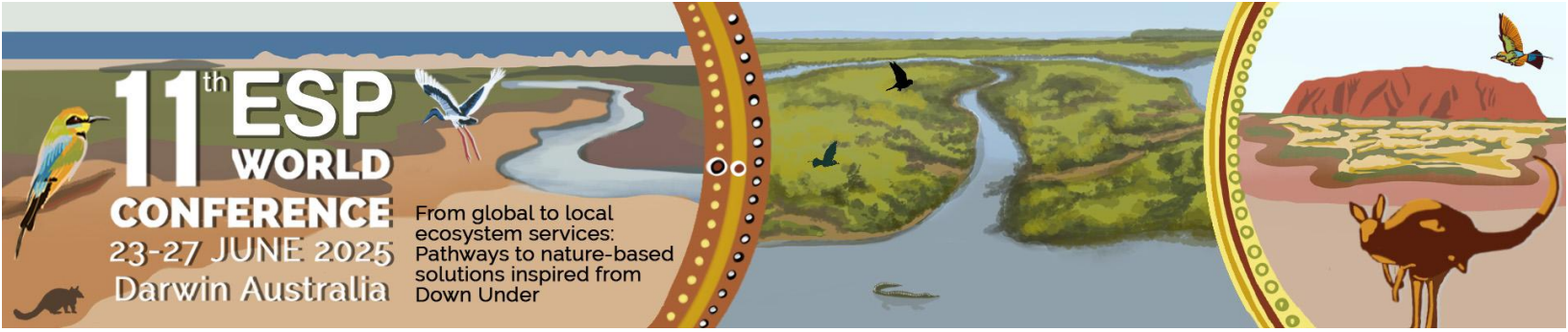


BOOK OF ABSTRACTS

I. SESSION DESCRIPTION

ID: R4

Does a single swallow attract the storm? Community conservation initiatives in the Global South

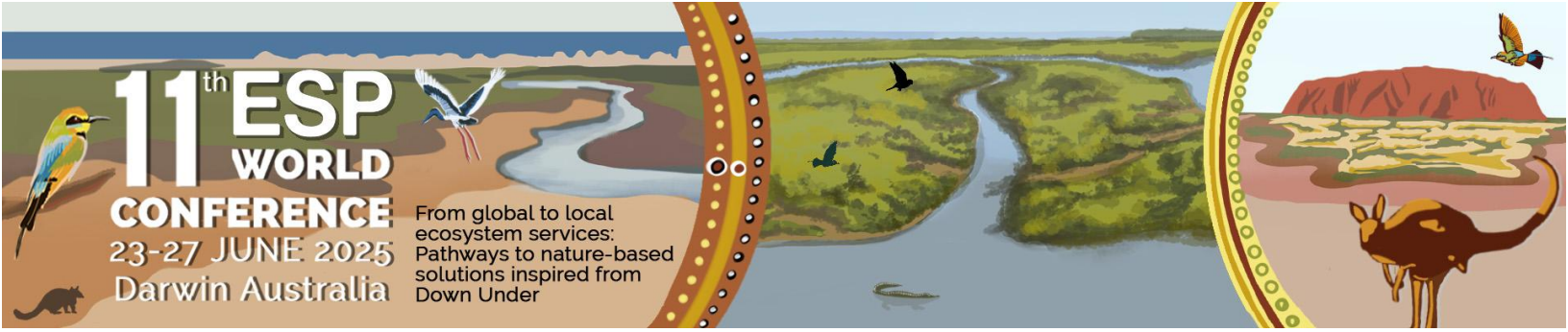
	Name	Organisation	E-mail
Host:	Albaluz Ramos-Franco	Young Ecosystem Services Specialist Network YESS - Juan de Castellanos University Colombia	aramosf@jdc.edu.co
Co-host(s):	Diana Sofía López-Cubillos	University of Melbourne	d.lopezcubillos@uq.edu.au

Abstract:

This session will explore the transformative role of local, rural, and indigenous-led conservation initiatives across the Global South in addressing global environmental challenges. While large-scale policies and international agreements often dominate discussions on biodiversity and ecosystem services, local communities are frequently at the forefront of on-the-ground efforts to safeguard natural resources. This session will bring together researchers and practitioners to highlight how these grassroots efforts are contributing to nature-based solutions, often in highly biodiverse yet vulnerable regions.

Through a series of case studies, we will examine the measurable ecological and socio-economic impacts that community-driven conservation efforts are generating. From preserving indigenous knowledge to enhancing biodiversity and fostering sustainable livelihoods, these initiatives offer powerful examples of how local action can ripple into broader regional and even global outcomes. We will also explore the challenges these communities face, including land tenure conflicts, limited access to resources, and the increasing pressures of climate change.

By sharing successes, lessons learned, and ongoing challenges, this session aims to elevate the importance of integrating local conservation efforts into global environmental strategies. Are these initiatives enough to spark larger-scale transformations, or do they risk being isolated examples of success in an otherwise stormy global landscape? Join us to discuss how the power of collective community action could reshape the pathways to nature-based solutions, inspired from the unique context of the Global South.



Goals and objectives of the session:

'- To showcase the ecological and socio-economic impacts of local, rural, and indigenous-led conservation initiatives in the Global South, highlighting their contributions to biodiversity conservation and nature-based solutions at regional and global scales.

- To facilitate knowledge exchange between researchers, practitioners, and community leaders by sharing successful case studies, challenges faced, and best practices in community-driven conservation efforts.

- To explore the potential of scaling up local conservation initiatives and integrating them into broader environmental policy frameworks, examining how grassroots actions can influence national and international conservation strategies.

Planned output / Deliverables:

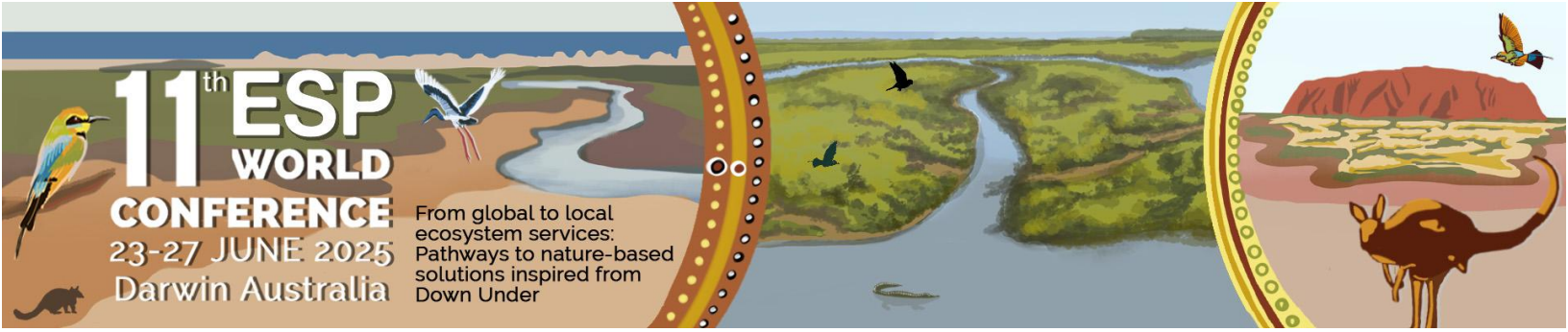
Memories of the presentations and summary document with the final discussions of the session.

II. SESSION PROGRAM

Room: Waterfront 1
Date of session: Tuesday, 24 June
Time of session: 15:30-18:00 (2,5 hr)

Timetable speakers:

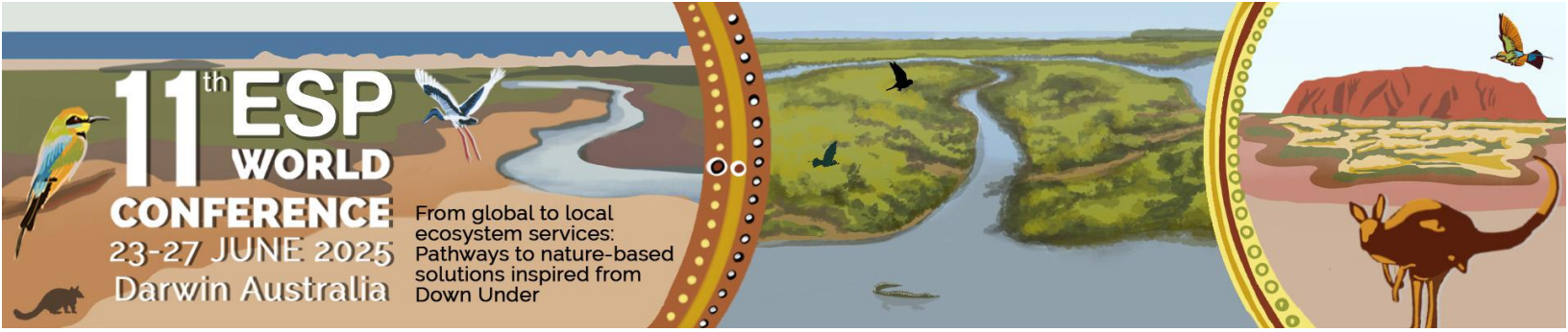
Time	First name	Surname	Organization	Title of presentation
15:30 - 15:45	Albaluz	Ramos-Franco	Juan de Castellanos University Colombia - Young Ecosystem Services Specialist Network YESS	Welcome speech - Does a single swallow attract the storm? Community conservation initiatives in the Global South
15:45 - 16:00	Yvonne Wambui	Githiora	Wildlife Works	Empirical Evidence of Climate Change Adaptation Benefits of Community Co-Designed REDD+ Projects in Africa: Case of Mai Ndombe and Kasigau Corridor REDD+ projects
16:00 - 16:15	Raina	Meha	Agresearch	Farm system design principles based on indigenous knowledge:



Time	First name	Surname	Organization	Title of presentation
				the case of Maori farmland in New Zealand
16:15 – 16:30	Diane	Jarvis	James Cook University	Including Indigenous Values and Mental Models for Improved Human-Nature Systems
16:30 – 16:45	Harisha	Puttahariyappa	Ashoka Trust for Research in Ecology and the Environment (ATREE)	Place-based weeds to wealth approach: A case study on a community-based, localized model for managing invasive
16:45 – 17:00	Amon Ngasha	Kabango	Ministry of Natural Resources & Climate Change	Advancing Ecosystem Restoration: Empirical Insights from Malawi
17:00 – 17:15	Eren Rhonda	Turak Ashby	NSW Department of Climate Change Energy, The Environment and Water	Using biocultural indicators of climate adaptation to maintain and enhance ecosystem services at a Ramsar
17:15 – 17:30	Kamal	Melvani	Neo Synthesis Research Centre	Coastal forest restoration and climate resilience: learning from Sri Lanka
17:30 – 18:00	Albaluz	Ramos-Franco	Juan de Castellanos University Colombia – Young Ecosystem Services Specialist Network YESS	Questions, conclusions and session close

III. LIST OF ABSTRACTS

The first author is the presenting author unless indicated otherwise.



1. Empirical Evidence of Climate Change Adaptation Benefits of Community Co-Designed REDD+ Projects in Africa: Case of Mai Ndombe and Kasigau Corridor REDD+ projects

First authors(s): Yvonne Wambui Githiora

Other author(s): Geoffrey Mwangi, Wambugu, Simon, Kasaine, Evariste Biembe, Loliki, Mwangi, Githiru

First author affiliation: Wildlife Works

Contact presenting author: yvonne.githiora@wildlifeworks.com

Keywords: sustainable agriculture, water security, food security, forest protection, community

This study describes the climate change adaptation benefits of community co-designed project activities under the Reducing Emissions for Deforestation and Forest Degradation (REDD+) model. Showcasing a Theory of Change (TOC) approach and associated data from household-level surveys from two ongoing projects, we demonstrate that REDD+, primarily a climate mitigation tool, can also foster significant local-scale adaptation in agriculture and forestry. We demonstrate how activities co-designed by the communities through the respective projects' theories of change and their associated indicators lead to measurable outcomes for both projects, despite differing operational contexts. In the Kasigau Corridor and Mai Ndombe REDD+ projects in Kenya and the DRC, respectively, key adaptation strategies include addressing water scarcity, promoting agricultural diversification (including "climate-smart" agriculture and multi-crop agroforestry), and diversifying livelihoods. These result in better food and water security, improved sustainable land management practices and increased incomes, and reduced forest loss and forest degradation. Key factors for successful adaptation outcomes are co-developing project interventions with communities, strengthening community decision-making structures, and practicing adaptive management. However, the success of certain activities may be affected by broader external drivers, including legislation, market demand, socio-economic factors, and government programs. We end by underscoring the importance of aligning the indicators to project data collection methodologies to measure outcomes and suggest ways in which qualitative and quantitative data reflecting indicators along the theory of change could enhance

the robustness of results. Given the complexity of social (and biological) impacts desired under REDD+ projects, classic counterfactual designs may not be practical, thereby underscoring the importance of alternative research methodologies to assess the impacts of such projects.

2. Farm System Design Principles Based On Indigenous Knowledge: The Case Of Maori Farmland In New Zealand

First authors(s): Raina Meha

Other author(s): Estelle Dominati

First author affiliation: Agresearch, New Zealand

Contact: Raina.Meha@agresearch.co.nz

Keywords: Māori indigenous knowledge, farm planning, farm system design

Māori people, the indigenous people of New Zealand, make up about 15% of New Zealand's population nowadays. Māori land is about 5.6% of NZ total land area, and is mostly administered by trusts and incorporations, with many having an interest in agriculture, and also including native forests, conservation areas and fragile ecosystems providing a range of ecosystem services.

In the past, a lot of Māori agricultural land was leased to non-Māori farmers. Nowadays, owners want to review the way their farmland is used and plan long-term, according to their cultural values to ensure the well-being of their people and the strong sustainability of farming activities.

This calls for collaborations and a trans-cultural approach to farm system design, embedded in Te Ao Māori, led by Māori owners, and applied to modern farm systems.

Over the last 10 years, A process has been co-developed to engage with Māori landowners to design farm systems, using integrated farm planning (IFP) as a base, while ensuring rangatiratanga (chiefly autonomy). IFP is used by some industry bodies, as well as regional and national government (MPI, MfE).

A Te Ao Māori view (Māori world view) is holistic and encompasses the following elements:

- Aspirations, goals, and priorities of the landowner(s), for multiple generations going forward.
- Tikanga Māori (Māori cultural values and practices) and Te Reo Māori (Māori language).
- Traditional environment and whenua (land) management methods, practice, and guidance.
- Te Tiriti o Waitangi (Treaty of Waitangi) principles.

This paper will detail how, each step of the IFP process, when Māori led, has been tailored to focus on the elements mentioned above, to deliver, not only economic value, but also environmental, social and cultural benefits and Ecosystem Services from all parts of the land.

3. Including Indigenous Values and Mental Models for Improved Human-Nature Systems

First authors(s): Diane Jarvis

Other author(s): No

First author affiliation: James Cook University, Australia

Contact: diane.jarvis1@jcu.edu.au

Keywords: Indigenous Knowledge, Ecosystem Services, Nature-based Solutions, SEEA EA, First Nations peoples

Including Indigenous values in the United Nations System of Environmental-Economic Accounting Environmental Accounts (UN SEEA EA) may be one way to better ensure that values of the traditional owners are reflected in government management and planning frameworks, and that these frameworks are useful for traditional land and sea owners; as well as that they influence investment in nature within government departments and businesses.

Based on two case studies we present potential avenues, learnings, and obstacles, for incorporation of Indigenous value systems related to ecosystem services (ES) into development of policy and planning that operates under SEEA framework. The first case study reports on

Nywaigi people of Australia conceptualisation of the ES linked to the Mungalla Station on their Country, and restoration of wetlands of national significance situated within the Station boundaries. The second case study explores avenues for and obstacles in evaluating benefits of nature-based solutions (NbS), with the custodians and owners of the coastal seascapes in Samoa.

We start by exploring how the Nywaigi concept of the ES of importance to Nywaigi people fits – and does not fit – with the SEEA flow accounts. We present development of the "mental map" of the Nywaigi people ES (and dis-services); and conceptualisation of the "spiral of Nywaigi wellbeing", with different levels on which ES co-produce contributions to their wellbeing, over time. In the second case study, we discuss how NbS and related approaches interact with the existing practices and traditional institutional arrangements, potentially affecting both the resilience of ecosystems and ecosystem services, and people and communities that depend on them, for better or worse. We close with the discussion on the potential for, and obstacles for, incorporation of the traditional value systems into accounting for ES benefits.

4. Place-based weeds to wealth approach: A case study on a community-based, localized model for managing invasive Lantana camara from South India

First authors(s): Harisha Puttahariyappa

Other author(s): No

First author affiliation: Ashoka Trust for Research in Ecology and the Environment (ATREE), India

Contact: hari@atree.org

Keywords: Lantana invasion; localized integrated method; economic cost; environmental security

The development of inclusive management strategies and programs is necessary to deal with invasive alien species like Lantana camara (now onwards Lantana) in dry tropical forests. Better collaboration, and coordination among different stakeholders in formulating strategies and using an integrated management approach were the best management practices recommended by various review studies. Our study demonstrates the cost-effective weeds-to-wealth approach

which is a tested, localized, and inclusive invasive management method. We used long-term monitoring forest survey data and qualitative data from periodical community interviews for evaluation and comparison.

Soligas, the tribal artisans of South India in Male Mahadeshwara Hills (Karnataka) are ingeniously utilizing the invasive weed Lantana. The community involvement in conservation practices with place-based control and management tools is being used effectively in making 43 different furniture products, 46 utility products, lampshades, and a life-size elephant sculpture cheaper than cane and equally sturdy. Bangalore-based institution Ashoka Trust for Research in Ecology and the Environment (ATREE) has been facilitating the tribal and village communities on training, logistics, certification, and marketing support for Lantana products under the weeds-to-wealth approach for the past 20 years (2004 to 2024). This initiative showcased the localized innovation that generated livelihoods (more than Rs 4.1 crore) and reduced Lantana density in about 28-thousand-hectare forests by removing 800 tons of Lantana.

This long-term study revealed that the use of the invasive Lantana as an opportunity for control and generate livelihood. A long-term study showed that reduced density of Lantana and increased regeneration of native plant species in harvested sites. More inclusive policy and regulatory roles to ease accessibility and ownership to the local community in control and management of invasive is an urgent need for solving the Lantana problem.

5. Advancing Ecosystem Restoration: Empirical Insights from Malawi

First authors(s): Amon Ngasha Kabango

Other author(s): No

First author affiliation: Ministry of Natural Resources & Climate Change, Malawi

Contact: amonkabango@yahoo.com

Keywords: Ecosystem Restoration, Bonn Challenge, Barriers, Policy Recommendations, Stakeholder Coordination

This study, conducted in collaboration with the United Nations Environment Programme—World Conservation Monitoring Centre (UNEP-WCMC), critically analysed ecosystem restoration initiatives, identified significant challenges, and offered evidence-based recommendations. Focusing specifically on Malawi, the research evaluated the country's restoration efforts within the framework of global commitments such as the Bonn Challenge and the UN Decade on Ecosystem Restoration. Malawi has pledged to restore 4.5 million hectares of degraded land by 2030, aligning with the Bonn Challenge. This comprehensive analysis was grounded in a thorough literature review and empirical data gathered from surveys with 25 subject matter experts. It meticulously assessed both effective interventions and persistent barriers to restoration. Key impediments identified include inadequate prioritisation of ecological restoration, limited financial resources, and fragmented governance structures. To tackle these challenges, the study advocates for the incorporation of restoration practices into national development agendas, increased financial investment, and improved coordination among various stakeholders. Moreover, the findings highlight the necessity for expanded comparative research across various geopolitical contexts, facilitating cross-regional analyses and the identification of best practices derived from successful restoration models globally.

6. Using biocultural indicators of climate adaptation to maintain and enhance ecosystem services at a Ramsar wetland under Indigenous joint management

First authors(s): Eren Turak

Other author(s): Rhonda Ashby

First author affiliation: NSW Department of Climate Change Energy, the Environment and Water

Contact: eren.turak@environment.nsw.gov.au

Keywords: Indigenous knowledge; Ramsar; ecosystem accounting; ecosystem services; decision making

Narran Lake Nature Reserve (Dharriwaa) is a Ramsar wetland in the traditional lands of the Yuwaalaraay/Euahlayi People in South-Eastern Australia. The reserve is managed by NSW

Government (DCCEEW) jointly with Aboriginal people under a memorandum of understanding (MoU) which establishes the Narran Lake Nature Reserve Joint Management Committee (JMC). The revised plan of management creates new opportunities for Indigenous knowledge to be incorporated into conservation and protection by combining: cultural principles that guide joint management; the objects of the NSW National Parks and Wildlife Act; Australian Ramsar management principles and the principles for nature reserves in NSW. To take advantage of these new opportunities, a collaborative project is underway involving the JMC, DCCEEW and researchers from Macquarie University to develop biocultural indicators of climate change adaptation for identifying and assessing indigenous knowledge for inclusion into decision making along these principles and facilitating the engagement of Aboriginal communities in nature conservation. The first steps are to: 1) build community based- participatory monitoring programs 2) identify and map place-based cultural values; and 3) develop seasonal calendars. The indicators that come out of this will be used locally for measuring success of reserve management and to develop local ecosystem accounts using quantitative measures nature's contributions to local Aboriginal communities (ecosystem services). This will enable prioritising resources invested by the NSW government into reserve management to optimise the well-being and interests of local communities and the recovery and protection of threatened species and endangered ecological communities. These indicators will also feed into State-wide plans and strategies e.g. the NSW Climate Adaptation Strategy and Action Plan and the NSW First Nations Investment Strategy. Progressing such work requires bridging the divide between social, technical, and bioethical issues. The JMC recognises that this will be difficult but is ready for the challenge.

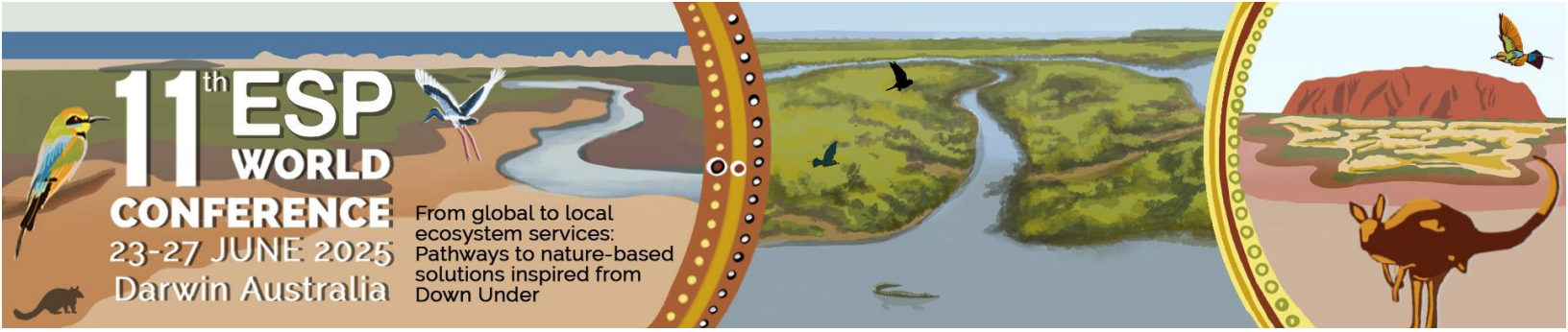
7. Coastal forest restoration and climate resilience: learning from Sri Lanka

First authors(s): Kamal Melvani

Other author(s): No

First author affiliation: Neo Synthesis Research Centre, Sri Lanka

Contact: neosynth@sltnet.lk



Keywords: Coastal forest restoration, climate resilience, Sri Lanka

Major risks from enhanced global warming that impact coastal communities are sea level rise, increasing temperatures, and frequent weather events (storms, cyclones, coastal flooding). After the 2004 Tsunami, the Neo Synthesis Research Centre established a 3km coastal forest at Kalmunai on Sri Lanka's east coast in 2005. Inhabitants of this densely populated area obtain freshwater from shallow wells dug within a sensitive Gyben Herzberg type groundwater lens. The coastal forest aimed to protect this area against future tsunamis and impacts of sea level rise exacerbated by climate change.

After discussions with local government, Forest, and Coast Conservation Departments, and previously mobilised members of 34 community groups, areas and strategies for forest establishment and management were determined. The nearest mature coastal forest at Sanghamankande which had withstood the Tsunami provided the landscape design model and species to be used. We constructed 75 cadjan enclosures between Kalmunai and Periyaneelvenai, added water hyacinth for soil enrichment, planted 23 species of mainly native trees and shrubs, mulched with paddy straw, and watered from wells dug on the shore. After project closure, the coastal forest was handed over to the community for management.

Twenty-five years later, despite some gaps, there remains a contiguous green wall where trees exceed 15m in height. Tree roots are densely matted, hold the sand intact and protect land against sea water intrusion. Vegetation barriers are reducing flood inundation, bioremediating increasingly saline groundwater, reducing heat stress with shade, recreating habitat and sequestering carbon. Given the diverse ecosystem services provided, we are now engaged in discussions with numerous stakeholders on how to conserve this coastal forest model and replicate it in other sensitive coastal areas of Sri Lanka. Other small island states that are vulnerable to sea level rise would benefit from our knowledge and experience.