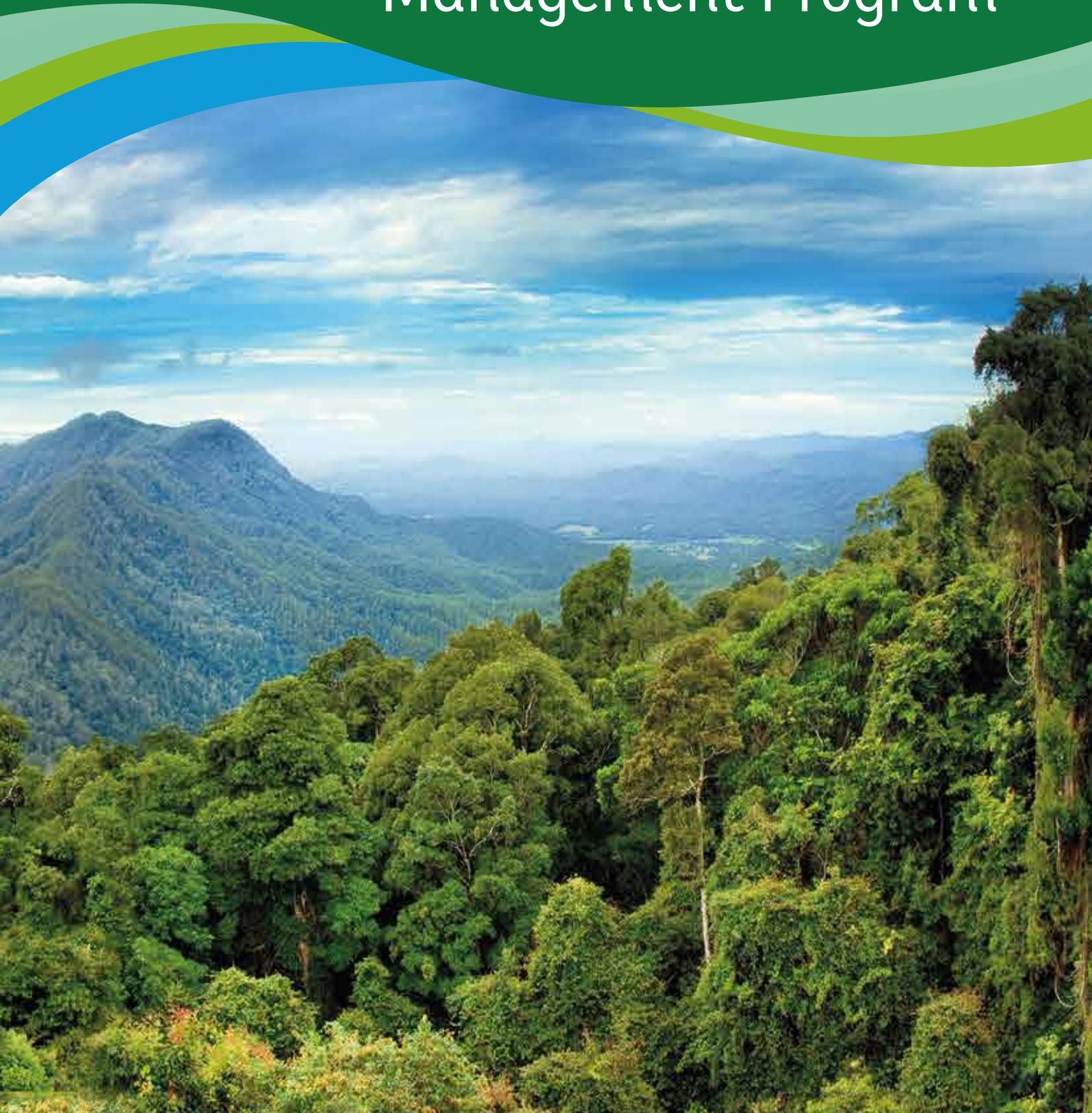


# Indonesia

## Sustainable Landscape Management Program



# The Purpose of the Sustainable Landscape Management Program



## Achieving healthy landscapes and prospering communities

Sustainably managing forests and landscapes is key to improving livelihoods, protecting biodiversity, reducing deforestation and carbon emissions, and fostering sustainable economic growth.

The Indonesia Sustainable Landscape Management Program (SLMP) supports the Government of Indonesia (GoI) to reduce deforestation and forest degradation and to promote more equitable growth through sustainable use of forest resources.

The SLMP brings together investments, technical assistance, and analysis to address the drivers of unsustainable natural resources management, particularly deforestation.

The SLMP also supports the GoI in promoting the reduction of greenhouse gas emissions through performance-based payments.



### Investments

Financing to enable GoI to lead the design and implementation of actions on the ground



### Technical Assistance

Policy advice, capacity building, knowledge sharing and technical assistance to the GoI and stakeholders



### Performance-Based Payments

Payments and incentives for verified emissions reductions



### High-Quality Analytics

Generation and dissemination of knowledge and analytics on landscape management

# Indonesia's Natural Resources are Globally Significant

## Mangroves

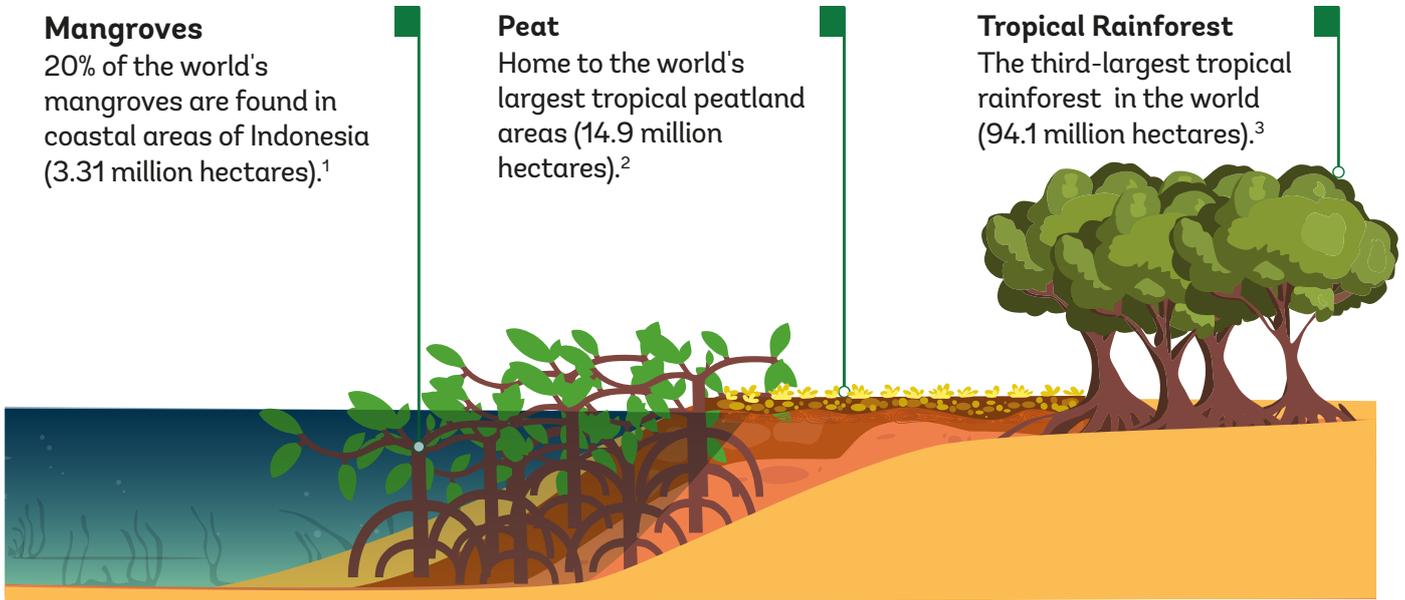
20% of the world's mangroves are found in coastal areas of Indonesia (3.31 million hectares).<sup>1</sup>

## Peat

Home to the world's largest tropical peatland areas (14.9 million hectares).<sup>2</sup>

## Tropical Rainforest

The third-largest tropical rainforest in the world (94.1 million hectares).<sup>3</sup>



**These natural assets and ecosystems support Indonesia's economic growth and sustain livelihoods for millions of people.**

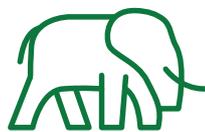
With **two thirds of exports** made up of natural resources and **a quarter of all jobs** in natural resource-based sectors (agriculture, forestry, and fisheries), Indonesia's economic growth has been fuelled by its extraordinary natural assets. These assets are also a source of livelihoods for surrounding populations, with 50-60 million people directly depending on these ecosystems.

## Indonesia's forests and landscapes are critical habitats for irreplaceable biodiversity

Indonesia's terrestrial biodiversity is the second richest in the world and encompasses:<sup>4</sup>



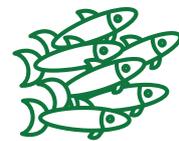
**11%**  
of all plant species



**13%**  
of all mammal species



**17%**  
of all bird species



**14%**  
of all fish species

## These natural resources also store vast amounts of carbon that mitigate climate change

- Indonesia's forests store about 200 tons of carbon per hectare<sup>5</sup>, or 18.8 billion tons of carbon in total, equivalent to greenhouse gas emissions released from over 13 million passenger vehicles driven in one year.
- Carbon sequestration by peat in Sumatra and Kalimantan alone is estimated to be worth around USD\$130 million annually, making carbon sequestration one of the most valuable ecosystem services that Indonesia's forest and lowland landscapes provide.

<sup>1</sup> KLHK, 2015: [http://ppid.menlhk.go.id/siaran\\_pers/browse/561](http://ppid.menlhk.go.id/siaran_pers/browse/561)

<sup>2</sup> BBSLDP, 2011

<sup>3</sup> KLHK, 2020: [http://ppid.menlhk.go.id/siaran\\_pers/browse/2435](http://ppid.menlhk.go.id/siaran_pers/browse/2435)

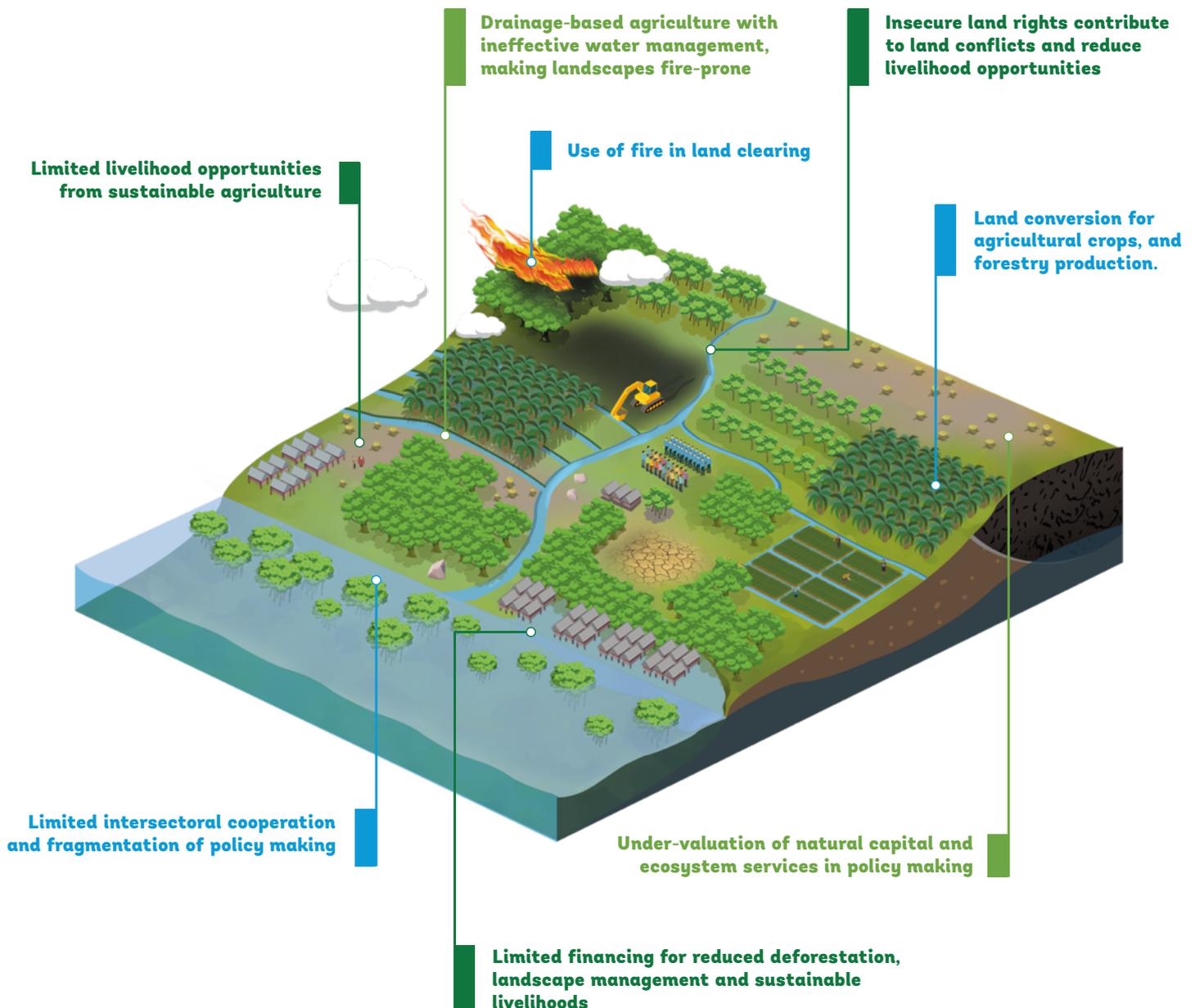
<sup>4</sup> Fauna and Flora International, <https://www.fauna-flora.org/countries/indonesia>

<sup>5</sup> KLHK, 2020: [http://ppid.menlhk.go.id/siaran\\_pers/browse/2551](http://ppid.menlhk.go.id/siaran_pers/browse/2551)

<sup>6</sup> World Bank, 2019.

# The SLMP Supports Indonesia to Address the Multiple Drivers of Unsustainable Landscape Management

Deforestation and land degradation pose significant costs to health and livelihoods, threatening long-term economic growth prospects and resilience, and exacerbating climate change.



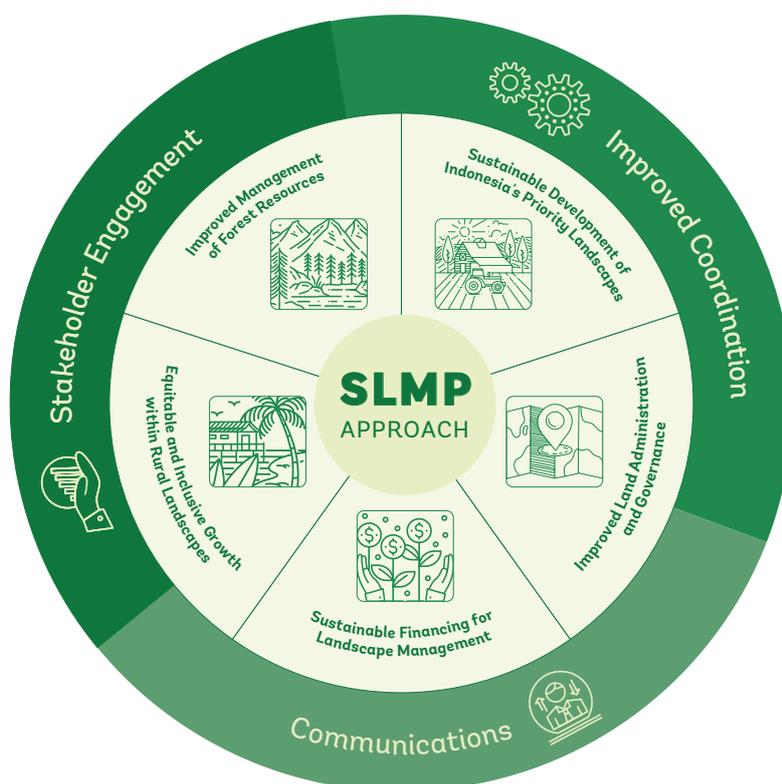
# The SLMP Approach



**Addressing the causes of unsustainable natural resource management and meeting multiple land-related goals requires an integrated and cross-sectoral approach.** With an integrated approach to landscape management, stakeholders from multiple sectors can come together to balance competing land use demands in a way that is best for human well-being and the environment. It means creating solutions that consider food and livelihoods, finance, land rights, restoration and progress towards climate and development goals.

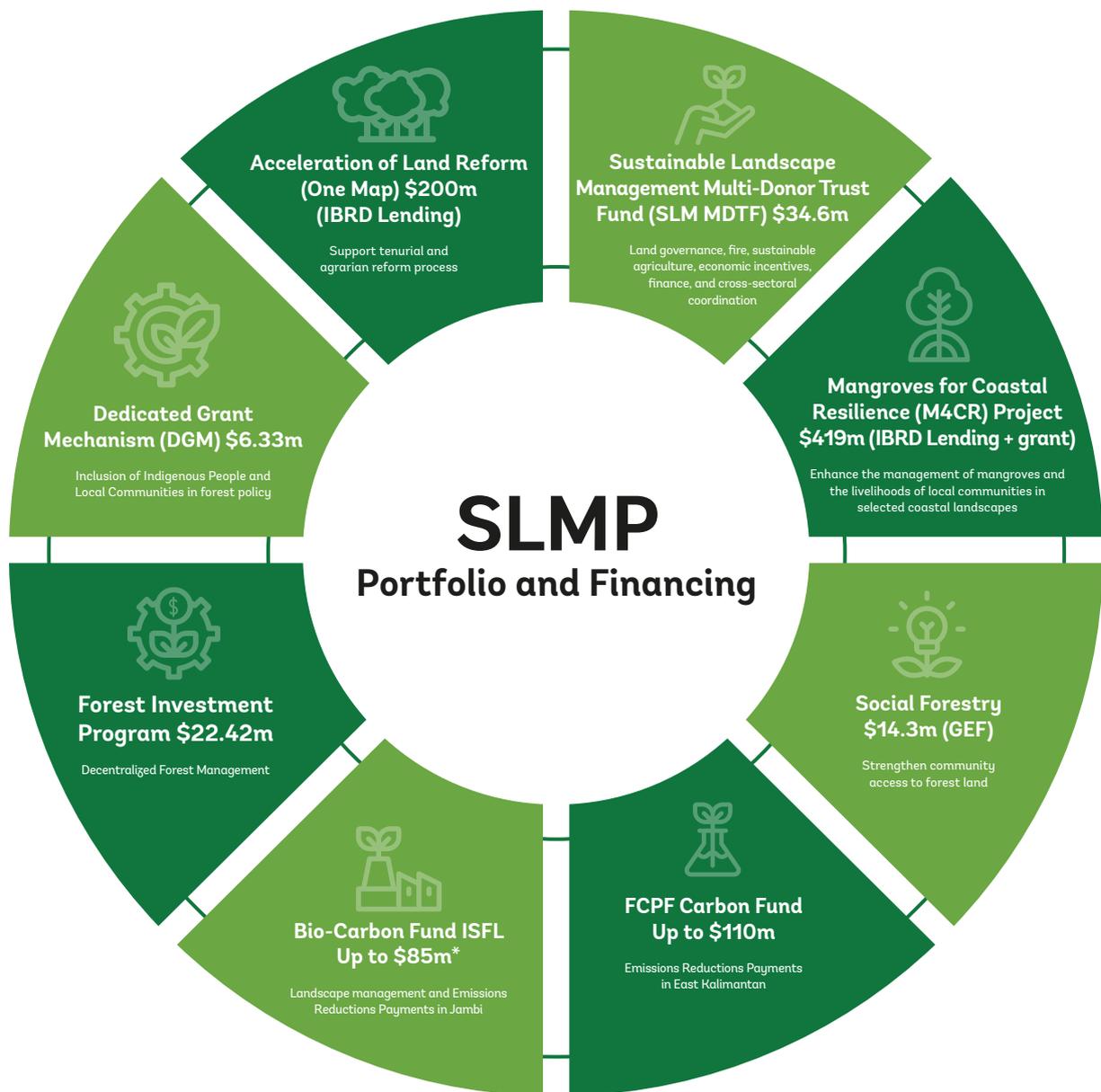
The SLMP promotes activities across multiple sectors and collaborates with stakeholders from the national and provincial government, private sector, civil society, and communities. This integrated landscape management approach is at the core of the SLMP intervention logic.

Specifically, SLMP works to achieve:



# SLMP Portfolio and Financing

The SLMP brings together multiple sources of finance and projects to support an integrated approach to landscape management.



\*consisting of:  
- Preparation: \$1.5m  
- Pre-investment: \$13.5m  
- Results-based payment: Up to \$70m



## Improved Land Administration and Governance

**Supporting the GoI to achieve a unified land register and a map of all land rights in Indonesia.**

Integrated land administration and governance enhances clarity over land rights and land use, which will strengthen sustainable landscape management, social stability, inclusive growth, conflict resolution, environmental protection and conservation, and women's awareness and access to land.

**The One Map project (US\$200 million, IBRD, started in 2018)** aims to provide clarity on land rights and land use by conducting village-based participatory mapping and registration of land rights (the project targets to register 4.3 million land parcels) in seven fire-prone provinces in Sumatra and Kalimantan. It contributes to the implementation of the GoI's Agrarian Reform Program. While the One Map Project is focused on covering the designated non-forest area, the SLMP also supports the GoI to implement land registration processes within the designated forest area, and therefore achieve one unified land register and a map of all land rights within a territory.

**The Strengthen Social Forestry project in Indonesia (US\$14.3 million, Global Environment Facility, since 2020)** provides technical assistance to communities, the GoI, and non-governmental and community organizations serving as facilitators of social forestry. The project works with stakeholders to formalize land use rights and supports activities to restore priority degraded forests.



# Sustainable Development of Indonesia's Priority Landscapes

**Supporting the development of comprehensive lowlands analytics, a national landscape management strategy and addressing key barriers to the production of environmentally sustainable and commercially viable agricultural commodities and value chain development.**

A sustainable model for lowlands development, based on scientific evidence and improved governance, can provide significant economic, social, and environmental benefits for Indonesia and its people.

The SLMP provides assistance to the GoI in formulating a sustainable and socially-inclusive strategy for lowlands development, including sustainable lowlands agriculture. The SLMP works with the GoI to improve the coordination, policy and management of Indonesia's priority landscapes through supporting the development of a National Landscape Management Strategy and sustainable agricultural investment proposals. The objective is to support strategies to enhance agricultural productivity and natural resource conservation in priority provinces through an integrated landscape management approach.

SLMP-supported analytics have identified that supporting value chains and improving spatial planning can enhance the sector's impact on rural livelihoods and poverty alleviation. Strong farmer-to-market linkages, supportive enabling environment and adequate service delivery in terms of technical capacity and access to inputs and financing for farmers can increase yields, reduce environmental and social risks and promote effective landscape management. The SLMP supports the application of an integrated landscape management approach to Indonesia's lowlands, through connecting biophysical characteristics of a landscape, local values and economic functions through sustainable agriculture.



## Improved Management of Forest Resources

**Supporting sustainable management of forest resources through economic and policy instruments to reduce emissions and deforestation and to improve the management of fire.**

The SLMP provides technical assistance, capacity building, advisory services, results-based payments, and grant-funding to enhance the GoI's vision to improve inclusive and sustainable management of forests through an integrated approach targeted at public, private, and civil society actors. This includes supporting the implementation of integrated fire management, the building of sustained capacity to reduce deforestation and supporting the use and implementation of key policy and economic incentive mechanisms.

Making landscape decisions based on the costs that arise from the degradation of natural assets and improving incentives for critical ecosystem services can lead to reductions in deforestation and emissions. Robust incentive mechanisms at the national, subnational, and local levels can complement and strengthen existing emissions reduction efforts. Results-based payments, ecological fiscal transfers at the provincial and district levels, functioning domestic carbon markets, and the implementation of payments for water services can complement existing regulatory approaches.

On top of incentive mechanisms, to support sustainable forests management, the SLMP through the **Forest Investment Program (US\$22.42 million, started in 2016)** supports the GoI to strengthen the institutional and local capacity for decentralized sustainable forest management that generates improved forest-based livelihoods through the establishment and operationalization of forest management units (KPH).

**The Dedicated Grant Mechanism (DGM) project (US\$6.33 million, Dedicated Grant Mechanism, started in 2017)** supports the inclusion of Indigenous Peoples and Local Communities (IPLC) in forest management. The DGM aims to enhance the capacity of participating IPLC to strengthen forest tenure security and improve their economic wellbeing, while supporting Indonesia's efforts to reduce greenhouse gas emissions.



## Jurisdictional Performance-based Emission Reductions Programs

**The World Bank supports the Gol in promoting the reduction of greenhouse gas emissions from the forest and land-use sector through jurisdictional performance-based emission reductions programs.**

**The Forest Carbon Partnership Facility (FCPF) (up to US\$110 million, started in 2020).** The first large-scale jurisdictional results-based REDD+ program in Indonesia, aims to lower rates of deforestation and forest degradation across 12.7 million hectares of land rich in tropical rainforests and biodiversity in East Kalimantan.<sup>7</sup>

**The BioCarbon Fund Initiative for Sustainable Forest Landscapes (BioCF ISFL) (up to US\$85 million, started in 2020)** promotes the reduction of greenhouse gas emissions from the forest and land-use sector through sustainable agriculture and climate-smart land-use planning, policies and practices in Jambi. The project will support community-based participatory land mapping, and the conservation and enhancement of biodiversity. The project takes a landscape approach to reducing emissions and improving livelihoods, and is working with Gol to strengthen policies and institutions to enhance effective land management regulation and enforcement, focusing on harmonizing policies and approaches across sectors. The project is also designed to provide payments and incentives for verified emissions reductions.

<sup>7</sup> The first Emissions Reductions Payment Agreement between Gol and the World Bank was signed in December 2020.



## Equitable and Inclusive Growth within Rural Landscapes

**Identifying opportunities and constraints for community participation in natural resource management and sustainable agricultural practices to improve rural livelihoods while reducing forest encroachment, habitat degradation, and preventing the spread of zoonotic diseases.**

Natural resource dependency has a direct link with vulnerability, with communities that depend on agricultural and forest-based livelihoods not always reaping optimal benefits from natural resource development. Identifying opportunities for rural populations to benefit from and sustainably manage the natural resource base is key to reducing overall poverty, and safeguarding forest assets for future generations. At the same time, the cost of doing business in rural areas is often higher than in urban areas and this can disincentivize private-sector driven development. A central part of the GoI's strategy for rural development is through direct fiscal transfers to villages (the Village Fund), which provides a strategic entry point for including sustainable landscape management priorities in village-level decision making.

The SLMP supports equitable and inclusive economic growth at the village level and improved livelihoods through the identification and development of key information, incentive schemes, instruments for participatory planning, and institutional arrangements to promote natural resource management, alternative sustainable agricultural products and value chain development. This is done through identifying and sharing best practices on sustainable and inclusive community management of landscapes and agriculture.



# Sustainable Financing for Landscape Management

## **Supporting the GoI to raise, manage and disburse domestic and international environmental and climate funds through support to operationalize the Indonesia Environment Fund (BPD LH)**

The GoI has pledged to reduce GHG emissions by between 29% (unconditional) and 41% (conditional) against the 2030 Business as Usual scenario. The financing gap to meet this target is estimated at US\$70.5 billion to US\$100 billion, with US\$60 billion required to implement the NDC in the forestry and land use sector alone.<sup>8</sup> To bridge this gap, the GoI launched the Indonesia Environment Fund (BPD LH) in October 2019. Operating under the Ministry of Finance, BPD LH aims to become the primary mechanism to manage and distribute domestic and international climate and environment funds in Indonesia.

BPD LH has the potential to unlock significant financing for environmental protection and climate change, particularly starting in the land use sector, while allowing different instruments to be tested to incentivize reduced deforestation. BPD LH is set to operate according to internationally recognized fiduciary, safeguards and technical standards, and its governance includes mechanisms for transparency and multi-stakeholder participation. Strong fund management systems, project prioritization mechanisms, technical capacity and support from key stakeholders will be fundamental to ensure the success of the BPD LH.

<sup>8</sup> Peta Jalan Nationally Determined Contribution – Mitigasi (KLHK, 2019)/Road Map of Nationally Determined Contribution (NDC): Mitigation Component (MoEF, 2019)

Photo by Ricky Martin/CIFOR



# SLMP in Practice: Mangroves for Coastal Resilience Project



**M4CR**  
MANGROVES FOR COASTAL RESILIENCE

**Given the critical importance of mangroves for livelihoods, resilience and the climate, the Government of Indonesia in 2020 announced the National Mangrove Rehabilitation Program, a Presidential priority that aims to rehabilitate 600,000 hectares of degraded mangroves by 2024. The Program is supported by development partners, including the World Bank, through the Mangroves for Coastal Resilience (M4CR) project.**

The M4CR project aims to enhance the management of mangroves and the livelihoods of local communities in selected coastal landscapes. The project will support policy and institutional reforms as the foundation for more effective mangrove management, in parallel to large-scale rehabilitation of degraded and deforested mangrove areas, and the creation of improved livelihoods opportunities for coastal communities.

# The Mangrove for Coastal Resilience project will work through four components:

## Component 2. Rehabilitating and Promoting Sustainable Mangrove Landscape Management

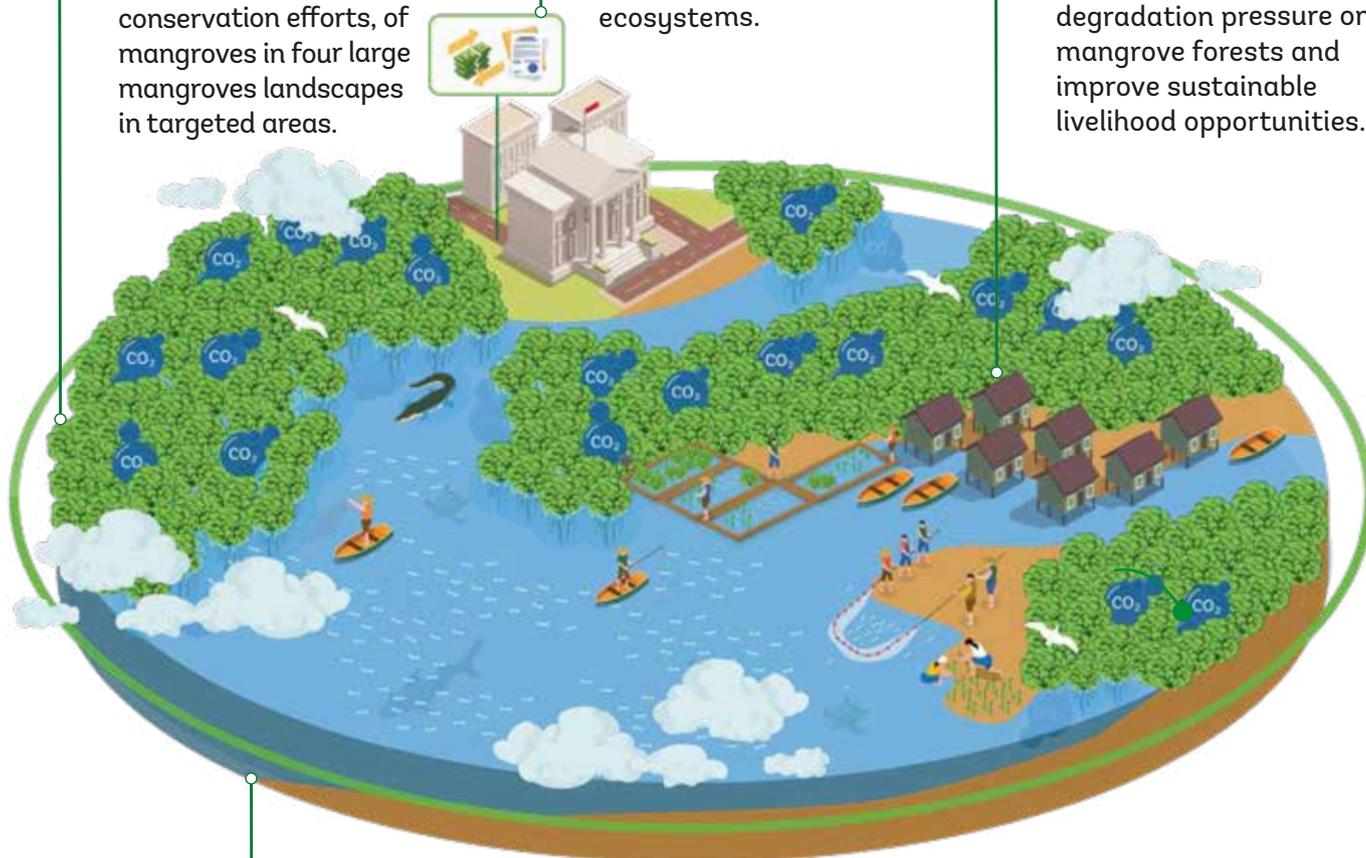
Component 2 aims to support the rehabilitation of 75,000 ha and sustainable management, including conservation efforts, of mangroves in four large mangroves landscapes in targeted areas.

## Component 1. Strengthening Policy and Institutions for Mangrove Management

Component 1 aims to strengthen enabling policies and institutions to improve the management and financing of mangrove ecosystems.

## Component 3. Improving Livelihood Opportunities for Mangrove Communities

Component 3 supports the development of livelihoods and sustainable enterprises in target villages to reduce the degradation pressure on mangrove forests and improve sustainable livelihood opportunities.



## Component 4. Project Management

The M4CR fund will be managed by the Indonesia's Environment Fund (IEF), in collaboration with MoEF, BRGM, CMMAI and active participation of subnational government. This project will be initially implemented in four provinces: Riau, South Sumatra, North Kalimantan and East Kalimantan.

The M4CR project is expected to protect and restore critical mangrove ecosystems, enhance global public goods (ecosystem services, carbon storage, habitat for species) and reduce disaster risk to coastal communities. The project will also contribute to the Government of Indonesia's ambition of turning the forestry sector into a carbon sink by 2030.

# Analytics, Knowledge Products, and Knowledge Exchanges

## Improving Governance of Indonesia's Peatlands and Other Lowland Ecosystems

Technical guide to address sustainability challenges in Indonesia's lowland ecosystems, through integrated landscape governance.

## Sustainable Lowland Agriculture Development in Indonesia

Analysis of lowlands farming systems and options and strategies for sustainable lowlands development.

## Knowledge Exchange

Knowledge exchanges enable stakeholders to come together to share, promote and learn from global experience and best practice.

Download SLMP Publications here:



<https://www.worldbank.org/in/programs/indonesia-sustainable-landscapes-management-program/publications>





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