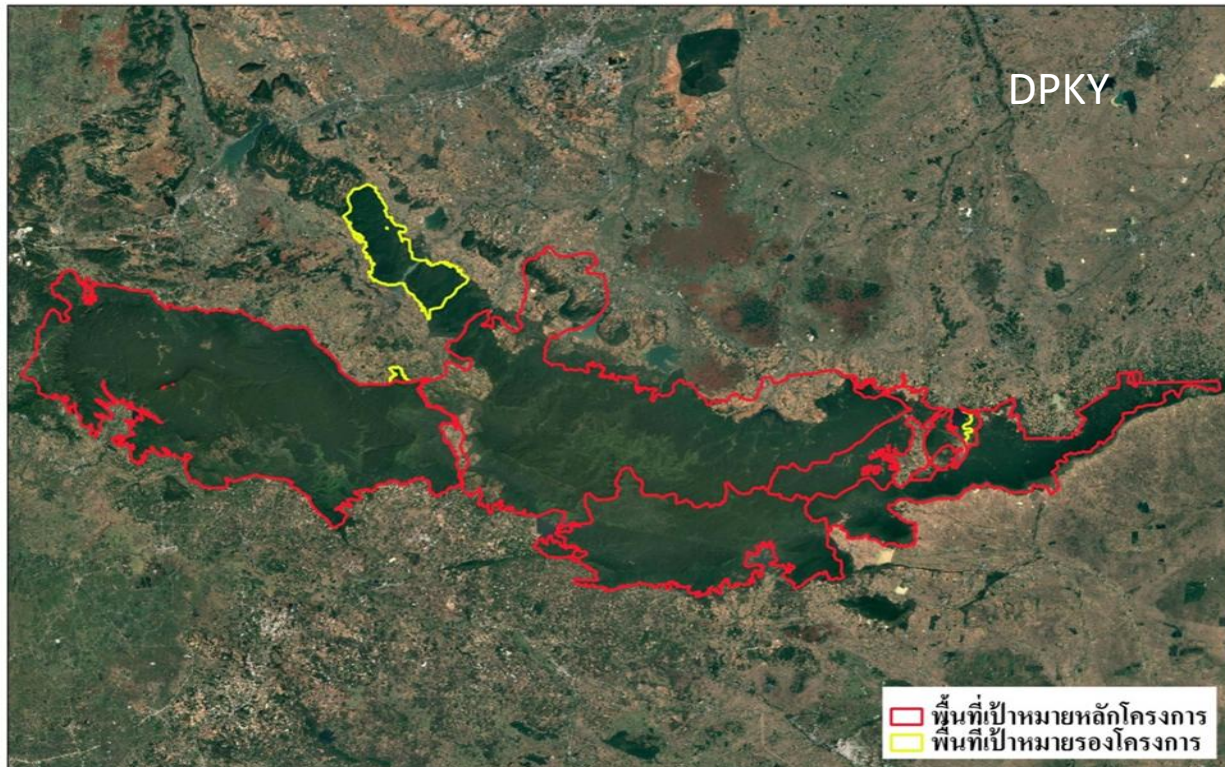
Partners and Donors

SUPPORTED BY



Source: DNP-KCH, Thailand

Project Location: Target Areas: DPKY and sWEFCOM



Project Statistics

Timeframe:	Aug.2026-Aug. 2029
2030 Restoration Goal:	953,500 ha,
Hectares Under Restoration:	0
Number of individuals working on this project:	3- person
Ecosystem Type:	Forests under national park and its buffer zones
Funds Mobilized:	\$4,375,994





Project Impact

- Restores tiger habitats and connectivity, increasing tiger populations, prey abundance, and ecosystem resilience.
- Supports communities through sustainable livelihoods, conflict reduction, improved livestock management, and disease prevention.
- Strengthens law enforcement capacity, reducing poaching, wildlife trafficking, and illegal exploitation of biodiversity.
- Protects biodiversity, forests, watersheds, while generating sustainable financing and inclusive economic benefits.
- Addresses biodiversity loss, climate change, ecosystem degradation, supporting SDGs (1,3, 5, 8,13, 15 and 17) CBD, Land Degradation Neutrality (LDN), and NDCs.

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Project CORE

Climate-smart Opportunities through Restoration and Education

Dinithi Samarathunga

Senior Programme Officer (Water, Wetland and Nature-based Solutions)

IUCN Sri Lanka



UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030



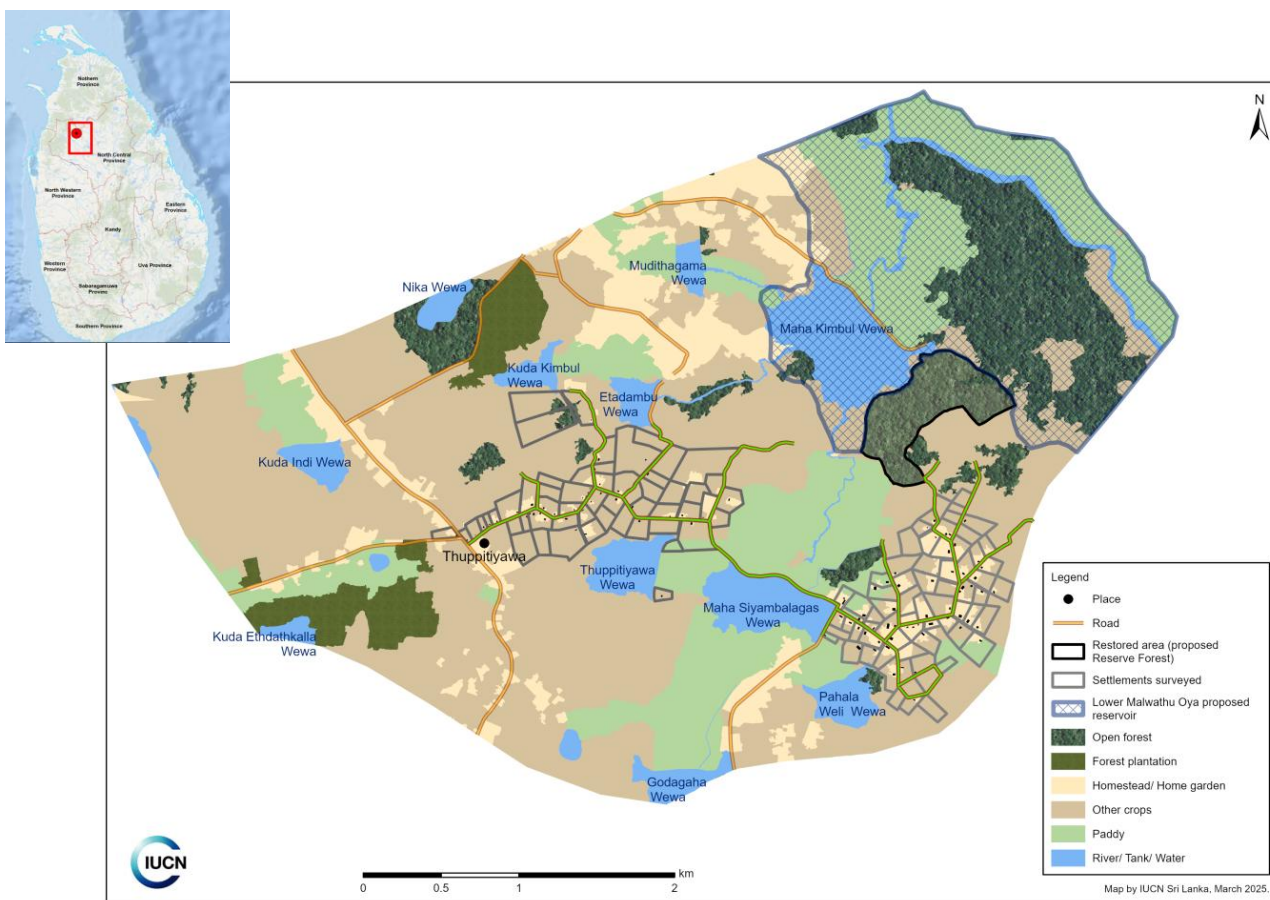
Speaker Bio

Dinithi Samarathunga is a conservation and sustainability professional with over a decade of experience at International Union for Conservation of Nature, currently serving as Senior Programme Officer for Water, Wetlands and Nature-based Solutions. Work focuses on Nature-based Solutions (NbS), climate resilience, ecosystem restoration, water and coastal resource management, sustainable financing, and environmental conservation.

Currently pursuing a PhD at the University of Huddersfield, UK, on NbS financing for hydrometeorological disaster risk reduction in South Asia. Dinithi holds a BSc (Chemistry) from the Institute of Chemistry Ceylon, an MSc in Industrial Analytical Chemistry from the University of Sri Jayewardenepura, and professional qualifications in Human Resources Management.



Project Overview



- The project CORE executed Forest Landscape restoration using Nature-based Solutions as guiding framework
- This is the first Nature-based Solutions initiative for Forest Landscape Restoration in the Dry Zone of Sri Lanka
- The project was funded by HSBC and implemented by IUCN collaboratively with the Department of Forest Conservation to bring innovative solutions to pressing societal challenges
- The overarching objectives of the project were,
 - ✓ Restore 135 ha of degraded land, enhancing biodiversity, ecosystem services and livelihoods.
 - ✓ Provide Education
 - ✓ Pilot Nature-based Solutions (NbS)
 - ✓ Pilot Forest Landscape Restoration (FLR)

Impact at a Glance

135 ha

total land under restoration

35 ha

intensive forest restored

100 ha

regenerative agriculture

~35,000 t

CO₂ projected (15 years)

Restoration



25,000+

native trees planted to restore 35 ha degraded forest



4,000+

live-fence plants connecting agri lands to restored forest



3,000+

fruit plants in food forest gardens for livelihoods



73 ha

land revitalised with multi-layer live fences

Livelihoods



10 acres

transformed into silvopastoral models



08

climate-smart dairy farms promoted



10

climate-smart poultry farms established



04

smallholder businesses successfully established



300+

direct beneficiaries empowered

Biodiversity & Policy



174

fauna species recorded (15 endemic)



226

flora species recorded (5 endemic)



+16

net species gained post restoration



35 ha

Letter of Intent signed for Reserved Forest



160

volunteers & students engaged



Four Integrated Landscape Models for Forest Landscape Restoration

A landscape-level approach transforming different land types with unique NbS interventions

01



Intensive Forest Restoration

35 ha of degraded dry-zone forest restored with ~20,000 native saplings. Letter of Intent signed to designate as Reserved Forest — a landmark for long-term protection.

02



Food Forest Gardens

Chena cultivated lands transformed into productive multi-species food forests with 1,500+ fruit trees, improving food security and household income for smallholders.

03



Silvopastoral Models

10 acres converted from extensive cattle farming to semi-intensive silvopastoral systems. 8 climate-smart dairy farms + 10 climate-smart poultry farms established.

04



Live Fences & Connectivity

4,000+ multi-layered live-fence plants connecting agricultural lands with the restored forest, improving landscape connectivity and providing additional ecosystem services.

Intensive Forest Restoration



Intensive Forest



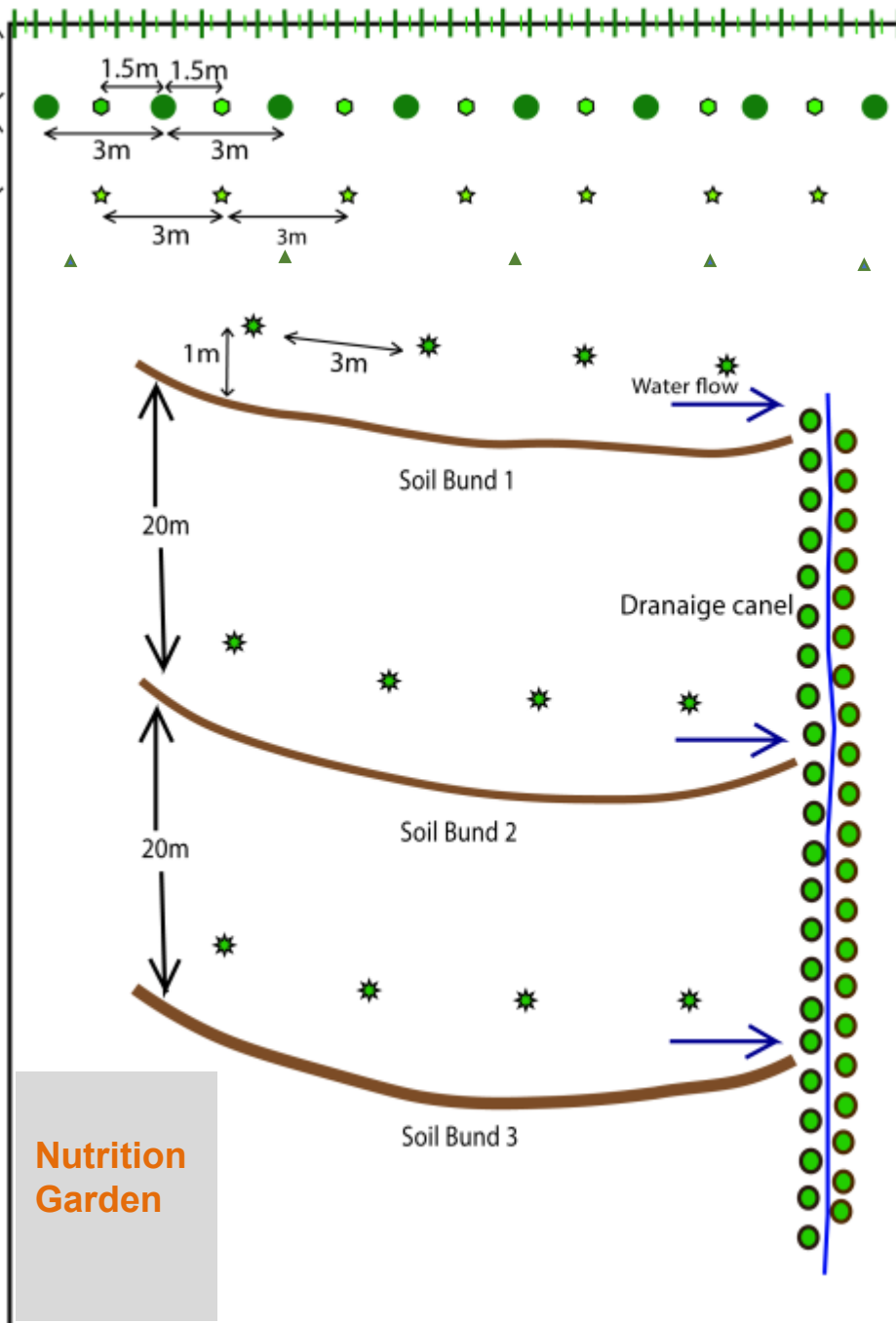
Milestone Achievement: From a restored area to a reserved forest

- **Letter of Intent signed** with the **Forest Department** to designate 35 ha of restored forest as a Reserved Forest — a landmark achievement for long-term protection.
- **Boundary demarcation completed** as the first step toward formal declaration
- Recognised as a **Pilot Landscape for Forest Landscape Restoration (FLR)** — expanding restoration focus beyond forest boundaries to surrounding landscapes.
- Sets a **replicable model** for integrating community-driven restoration into Sri Lanka's protected area network.



Design of Live Fence

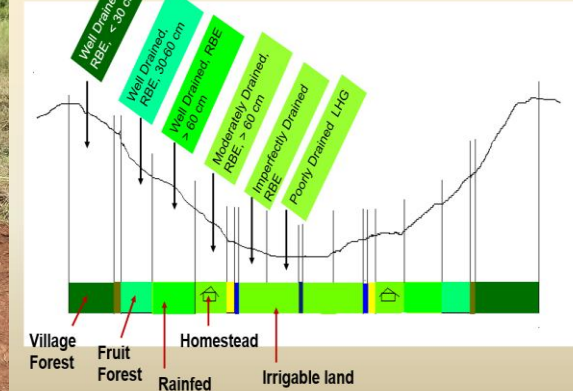
Fruit Plants, Medicinal Plants and Other Economic Crops



- Halmilla plants
- Lime plants
- ★ Dragon fruit
- | Gliricidia
- | Ardathoda
- ★ Other fruit plants
- Citronella
- ▲ Bee Keeping



Land Use Model Cross Section
for RBE-LHG combination, especially for new lands



Plant species	N %	P %	K %
Gliricidia	4.6	0.2	1.45-2.95
Wild sunflower	4.7	0.4	2.15-4.20
Adathoda	5.04	0.13	3.00-4.50
Erithrina	5.21	0.32	0.92-2.88
Azolla	4.5	0.9	2.0-4.50
Water hyacinth	2.56	1.7	1.57-2.58
Thespecia	3.4	0.3	2.3

Science-based Designs for Food Forest Gardens

A design provides economic benefits to communities starting from 6 months to 20 years and also to provide mitigation measures to minimize damage caused to agriculture lands due to elephant attacks

Sustainable Practices Driving Results: A climate-smart model farms

- **Nature-based Solutions for Sustainable Farming Practices:** Adoption of agroforestry, organic farming, crop rotation, and integrated pest management
- **Innovative Technology:** Use of sustainable agriculture tools such as vegetative soil bunds, live fences, water conservation systems
- **Community Engagement:** Involvement of local farmers in knowledge-sharing workshops and skill-building sessions
- **Environmental Conservation:** Reduced chemical inputs, promoting soil health, and increasing biodiversity



Climate-smart Food Forest Garden Model



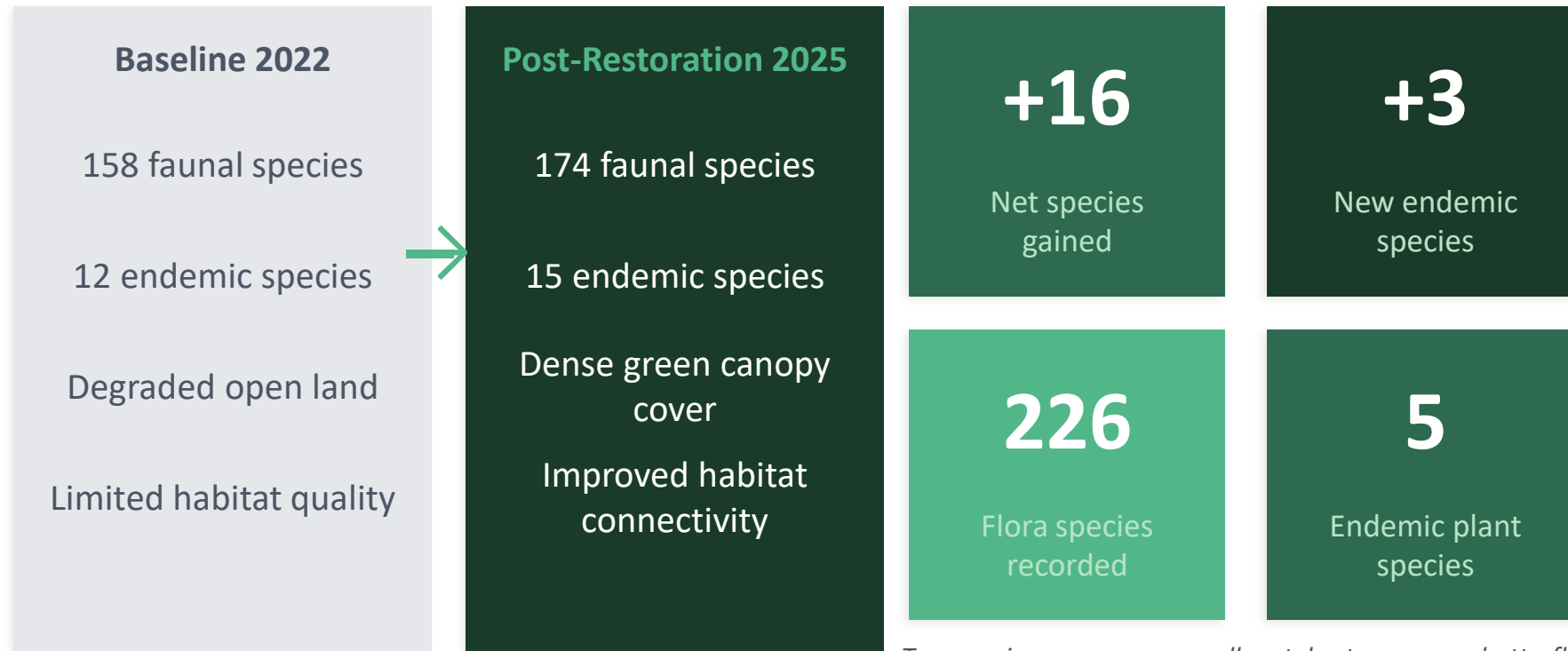
Climate-smart Food Forest Garden Model



1- Papaya cultivated area; 2- Beetle and Arecanut cultivated area; 3- Arecanut live fence; 4- Mango and maize cultivated area; 5- Watermelon cultivated area; 6-Vegetable cultivated area; 7- Guvava cultivated area; 8- Orange cultivated area; 9- Mixed perineal crops including Guvava, Orange, Soursop; Mango; 10- Climate-smart poultry house; 11-Live fence comprising of Halmilla, Lime and Dragonfruit

Biodiversity Highlights from Largest to S

Post-restoration monitoring reveals measurable gains in species richness and habitat quality



*Taxonomic coverage spans all vertebrate groups + butterflies and dragonflies. Sri Lanka elephant (*Elephas maximus maximus*) among recorded species.*



Science, Knowledge & Community

Combining scientific rigour with traditional knowledge, community experiences and student engagement



Science-Based Design

- ▶ Scientific methodologies for carbon estimation & monitoring
- ▶ InVEST model used for soil erodibility assessments
- ▶ Habitat mapping & soil health research in project areas
- ▶ Comparative land-use analysis (forested, semi-forested, bare land)



Community & Traditional Knowledge

- ▶ Diriya Shakthi CBO leading drought preparedness & land management
- ▶ Traditional knowledge integrated into NbS model designs
- ▶ Knowledge-sharing workshops and skill-building sessions for farmers
- ▶ Community-owned and managed climate-smart livelihoods



Research & Education

- ▶ 3 final-year university research projects (Rajarata & Colombo Universities)
- ▶ School Environment Lab & Butterfly Garden established
- ▶ Internship for butterfly species identification (Ladies' College)
- ▶ Field support from Open University student



Partnerships & Scaling

- ▶ Collaborative delivery with Dept. of Forest Conservation
- ▶ District Secretariat partnership for formal forest designation
- ▶ HSBC volunteer programme: ~100 staff, 2,000 volunteer hours
- ▶ Bio-digester support from development partner for cattle farmers



THANK YOU

Kiwa Local Projects Component

UN Decade Ecosystem Restoration Hub



UNITED NATIONS DECADE ON
**ECOSYSTEM
RESTORATION**
2021-2030



Speaker Bio

- **Martin Child**, Kiwa Project Coordinator
- Recently joined IUCN in late 2025. Originally from Aotearoa New Zealand but has been living and working in Fiji and the Pacific Islands for almost 12 years, for UN Women, the Pacific Community (SPC), and most recently as the Director of USAID-funded Climate Smart and Disaster Ready Programme.





Misson

- Supporting 33 local projects in 13 countries that conserve and restore marine and terrestrial biodiversity, and reduce or manage climate impacts
- Building capacity of local organisations to implement and manage NbS

Partners and Donors

- The project is funded by the European Union (EU), Agence Française de Développement (AFD), Global Affairs Canada (GAC), Australian Government Department of Foreign Affairs and Trade (DFAT) and New Zealand Ministry of Foreign Affairs and Trade (MFAT)
- Implementing partners include IUCN, the Pacific Community (SPC), and Secretariat of the Pacific Regional Environment Programme (SPREP)

THIS INITIATIVE IS FUNDED BY :



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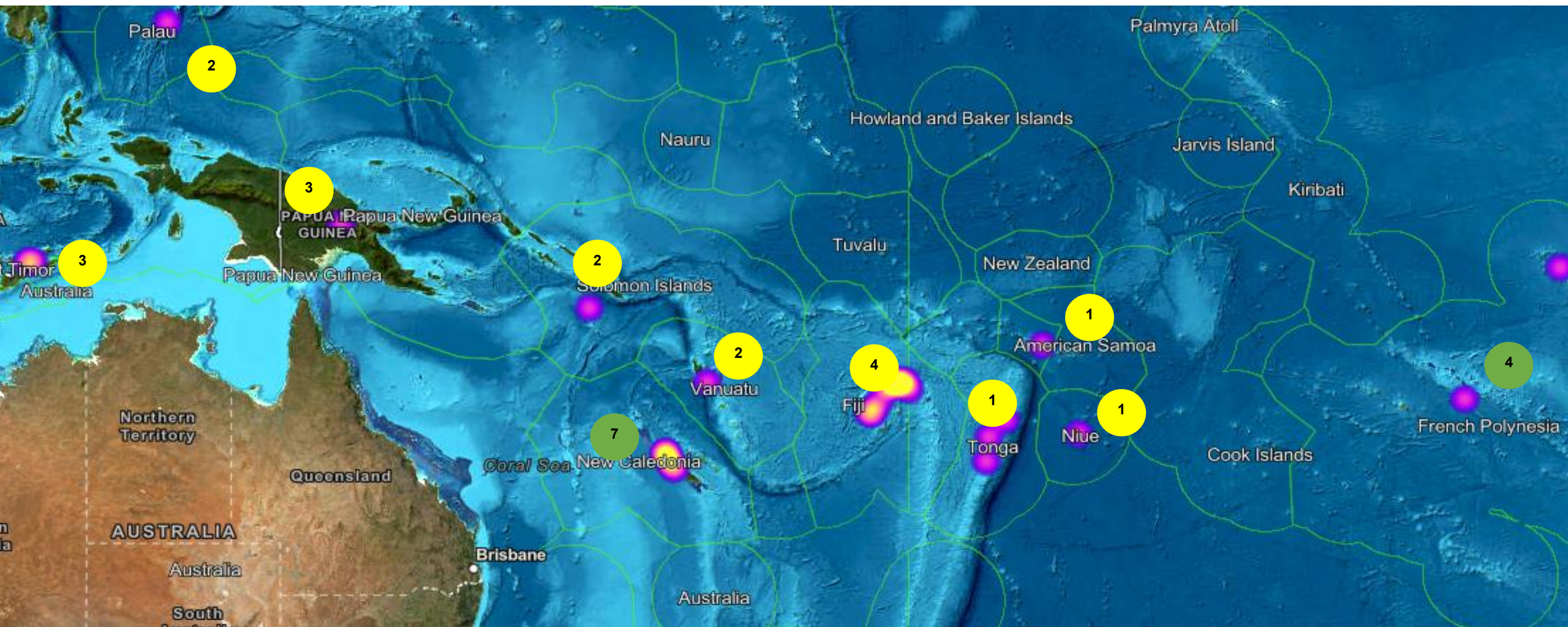


IN PARTNERSHIP
WITH :



Project Locations

Fiji (4) , French Polynesia (4), Kiribati (1), New Caledonia (7), Niue (1), Palau (2), Papua New Guinea (3), Samoa(1), Solomon Islands (2), Timor Leste (3), Tonga (1), Vanuatu (2), Wallis and Futuna (1)



Project Statistics

Timeframe:	July 2019 – June 2027
2030 Restoration Goal:	10,000 Hectares to be put under restoration OR conservation
Hectares Under Restoration:	7,025 Hectares currently under restoration or conservation
Number of individuals working on this project:	9 staff, 500+ downstream project volunteers and staff
Ecosystem Type:	Terrestrial and Marine
Funds Mobilized:	10.3 million EUR (11.9 million USD)





Project Impact

- Targeting 50,000 direct beneficiaries.
- Empowering local organisations and communities to implement NbS, and access critical funding and capacity-strengthening.
- Contributing toward National Climate Action Plans.
- Supporting numerous local projects which are women- and youth-led.
- Co-benefits including disaster resilience, conservation of biodiversity, promotion of traditional knowledge, sustainable livelihoods.



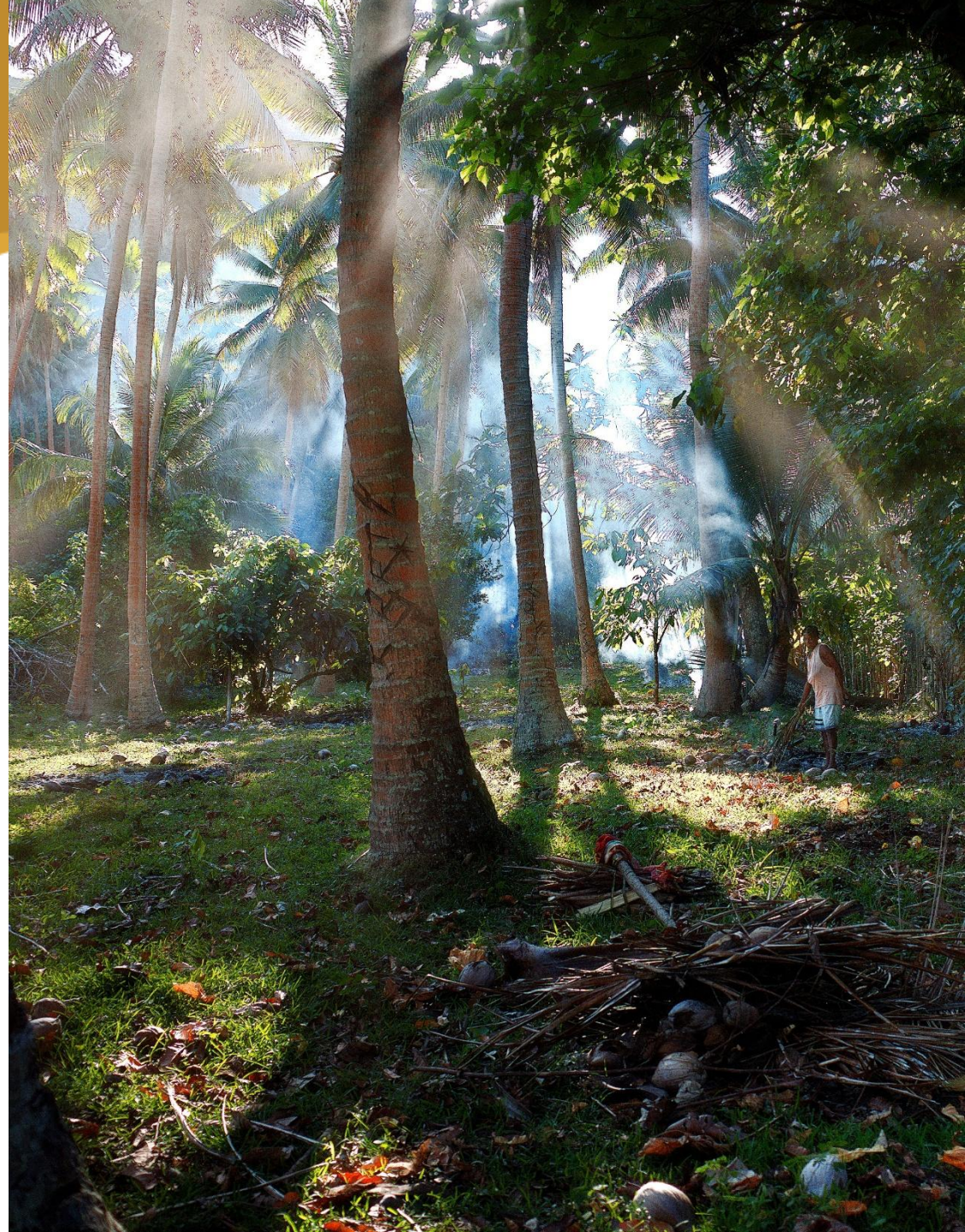
Contact Information

Kiwa Initiative Website:

<https://kiwainitiative.org/en/>

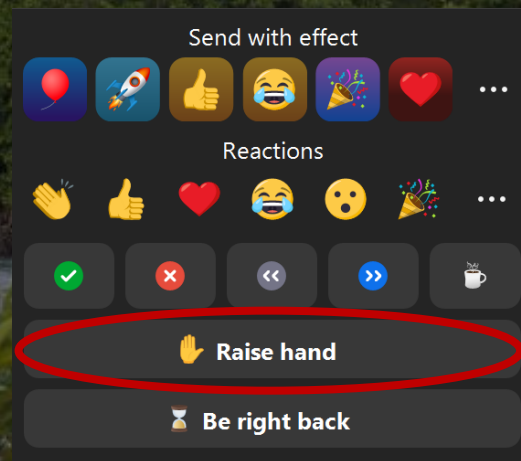
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Q&A

Raise your hand or drop your questions in the chat!



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Full webinar schedule available at:

<https://engage.iucn.org/topic/webinar-series-iucn-and-un-decade-ecosystem-restoration-hub>

