

LIFE TO OUR MANGROVES

A COLLABORATIVE INITIATIVE OF BIODIVERSITY SRI LANKA TO SHOWCASE PRIVATE SECTOR ENGAGEMENT IN ACHIEVING NATIONAL BIODIVERSITY AND CLIMATE GOALS



BIODIVERSITY SRI LANKA

INTRODUCTION



Known as 'the Lungs of the Sea', mangrove ecosystems provide critical services for the maintenance and wellbeing of global biodiversity. They are also of equal importance to humans living in the tropical belt, in terms of the ecosystem services that they provide, and the options offered by them as livelihoods to the major proportion of populations that live in the coastal zones of the region. In the context of the single-most debilitating challenge that humankind faces currently, mangroves play a significant role in fighting climate change as unique and productive Carbon sinks, and by acting as a protective barrier for human settlements, against heightened natural disasters resulting from increased global temperatures. Therefore, there is special and increased focus being laid on the conservation and wise use of mangrove ecosystems around the world.

Mangrove ecosystems cover a land area of 0.23% of the total land area of Sri Lanka. In order to prioritize the protection of these mangrove forests, and more so urgently - a national policy to conserve and sustainably utilize mangrove ecosystems in Sri Lanka, was approved by the Cabinet of Ministers in March 2020.

THE PROJECT

In this backdrop, under the guidance of the Department of Wildlife Conservation, Biodiversity Sri Lanka together with its membership is proposing to implement a Mangrove Restoration Project as a Nature-based Solution (Nbs) that will generate multiple environmental as well as socio-economic benefits. Overall, the intervention will enhance the resilience of the mangrove ecosystem, its capacity for renewal, and the provision of ecosystem services, whilst contributing to the socio-economic development of local communities.

OBJECTIVES

- To enhance resilience, and ecosystem services by the identified mangroves
- To demonstrate the value of mangrove restoration as a Nbs to address the impacts of climate change, and socio-economic development challenges, building resilience and community readiness.
- To showcase the value of partnership building in contributing towards the reduction of Sri Lanka's climate change vulnerability





KEY SIGNIFICANT BENEFITS

- Opportunity for generation of carbon credits to offset carbon footprints It is estimated that the average annual carbon sequestration rate for mangroves averages between 6 to 8 Mg CO₂e/ha (tons of CO₂ equivalent per hectare)
- Be among the pioneers in promoting Nature-based Solutions (NbS) in Sri Lanka. NbS are designed to address major societal challenges, such as food security, climate change, water security, human health, disaster risk, social and economic development. The Project will be implemented according to IUCN's Global Standard for Nature-based Solutions
- Support Sri Lanka's drive for a blue carbon future
- Enhance multiple direct and indirect benefits to associated fauna and flora and local communities
- Opportunity for the corporate staff to actively engage in a project of national significance

"Mangroves, salt marshes, and seagrass lock away carbon at up to five times the rate of tropical forests"

Frances Beinecke

PROJECT SITE

Anawilunda Wetland Sanctuary, which covers an area of 1,397 ha and consists of forest wetlands including mangroves, coastal saltwater ecosystems, and freshwater lakes, is located along the coastal belt between Chilaw and Puttalam cities in the Puttalam district of the Northwestern Province of Sri Lanka. It is one of the six RAMSAR wetlands in the country and falls within the purview of the Department of Wildlife Conservation (DWC). The sanctuary provides shelter to a host of threatened fish, amphibians, mammals, reptiles, and birds including migratory birds.



From 44.5 ha of degraded mangrove forest patches within the sanctuary, the DWC has expressed willingness for Biodiversity Sri Lanka to take the lead in restoring up to 25 ha, using accepted scientific principles.





THE DURATION

The project duration is five years. The first two years will focus on planning, forging community partnerships, land preparation, nursery establishment, and planting activities. Years three-five will be allocated for gap filling and maintenance. Activities will be guided by the requirements of IUCN's Global Nature-based Solutions Standard. Baseline monitoring for the entire site is being undertaken by the DWC and the monitoring plan of the BSL site will be in keeping with the overall M&E process.

KEY ACTIVITIES

1. Baseline survey and stakeholder mapping:

As the Department of Wildlife Conservation (DWC) carries baseline information on the site, the Project will review and utilize available information for setting up the baseline. A deeper understanding of the physical environment, its biota, specific interactions or unique ecosystem traits, the extent of human interaction with the location, potential risks and threats will be identified, in order to heighten the impacts of the project. Further, socio-economic information will be gathered. A stakeholder map will obtain buy-in from relevant stakeholders from national to community levels.

2. Planning of restoration processes, and procurement and allocation of resources:

The restoration process will be planned in consultation with all stakeholders, defining each step clearly, including land preparation, setting up of a mangrove nursery, clearing the selected location, steps to restore the natural landscape, and hydrology ensuring appropriate hydro-geological connections. planting of mangrove saplings, setting up of protective measures to ensure the planted saplings remain secure, and enhancing conditions so that natural regeneration is supported and promoted

3. Ground implementation of ecological restoration process including the setting up of mangrove nurseries:

BSL will kick off the ground implementation of the project according to the developed activity plan, which will be updated annually. Physical restoration of the site will be carried out by BSL with the technical support and logistical assistance of the DWC and communities in the area. BSL will employ local field personnel to work with communities in the successful implementation of project activities. Goods and services, including labor and planting materials, will be procured as much as possible from local sources.

4. Setting up of monitoring criteria and establishment of record-keeping and reporting mechanisms:

In setting up monitoring criteria for the project's progress, BSL will ensure that the criteria includes the data requirements of IUCN's Global Standard for NbS, and those of the Biodiversity Credit Accrual Scheme in addition to criteria which will support the assessment of the project's success against its contribution towards the achievement of the UN SDGs, the Blue Carbon Initiative, and the Nationally Determined Contributions with respect to the Forestry sector.

5. Continuous monitoring and evaluation of data being gathered periodically:

Periodically scheduled Progress Review Meetings, Steering Committee Meetings, and Project Partner Briefings together with Field Monitoring Missions and Field-based Partner Engagement Programmes, will provide the opportunity for monitoring data to be continuously evaluated and analyzed for gap filling and the course changed if need be. BSL will ensure that the milestones set by the developed activity plan are achieved and that the outcomes of the same are integrated into the overall progress and success of the project.



PROJECT TIMELINE

NO	Activity	Year 1	Year 2	Year 3	Year 4	Year 5
1	Baseline survey and stakeholder mapping:					
2	Planning of restoration process, and procurement and allocation of resources:					
3	Ground implementation of ecological restoration process including the setting up of mangrove nurseries:					
4	Setting up of monitoring criteria and establishment of record-keeping and reporting mechanisms:					
5	Continuous monitoring and evaluation of data being gathered periodically:					



PROJECT BUDGET (LKR)*

First year	1,200,000
Second year	850,000
Third year	450,000
Fourth year	450,000
Fifth year	450,000
Total Budget	3,400,000

**Budget estimate is the cost per partner for 1 ha of restoration over a period of 5 years, in a ten-member/ 10 ha partnership*

A one-time additional contribution of LKR 150,000.00 per hectare is expected from each partner for Carbon Credit Calculations. The Carbon Credits earned will be shared among all the partners based on the extent that they undertake to restore.