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Report No: PAD3223

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED BIOCARBON FUND PLUS INITIATIVE FOR SUSTAINABLE FOREST LANDSCAPES GRANT

IN THE AMOUNT OF US\$ 13.5 MILLION

TO THE

REPUBLIC OF INDONESIA

FOR THE

ID: JAMBI SUSTAINABLE LANDSCAPE MANAGEMENT PROJECT (P166672)

DECEMBER 10, 2020

Environment & Natural Resources Global Practice
East Asia And Pacific Region

ABBREVIATIONS AND ACRONYMS

AFOLU	Agriculture, Forestry and Other Land Use
AMDAL	Environmental Impact Assessment
APL	Other Land Uses
ATR	Ministry of Agrarian Affairs and Spatial Planning
AWPB	Annual Work Plan and Budget
BAU	Business-as-usual
BETF	Bank-Executed Trust Fund
BioCFplus	BioCarbon Fund plus
BKSDA	Nature Resource Conservation Agency
BMKG	Meteorological, Climatological, and Geophysical Agency
BPDASHL	Watershed Management and Protected Forest insititute
BPDP-KS	Oil Palm Plantation Fund Agency/(Badan Pengelola Dana Perkebunan Kelapa Sawit)
BPN	National Land Agency
BRG	Peatland Restoration Agency
BSM	Benefit Sharing Mechanism
BSP	Benefit Sharing Plan
CH ₄	Methane
CPF	Country Partnership Framework
CQS	Selection based on consultant's qualification
CSA	Country Situation Analysis
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
DA	Designated Account
DG-CC	Direktorate General for Climate Change
DGM	Dedicated Grant Mechanism
Disbun	Estate Plantation Service
Dishut	Forestry Service
DisLH	Environment Service
DNPI	National Council on Climate Change
ECOP	Environmental Codes of Practice
EMP	Environmental Management Plans
ERs	Emission Reductions
ERC	Ecosystem Restoration Concession
ERPA	Emission Reductions Payment Agreement
ER-PIN	Emission Reductions Program Idea Note
ERPD	Emission Reductions Program Document
E&S	Environmental and Social
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization of the United Nations
FCPF	Forest Carbon Partnership Facility
FGRM	Feedback and Grievance Redress Mechanism

FIP	Forest Investment Program
FM	Financial Management
FREL	Forest Reference Emission Level
FRS	Fire Risk System
FY	Fiscal Year
G20	Group of Twenty
GDP	Gross Domestic Product
GGP	Green Growth Plan
GHG	Greenhouse Gas
GIZ	German Corporation for International Cooperation or <i>Gesellschaft für Internationale Zusammenarbeit</i>
GOI	Government of Indonesia
GRS	Grievance Redress Service
Ha	Hectares
HCFC	Hydrochlorofluorocarbon
HCS	High Carbon Stock
HCV	High Conservation Value
HPH	Logging concessions
HTI	Industrial timber plantation concessions
ICCTF	Indonesia Climate Change Trust Fund
IFC	International Finance Corporation
IFR	Interim Financial Report
IPLC	Indigenous People and Local Communities
IPPF	Indigenous Peoples Planning Framework
IPSDH	Direktorate of Inventory and Monitoring of Forest Resources or <i>Inventarisasi dan Pemantauan Sumber Daya Hutan</i>
ISFL	Initiative for Sustainable Forest Landscapes
ISPO	Indonesian Sustainable Palm Oil
J-SLMP	Jambi Sustainable Landscape Management Project
KACP	Kenyan Agriculture Carbon Project
KEE	Essential Ecosystem Areas (<i>Kawasan Ekosistem Esensial</i>)
KfW FP	German Ministry of Environment's International Climate Initiative Forest Program (Kreditanstalt fur Wiederaufbau (KfW) Forest Programme)
KPH	Forest Management Unit
KTPA	Fire Care Farmer Groups
KUR	<i>Kredit Usaha Rakyat</i>
LKPP	National Public Procurement Agency or <i>Lembaga Kebijakan Pengadaan Pemerintah</i>
M&E	Monitoring and Evaluation
MAR	Monitoring, Anlysis, and Reporting
MoA	Ministry of Agriculture
MoEF	Ministry of Environment and Forestry
MoHA	Ministry of Home Affairs
MoF	Ministry of Finance
MPA	Masyarakat Peduli Api/Fire Care Community
MPI	Mitigasi Perubahan Iklim/Directorate of Climate Change Mitigation

MRV	Measurement, Reporting and Verification
MS2R	Direktorat of Sectoral and Regional Resources Mobilization
MtCO ₂ e	Million tonnes of carbon dioxide equivalent, can also be CO ₂ e (carbon dioxide equivalent) or tCO ₂ e (tonnes of carbon dioxide equivalent)
MTH	Mixed Tropical Hardwood
N ₂ O	Nitrous oxide
NDC	Nationally Determined Contribution
NDPE	No Deforestation, No Peat, No Exploitation
NFMS	National Forest Monitoring System/ SIMONTANA : Sistem Monitoring Hutan Nasional)
NPMU	National Project Management Unit
NTFP	Non-Timber Forest Product
OPs	Operational Policies
OPD	Other Provincial Government Services
PAD	Project Appraisal Document
PDO	Project Development Objective
PF	Process Framework
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PKHL	Lambusango Forest Conservation Program or <i>Program Konservasi Hutan Lambusango</i>
PMU	Project Management Unit
POME	Palm Oil Mill Effluent
PPH	Division of Forest Utilization and Planning
PPSD	Project Procurement Strategy for Development
PRISAI	Principles, Criteria, and Indicators for REDD+ Safeguards
QCBS	Quality and Cost-Based Selection
REDD+	Reducing Emissions from Deforestation and Forest Degradation, and foster conservation, sustainable management of forest, and enhancement of forest carbon stocks
RIL-C	Reduced Impact Logging-Carbon
RPF	Resettlement Planning Framework
RPHJP	Long-Term Forest Management Plan
RPJMD	Regional Mid-Term Development Plan
RPJMN	National Mid-Term Development Plan
RSPO	Roundtable on Sustainable Palm Oil
SALM	Sustainable Agricultural Land Management
SESA	Strategic Environmental and Social Assessment
SIS	Safeguards Information System
SFM	Sustainable Forest Management
SLM	Sustainable Land Management
SPSE	National Electronic Procurement System or <i>Sistem Pengadaan Secara Elektronik</i>
SRAP	Provincial REDD+ Strategy and Action Plan
STEP	Systematic Tracking of Exchanges in Procurement
SVLK	Timber Legality Verification System or <i>Sistem Verifikasi Legalitas Kayu</i>
T3	Tranche Three of the BioCarbon Fund

TFA 2020	Tropical Forest Alliance 2020
TLFF	Tropical Landscape Finance Facility
TNC	The Nature Conservancy
TRG	<i>Tim Restorasi Gambut</i>
UK	United Kingdom
UKL-UPL	Environmental Management Efforts and Environmental Monitoring Efforts
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
US	United States of America
USAID	United States Agency for International Development
WB	World Bank
WBG	World Bank Group
WWF	World Wildlife Fund

Regional Vice President: Victoria Kwakwa

Country Director: Satu Kahkonen

Regional Director: Benoit Bosquet

Practice Manager: Ann Jeannette Glauber

Task Team Leader(s): Dinesh Aryal / Jan Joost Nijhoff

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Indonesia	ID: Jambi Sustainable Landscape Management Project (J-SLMP)	
Project ID	Financing Instrument	Environmental Assessment Category
P166672	Investment Project Financing	B-Partial Assessment

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
16-Dec-2020	30-Jun-2026

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The project development objective is to improve sustainable landscape management that reduces land-based greenhouse gas emissions in selected sites in Jambi Province.



Components

Component Name	Cost (US\$, millions)
Strengthening Policy and Institutions	2.50
Implementing Sustainable Land Management	8.50
Project Management and Monitoring and Evaluation	2.50

Organizations

Borrower:	Republic of Indonesia
Implementing Agency:	Ministry of Environment and Forestry

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	13.50
Total Financing	13.50
of which IBRD/IDA	0.00
Financing Gap	0.00

DETAILS

Non-World Bank Group Financing

Trust Funds	13.50
BioCarbon Technical Assistance Trust Fund	13.50

Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2020	2021	2022	2023	2024	2025	2026
Annual	0.00	1.80	4.10	3.39	2.56	1.63	0.02
Cumulative	0.00	1.80	5.90	9.29	11.85	13.48	13.50

**INSTITUTIONAL DATA****Practice Area (Lead)**

Environment, Natural Resources & the Blue Economy

Contributing Practice Areas

Agriculture and Food, Climate Change

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Substantial
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Moderate
7. Environment and Social	● Substantial
8. Stakeholders	● Substantial
9. Other	● Moderate
10. Overall	● Substantial

COMPLIANCE**Policy**

Does the project depart from the CPF in content or in other significant respects?

[] Yes [✓] No

Does the project require any waivers of Bank policies?

[] Yes [✓] No

Safeguard Policies Triggered by the Project

Yes No

Environmental Assessment OP/BP 4.01

✓



Performance Standards for Private Sector Activities OP/BP 4.03	✓
Natural Habitats OP/BP 4.04	✓
Forests OP/BP 4.36	✓
Pest Management OP 4.09	✓
Physical Cultural Resources OP/BP 4.11	✓
Indigenous Peoples OP/BP 4.10	✓
Involuntary Resettlement OP/BP 4.12	✓
Safety of Dams OP/BP 4.37	✓
Projects on International Waterways OP/BP 7.50	✓
Projects in Disputed Areas OP/BP 7.60	✓

Legal Covenants

Sections and Description

Section I.A.3(a) of Schedule 2 to the Grant Agreement

The Recipient shall, by no later than three (3) months after the Effectiveness Date, establish and thereafter maintain throughout Project implementation, the National Steering Committee, with a mandate, composition, staffing and resources acceptable to the Bank.

Section I.A.3(b) of Schedule 2 to the Grant Agreement

The Recipient shall, by no later than three (3) months after the Effectiveness Date, establish and thereafter maintain throughout Project implementation, the National Project Management Unit, with a mandate, composition, staffing and resources acceptable to the Bank.

Section I.A.3(c) of Schedule 2 to the Grant Agreement

The Recipient shall, by no later than three (3) months after the Effectiveness Date, establish and thereafter maintain throughout Project implementation, the Sub-National Project Management Unit, with a mandate, composition, staffing and resources acceptable to the Bank.

Section I.A.3(d) of Schedule 2 to the Grant Agreement

The Recipient shall, by no later than three (3) months after the Effectiveness Date, establish and thereafter maintain throughout Project implementation, the National Technical Committee, with a mandate, composition, staffing and resources acceptable to the Bank.

Section I.A.3(e) of Schedule 2 to the Grant Agreement

The Recipient shall, by no later than three (3) months after the Effectiveness Date, establish and thereafter maintain throughout Project implementation, the Provincial Technical Committee, with a mandate, composition, staffing and resources acceptable to the Bank.

**Section I.A.3(f) of Schedule 2 to the Grant Agreement**

The Recipient shall, by no later than three (3) months after the Effectiveness Date, establish and thereafter maintain throughout Project implementation, the Project Implementation Units, with a mandate, composition, staffing and resources acceptable to the Bank.

Section I.B of Schedule 2 to the Grant Agreement

The Recipient shall, by no later than three (3) months after the Effectiveness Date, prepare and adopt the Project Implementation Manual, satisfactory to the Bank.

Section I.C of Schedule 2 to the Grant Agreement

The Recipient shall (a) issue, no later than three (3) months after the Effectiveness Date, a circular on the procedures to be applied by the Provincial Government of Jambi relating to the On-Granting Mechanism; (b) prior to the implementation of the Project through the On-Granting Mechanism, execute and maintain in effect through Project implementation an On-Granting Agreement with the Provincial Government of Jambi; (c) employ the Recipient's flow of funds mechanism for the transfer of Grant proceeds withdrawn from the Grant Account to reimburse the Provincial Government of Jambi's expenditures for the Project; and (d) ensure that the Provincial Government of Jambi makes necessary allocation in its budget for purposes of Project implementation.

Schedule II.C.1 of Schedule 2 to the Grant Agreement

The Recipient shall, jointly with the Bank, carry out Mid-Term review of the Project by no later than three (3) years after the Effectiveness Date.

Section I.D of Schedule 2 to the Grant Agreement:

The Recipient shall prepare and furnish to the Bank, by not later than one (1) month before the beginning of each fiscal year of the Recipient of each year during the implementation of the Project, for the Bank's review and no-objection, an Annual Work Plan and Budget.

Conditions

Type	Description
Effectiveness	N/A



I. STRATEGIC CONTEXT

A. Country Context

1. **Indonesia is emerging as a politically stable middle-income country seventy years after independence and following more than a decade of political and institutional reforms.** With a population of 260 million living across over 6,000 inhabited islands, Indonesia is the world's fourth most populous nation, the tenth largest economy in terms of purchasing power parity, and the only Southeast Asian member of the Group of Twenty (G20). Indonesia is endowed with remarkable natural resources from its land and seas. The economy is based largely on extraction of non-renewable resources (16 percent of GDP, 40 percent of exports), as well as agriculture and forestry (34 percent of GDP). The country has made significant gains in poverty reduction and for a decade up until 2015, it had an annual growth rate of about 6 percent.¹ Growth averaged 5 percent in 2016, but rose to 5.2 percent in third quarter of 2018, and is projected to remain steady at 5.2 percent in 2019.² Despite the Government's expansionary monetary and fiscal policy, the country's GDP is projected to decline in the second quarter of 2020, although the latest developments indicate milder pressures due to the COVID-19 pandemic³. Furthermore, preliminary estimates suggest that the pandemic could also increase poverty rates up to 3.15 percentage points, translating to 8.5 million additional people living in poverty⁴.
2. **Indonesia has had one of the highest rates of deforestation in recent decades.** Annual deforestation rates within the Forest Area (*Kawasan Hutan*)⁵ peaked between 1996-2000 (totaling 3.51 million hectares (ha)) and has recently been reduced to less than 0.5 million ha (493,300 ha in 2017 to 2018 and 465,500 in the 2018 to 2019 period).⁶ Land administration in Indonesia is divided between the Forest Area administered by the Ministry of Environment and Forestry (MoEF) and non-Forest Area administered by the Ministry for Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN). Land management and administration system dualism contributes to weak governance and uncertainty over tenure arrangements. These circumstances are compounded by poverty rates that are twice as high for those inside and around forest areas (26 percent inside *Kawasan Hutan*) as compared to the national average (11.3 percent).
3. **Indonesia's emissions from land use, land use change, and forestry (LULUCF, including peat fires) constituting the majority share (51.59 percent) of national GHG emissions**⁷. Expanding agriculture, logging, mineral extraction, urbanization and housing development have resulted in not only increased land conversion, but also forest degradation, reducing environmental benefits which further exacerbate poverty.
4. **Growth in the commodities sector has continued during recent years, despite reduced global demand and government policies for low-carbon development.** Prices of key export commodities have

¹ World Bank (2015) Indonesia – Country Partnership Framework for the period FY16 - 20 (English).

² World Bank 2018b.

³ Bank Indonesia 2020.

⁴ Based on Government reported data. National Development Planning Agency (Bappenas) 2020.

⁵ According to Law 41/1999, Forest Area (*Kawasan Hutan*) is designated and or stipulated by government to be preserved as permanent forest, with or without forest cover and includes Protection Forest (*Hutan Lindung*), Conservation Forest (*Hutan Konservasi*), and Production Forest (*Hutan Produksi*).

⁶ Based on Government reported data. MoEF 2020.

⁷ Republic of Indonesia 2018: Indonesia Second Biennial Update Report (BUR) under the United National Framework Convention on Climate Change (UNFCCC). Indonesia's. http://ditjenppi.menlhk.go.id/reddplus/images/adminppi/dokumen/Indonesia-2nd_BUR_web.pdf



fallen by 40 percent since their 2011 peak and the economic tailwinds of the past decade—rapid growth among Indonesia's key trading partners, particularly China, high commodity prices, and significant growth in consumption of an emerging middle class—have now become headwinds. The National Government's Mid-term Development Plan's (RPJMN 2015-2019) main objectives are human and community development, narrowing the income gap through increased productivity and poverty reduction measures, and increasing development in an environmentally sustainable manner, including engaging the private sector as an integral part of solutions.

5. **In the first two months of 2020, however, export volumes of palm oil and its derivatives have reduced sharply to 34 percent as a result of the COVID-19 pandemic which has contributed to falling demand in major export markets, especially China, India, and European Union (EU)⁸.** Given that palm oil is one of Indonesia's largest source of foreign exchange, the economic consequences are and will continue to be substantial. In particular, the economic impact on producers is already apparent and will become clearer as the pandemic continues to unfold and evolve.

B. Sectoral and Institutional Context

6. **Indonesia's forests have global significance.** The country is home to the world's third-largest tropical forest (120.6 million ha of natural and planted forests, representing more than 60 percent of Indonesia's total land area)⁹. Indonesia's forests are ecologically unique¹⁰ and one of the world's most important carbon sinks, sequestering and storing significant quantities of carbon in both above-ground biomass and below-ground peat soils. Much of Indonesia's forest resources are found within the Forest Area (*Kawasan Hutan*). Indonesia's natural ecosystems are under threat from inadequate management and weak governance, which erodes their potential to contribute to the country's growth and development, particularly for the 50 million people living in and around forests.

7. **Roughly two-thirds of Indonesia's annual GHG emissions come from land use change and agriculture,** which has been primarily driven by the production of agricultural commodities, notably oil palm, and forest plantations. Reoccurring seasonal fires amplified during El Niño years, including on peatlands, significantly contribute to Indonesia's ranking among the world's top emitters. Indonesia is the largest emitter when considering the land sector alone. The 2015 fires resulted in 2.6 million ha of Indonesian land burned. and cost Indonesia's economy over US\$16 billion.¹¹ Such patterns will make it difficult for Indonesia to meet its emissions reduction targets and are likely to compound impacts on the poor as they stand to suffer most from the impacts of climate change.¹² **Peatlands, in particular, are critical for Indonesia both in terms of GHG emissions and economic development.** Peatlands in Indonesia total 13.8 million hectares, which are estimated to store between 37 and 65 percent of the global tropical peat carbon pool.¹³ The massive growth plantations, primarily for oil palm and pulpwood, are a major driver of deforestation on peatlands over the past two decades and by 2015 6.3 million hectares had been

⁸ The Indonesian Palm Oil Producers (GAPKI) 2020.

⁹ The State of Indonesia's Forests 2018.

¹⁰ Indonesia's forests contain 17 percent of the world's bird species, 16 percent of reptiles and amphibians, 12 percent of mammals, and 10 percent of plants.

¹¹ World Bank (2016) The Cost of Fire - An Economic Analysis of Indonesia's 2015 Fire Crisis.

¹² While seasonal fires can significantly contribute to overall emissions, they are not the main cause of primary forest loss, as they tend to concentrate on areas that were previously converted (e.g. to palm oil concession) or shrubland areas, i.e. areas that are generally characterized by intensive, and often unsustainable, land use. During the 2019 fires season, 38% of fires occurred in APL areas (*areal penggunaan lain*, land for other purposes), which is land allocated to non-forestry purposes (but may still have significant tree cover and above-ground biomass) and 43% in production forests.

¹³ World Bank (2019) Improving Governance of Indonesia's Peatlands and Other Lowland Ecosystems, draft technical report.



converted to industrial and smallholders' plantations¹⁴. Furthermore, drained peatland emits more GHG emissions and increases fire incidence due to drier conditions and methods for clearing land. Simultaneously, palm oil and pulpwood are export commodities that generate foreign exchange and employment.

8. **The Government of Indonesia (GOI) has made significant international commitments to reduce Indonesia's GHG emissions, with a focus on REDD+¹⁵ and other results-based initiatives as the principal mechanisms to address the land use and forestry sectors as the primary sources of emissions¹⁶.** At the Conference of Parties meeting in Paris in 2015, the GOI pledged through its NDC to reduce its GHG emissions by up to 41 percent by 2030 with international assistance (29 percent with its own resources) relative to a business-as-usual (BAU) scenario. For Indonesia to reach a target of 41 percent, emissions need to decrease by 1.081 million tons of carbon dioxide equivalent (MtCO₂e), with 60 percent of this target to come from the forestry sector.

9. **It is relevant to note that there has been a reduction in the rate of forest conversion since 2017, which has resulted in a lower rate of annual GHG emissions.** The estimated annual emissions from forest loss in 2017 and 2018 were 511 and 480 MtCO₂e, respectively, compared to an average annual rate of 654 MtCO₂e for the 2006-2016 period¹⁷, which is measurably less than Brazil and the DRC during the same period¹⁸. These improvements can likely be attributed to Government's actions to curb the rate of deforestation, notably through a nationwide moratorium on primary forest clearance for plantations and logging (made permanent in 2019 for a total area of 66 million of the Forest Area) as well as moratoria on peatland and primary forest conversion. These national actions will be further complemented by and expanded in Jambi, including through the support of this Project. The effective implementation of these, and other, policies will be critical to sustain this fledgling trend at the national level and in pioneering provinces, such as Jambi.

10. **The GOI faces an urgent challenge given the potentially significant impacts of COVID-19 on the country's environment and natural resources and the livelihoods of local communities who are dependent on these resources.** There is evidence from other recent crises, including the 1997/1998 financial crisis that significantly impacted the country's economy, that pressure on the environment and natural resources significantly increased during and after such crises, in particular for land use and forests. A Center for International Forestry Research (CIFOR) study¹⁹ on the impact of the financial crisis on small-scale farmers in five provinces in Sumatra, Kalimantan and Sulawesi revealed that there was a strong correlation between the financial crisis and related loss of low-skilled employment with encroachment of natural forests. Specifically, people adopted mixed farming to supplement their short-term cash income

¹⁴ Tropical Peatland Restoration Report: the Indonesian Case 2018.

¹⁵ REDD+ is defined as "Reducing Emissions from Deforestation and forest Degradation, conservation of forest carbon stocks, sustainable management of forest, and enhancement of forest carbon stocks in developing countries".

¹⁶ GOI (2016) Indonesia's Nationally Determined Contribution (NDC).

¹⁷ WRI, 2019 (Global Forest Watch). Data based on estimated rates of forest cover loss, using a 30% tree cover density threshold. Even though this estimate does not include emissions from forest degradation, i.e. emissions linked forest thinning above the density threshold, it can be considered indicative of the overall pattern of emissions from forest areas.

¹⁸ By contrast, many countries, notably in Africa, exhibited a significant increase in annual deforestation rates.

¹⁹ Nawir, A., A. Murniati., and Rumboko, L. 2007. Forest Rehabilitation in Indonesia: where to after three decades, CIFOR, Bogor, Indonesia. The report notes that 96.3 million hectares of Indonesia's forests were degraded due to illegal logging , forest fires, forest conversion, and unplanned agricultural expansion as a consequence of unprepared decentralization during the reformation era in 1998 and social conflict over forest resources. The 1998 reformation triggered the rearrangement of central and local governance, local and indigenous communities, private sectors, and forests to boost capitals needed for decentralization.



from food and crops. Unemployment due to the Large-Scale Social Restriction (PSBB) reached two million people in April 2020, according to the Ministry of Workforce. This trend may continue during and after the COVID-19 pandemic, however, the GOI now has various policies, programs, and mechanisms in place to cope with related challenges that may mitigate the overall impacts of the pandemic on the environment and natural resources. Specifically, programs managing and delivering cash and social safety nets to people, village empowerment, enforcement of moratoria of oil palm expansion and natural forest conversion, and providing access to land resources for small farmer through Agrarian Reform and Social Forestry, will help communities cope with some of the economic impacts of the COVID-19 pandemic sustainably, ideally limiting the need to convert land to support themselves.

11. The GOI requested assistance in improving the enabling environment for emission reductions (ERs) and accessing results-based finance to support the achievement of its NDC, National REDD+ Strategy, and broader green growth agenda. As part of a programmatic approach, the World Bank's has committed over US\$100 million to date to support landscape-level shifts towards forest- and climate-smart land use in Indonesia. As part of this, the Forest Carbon Partnership Facility (FCPF) Readiness Fund provided two technical assistance grants, totaling US\$8.2 million, for the formulation of a policy framework for REDD²⁰ at the national level; the development of Measurement, Reporting, and Verification (MRV) systems, benefit sharing arrangements, and a Feedback and Grievance Redress Mechanism (FGRM); and broad-based implementation plan at the sub-national level. This led to the preparation of an ER Program in East Kalimantan under the FCPF Carbon Fund. These complement the multitude of support provided by other development partners, including from Norway through a US\$1 billion bilateral engagement on REDD+, other bilateral donors (Australia, Germany, US, UK, and others), CSOs, and private sector companies. Building on this experience, the GOI further requested support from the **BioCarbon Fund Initiative for Sustainable Forest Landscapes (BioCFplus ISFL)**²¹ to replicate these activities in another province (Jambi) and with other sectors.

12. The BioCFplus ISFL Indonesia Program includes phased financing through the following proposed interrelated instruments: (i) a US\$1.5 million preparation grant; (ii) a US\$13.5 million Jambi Sustainable Landscape Management Project (J-SLMP) implementation grant (this operation);; and, (iii) a proposed Emission Reduction Payment Agreement (ERPA), which is projected to include up to US\$70 million in results-based payments for verified ERs (see Figure 1 below). Additional instrument is being developed in parallel to support private sector engagement in reducing emissions from land use in Jambi (Annex 5).

13. The activities described in this PAD relate to the second phase of BioCFplus ISFL Indonesia Program – grant financing of US\$13.5 million for the J-SLMP to implement improvements to the enabling environment, including cross-sectoral coordination and testing land use approaches to reduce emissions in Jambi. The J-SLMP adopts a landscape approach and aims to implement a development strategy that is climate-smart, equitable, productive, and profitable at scale.

²⁰ REDD+ is defined as “Reducing Emissions from Deforestation and forest Degradation, conservation of forest carbon stocks, sustainable management of forest, and enhancement of forest carbon stocks in developing countries”

²¹ Indonesia is one of five countries participating in the BioCF ISFL, which also includes Colombia, Ethiopia, Mexico, and Zambia. The BioCF ISFL seeks to reduce GHG emissions from the land sector through smarter land use planning, policies, and practices. Operating at the scale of a jurisdictional or regional landscape is central to the BioCF ISFL’s approach and requires national and sub-national governments consider the trade-offs and synergies between different land uses that may compete in a jurisdiction to identify integrated solutions that serve multiple objectives.

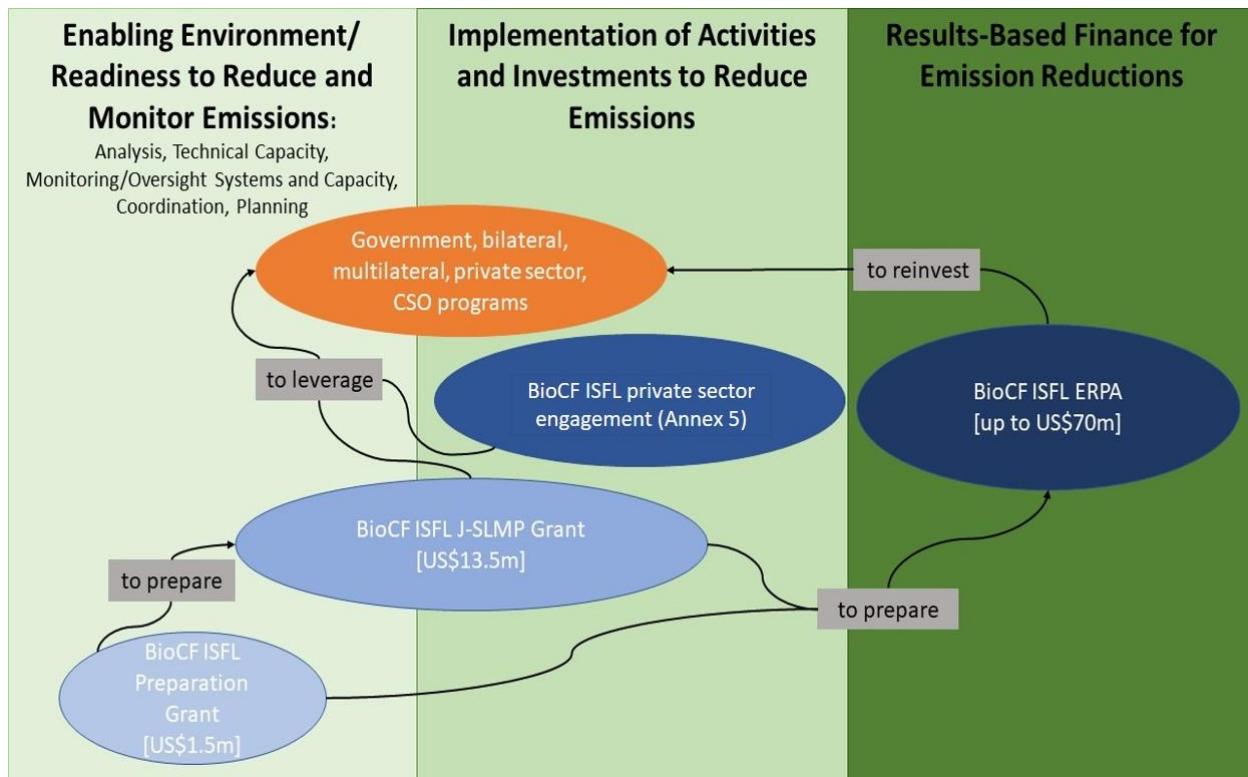


Figure 1. Phases of BioCFplus ISFL financing to support and reward reducing emissions in Jambi.

C. Relevance to Higher Level Objectives

14. The J-SLMP is aligned with the GOI's current and forthcoming National Mid-Term Development Plans (RPJMNs), which, as stated above, aim to improve the quality of human life and address inequality in an environmentally sustainable manner. The J-SLMP supports approaches that are pro-poor, including engagement of local people in forest and land management, livelihood development, and equitable benefit sharing approaches. Related to this, the J-SLMP is aligned with the Green Growth Plan (GGP) for Jambi, which was finalized in November 2019. The GGP is consistent with the RPJMD, informs and reflects the vision for reducing emissions from land use and improving livelihoods in Jambi, and is designed to directly contribute to the achievement of Indonesia's NDC. Linkages have been made between the development of the strategy and the formulation of activities under the J-SLMP and subsequent BioCFplus ISFL ER Program in Jambi to ensure their complementarity and consistency (see Annex 4).

15. The J-SLMP is consistent with the World Bank Group's strategic goals—to end extreme poverty and to promote shared prosperity with environmental, social, and fiscal sustainability—as well as the World Bank Group's Country Partnership Framework (CPF) 2016–2020 for Indonesia discussed by the Board in December 2015, Report No. 99172, and its anticipated update to be finalized in 2021²². More

²² The Bank is still receiving online feedback to the CPF through January 7, 2021. However, based on the current draft, J-SLMP is still consistent and relevant with CPF 2021 -2025.. Based on the current concept note draft, J-SLMP is still consistent and relevant with CPF 2021 -2025. "The CPF strategy incorporated the twin corporate goals at its heart. The goal relating to extreme poverty was to be achieved by sustaining growth through improvements in public sector and fiscal management, by raising the quality of public expenditures and improved access to public services, and by the greater emphasis on human capital investments.



specifically, the J-SLMP forms a key part of the Sustainable Landscape Management engagement area identified in the CPF. This engagement area aims to improve the management of terrestrial natural assets as well as benefit from it. Under the Sustainable Landscape Management Program with the Government, the World Bank has supported analytics, technical assistance, and investment projects aimed at better resources management and more sustainable development practices, including in agriculture, water, environment and natural resources management, social development, and land sectors (OneMap, Social Forestry, Forest Management Unit (KPH), Dedicated Grant Mechanism (DGM), and other projects). The J-SLMP is also in line with the World Bank Group's Climate Change Action Plan and Forest Action Plan for FY16-20. Consistent with these plans, the Project represents an integral part of a programmatic engagement on forests in Indonesia, including by building on the activities funded by the FCPF Readiness Fund. The J-SLMP is also consistent with the World Bank Group Framework and IFC Strategy for Engagement in the Palm Oil Sector, and subsequent Country Situation Analysis (CSA) for Indonesia²³. Finally, the J-SLMP complements other forest and land sector investments by the Government of Indonesia, including those that reduce deforestation and forest degradation and promote sustainable land management as well as actions that strengthen the institutional and policy framework for land use²⁴.

D. Jambi

16. **Jambi Province is one of Indonesia's most forested provinces, home to significant biodiversity, and among Indonesia's most proactive provinces in terms of preparing for results-based finance for ERs.** Jambi is located on the east coast of central Sumatra, covering 5 million ha of land. The province is divided into nine districts and two cities. Jambi's population is around 3.4 million, of which 0.6 million live in the provincial capital, Kota Jambi. The provincial economy is dominated by primary production, and the leading economic sector is agriculture, which in 2009 contributed 26.5 percent of Jambi's GDP. Close to half of this contribution came from plantation crops such as oil palm and rubber. The poverty level is approximately 8.4 percent, lower than the national average of 11.3 percent, with higher levels in urban areas.

17. **Jambi consists of highland forest areas in the west, lowlands in the center, and peatlands and coastal mangrove forests in the east.** Around 25 percent, or 1.2 million hectares, is natural forest²⁵. Overall, 87 percent of Jambi's forest (2.1 million hectares) is located within the designated Forest Area (*Kawasan Hutan*), which includes four national parks (*Kerinci Seblat*, *Berbak*, *Bukit Tiga Puluh*, and *Bukit Dua Belas*) as well as areas that are designated for forestry uses (including logging concessions (HPHs), industrial timber plantation concessions (HTI), conservation areas, and several types of community forestry concessions). Jambi's forests play an important role in supporting traditional forest-dependent communities, including the *Talang Mamak*, *Orang Rimba*, and *Melayu*, and several other local communities/people groups. Jambi is also home to a number of protected species such as the Sumatran tiger (critically endangered), Asian tapir (endangered), Sumatran elephant (critically endangered), and Sumatran rhinoceros (critically endangered). Important ecological zones include mangrove forests, coastal forests, lowland forests, swamp and peatlands, and montane forests.

On shared prosperity, the attention to private sector-led growth through institutional and business environment reforms, investments in infrastructure, and landscape policies was aimed at inclusive growth. The CPF implementation paid close attention to several specific corporate priorities of the WBG.

²³ prepared and approved in 2015.

²⁴ See Annex 4 for more information on complementary activities and leverage, including programs being implemented by government, CSOs, and development partners, in addition to the private sector.

²⁵ Based on the Ministry of Forestry's (now MoEF) 2013 analysis of satellite images for Jambi.



18. **Jambi has experienced one of the highest rate of deforestation throughout the Sumatra region.²⁶** According to MoEF, peatland fire and decomposition, Land Use, Land Use Change and Forestry (LULUCF) are identified as the major contribution with approximately 85% of total emissions in Jambi.²⁷ According to MoEF data, deforestation in Jambi between 2017 and 2018 was over 9,000 ha²⁸ Including Other Land Uses (APL). The main drivers of forest conversion in Jambi include the expansion of oil palm plantations, pulpwood plantations, rubber plantations, coffee, and mining, as well as illegal logging. Deforestation and forest degradation are also perpetuated by weak governance related to land use and natural resources extraction. Specifically, land degradation and encroachment on forests and peatland by the commodities sector, particularly oil palm, continues in spite of existing policies and regulations, indicating that there is a challenge in enforcement. The GOI also struggles to allocate sufficient resources to policies and activities that reduce emissions in Jambi. Forest and peat fires are also a regular occurrence in Jambi. The eastern peatlands contain significant carbon stocks, and the western part of the province, with highland forests, contains important carbon stocks in standing forests. The lowlands have largely been converted to oil palm and rubber plantations but have significant ER potential if peatland can be effectively restored.

19. **The private sector is critical in reducing emissions at scale in Jambi²⁹.** Plantation crops cover almost one-third of the land area in the province, and oil palm and rubber comprise over 85 percent of the agriculture plantation area; there are 12 rubber mills and 45 oil palm mills in Jambi. With regards to rubber, 99 percent of production comes from smallholders. In the oil palm sector, 65 percent of plantations are managed by smallholders, with half of these acting as independent smallholders³⁰. Smallholder expansion and encroachment is a critical issue, and mitigation measures include replanting of existing plots and sustainability training. The private sector is an important stakeholder in driving land use change upstream through supply chains and engaging with communities in their area of operations.

20. **Jambi is currently developing a GGP that outlines a vision for low-carbon development in the province.** The GGP contains three broad strategies: 1) sustainable land productivity; 2) institutional capacity, access to development capital, and livelihoods utilizing environmental services; and 3) sustainable connectivity and value chains. The J-SLMP is aligned with these strategies and is incorporated in the activities envisioned under the GGP. Furthermore, Jambi is one of Indonesia's DNPI model provinces for REDD+ and green growth³¹, as well as BP REDD+ pilot province, and has seen significant progress toward "REDD+ Readiness", demonstrating strong ownership and readiness for investment. The GOI has indicated their political will and buy-in for the J-SLMP through its preparation, earnest efforts to link the

²⁶ MoEF 2014: Statistik Kementerian Kehutanan Tahun 2013.

²⁷ MoEF 2019: Interim Sesu Document.

²⁸ Kementerian Lingkungan Hidup dan Kehutanan. 2019. Deforestasi Indonesia Tahun 2017-2018. Direktorat Inventarisasi dan Pemantauan Sumber Daya Hutan. Direktorat Jenderal Planologi Kehutanan dan Tata Lingkungan. Kementerian Lingkungan Hidup dan Kehutanan. Jakarta.

²⁹ For the purpose of this document, private sector is defined as smallholders, mill operators, plantation companies, processors, traders and other organized companies. Smallholder farmers are distinguished from companies throughout the document, including distinctions between project beneficiaries and partners in proposed project activities.

³⁰ Independent smallholders are those smallholder farmers with no obligation to sell to a particular mill vs. plasma scheme smallholders that sell only to one mill operator.

³¹ Hein, Jonas (2013) : Reducing Emissions from Deforestation and Forest Degradation (REDD+), Transnational Conservation and Access to Land in Jambi, Indonesia, EFForTS Discussion Paper Series, No. 2, GOEDOC, Dokumenten- und Publikationsserver der Georg-August-Universität, Göttingen, <http://nbn-resolving.de/urn:nbn:de:gbv:7-webdoc-3904-5> (https://www.econstor.eu/bitstream/10419/117314/1/EFForTS_dp-02.pdf)



Project's activities with ongoing initiatives to scale-up action on sustainable land use, and through a forthcoming Letter of Intent to proceed with negotiating an ERPA with the BioCFplus ISFL. For detailed information on Jambi, please refer to Annex 3.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

21. The Project's development objective is to improve sustainable landscape management that reduces land-based greenhouse gas emissions in selected sites in Jambi.

PDO Level Indicators

22. The achievements of the PDO will be measured through the following indicators:

- a) Land area under sustainable land management and/or restoration practices (ha)
- b) Net GHG emission reductions in Jambi (MtCO₂e)

B. Project Components

23. **The J-SLMP and forthcoming ER Program are consistent with the vision Jambi has articulated in the GGP.** The J-SLMP and ER Program form a critical part of the GGP given that they are a strategic umbrella for multi-sector, multi-stakeholder interventions across land uses in Jambi. Together, they contribute to a transformation in how landscapes are managed in Jambi to deliver multiple benefits such as climate change mitigation, improved livelihoods and environmental services, and strengthened coordination and partnerships with key stakeholders. Specifically, the J-SLMP fosters equitable and low-carbon development by addressing drivers of emissions, deforestation, and land degradation primarily through strengthening policies and institutions and implementing sustainable land management approaches. All activities identified have been prioritized based on their potential for improving livelihoods for communities and smallholders and generating ERs and will be primarily implemented by government and villages, intersecting with activities by the private sector and CSOs.

24. **In order to achieve the PDO, the J-SLMP and its activities have been designed to address identified gaps and to scale successful approaches** throughout Jambi to maximize available Project financing and take advantage of the strengths of the World Bank, particularly with regards to its engagement on land use in Indonesia. As part of this process, the GOI, including national and provincial governments, conducted an analysis of activities that would support the PDO. These were further consulted with stakeholders for the J-SLMP and the World Bank and prioritized based on their expected impacts. Specifically, activities were prioritized based on five criteria: 1) expected impact on reducing emissions; 2) geographic prioritization given the landscape in Jambi (including a spatial planning approach); 3) livelihood impacts for communities and smallholders; 4) complementarity and ability to leverage other programs and initiatives being implemented by government, CSOs, development partners, communities, and the private sector; and 5) the unique value that the World Bank Group provides on sustainable land use, particularly as it relates to governance, policy, and regulations.

25. **Below is a summary of the three Project components for J-SLMP** (for details, refer to Annex 1).

Component 1. Strengthening Policy and Institutions (US\$2.5 million)

26. **The objective of Component 1 is to enhance effective land management regulation and enforcement in Jambi** with a focus on harmonizing policies and approaches that are critical for managing emissions from land use, including peat management and fire prevention and management. This



component is particularly aimed at addressing weak landscape governance, a key underlying driver of emissions. Specific gaps in governance that will be addressed by the Project include those related to: consistent approaches and tools (including spatially explicit information) for peatland, forest, and fire management; coordinated enforcement and implementation of sustainable land use approaches; transparent monitoring of changes and social issues related to land use; and stakeholder capacity to engage and manage their natural resources sustainably. Furthermore, this component supports national and provincial governments, communities, and other stakeholders to effectively achieve the objectives of the Project. This component will be implemented through technical assistance and capacity building activities.

27. Sub-component 1.1 provides support for *institutional strengthening and cross-sectoral coordination* to improve action to address primary drivers of emissions from land use in Jambi. The following activities have been identified to provide targeted support to improve coordination within and across sectors:

- a) The *Sekber*, a joint secretariat in Jambi, includes membership from government, private sector, civil society, and community groups. Currently, the *Sekber*'s primary focus is managing forest resources, but the *Sekber* has the potential to coordinate across other land use issues to enhance synergies between key stakeholders. The Project supports expanding and enhancing the *Sekber*'s role, for example to include management of and coordination for peatland, fire, and the J-SLMP and forthcoming BioCFplus ISFL ER Program.
- b) Given that degradation and deforestation in High Conservation Value (HCV) areas are major contributors to emissions, conservation of natural habitat is a priority of the J-SLMP. This approach will have positive impacts on biodiversity and in order to maximize these, the Project supports the assessment of biodiversity in HCV, High Carbon Stock (HCS), and Essential Ecosystem Areas (*Kawasan Ekosistem Esensial* or KEE) areas. Subsequently, capacity building is provided for relevant stakeholders in priority HCV, HCS, or KEE areas, including with *adat* communities,³² to improve institutions and coordination for biodiversity conservation.
- c) Jambi's Corporate Social Responsibility (CSR) Forum includes membership from critical stakeholders for land use, including banks and companies involved in commodity value chains. In coordination with the provincial government, the members of the Forum provide funding for various sustainable development efforts in Jambi, including education, health, infrastructure, environmental sustainability, job creation, and cultural and religious issues. The J-SLMP provides support for the CSR Forum to develop and implement plans that directly contribute to ERs in the province, establish an information portal to monitor activities, and share lessons on the integration of ER approaches in private sector activities.

28. Sub-component 1.2 supports improvements to the *enabling environment for an ER Program*. Jambi plans to develop an ER Program for results-based payments for verified ERs. The following activities create conditions and a framework to prepare for an ER Program that meets BioCFplus ISFL technical requirements:

³² *Adat* Community/*Masyarakat Adat* refers to communities that inhabited an area in heredity due to a strong relation with ancestor, land, and resources in their area, even though there are no clear boundaries, organization, or written law.



- a) GHG emissions accounting for Agriculture, Forestry, and Other Land Use (AFOLU) and monitoring and reporting of land and forest resources changes, including a functioning MRV system;
- b) Development of a Benefit Sharing Plan (BSP);
- c) Environmental and social risk management; and
- d) Analysis of non-carbon benefits and knowledge sharing.

29. Finally, sub-component 1.3 supports the consolidation and strengthening of **policies and regulations** for sustainable land use, including at national and provincial levels. Particular focus has been given to policies and regulations for fire, peatland management and private sector engagement in order to effectively address drivers of emissions, improve livelihood opportunities for land users, and ensure the long-term sustainability of approaches in Jambi. Specific activities include support for a governor regulation (*Pergub*) for peatland management, including a permanent moratorium on peatland conversion and a district regulation (*Perbup*) on fire management. The GOI has also prioritized addressing critical regulatory gaps that can ultimately hinder successful implementation of broader initiatives, including a provincial regulation (*Perda*) for the legal recognition of *adat* communities, accelerating the OneMap policy in Jambi, and the establishment of an Environmental Management and Protection Plan (RPPLH). Finally, the Project supports strengthening the regulatory environment to better enable the private sector to implement sustainable land use practices.

Component 2. Implementing Sustainable Land Management (US\$8.5 million)

30. The objective of Component 2 is to integrate forest and land management in Jambi, particularly through sustainable forest management, agricultural intensification and diversification, conservation and restoration, and value chain sustainability. As with Component 1, peat and fire management, including through private sector engagement, are required. Component 2 is supported primarily through technical assistance and capacity building primarily aimed at smallholder farmers. Together with Component 1, these activities aim to address drivers of emissions, including weak governance, by providing resources to test sustainable land use management practices and enforcement in Jambi in support of the Project's objectives. Component 2, in particular, aims to engage the private sector (both smallholders and companies) directly to leverage expertise and resources for sustainable land management, including through partnerships.

31. Sub-component 2.1 provides support for **integrated forest and land management** through the consolidated and coordinated management of forest and land resources, targeting peatland and fire as key sources of emissions. Engagement of government, communities, private sector, and civil society are central to achieving this objective. Specific activities include:

- a) *Sustainable forest management* to support fire management (through early detection, equipment, and harmonization of fire management plans) and public and private collaboration on land use issues (through coordinated monitoring, enforcement, and support for addressing land conflicts); and
- b) *Conservation and restoration* activities implemented by the government (at various levels) to reduce emissions, working with smallholders, communities and plantations in or near HCV areas (i.e. forests, peat, and mangroves). In particular, restoration and management of priority peatlands, promotion of alternative crops in degraded areas, and enabling conservation partnerships are approaches that are likely to have significant impacts on ER targets.



32. Sub-component 2.2 supports **private sector and smallholders partnerships for improved forest and land management** which leverage private sector funding, investment and expertise to support GHG emissions reductions in Jambi. Specifically, these activities aim to create engagement models and mechanisms that could be replicated and scaled up in collaboration with private sector actors. Specific activities include:

- a) Agriculture, plantation, and agroforestry intensification and diversification that target smallholders to facilitate productivity enhancements to reduce emissions in priority areas (e.g., HCV areas, peatland, primary forest borders, etc.), including through capacity building, agroforestry, and intercropping; and
- b) Value chain sustainability that involves private sector actors including large corporates who are potential change agents, through the coordination of stakeholders in key value chains and support for standards that promote sustainable practices such as the Indonesian Sustainable Palm Oil (ISPO) and Roundtable on Sustainable Palm Oil (RSPO) certifications, as well as other sustainability standards, including a potential new standard for rubber.

33. To complement the grant, additional activities are envisioned that would support smallholder replanting and training, as well as private sector/community engagement focused on ER activities in high risk areas (see Annex 5).

Component 3. Project Management and Monitoring and Evaluation (US\$2.5 million)

34. Component 3 aims to support national and provincial-level Project coordination and management, including preparation of Annual Work Plans and Budgets (AWPBs); fiduciary aspects (Financial Management (FM) and procurement); human resource management; safeguards compliance monitoring; monitoring and evaluation (M&E); knowledge management and sharing; and the implementation of strategies for communication and stakeholder engagement.

Table 1. Component Costs

Components	BioCFplus Financing (US\$ M)	GOI Financing (US\$ M)	Total (US\$ M)
Component 1. Strengthening Policy and Institutions	2.50	0.52	3.09
1.1 Institutional strengthening and cross-sectoral coordination	0.30	0.22	0.52
1.2 Enabling environment for ER program	1.90	0.24	2.19
1.3 Policy and regulations	0.30	0.06	0.37
Component 2. Implementing Sustainable Land Management	8.50	10.94	19.30
2.1 Integrated forest and land management	6.44	7.98	14.42
2.2 Private sector partnerships for improved forest and land management	1.97	2.96	4.88
Component 3. Project Management, Monitoring & Evaluation, and Reporting	2.50	0.03	2.60
Total	13.50	11.49	24.99



C. Project Beneficiaries

35. **The direct beneficiaries of the J-SLMP are smallholder farmers, communities, and officials in relevant institutions at all levels of government, who benefit from capacity building and training, policy development, and physical investments.** For the purposes of this Project, direct benefits include goods, services, small works, and training that: a) improve land management and empower communities and smallholders to participate; b) create alternative livelihood opportunities at the local level; c) improve capacities and policies to better manage landscapes for multiple benefits; d) increase private investment flows in both restoration and intensification activities; and e) help secure ecosystem services, including biodiversity. The Project aims to maintain and restore natural habitat, especially considering that degradation and deforestation in HCV areas are major contributors to emissions. The activities under the Project facilitate positive ecological impacts that include, among others, restored and better maintained biodiversity, as well as improved environmental services and ecosystems (see Annex 1 for additional information).

36. **A total of 150 community groups and villages are expected to directly benefit from the Project.** In addition, many stakeholders in Jambi benefit from the J-SLMP indirectly, including communities, government institutions, civil society, private sector, and academia, through indirect benefits such as a reduction in land conflicts, and improvements in land governance and management, the investment climate, biodiversity, water quality, soil fertility, flood prevention and erosion control, and habitats of game and fish.

D. Results Chain

37. The overall Project design is guided by the following theory of change (Figure 2). The incremental value of the proposed J-SLMP activities contributes to strengthening policy and institutions, enhancing stakeholders' capacity (including communities, government, and private sector), piloting investment activities, and scaling up sustainable land use to contribute to low-carbon development. These activities are meant to comprehensively improve sustainable landscape management through policy, social, economic, and ecological approach and target significant positive changes, including on cross sectoral coordination and action to address drivers of GHG emissions, improvement of forest cover, establishing and strengthening public private partnership, and capacity building. Its support to policy and regulatory reforms, engagement with the private sector, and preparation of an ER Program will have impacts beyond the Project itself. This contributes to improved land management and conservation, resulting in reduced emissions (of local, regional and global benefits), and improved livelihoods, which are expected even beyond the completion of the Project.



		Theory of change				
		PDO: To improve sustainable landscape management that reduces land-based GHG emissions in Jambi				
		ACTIVITIES	OUTPUTS	INTERMEDIATE OUTCOMES	PDO OUTCOMES	IMPACTS / CONTRIBUTION
POLICY and INSTITUTIONS		<p>Institutional strengthening for cross-sectoral coordination</p> <p>Make improvements to enabling environment for ER program</p> <p>Harmonizing and developing policy and regulations for ER activities</p>	<p>Harmonized policies and approaches across sectors, peat management, fire prevention and management, and green growth</p> <p>GHG accounting, MRV , BSP, Safeguards and harmonized FGRM systems developed</p> <p>Provincial regulations (<i>perda</i>) on peat land management, fire management and green growth developed</p> <p>Reduced fire hot spot areas</p> <p>Sustainable land management approaches promoted</p> <p>Increased area under sustainable agriculture and forestry</p> <p>Effective project administration</p>	<p>Improved cross sectoral coordination and action to address drivers of GHG emissions in Jambi</p> <p>Improved sustainable land management and capacity for ER Program</p> <p>Forest cover increased</p> <p>Compliance increased with sustainable guidelines</p> <p>Sustainable land use increased through public-private partnerships</p> <p>Benefits to communities (sharing ER payments, increased productivity, improved environment)</p>	<p>Enhanced sustainable land management in Jambi</p> <p>Improved sustainable land use</p> <p>Net GHG emissions reductions in Jambi</p>	<p>Reduced land based GHG emissions in selected areas of Jambi</p> <p>Improved livelihoods</p>
SUSTAINABLE FOREST and LAND MANAGEMENT		<p>Support fire prevention and control management</p> <p>Conservation and restoration of peatland areas</p> <p>Agriculture and agroforestry intensification and diversification</p> <p>Promoting alternative crops and livelihood in degraded areas</p>				
PROJECT MANAGEMENT		<p>Administration of J-SLMP PMU</p> <p>Undertake training and capacity building for staff and stakeholders</p>				

Figure 2. Theory of change for the J-SLMP.

E. Rationale for Bank Involvement and Role of Partners

38. **Rationale for Bank Involvement.** The GOI and World Bank have a long partnership in poverty alleviation and sustainable development. Under the Sustainable Landscape Management Program with the Government, the World Bank has supported better resources management and more sustainable development practices in landscapes, including through OneMap, Social Forestry, KPH, DGM, and other projects. As mentioned above, consistent with its Climate Action Plan and Forest Action Plan, the World Bank has been supporting the GOI in achieving its own climate change commitments with over US\$100 million in finance for landscape-level shifts towards forest- and climate-smart land use. The Project represents part of the World Bank's programmatic engagement on forests in Indonesia, including by building on the enabling activities funded by the FCPF Readiness Fund. The World Bank is also supporting the GOI in the development of a related FCPF jurisdictional ER Program in East Kalimantan to pilot activities to generate ERs and access results-based REDD+ financing. The World Bank's support in Indonesia through the FCPF and proposed J-SLMP through the BioCFplus ISFL are among several ER Programs in a number of key tropical countries that will generate knowledge on scaling-up ER approaches at jurisdictional scale. The World Bank also has a long history of supporting national and local initiatives to establish sustainable financing mechanisms for conservation such as through conservation trust funds, payment for environmental services mechanisms, and fiscal measures. These experiences will continue to be valuable in designing and implementing the proposed Project.

39. **Role of Partners.** Development partners have also supported the GOI and Jambi in developing the enabling environment for reducing and monitoring emissions from land use, including Australia, Germany, Norway, US, UK, Asian Development Bank, FAO, UNDP, and others. This support includes GHG monitoring and accounting, management and oversight capacity, improvements to the policy and regulatory



environment for land use, sustainable land management, fire prevention and management, and other critical activities. Several CSOs and private sector partners are also supporting the GOI including through on the ground investments and technical assistance for strengthening forest monitoring systems and developing green growth/low-carbon development strategies and action plans. The World Bank is coordinating with these stakeholders to ensure synergy and avoid duplications. Given that the ISFL Program is a strategic umbrella for Jambi, the grant is intended to complement and fill gaps in ongoing initiatives to further leverage and scale-up approaches for sustainable land management.

40. See Annex 4 for more information on coordination of World Bank and partner activities in Jambi.

F. Lessons Learned and Reflected in the Project Design

41. **The Project design draws on lessons from a range of relevant projects and programs facilitated by the GOI, development partners, and other stakeholders** that have produced knowledge and experience related to promoting sustainable practices in resource-based industries; conservation management; forest certification and forest/land governance; capacity development of forest and land management institutions, including local/*adat* communities; and community-based natural resources management and participatory mapping.

42. **Lessons have been learned from the GOI-led Forest Investment Program (FIP) project (piloted in eight provinces, including in Jambi)** that aims to support KPHs by strengthening capacity of the government (national and local level), community organizations, and forest management permit holders. The FIP program also aims to support regulatory reforms to strengthen KPH performance. KPHs play a crucial role in the implementation of the J-SLMP, as they govern and manage forest areas and functions at the local level in close consultation and coordination with relevant stakeholders, including local government, communities, license holders, local industries, etc. The Production KPH *Lima* is one pilot KPH (out of ten total KPHs) currently supported by the FIP Program that would provide on-the-ground support and lessons learned for the J-SLMP. In addition, the World Bank has initiated an important engagement with the Indigenous People and Local Communities (IPLCs) through a DGM project—a demand-driven delivery mechanism—to strengthen IPLC capacity to meaningfully engage in tenure security processes and livelihood opportunities in forest and agricultural land. The FIP project provides enabling conditions for tenurial rights and participatory mapping.

43. **One of the lessons learned from the World Bank supported Sustainable Landscape Management Program is the need to coordinate national and sub-national policies and implement them in a manner that reflects conditions at the sub-national level.** The J-SLMP incorporates this lesson by building on national commitments and policy frameworks that are critical for the Program's sustainability. At the provincial level, the Project builds on and supports new regulations for regional plans for ER targets, peat ecosystem protection, and environmental economic instruments. The Jambi government, through Bappeda and Parliament, are planning to develop a *Perda* for green investment that is one of important processes supported by the J-SLMP.

44. **Lessons from the Kenyan Agricultural Carbon Project (KACP) are relevant to the J-SLMP and have been incorporated into its design.** KACP promoted and supported the adoption of a package of Sustainable Agricultural Land Management practices among smallholder farmers, while pursuing carbon sequestration objectives. Relevant design features of the KACP that are reflected in the J-SLMP include capacity building for national policy makers and farmers using local stakeholder experience, a participatory approach for Project implementation to promote local ownership, and investments that



produce socio-economic and environmental co-benefits to enhance the impact and sustainability of the Project.

45. **Ensuring enforcement and oversight of required safeguards measures for each underlying activity under Component 2 necessitates robust leadership, strong ownership, and mobilization of adequate resources and consultations by the Program Entity (MoEF) and the sub-national government agencies who implement the Project activities.** Jambi has benefited from previous initiatives implemented by partner CSOs especially with regards to safeguards implementation in key natural resource sectors across vast geographical and administrative jurisdictions. Further, safeguards efforts for the J-SLMP build on existing systems and ensure that commitments by respective agencies are in place and sufficient through robust national and provincial leadership during Project implementation. The J-SLMP further benefits from lessons learned through the Bank portfolio on application of investment lending safeguards (OPs) to landscape-level jurisdictional carbon emission reduction activities, including Strategic Environmental and Social Assessments (SESAs) and Environmental and Social Management Frameworks (ESMFs), Indigenous Peoples Planning Frameworks (IPPFs), and FGRMs. While the application of these instruments relates primarily to the forthcoming ER Program operation, their preparation is supported by the J-SLMP and therefore, these lessons learned have been incorporated in the program design.

46. **The design of this operation has also benefitted from the other BioCFplus ISFL jurisdictional programs in Colombia, Ethiopia, Mexico, and Zambia, as well as those under the FCPF.** All four of the other BioCFplus ISFL programs have signed similar grants to finance improvements to the enabling environment for a forthcoming ER Program. In particular, the BioCFplus ISFL aims to meaningfully engage the private sector to leverage additional resources to reduce emissions from land use. The Project has learned from approaches in other BioCFplus ISFL programs and has developed a complementary private sector engagement strategy (see Annex 5). Furthermore, the J-SLMP benefits from the experience of countries preparing ER Programs under the FCPF Carbon Fund. The collective experience of these BioCFplus ISFL and FCPF programs, and the active exchange of lessons across task teams, has resulted in a degree of consistency in how they are processed. In particular, many lessons have been learned on ER Programs, including how *ex-post* ERPA payments relate to underlying investments, results and monitoring frameworks, and approaches to safeguards and benefit sharing. Lessons are being learned and captured at the portfolio levels for the BioCFplus ISFL and FCPF as well, including through guidance notes and knowledge exchanges on fundamental topics, such as transfer of title to ERs; Measurement, Reporting, and Verification (MRV); and benefit sharing.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

47. **The GOI has established or identified the following bodies to support the implementation of the J-SLMP:**

- a) A *National Steering Committee (NSC)* responsible for overall policy guidance, chaired by the Secretary General of the MoEF (or their designee), and comprised of representation from Directorate General of Climate Change, Directorate General of Natural Resources (KSDAE), Bappenas, MoF, Ministry of Home Affairs (MoHA), Ministry of Agriculture (MoA), and the Provincial Government of Jambi. The Climate Change Mitigation



Direktorate (MPI) under DG-CC is the secretariat of the NSC. The NSC will be established within three months of the effective date of the Grant Agreement. (please see Annex 2)

- b) At the national level, DGCC is the Executing Agency responsible for coordination of the Project and ensures close coordination within its Directorates including MPI, Directorate of Sectoral and Regional Resources Mobilization (Dit. M2SR) and Directorate of Greenhouse Gases Inventory and MRV (Dit. IGRKMPV), as well as the Directorate of Plantation Protection (DG of Plantation) of MoA. DGCC coordinates with the Jambi Provincial Agency led by Bappeda in delivering the Project's components. A national-level *Project Management Unit (NPMU)* responsible for the day-to-day operations of the J-SLMP will be established under and led by the Director of MPI (or their designee) and supported by government staff and consultants from implementing agencies such as MoA. The NPMU will have the expertise required to manage the day-to-day needs of the Project, including in safeguards, financial management, procurement, and technical issues. The NPMU will also be responsible for preparing, consolidating, and submitting to the Bank AWPB with input from and in coordination with sub-national PMU and Jambi Services and Agencies by not later than one (1) month before the beginning of each fiscal year of the Recipient of each year during the implementation of the Project. The NPMU will be established by no later than three months after the effective date of the Grant Agreement and be led by the Director of Climate Change Mitigation Directorate.
- c) A sub-national PMU has been established in September 1, 2020 through the issuance of Governor Regulation Number. 687/KEP.GUB/BAPPEDA-2.3/2020 on Establishment of Provincial Technical Committee, Sub-National Project Management Unit, and Project Implementation Unit: The Biocarbon Fund Plus-Initiative for Sustainable Forest Landscape (BIO-CF-ISFL) Jambi Province. The sub-national PMU responsible for the day-to-day Project implementation at the sub-national level. The sub-national PMU is under Bappeda, coordinated by a senior Bappeda expert/officer and comprised of government staff and consultants. Bappeda will work in close coordination with the Forestry Service (Dishut), Environmental Service (DisLH), Estate Plantation Service (Disbun), and Agriculture Service Agency (*Dinas Tanaman Pangan, Hortikultura, dan Peternakan*) in Jambi to implement the Project's activities. Specifically, the sub-national PMU will be responsible for social and environment safeguards-related tasks and coordinating Project implementation with four KPHs, four National Parks and Jambi Natural Resources Conservation Agency (BKSDA). The sub-national PMU will also be responsible for preparing and providing input to the AWPB based on input from implementing agencies in sub-national level and in coordination with NPMU in each fiscal year of the Recipient of each year during the implementation of the Project. The subnational PMU will be established within three months of the effective date of the Grant Agreement.
- d) A National Technical Committee (NTC) provides technical guidance on reducing emissions from land use to the NPMU and sub-national PMU and is led by the Director of MPI (or their designee) under DGCC, with representation from Directors of: Dit. IGRK, Sectoral and Regional Resources Mobilization (Dit. M2SR under DGCC, MoEF); Forest Resource Inventory (IPSDH under DG of Forest and Environmental Planning, MoEF); Conservation Area (KK under DG of Ecosystem and Natural Resources Conservation, MoEF); International Cooperation Bureau (KLN); Planning Bureau (Secretariat General of MoEF); Estate Crops Protection (under MoA); DG of Risk and Funding Management (DJPPR under



MoF); DG of Fiscal Balance (under MoF) Regional Development DG (under MoHA); Deputy for Maritime Affairs and Natural Resources (Bappenas) and Jambi Bappeda. The NTC will be established within three months of the effective date of the Grant Agreement.

- e) A Provincial Technical Committee (PTC) within Bappeda provides guidance and recommendations to the sub-national PMU on technical issues related to the ER Program in Jambi, M&E coordination, social and environmental safeguards, and benefit sharing. The PTC is led by the Provincial Secretary of Bappeda (or their designee), with membership from relevant agencies (Dishut, DisLH, Disun, and Distan), CSOs, and universities. The PTC has been established in September 1, 2020.
- f) A *joint secretariat (Sekber)* is an existing multi-stakeholder forum in Jambi for the planning and implementation of REDD+ will expand its role to include a role in implementation of the J-SLMP, using support from the Project. This will be formalized through a Governor decision letter that is currently being processed. The *Sekber* sits outside of government, so it has more flexibility in supporting and monitoring multi-level, multi-sector, and multi-stakeholder coordination and implementation of the Project.
- g) Each relevant implementing agency will have a *Project Implementation Unit (PIU)* to manage the implementation of specific activities. By not later than three months after the effectiveness of the Grant Agreement, PIUs will be established within Bappeda, and the forestry service agency (dinas kehutanan), environmental service agency (dinas lingkungan hidup), estate plantation service agency (dinas perkebunan), and agriculture service agency (dinas tanaman pangan, hortikultura, dan peternakan) within the Provincial Government of Jambi.

48. **The J-SLMP utilizes a comprehensive landscape approach to reducing emissions and improving livelihoods and the multi-sectoral implementation arrangements for the Project similarly reflect this.** In addition to DGCC, the MoA is the main authority in charge for agriculture development as part of the J-SLMP. The National Development Planning Agency (Bappenas) is involved in the implementation arrangements for the J-SLMP due to its essential role in overseeing the synergy between the forest and agriculture sectors, as well as between different levels of government (District, Province, and Central). Collectively, all are responsible for providing guidance, performing supervision and ensuring alignment of the Project with the national policy framework.

49. **At the provincial level, implementation of the J-SLMP is led by Bappeda in coordination with the Forestry Service (Dishut), Environmental Service (DisLH), Food crop, horticulture and livestock Service (Dinas Tanaman Pangan, Holtikultura dan Perternakan) and Estate Plantation Service (Disbun), with the senior expert/officer of Bappeda acting as coordinator.** The *Sekber*, a multi-stakeholder forum, closely supports Project implementation as the participating stakeholders have significant experience in planning, managing, and implementing ER-related projects. The *Sekber* has the potential to enhance its role in the implementation of J-SLMP by providing support to government institutions in the province as well as by liaising with different stakeholders at both the national and provincial levels. Currently, the *Sekber* is incorporated under Forestry Service (*Dinas Kehutanan*) Decision Letter SK Number 96/Kota/Dishut-5.3/IV/2017, on Forest Resource Management. The legal basis of the *Sekber* is expected to be strengthened with a forthcoming Governor Decision letter. The *Sekber* will develop dedicated units for specific topics, such as peatland management, fire management, and technical and coordination support for the J-SLMP and forthcoming ER Program, with support from the Project.



50. **Each respective district, city, and village government is responsible for implementation of the Project in its jurisdiction.** Since *Bappeda* is leading the implementation of the J-SLMP in the province with the Forestry Service (Dishut) at the provincial level with its authority over forest management unit (KPHs), Environmental Service (DisLH) with its authority in district level, as well as food crop, horticulture and livestock agency (*Dinas Tanaman Pangan, Holtikultura dan Perternakan*) and Estate Plantation Service (Disbun), coordination is based on the existing government coordination mechanism. The utilization of the existing structure with support from an ad hoc entity, such as *Sekber*, simplifies and strengthens the coordination mechanism for the Project implementation.

51. **To ensure effective coordination among the various implementing agencies, an NSC represents the interests of the relevant ministries of the national government and the Governor of Jambi.** Other members of the Steering Committee include development partners and civil society. This high-level committee (membership is DGs) is chaired by the MoEF, and the World Bank, and selected partner agencies are observers. Steering Committee meetings are held at least once a year to evaluate activities and progress.

52. For more detailed information on institutional and implementation arrangements, please refer to Annex 2.

53. **Starting from 2022 onwards, or such time as pre-conditions for the transfer have been met, project implementation will be carried out using a combined arrangement between centralized budget management under Executing Agency and on-granting mechanism by the Jambi Provincial Government.** The execution of provincial-/site-level activities using the on-granting mechanism will be subject to the readiness of the provincial government. Prior to the implementation of the on-granting mechanism, Jambi Provincial Government capacity in managing grant will be improved through training, facilitation, and knowledge sharing, in parallel with coordination support to include the project activities under Jambi provincial budget. On-granting specific guideline will be included in PIM. By no later than three (3) months after the Effective Date of the Grant Agreement, the Provincial Government of Jambi will issue a circular confirming its commitment to implementation of the Project. The Provincial Government of Jambi and the Recipient will enter into an On-Granting Agreement prior to the transfer of the implementation responsibilities, which will detail the arrangements for the on-granting mechanism.

54. **A Project Implementation Manual (PIM) is being prepared under the leadership of Directorate of Climate Change Mitigation (MPI), and by no later than three (3) months after the Effective Date of the Grant Agreement will be adopted by the Recipient.** PIM will provide guidance on the overall implementation of the Project to assist the Project Management Unit (PMU) at the national and subnational levels under the MoEF, Steering Committee, Technical Committee and all other relevant institutions and stakeholders, engaged in the project implementation. The PIM will be consistent with the Project Appraisal Document, Grant Agreement, and Indonesian policies and procedures relevant to the Project. The PIM will provide detailed guidance on (a) institutional coordination and day-to-day management of the Project; (b) disbursement and financial management; (c) procurement; (d) environmental and social safeguards management; (e) monitoring and evaluation, reporting and communication, including performance indicators; (f) the criteria and procedures for selecting and prioritizing sites, stakeholders, investments and activities (including with respect to joint patrols) under Parts 1.1 and 2 of the Project; (g) protocols and procedures for conducting joint patrols; (h) technical guidelines for the on-granting mechanism and implementation by the Provincial Government of Jambi; and (i) such other administrative, financial, technical and organizational arrangements and procedures as



shall be required for the Project. PIM may be modified from time to time with the prior written no-objection of the Bank, and such term includes any schedules, annexes and attachments;

B. Results Monitoring and Evaluation Arrangements

55. **The M&E system is managed and implemented by the sub-national PMU under Bappeda**, coordinated by a senior Bappeda expert/officer that is supported by an M&E specialist. The M&E system operates at the jurisdictional level and in coordination with the M&E functions of the following implementing agencies per the relevant activities at the provincial level: Forestry Service (Dishut), Environmental Service (Dislh), Estate Plantation Service (Disbun), and Food crop, horticulture and livestock agency (*Dinas Tanaman Pangan, Holtikultura dan Perternakan*)..

56. **Data is gathered on a semiannual and annual basis, drawing as much as possible from existing data sources, information management tools to be put in place, government staff and Task Force staff on the ground.** Information tools include the M&E system, the Forest Management Information System (MIS), as well as the regional MRV system. Specific templates will be designed for data collection, reporting arrangements will be inserted into the Project Implementation Manual (PIM) or in an M&E chapter accompanying the PIM, and detailed training will be provided to relevant staff on how data collection will be conducted. An M&E workplan detailing all M&E related activities, with relevant timing, costing and responsibilities will be included in the PIM to guide the team for planning and conducting all necessary M&E activities.

57. **A Project management information system (MIS) will be established for the Project.** Given the geographic and sectoral spread, risks, and high-profile nature of the Project, there is a need to monitor activities closely to ensure implementation is on-track. Therefore, a Project management information system will be developed that is online, accessible to the public, updated in real-time, and linked to grievance redress.

58. **NPMU in coordination with Sub-National PMU shall submit to the World Bank financial, safeguards and progress reports.** The safeguards and progress reports will be submitted annually, while the financial reports should be submitted quarterly and covers monthly expenditures. The reports will be submitted no later than 45 days after the end of each reporting period.

59. **The progress reports for the second quarter of the year 3 will provide more detailed and comprehensive information for the mid-term review.** A mid-term review led by NPMU of the Project with the support of the WB task team will be undertaken within three (3) years of the Effectiveness Date of the Grant Agreement to assess the relevance and achievement of the PDO, project scope and identify any necessary adjustments to help improve project performance and achieve its objectives.

C. Sustainability

60. **The J-SLMP's implementation arrangements contribute to the institutional sustainability of the Project.** They involve relevant stakeholders and seek buy-in and coordination across sectors and levels of government, including with MoEF, Bappenas, MoA, MoHA, the Forest Agency, the Agriculture Agency, the Estate Agency, the Environment Agency, the Public Works Agency, the Research and Development Agency, the Watershed Agency, the Tourism Agency and the University of Jambi, amongst others.

61. **The financial sustainability of the J-SLMP is supported through two primary means:** a) the objective of leveraging finance from the private sector to support sustainable land management and reduced emissions; and b) the focus of the Project's components on addressing key capacity and



investment gaps, which maximize the utilization of public and private finance for other activities to support achievement of the PDO.

62. Environmental sustainability is central to the J-SLMP given its objective to improve sustainable landscape management and reduce land-based GHG emissions in Jambi. This is further reinforced by the following: a) the level of commitment from the national and local government including other key stakeholders; b) alignment with national sectoral policies and international commitments (e.g., Indonesia's NDC); c) a participatory process with major stakeholders at the national and provincial levels throughout the preparation and validation process that has helped build ownership towards the Project; d) alignment of national and sub-national policies and initiatives in Jambi; and e) leveraging collaborative management to promote ownership (which goes beyond simply incentivizing individuals and communities to sustainably manage their land).

II. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

63. Project development impact. A quantitative analysis was carried out to identify the drivers of AFOLU emissions and removals during the base period of 2006-2017 using forest and land cover maps generated by MoEF. Deforestation was identified as the largest source of AFOLU emission in Jambi province during the base period, followed by vegetation degradation (biomass loss occurred in non-forest classes) with total emissions of 305 MtCO₂ and 186 MtCO₂, respectively. Emissions from peat decomposition was in the third place with total emissions of 148 MtCO₂. The largest source of removal was vegetation growth, which represents the biomass growth occurred in non-forest classes, with total sequestration of -182 MtCO₂. Total emissions from agriculture combined were only 15.6 million hectares, which exclude emissions due to biomass loss during the conversion of forests into agricultural plantation. This Project aims to bridge that gap by strengthening policies and institutions for implementing sustainable land management to reduce land-based emissions by focusing on key drivers³³ such as conversion of forest to agriculture/plantation, degradation of peatlands (ER potential can be improved by 50 percent through rewetting alone³⁴), and unsustainable agricultural practices (N₂O in manure and CH₄)³⁵ including those related to livestock, rice, and fire. Jambi is also rich in carbon stores that are critical for avoiding further emissions, for example on peatlands, which are 15 percent of the province's land area. This Project helps pilot activities that reduce emissions from land use as well as prepare Jambi for results-based payments for ERs. These activities directly benefit poor communities, 58 percent of whom work in the agriculture, forestry and fishery sectors, making up a third of all wages and Jambi's GDP.³⁶ Reducing emissions from land use also helps sustain ecosystem benefits of peat in the island of Sumatra.

64. A full economic analysis of the project cannot be undertaken as many benefits of the Project have not been quantified. However, opportunity costs of forest lands, which account for the bulk of

³³ http://signsmart.menlhk.go.id/signsmart_new/web/home/emisi/index/pertanian

³⁴ Analysis showed raising the water table from an average of -46.53 cm to -22.7 cm below the soil's surface makes the land cultivable for food crops and can reduce CO₂ emissions from 41.7 tonnes / ha / year to 20.5 tonnes CO₂ / ha / year (a total reduction of 50 percent of carbon emissions). Imanudin, Momon Sodik and Susanto, Robiyanto Hendro (2015) Intensive Agriculture Of Peatland Areas To Reduce Carbon Emission And Fire Prevention (A Case Study In *Tanjung Jabung Timur* Tidal Lowland Reclamation Jambi). Proceeding international Seminar, The 1st Young Scientist International Conference of Water Resources Development and Environmental Protection, Malang, Indonesia, 5-7 June 2015. pp. 38-48. ISSN 2460-0849 <http://eprints.unsri.ac.id/6643/>

³⁵ Hartill et al 2017 <http://adsabs.harvard.edu/abs/2017EGUGA..1910086H>

³⁶ Analysis SDGs for Jambi, BPS 2017.



economic costs, have been imperfectly quantified (improvements in monitoring and evaluation under Component 1 seek to address these shortcomings). Available information shows that the break-even levels needed to justify the Project's investments are low and very well within reach. The cost benefit analysis conducted for this Project yields positive results across a variety of sensitivity analyses and data assumptions (see Table 1 and Annex 8). This analysis contrasts the actual costs with economic benefits for the Project, both discounted to 2020 (the baseline year).

65. **The Net Present Value (NPV) is estimated to be US\$0.9 billion, and the Benefit Cost Ratio (B/C Ratio) is 82.8.** The result's robustness is verified through different sensitivity analyses and application of different discount rates (5 percent, 10 percent, and 20 percent). The benefits are much larger than the costs for all scenarios, even though this analysis did not include all benefits, such as positive effects caused by better land and forest governance. The Project benefits might be far greater, as this analysis also disregards benefits from new policies, financial and governance capacity building or the strengthening of land rights, which are all likely to trigger further positive results. Further, even with a conservative social cost of carbon, set at US\$40/mtCO₂e, and lower performance at 10 percent, the Project yields positive results at all discount rates.

Table 2. Summary of economic simulation results

	All Benefits with Average Cost of Carbon			All Benefits with Low Cost of Carbon (US\$40)		
	5%	10%	20%	5%	10%	20%
NPV [in US\$ billion]	0.9	0.7	0.6	0.5	0.5	0.4
B/C – Ratio	82.8	82.0	85.7	52.5	53.5	55.8
Sensitivity analysis	10% performance			10% performance		
NPV [in US\$ billion]	0.1	0.1	0.1	0.05	0.04	0.03
B/C – Ratio	8.1	8.2	8.6	5.2	5.4	5.6

66. **Indonesia faces high costs of inaction, in terms of forest fire, inundation and emissions.** The 2015-16 forest fires³⁷ cost the Indonesian economy US\$2 billion³⁸. Over the course of 2000-2015, Sumatra alone has lost ecosystem benefits worth US\$16 billion³⁹ (primarily due to emissions and timber), including from inundation and flooding in lowlands, accounting for nearly 5 percent of GDP in total⁴⁰. Environmental externalities and their impacts are already costing the Jambi economy significantly. A 100-year simulation shows that 0.8-meter drainage of peatland leads to subsidence, lowers productivity, and releases about 794,000 tCO₂e (equal to over US\$4 million in costs)⁴¹. This drainage is particularly acute in smallholder-managed plantations in peatlands, which continues to be a key source of emissions.⁴² Additionally, GOI

³⁷ 5% of which were in Jambi, 73% of which were on peat.

³⁸ World Bank (2016).

³⁹ WAVES, BAPPENAS BPS preliminary peat accounts – include timber, pulp and paper, paddy, CO₂, protected habitat.

⁴⁰ Lowlands inundation preliminary estimate for average losses to flood years, GDRP (2013).

⁴¹ International Journal of GEOMATE, Jan., 2017, Vol. 12, Issue 29, pp. 186 - 194 Aswandi et al 2017.

<https://doi.org/10.1007/s11027-018-9803-2>

⁴² Khasanah, N. & van Noordwijk, M. Mitig Adapt Strateg Glob Change (2019) 24: 147. <https://doi.org/10.1007/s11027-018-9803-2>



and the province of Jambi have demonstrated commitment towards achieving ER targets through Presidential Regulation No. 61 Year 2011 on regional plans for ER targets, peat ecosystem protection regulation PP 57/2016, and regulation on environmental economic instruments PP 46/2017. Proposed ER activities in Jambi are amongst the most cost effective opportunities to reach ER targets with activities like forest and peat moratorium extension (US\$0-3/tCO₂e), reduced impact logging (US\$2-5/tCO₂e), afforestation and reforestation (US\$2-5/tCO₂e), improving community practices (below US\$5/tCO₂e), peatland management (US\$6-10/tCO₂e)⁴³, fire prevention (US\$2-5/tCO₂e)⁴⁴ and spatial planning and land use optimization (US\$10-16/tCO₂e).

67. **Indonesia has limited fiscal space to achieve ER targets through public finance alone.** While the government of Jambi has budgeted and planned activities, budgets are limited and often inefficiently targeted. Even if regional planning documents expect reductions to come primarily from the forestry and peatlands sector (40 percent) followed by agriculture (16 percent)⁴⁵, the forestry sector only received 5 percent of the total provincial budget and expensed 7 percent of total budget in 2013, whereas agriculture was over 70 percent. Relevant budget for climate mitigation (including forestry and peatland sectors, agriculture, waste, industry, energy, etc.) was roughly US\$3.6 billion, of which 99 percent flowed to agriculture and 1 percent to forestry⁴⁶. The largest budget allocations were for the Office of Public Works. Since fiscal support is limited and there are trade-offs with competing land uses, there is a need to offset economic opportunity costs of not converting forests and/or agroforests to plantations through carbon financing mechanisms, along with investments in spatial planning and improving land governance.

B. Fiduciary

68. **Financial Management.** A financial management assessment has been undertaken to understand the adequacy of the implementing agencies' financial management systems to produce timely, relevant, and reliable financial information on Project activities. The Project's financial management arrangements are agreed with the World Bank and will be reflected in the PIM, including for budgeting, internal control, accounting and reporting, flow of funds, and the auditing mechanism. There are risks related to the capacity of the implementing agencies, particularly the Jambi provincial government which is not experienced in managing World Bank-financed operations. Risks include potential delays to Project implementation due to budget delays, especially regarding the on-granting mechanism to local government for activities executed by Jambi province, and weak oversight by the Executing Agency for financial management given that activities are executed by multiple implementing units. To mitigate these risks, all activities in 2020-2021 will be executed using the centralized budget under the Executing Agency while building the capacity of the provincial team. The execution of provincial-/site-level activities using the on-granting mechanism will be carried out from 2022 onwards subject to the readiness of the provincial government, which will be determined by an assessment of the following requirements: (i) official commitment of the provincial government to implement the on-granting activities, evidenced by a letter from the Jambi Governor to MoF and MoEF; (ii) readiness of the provincial government budget to pre-finance the on-granting activities, evidenced by allocation of Project activities in the proposed local government budget; (iii) inclusion of detailed arrangements regarding the on-granting mechanism in the PIM subject to World Bank's prior review; and (iv) evidence that training has been provided on financial

⁴³ Mulia, R., Widayati, A., Suyanto et al. Mitig Adapt Strateg Glob Change (2014) 19: 773.

<https://doi.org/10.1007/s11027-013-9485-8>

⁴⁴ Updating Indonesia's GHG emission cost curve, DNPI, JICA, September 2014.

⁴⁵ Regional government also Jambi Governor Regulation No. 36 Year 2012.

⁴⁶ Climate Public Expenditure Review in provinces Jambi, Central Java, Yogyakarta, Ministry of Finance (2016).



management aspects of the Project to the provincial team. The Executing Agency is responsible for consolidating evidence on the fulfillment of such requirements and submitting them to MoF prior to signing the on-granting agreement between MoF and Jambi Province. The Financial Management specialist recruited for the Project also assists the PMUs and PIUs on timely budget preparation and revision, consolidating financial information from multiple implementing units, including oversight of activities at the provincial level.

69. **Procurement.** Procurement under the Project is governed by the World Bank's Procurement Regulations for IPF Borrowers, July 2016, revised November 2017 and August 2018; and by the provisions stipulated in the Loan Agreement. For the procurement of goods and non-consultant services procured through national open competitive procedures, the Government's procurement regulations may be used to the extent they do not conflict with the Bank's Procurement Regulations. Project procurement will include mainly hiring of individual consultants particularly to support the NPMU and also the sub-national PMU for Jambi. Consulting firms will be hired through the Selection Based on Consultants' Qualification (CQS) method and potentially also through the Quality and Cost-Based Selection (QCBS) method. Procurement of small goods through will be done through national competitive procurement and requests for quotations are also envisaged under the Project. The Project Procurement Strategy for Development (PPSD) and Procurement Plan has been prepared by DG-CC with support from the World Bank as the basis for the procurement arrangements, including appropriate packaging and methods. The PPSD and Procurement Plan for the first 18 months of the Project was agreed and the World Bank provided no objection to them on April 14, 2020, and will be updated in agreement with the World Bank at least annually, or as required to reflect actual Project implementation needs and improvements in institutional capacity within the Project, and published on MoEF's website as well as in UNDB online and the World Bank's external website..

70. Further details on financial management and procurement are provided in Annex 2.

C. Safeguards

71. **The J-SLMP is designed to enhance the readiness of stakeholders and institutions to operate a jurisdiction-wide ER Program that meets safeguards provisions required for ER operations administered by the World Bank.⁴⁷** The Project entails capacity and system strengthening to integrate environmental and social considerations in policy and regulatory interventions (Component 1) as well as pilot interventions for sustainable land and natural resource management that incorporate safeguards at an activity level (Component 2).

72. **Since the J-SLMP finances both technical assistance for the preparation of the ER Program, as well as physical investments, assessments of environmental and social risks occur iteratively.** An initial assessment of environmental and social risks focused on select investments under Component 2 was conducted as part of Project preparation. The resulting safeguards instruments (ESMF and related frameworks discussed below) are tailored to address specific risks identified through this assessment and have be made available prior to the Project's Appraisal. Under the J-SLMP, a Strategic Environment and Social Assessment (SESA) will be finalized to systematically and transparently integrate environmental and

⁴⁷ In the context of the national REDD+ program, the GOI has earlier prepared safeguards instruments that address the country's systems and the United Nations Framework Convention on Climate Change (UNFCCC) safeguards. These efforts have been carried-out over many years with support from the FCPF Readiness Fund, national budget resources, and other donors. These instruments have been reviewed and assessed in light of their applicability to the Project and the forthcoming ER Program in Jambi.



social considerations in the design of the forthcoming ER Program. Support is provided to strengthen risk mitigation approaches under the planned ER Program, including by synergizing World Bank safeguards instruments with government systems, addressing gaps in institutional capacities, and conducting stakeholder consultations and engagement.

73. An Environmental and Social Management Framework (ESMF) and its associated frameworks - Indigenous Peoples Planning Framework (IPPF), Resettlement Planning Framework and Process Framework (RPF and PF) and Feedback and Grievance Redress Mechanism (FGRM) – were prepared to respond to the proposed activities under the J-SLMP. These frameworks, together with the proposed human resources for safeguards at both national and sub-national levels, form the building block for the overall safeguards system for the jurisdiction-wide ER Program. All activities involving technical assistance are consistent with World Bank policy standards and the latest OESRC Advisory Note dated May 21, 2019 on safeguards application for TA activities.

74. A series of multi-stakeholder consultations were undertaken as part of preparation of the J-SLMP and forthcoming ER Program. Full documentation of these consultations has been provided as part of the preliminary SESA. These consultations supported multi-stakeholder dialogues on potential drivers of land conversions and drivers of deforestation and forest degradation, which can be attributed to peatland conversion for palm oil, conversion of natural forests into timber plantation and encroachment in national parks. Participants included national and sub-national government agencies, CSOs in Jambi Province, and village representatives, including *adat* community representatives⁴⁸. Issues around lack of inter-sectoral coordination and capacity constraints for effective participation are particularly acute within KPHs. In addition, overlapping land claims as a result of past licensing practices have also been attributed to tenure conflicts, involving local and *adat* communities, particularly in oil palm plantations.

75. The Project is classified category B given the expected mostly positive impacts from protection and sustainable management of forests and natural habitats through the activities to be supported. See Annex 6 for more detailed on the safeguards approach.

76. Environmental Safeguards. The J-SLMP is expected to generate overall positive environmental impacts at global, national, and local levels through a reduction of land-based carbon emissions, increased carbon storage, reduced land degradation, and protection of globally threatened ecosystems and endemic biodiversity. The Project triggers Environmental Assessment (OP 4.01), Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), Physical Cultural Resources (OP 4.11), and Pest Management (OP 4.09). Small-scale negative impacts may result from the support for sustainable production activities under this Project and/or displacement of emissions to other provinces. Sub-components are screened for environmental risks and impacts. The ESMF prepared for the Project includes measures and Environmental Codes of Practice (ECOP) applied effectively in other projects in the country and region supported by the Bank. Land tenure strengthening may lead to more intensive use or conversion of forest and natural resources, however one of the Project's key objectives is supporting villages, agriculture and private sector through technical assistance to plan and sustainably manage their resources while conserving critical habitat such as HCV forests within their lands.

77. Social Safeguards. The J-SLMP triggers both the Involuntary Resettlement (OP 4.12) and the Indigenous Peoples (OP 4.10) policies of the World Bank. The Project area includes Indigenous or *adat*

⁴⁸ Focus Group Discussions (FGDs) were undertaken in six villages, including Beringin Tinggi, Guguk, Kandis Dendang, Pandan lagan, Sungai beras, and Rantau Kemas



communities, such as *Orang Rimba*, *Talang Mamak* and *Marga Serampas* as well as other ethnic groups, including the Malay and Javanese, as well as immigrants from other regions. Hence, there is a need to consider issues of access and land-rights related to activities supported through this Project. A social assessment, as part of the SESA process, is currently being undertaken to address proposed investments under the Project. Such investments involve multiple stakeholders across important sectors in land and natural resource management, and hence, presents institutional risks associated with fragmented coordination and weak capacities to address potential social risks (e.g., managing conflicts/disputes, lack of community participation, and lack of access and inclusion of vulnerable groups to benefit from the Project).

78. **No resettlement impacts are envisaged under the J-SLMP.** The proposed activities largely focus on technical assistance, improvements and enforcement of policies and regulations, pilot activities particularly addressing peatland management and land, forest fire prevention and private sector engagement for sustainable agricultural production. A Resettlement Policy Framework (RPF) has been prepared as a pre-cautionary measure in the event of addressing unintended impacts resulting from tenure conflict resolution where land use rights of certain groups may be revoked as a result. Potential restrictions of access to resources by communities and individuals from conservation and reduced forestry/land conversion resulting from the Project are considered as potential risks, particularly as a result of implementation of activities under Component 2 (i.e. peat restoration and management, encroachment prevention, fire management, tenure conflict resolution). A Process Framework (PF) has been prepared under the RPF.

79. **Risks related to Indigenous Peoples (OP 4.10) potentially stem from slow recognition of *adat* tenure rights.** Key constraints include overlapping claims, existing conflicts, lack of legal evidence, and political processes for communities to gain such recognition, which may risk the achievement of the activities under the J-SLMP. The Project has prepared an Indigenous Peoples Planning Framework (IPPF) to provide guidance for Free, Prior and Informed consultations and management of adverse risks potentially affecting *adat* communities and other groups who meet the criteria of Indigenous Peoples as per the policy.

80. **Other social risks are also associated with the Project's proposed interventions related to tenure conflict resolution and encroachment prevention as being proposed under the J-SLMP.** The Project mobilizes technical assistance to support multi-stakeholder dialogues and inter-sectoral coordination, capacity strengthening of relevant agencies and local mediators and regulatory development for conflict resolution. However, due to the differing nature and complexity of conflicts, success rates of these interventions greatly depend on the typology and institutional capacities to engage conflicting parties on a level playing field for dialogues and consensus building. The scope of these specific interventions is yet to be confirm on the basis of the land tenure assessment currently being undertaken.

81. **Project-level Grievance Redress.** A FGRM will be developed to address specific investments under the Project and will continue to be refined to address the broader Jambi's ER Program as part of the TA support by the Project. Such a FGRM is based on the existing national, provincial and village level systems to address grievances and capture citizens' feedback.

82. **Institutional Arrangements for Safeguards.** Project-level management and oversight is coordinated by both the national and provincial PMUs. Acknowledging the scope and multi-sectoral nature of the proposed interventions, additional resources for supervision, coordination, training, overall



risk management as well as pilot testing of a Project and ER Program-level FGRM will be made available under the grant financing across the Project's components, particularly under Component 3.

83. **All safeguards instruments were publicly disclosed on May 1, 2020** at DGCC website (<http://ditjenppi.menlhk.go.id/>) and at WB publication website address (<https://documents.worldbank.org/en/publication/documents/reports/documentdetail/617751588588255389/environmental-and-social-management-framework>)

84. **A gender analysis for the J-SLMP has been completed and can be found in Annex 7.**

85. **Grievance Redress Mechanism.** Communities and individuals who believe that they are adversely affected by a World Bank supported project may submit complaints to existing project-level grievance redress mechanisms (i.e., the FGRM being developed for the Project) or the World Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and World Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>.

For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

III. KEY RISKS

86. **The overall risk rating for the proposed Project is Substantial.** A description of the key risks and mitigation measures is provided below.

Risk Categories	Rating (H, S, M, or L)
Political and governance	Substantial
Macroeconomic	Moderate
Sector Strategies and Policy	Substantial
Technical design of Project	Moderate
Institutional Capacity for Implementation and Sustainability	Substantial
Fiduciary	Moderate
Environmental and Social	Substantial
Stakeholders	Substantial
Others	Moderate
Overall	Substantial

87. **Political and governance risk - Substantial.** The success of this operation is highly dependent on the GOI and the provincial government's commitment to pursue sustainable landscape management, which can be assessed as high risk. In order to achieve the objectives of the Project, actions are required both within the mandate of the MoEF, i.e. pertaining to the Forest Estate, and within the mandate of MoA on Estate Crop development (in areas designated as APL). The GOI is committed to reducing emissions,



including as evidenced by their NDC, however enforcement for fire management and land conversion is still a challenge. Similarly, while the implementation of policies has shown a positive effect (as evidenced in the recent reduction of emissions in Indonesia), the degradation and loss of forests as a result of estate crop expansion into forest and peatland areas continues, which indicates the need to strengthen enforcement. The Project is mitigating this risk by providing targeted activities to increase the capacity for enforcement and reinforce the implementation of existing national regulations in the province. Since February 2019, Jambi is led by a new Governor who has an interest in forest conservation, continuing the commitment from the previous Governor. Commitment to the Project is maintained through continuous updates from Bappeda or the Bank to the Governor, providing opportunities for the Governor to be directly involved in the Project processes. In addition, Jambi's GGP mitigates the risk of changes in priorities related to a green growth agenda in the province under different administrations. The residual political and governance risk is substantial.

88. Sector strategies and policy risk - Substantial. Given that political economy factors that tend to have an effect in the opposite direction (e.g., continued economic and policy pressure to expand oil palm plantations, exploitation loopholes in moratoria, etc.), the sector strategies and policy risks are high. The GOI continues to expand its oil palm industry targets despite regulations related to restricting land conversion, including in sensitive areas such as peatland. The Project mitigates this risk by continuing engagement efforts with smallholders that has been implemented by forestry sector, to increase their capacity and resources to comply with government policies for land conversion and fire, as well as certifications such as ISPO and RSPO. Furthermore, the Project's engagement in the oil palm sub-sector in Indonesia is consistent with the World Bank Group's relevant corporate strategies, including the World Bank Group Framework and IFC Strategy for Engagement in the Palm Oil Sector and the related Country Situation Analysis (CSA) for Indonesia. The project is also providing robust technical assistance to facilitate coordinated planning, policy development, implementation, and monitoring for sustainable land use in Jambi. Given these approaches, the residual political and governance risk is substantial.

89. Institutional capacity for implementation and sustainability - Substantial. The success of the J-SLMP hinges on the GOI's ability to effectively coordinate across ministries and sectors and promote an integrated approach to address drivers of emissions, deforestation and forest degradation in the province. Historically, lack of effective coordination across sectors has been one of the underlying issues that impacted emissions and remains one of Indonesia's key land use governance challenges and therefore, this risk is high. Moreover, the J-SLMP, together with the forthcoming ER Program, will contribute to a transformation in how landscapes are managed in Jambi to deliver multiple benefits such as climate change mitigation, improved livelihoods and environmental services, and strengthened coordination and partnerships with key stakeholders. This risk is mitigated by the Project's institutional arrangements which include multi-sectoral coordination units at the national and provincial levels and support for effective multi-stakeholder coordination through the *Sekber*. Nevertheless, the cross-sectoral and multi-level coordination channels reflected in the Project's institutional arrangements are highly complex. While these arrangements aim to ultimately strengthen the effectiveness of the Project, they also present a risk to the efficient delivery of the Project. The Project involves different units in MoEF and MoA, as well as additional government agencies at the provincial level, including Bappeda. These agencies have limited capacity and/or experiences in managing projects supported by grants using the on-granting mechanism. This includes limited experience with World Bank-financed projects and their due diligence and compliance requirements for fiduciary, safeguards and reporting. These risks are mitigated through the World Bank's requirements for financial, safeguards, and reporting management and gaps in capacity are



directly addressed through Project activities, particularly under Components 1 and 3. On September 1, 2020, a sub-national institutional arrangement was formalized through the issuance of Governor Regulation Number. 687/KEP.GUB/BAPPEDA-2.3/2020 on Establishment of Provincial Technical Committee, Sub-National Project Management Unit, and Project Implementation Unit: The Biocarbon Fund Plus-Initiative for Sustainable Forest Landscape (BIO-CF-ISFL) Jambi Province. Despite the complexities in the institutional arrangements across levels of government, sectors, and stakeholders, which is compounded by the fact that these structures (e.g., the *Sekber*) will be used in this way for the first time, the strong Sub-National ownership of the J-SLMP as presented in the regulation, provides potential to overcome this risk to the project's implementation. The residual risk is considered substantial.

90. Environmental and social risk - Substantial. Given existing institutional capacities to address environmental and social issues of concerns and the contexts in which the Project is operating, the environmental and social risk is substantial. There have been long-standing governance capacity issues related to forest and natural resource management in Indonesia that has led to extensive exploitation and social and land use conflicts. Particular issues of concern include access to land/tenurial rights, uncertain land and forest ownership amongst forest dependent communities, overlapping concessions holders, smallholder agricultural expansion, illegal logging, etc. These issues stem from unclear and overlapping systems for land management and allocation, leading to release of land claimed by communities to forest and plantation concessions, deforestation and environmental degradation, competing claims, and conflicts. The Project is therefore situated in a context that poses many environmental and social challenges and risks. In order to mitigate this, the Project's interventions have been designed to be beneficial and sustainable from an environmental and social standpoint. In addition, strong national and sub-national government commitments as well as sustained local stakeholder engagement, including intensive capacity building and outreach, have been and continue to be instrumental throughout the Project. The safeguards instruments for the Project include gap-filling measures not only to address environmental and social risks, but also enhance the Project's interventions to address key drivers of deforestation and forest degradation. Emphasis has been placed on strengthening sub-national capacities and consultations with affected stakeholders and these form part of the overall safeguard intervention under the Project. Given the mitigation measures, the residual environmental and social risk is substantial.

91. Risks related to stakeholders - Substantial. This Project engages intensively with local and *adat* communities in target areas within and around forest area boundaries, potentially communities in non-forest areas as well as private sector entities. Risks could include potential for tension and conflicts stemming from concerns over land grabbing due to information distortion and/or unsuccessful engagement and awareness raising of the Project activities. These stakeholder risks are mitigated through the ongoing engagement and consultation processes that are part of the preparation phase of the Project, engaging relevant key stakeholders at national, provincial, village and community level. Capacity building measures also address the need for stakeholder sensitization to cultural issues and conflict contexts. Lessons are further drawn from the on-going projects such as OneMap, FIP and the DGM. The residual stakeholder risk for the Project is substantial. It should also be noted that the forthcoming ER Program will also rely on robust engagement from relevant stakeholders, including as required by the BioCFplus ISFL.

92. Other risks - Moderate. There are two additional risks that are likely to have an important bearing on the success of the operation. One is the design risk that arises from the World Bank engaging in this sector. Also, the COVID-19 pandemic poses risks to the Project given its effect on various areas of human life, including social, economic, and environmental dimensions.



- a. *Design risk:* there is a substantial design risk that may arise from the World Bank engaging in a sector with a significantly complex political economy and long-standing governance issues that frequently make headlines in Indonesia and beyond (as most recently in the context of the 2019 fire season). It is not possible to eliminate emissions from land use immediately or entirely across a jurisdiction the size of Jambi. However, through a comprehensive programmatic approach (policy changes, enforcement, strategic investments etc.) and broad engagement of stakeholders, as in the J-SLMP, Jambi can have potential to achieve measurable results in coming years. The Project aims to address the primary drivers of emissions in Jambi through geographic prioritization and leverage of successful approaches. In addition, the Project further operationalizes successful national regulations and initiatives, including a moratorium on peatland conversion, engagement of *adat* communities, and a focus on HCV areas. With regards to engaging with the palm oil sector and associated risks, the Project aims to positively engage with smallholders and companies to more sustainably manage land and closely follow World Bank Group guidelines and principles (including the World Bank Group Framework and IFC Strategy for Engagement in the Palm Oil Sector, and the Indonesia Country Situation Analysis). To further mitigate this particular risk, the World Bank team will develop a corporate risk communication strategy for the Project, specifically related to its potential engagement with the palm oil and rubber sectors. The strategy will include the planned materials, dissemination approach, and audience specific to the Project to mitigate these risks. Communications materials will focus on the stakeholders, objectives, and expected/achieved outcomes of the Project. The strategy will be consistent with World Bank (corporate and Indonesia) communications on engagement with palm oil and rubber sectors and will be cleared by communications teams in World Bank headquarters. The residual design risk is moderate.

There are also risks associated with the joint patrols supported under Component 2 of the project, given the participation of the police and army. This risk has been assessed as low for the following reasons: (i) each patrol will have a maximum of one representative from the police and army, and they must be unarmed; (ii) the patrols mandate and procedures follow the operational procedure laid out in Director of Forest and Land Fire Control Decision Letter: SK.II/PKHL/PKHL/PPI.4/3/2020 on Fixed Procedure on Forest and Land Fire Prevention Joint Patrol 2020; (iii) joint patrols have representatives of KPH and/or NP (depending on sites), CSO/NGO, extension service providers, police and army; (iv) the patrols have been successfully operating since 2015; and (v) the patrols do not have the mandate to make arrests; investigations resulting from the patrols' monitoring activities are managed by the Directorate General of Law Enforcement of MoEF, and any cases are brought before the judiciary.

- b. *COVID-19 risks:* while the COVID-19 pandemic poses a multitude of substantial risks in Indonesia, those most directly related to the Project include the potential increase in pressure on the environment and natural resources to support community livelihoods. The Project can help support communities to cope with potential economic impacts of the COVID-19 pandemic sustainably, ideally limiting the need to convert land to support themselves. In addition, the World Bank and GOI are exploring and developing adjustments to the current engagements to further mitigate the potential impacts of the pandemic. This includes analyzing potential enhancements to community-based activities that could provide alternative livelihoods that also support the conservation of the environment and natural resources, such as DGM that is focusing on IPLCs and FIP-2 that has dedicated activities to support community business development. Finally, the



FCPF East Kalimantan Jurisdictional Emission Reduction Program (EK-JERP) is currently developing adjustments to activities due to the COVID-19 pandemic and this process will provide lessons learned for the J-SLMP if it needs to adjust its activities. The residual risk of impacts from the pandemic is moderate.

**IV. RESULTS FRAMEWORK AND MONITORING****Results Framework****COUNTRY:** Indonesia**ID: Jambi Sustainable Landscape Management Project (J-SLMP)****Project Development Objectives(s)**

The project development objective is to improve sustainable landscape management that reduces land-based greenhouse gas emissions in selected sites in Jambi Province.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Improve sustainable landscape mgmt that reduces land-based GHG emissions in selected sites in Jambi								
Land area under sustainable land management and/or restoration practices (Hectare(Ha))		220,000.00	230,000.00	240,000.00	260,000.00	300,000.00	350,000.00	350,000.00
Net GHG emission reductions in Jambi (MtCO2e) (Number)		0.00	3.00	6.00	9.00	12.00	15.00	15.00



Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Strengthening Policy and Institutions								
Reforms in forest and land use policy, legislation or other regulations and coordination mechanisms supported (Number)	0.00	2.00	3.00	4.00	4.00	4.00	4.00	4.00
Conflict cases are resolved utilizing harmonized maps (Number)	0.00	1.00	3.00	6.00	10.00	16.00	16.00	16.00
MRV system established and maintained at provincial level of Jambi (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Benefit Sharing Mechanism (BSM) is established and maintained (Yes/No)	No	No	No	Yes	Yes	Yes	Yes	Yes
Safeguards system established and maintained (Yes/No)	No	No	No	Yes	Yes	Yes	Yes	Yes
Grievances registered related to delivery of project benefits addressed (Percentage)	0.00	5.00	15.00	30.00	50.00	65.00	80.00	80.00
Implementing Sustainable Land Management								
Burned areas reduced in target areas (Percentage)	0.00	20.00	40.00	60.00	80.00	80.00	80.00	80.00
Area reforested in forestry/agroforestry areas	0.00	550.00	1,100.00	1,650.00	2,000.00	2,137.00	2,137.00	2,137.00



Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
(Hectare(Ha))								
Area reforested in Conservation Areas (Hectare(Ha))	0.00	0.00	0.00	0.00	0.00	1,200.00	1,200.00	
Farmers adopting productivity enhancing technologies (Number)	0.00	200.00	600.00	1,200.00	2,000.00	2,240.00	2,440.00	
Farmers who have adopted productivity enhancing SLM technologies (female) (Percentage)	0.00	15.00	20.00	25.00	30.00	30.00	30.00	
Total land area brought under sustainable management plans (Hectare(Ha))	440,000.00	480,000.00	530,000.00	600,000.00	660,000.00	750,000.00	750,000.00	
Community partnerships established with the private sector (Number)	2.00	5.00	8.00	11.00	15.00	18.00	21.00	
Area under compliance with relevant sustainability guidelines by smallholders (Hectare(Ha))	1,514.00	1,764.00	2,014.00	2,314.00	2,314.00	2,314.00	2,314.00	
Community groups/villages reached with benefits (assets and/or services) (Number)	0.00	0.00	150.00	150.00	150.00	150.00	150.00	
Community groups/villages reached with benefits (assets and/or services) (female)	0.00	15.00	20.00	25.00	30.00	30.00	30.00	



Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
(Percentage)								
Monitoring & Evaluation Plan: PDO Indicators								
Indicator Name	Definition/Description		Frequency	Datasource	Methodology for Data Collection		Responsibility for Data Collection	
Land area under sustainable land management and/or restoration practices	<p>Sustainable landscape management (SLM) practices refers to a combination of the following technologies and approaches to increase land quality and restore degraded land:</p> <ul style="list-style-type: none"> (a) Natural resource management; (b) Plantations and re/afforestation; (c) Regular agricultural practices that enhance sustainable land management and agroforestry practices. 		Annual	MRV System	<p>Monitoring of peatland area restoration target according to Regulation Minister EF /permend no 16 year 2017.</p> <p>Monitoring of rehabilitation targets for land or forests, including through social forestry.</p> <p>List of timber concessions which received SFM certificate.</p>		<i>Dinas Kehutanan (Forest Service)</i>	
Net GHG emission reductions in Jambi (MtCO ₂ e)	Number of million tons of carbon dioxide equivalent		Annual	SignSmart (inventory	GHG emission inventory covers the		Dit. IGRK, KLHK Bappeda (provincial	



	(MtCO2e) emission reductions in the program area as a result of the ISFL program relative to a counterfactual.		system KLHK Provincial MRV System	AFOLU sector (Agriculture, Forestry and Other Land Use), with groupings based on emission sources consisting of 1) Biomass (above ground biomass) 2) Peat Decomposition, 3) Peat Fire, and 4) Agriculture. GHG emission calculation multiplies activity data with emission factors (Emissions=Activity Data x Emission factors) following the method specified by the Intergovernmental panel on Climate Change Guidelines in the 2006 IPCC guidelines. This calculation will be compared with a counterfactual to determine the reduction in emissions.	development planning agency) PTC-MAR
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**Monitoring & Evaluation Plan: Intermediate Results Indicators**

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Reforms in forest and land use policy, legislation or other regulations and coordination mechanisms supported	This indicator measures the total number of forest and land use sector reforms (new legislation draft, regulations or decrees draft, or removal of obstructive existing policies proposal or regulations draft) including support to revised policies or legal and institutional reforms that have been adopted by Indonesia.	Annual	Administrative records <i>Biro Hukum (Setda)</i>	Administrative records <i>Biro Hukum (Setda)</i> Desk Study	Bappeda and Setda
Conflict cases are resolved utilizing harmonized maps	Cumulative number of cases have been resolved based on harmonized maps/agricultural plans through the utilization of OneMap policy system.	Annual	Conflict resolution reports MoUs between Communities and KPHs	Conflict resolution reports MoUs between Communities and KPHs	Forestry Agency (<i>Dishut</i>)
MRV system established and maintained at provincial level of Jambi	The MRV system will be in line with international best practices and allow the province to report annually on forest cover and land use carbon stock change. The MRV system included in this	Annual	ER Program Document (ERPD)	ERPD	Dit. IGRK(KLHK) Bappeda PTC-MAR



	indicator is at the provincial level.				
Benefit Sharing Mechanism (BSM) is established and maintained	This indicator measures the existence of a transparent and fair BSM for ER payments for the forthcoming ISFL ER Program in Jambi. The plan will be developed by GOI and endorsed by the Program's main stakeholders, which can include: government at all levels; communities, especially those living inside the Program area; marginalized communities, etc. Benefit-sharing plans are incorporated in signed ERPAs.	Annual	Benefit Sharing Plan (BSP) Documents Review (progress reports, audit reports, community action plan, bank statements proving disbursement) MRV System Household Survey	Documents Review (progress reports, audit reports, community action plan, bank statements proving disbursement) MRV System Household Survey	<i>Biro Keuangan and Bappeda</i>
Safeguards system established and maintained	This indicator captures the safeguards system establishment and operation that will enable the J-SLMP to acquire extensive technical support on safeguards instruments implementation, documentation, reporting, monitoring, and	Annual	Provincial Safeguards Information System (SIS) Expert survey	Provincial SIS Expert survey	DLH and Bappeda



	standardization; environmental and social advisory services; and consultation and civic engagement with communities.				
Grievances registered related to delivery of project benefits addressed	This citizen engagement indicator is a core indicator and measures the transparency and accountability mechanisms established by the Project so that the target beneficiaries have trust in the process and are willing to participate and feel that their grievances are attended to promptly.	Annual	FGRM records in 4 FMUs, 5 Technical implementation units (TIU) of DG KSDAE, related OPDs (Forest service, Estate Crops Service, Agricultural Services, Environmental Service)	FGRM	DLH and <i>Biro ekonomi SDA</i>
Burned areas reduced in target areas	Under BioCF ISFL program, IPSDH and PKHL will generate burned area maps, including for Jambi, which will be compared annually to calculate changes in burned areas.	Annual	Burned area maps generated by IPSDH and PKHL	Burned area maps generated by IPSDH and PKHL will be compared annually to determine changes.	Technical Implementing Unit of DGCC (<i>Balai PPI Palembang</i>)



Area reforested in forestry/agroforestry areas	Refers the establishment of forest through planting, and/or deliberate seeding on land that, until then, was not classified as forest or the re-establishment of forest through planting and/or deliberate seeding on land classified as forest. This can also include, but is not limited to assisted natural regeneration, natural regeneration, coppicing or other locally appropriate methods.	Annual	4 KPH Databases	Monitoring through the KPH Database	Dishut Center for Management of Watershed and Protected Forest (BPDASHL) Division of PDAS RHL - Provincial Forestry Service TRGD
Area reforested in Conservation Areas	Sub-indicator to disaggregate conservation area reforestation (proxy for biodiversity).	Annual	5 TIU of DG KSDAE (4 National Parks and 1 Nature Reserve) Databases	National Parks Database	National Parks & Nature Reserve
Farmers adopting productivity enhancing technologies	This indicator measures the number of farmers adopting technologies that enhance productivity in the project area. SLM technologies include agronomic, vegetative, structural, and management measures, for	Annual	Survey	Survey Baseline - Medium Term Plans	<i>Dinas Kehutanan</i> (Forest Service), <i>Dinas Perkebunan</i> (Estate Crop Service), and <i>Dinas Pertanian</i> (Agriculture Service)



	example, new seed variety, terracing, forestation, reduced tillage, micro irrigation, fertilizer placement, livestock feeding schedule, feeding ingredients, and so on. SLM approaches include ways and means of support that help to introduce, implement, adapt, and apply technologies in the field.				
Farmers who have adopted productivity enhancing SLM technologies (female)	Percentage female breakdown	Annual	Survey	Survey	<i>Dinas Kehutanan</i> (Forest Service), <i>Dinas Perkebunan</i> (Estate Crop Service), and <i>Dinas Pertanian</i> (Agriculture Service)
Total land area brought under sustainable management plans	Cumulative land area brought under sustainable management plans including where relevant: Forest plans, Biodiversity plans, Land use plans. In Jambi, the focus plans are RPHJP (Long-Term Forest Management Plans) of the KPHs in project areas.	Annual	4 KPH's records; 5 TIU of DG KSDAE's records; Provincial Forestry Service's records.	Analysis of provincial forestry services records	4 KPHs, 5 TIU DG KSDAE, and Division of Forest Utilization and Planning (PPH) - Provincial Forestry Service.



Community partnerships established with the private sector	Examples of partnerships include: Community cares about fire (Masyarakat Peduli Api/MPA), PROKLIM, Field schools, Green villages, Organic villages.	Annual	4 KPH's records, 5 TIU of DG KSDAE's records Provincial Forestry Service Provincial Plantation Service Provincial Environment al Service	4 KPH's records, 5 TIU of DG KSDAE's records Provincial Forestry Service Provincial Plantation Service Provincial Environmental Service	4 KPHs, 5 TIU DG KSDAE, and Division of Forest Utilization and Planning (PPH) - Provincial Forestry Service BioCF ISFL Project Team
Area under compliance with relevant sustainability guidelines by smallholders	Area under certification of small scale companies (such as ISPO, SVLK, RSPO) that certifies relevant sustainability criteria.	Annual	4 KPH's records, 5 TIU of DG KSDAE's records BPHP records Provincial Forestry Service & Plantation Services Records	4 KPH's records, 5 TIU of DG KSDAE's records BPHP records Provincial Forestry Service & Plantation Services Records	4 KPHs, 5 TIU DG KSDAE Provincial Forestry Service Division of Development – Provincial Plantation Service Provincial Environmental Service
Community groups/villages reached with benefits (assets and/or services)	Direct Community groups/villages beneficiaries include KPH-level experts as	Annual	Survey Program records	Survey Program records	BioCF ISFL project team



	well as community members who are trained in PFM, A/R, land-use planning, safeguards, and extension.				
Community groups/villages reached with benefits (assets and/or services) (female)	Breakdown of female beneficiaries	Annual	Survey Program records	Survey Program records	BioCF ISFL Project team



Note: All indicator targets are cumulative.

93. **Detailed indicator definitions:** Each indicator for measuring progress of the achievements from the grant financing is defined below. Many of the indicators are the World Bank's "core indicators," which are vetted and advocated by the Bank for the purpose of cross-project comparability, aggregation, mutual learning, and to simplify program preparation. For the purpose of this program, some of the core indicators have been reworded slightly to enhance clarity in the context of J-SLMP (as indicated below).

94. **Project Development Objective Indicators**

- **Land area under sustainable land management and/or restoration practices (ha)**
 - (i) Sustainable landscape management (SLM) practices refers to a combination of the following technologies and approaches to increase land quality and restore degraded land: (a) natural resource management refers to all technologies that ensure the sustainable use of natural areas, either by regenerating or protecting them (e.g. enclosure, enrichment planting, selective felling, fire management, and extraction of renewable resources (e.g. timber, fiber, nuts, and saps)); (b) Plantations and re/afforestation refers to the production of woody and non-woody forest products for themselves and/or for erosion control (e.g., production-oriented plantations (commercial; often exotic species), woodlots/belts for protection of catchments, erosion control, bank stabilization); or (c) Regular agricultural practices that enhance sustainable land management and agroforestry practices.
 - (ii) Peatland area restoration target is 2.4 million ha according to Regulation Minister EF /permen no 16-year 2017) in Indonesia.
 - (iii) Rehabilitation land or forest target 350,000 ha including social forestry.
 - (iv) Includes list of timber concessions that receive SFM certificates.
- **Net GHG emission reductions in Jambi (MtCO₂e)**
 - (i) MtCO₂e of emission reductions in the program area as a result of the ISFL program relative to a counterfactual. The emission reduction target is projected at 10% from the annual baseline or ± 3 MtCO₂e/year that can result from the following 3 (three) categories under AFOLU: LULUCF, Organic soils, and agriculture.
 - (ii) The results of the GHG emission analysis show that the average emissions value of the AFOLU sector for the 2006 - 2017 period amount to 56.8 MtCO₂e (baseline 2020), with the following average emission sources:
 1. Biomass (above-ground biomass) - 30.9 MtCO₂e
 2. Peat decomposition - 21.8 - 24.1 MtCO₂e
 3. Peat fires - 2.7 MtCO₂e
 4. Agriculture - 1.4 MtCO₂e

Assuming 10% of annual emission reduction due to BioCFplus-ISFL program intervention will lead to reduction from 3.2 million tons of CO₂eq in 2020 and 3.5 million tons of CO₂eq in 2025. With 8% set-aside (due to 26.4% uncertainty), total of 1.6 million tons CO₂eq are discounted. The total estimated emission reductions for 6 years are 18.5 million tons of CO₂eq or in average 3 million tons CO₂eq.



- (iii) ERs are estimated given analysis of planned actions and interventions to reduce emissions financed by this Project. A conservative approach has been taken for this estimation, realizing that additional activities are supported by the GOI, development partners, private sector, communities, and civil society that contribute to ERs – these results will be captured by the forthcoming ER Program, but are not directly attributable to this Project.

95. Intermediate Results Indicators

- **Reforms in forest and land use policy, legislation or other regulations and coordination mechanisms supported (Number)**
 - (i) This indicator measures the number of forest and land use sector reforms (new legislation, regulations draft or decrees draft, or removal of obstructive existing policies proposal or regulations draft) including support to revised policies or legal and institutional reforms that have been adopted by Indonesia. It also includes well-defined, time-bound phased action plans that have been launched with the objective of achieving such forest or land use sector reforms. The processes have to be formalized through official documents and should be inclusive and consultative. Adoption of reforms can be indicated by approving new legislation draft or by issuing implementing regulations or decrees draft or by removing obstructive existing policies proposal or regulations draft.
- **Conflict cases are resolved utilizing harmonized maps (Number)**
 - (i) Cumulative number of cases that have been resolved based on harmonized maps. Through the utilization of OneMap policy system, overlapping claims to land, including through the consolidation of data across government agencies, are expected to be resolved. Unclear access to land/tenurial rights, uncertain land and forest ownership amongst forest dependent communities, and overlapping concessions holders stem can result in environmental degradation, competing claims, and conflicts. To date, the OneMap policy system has contributed to addressing these issues, but boundaries remain unclear in some areas, including forest areas.
- **MRV system established and maintained at the provincial (Yes/No)**
 - (i) This indicator measures the functionality and effectiveness of the MRV system established at mainly the provincial level (jurisdictional), in line with the existing or emerging national forest monitoring and MRV system and following the ISFL ER Program Requirements as agreed. It includes measuring the consistency in the reported results at Jambi level and sustainability of the system due to the efficient use of resources, including the quality of field data collection, aggregation, and reporting procedures from the local to the national level. This indicator is measured following the internationally standardized quality assurance procedures and will be checked against the method used in the baseline survey for estimating GHG emissions.
 - (ii) The MRV mechanism refers to Minister of Environment and Forestry Regulation Number: P.72/Menlhk/Setjen/Kum.1/12/2017 on Guidelines for Implementation, Measurement, Reporting and Verification of Mitigation Action and Climate Change Management Resources. A methodology will be developed and applied for adaptation and linkage of jurisdictional system to the national system.



- (iii) The following will inform this indicator: (a) The National MRV institution supports the jurisdictional MRV system, through providing relevant data and capacity development; and (b) Subnational Level MAR (Monitoring, Analysis and Reporting) institution is established and their capacity is enhanced to perform MRV related task.

- **Benefit Sharing Mechanism (BSM) established and maintained (Yes/No)**

- (i) This indicator measures the existence of a transparent and fair BSM that is in line with best international and local practices, which is endorsed by the main stakeholders (government at all levels; wider communities, especially those living inside or adjacent to forests whose livelihood is mainly dependent on forest-related services and products; marginalized communities; and project developers, if any). It also measures the functionality of the mechanism at all levels, including its effectiveness and transparency on distribution of benefits among the stakeholders with regard to both time and space. The BSM will also be aligned with the FGRM and will monitor how effective the use of the benefits by each beneficiary is. This indicator will be measured through documents review (bi-annual progress reports, audit reports, community action plan, bank statements proving disbursement, etc.), focus group discussions at each level (including cooperatives, women, men, youth, districts, etc.) and a household survey (using a questionnaire to be developed).
- (ii) Benefit sharing arrangements are taking five main steps agreed among stakeholders. The arrangements also consider system to channel benefits to beneficiaries (benefit sharing mechanism) and consultations details with stakeholders in building consensus for aspects within benefit sharing. The main steps are as follows:
- a) Identification of benefits, including carbon/non-carbon, monetary/non-monetary, etc.
 - b) Identification and analysis of potential beneficiaries.
 - c) Determination of a system to channel benefits to beneficiaries (the BSM)
 - d) Establishment of a system for determining proportion of benefits allocation among potential beneficiaries
 - e) Establishment of monitoring and evaluation system for benefit sharing

- **Safeguards system established and maintained (Yes/No)**

- (i) This indicator aims to capture the establishment and operation of a safeguards system that will enable the J-SLMP to acquire extensive technical support for safeguards instruments implementation, documentation, reporting, monitoring, and standardization; environmental and social advisory services; and consultation and civic engagement with communities in the regional state. The recruitment and capacity-building support to safeguards officers helps improve their ability to implement the Project's safeguards instruments (ESMF, RPF, PF, and SA) across the jurisdiction. Safeguards coordinators ensure establishment or strengthening and monitoring of the FGRM, BSM, community consultation, participation, and citizen engagement at all stages of the J-SLMP implementation.
- (ii) The following informs this indicator: (a) safeguards instruments are completed and ready to use; (b) safeguards team in place to monitor safeguards implementation; (c) capacity building for safeguards implementation are conducted to make sure that environmental and social issues are well understood by related stakeholders; and (d) a safeguards reporting system



(Safeguards Information System or SIS) is developed and maintained at the provincial or district level.

- **Grievances registered related to delivery of project benefits addressed (Percentage)**

- (i) This indicator measures the transparency and accountability mechanisms established by the Project so that target beneficiaries have trust in the process and are willing to participate and feel that their grievances are attended to promptly.
- (ii) An FGRM is required to ensure beneficiaries can act on their entitlements to project benefits, can query decision-making processes within the program that may exclude them from benefits, and register complaints about the negative impacts of the program.
- (iii) The following informs this indicator: (a) the number of complaints made, and (b) the number of these complaints that are resolved. This indicator is a simple percentage of these two numbers, allowing programs to make a statement such as 'x percent of complaints received through program redress mechanisms were resolved'.

- **Burned areas reduced in target areas (Percentage)**

- (i) Under the Project, the Directorate of Inventory and Monitoring of Forest Resources (Inventarisasi dan Pemantauan Sumber Daya Hutan or IPSDH) and Lambusango Forest Conservation Program (Program Konservasi Hutan Lambusango or PKHL) generate burned area maps for Jambi. These maps will be compared annually to understand the percentage change in overall area burned in the province.

- **Area reforested in forestry/agroforestry areas (ha)**

- (i) This indicator measures the land area targeted by the program that has been reforested (including restored and afforested). This refers to restoration of degraded land where the objective is to have permanent improvement in the capacity of the forest land area to provide environmental, social, and economic services, expressed in hectares as well as 'establishment of forest through planting and/or deliberate seeding on land that, until then, was not classified as forest' or 're-establishment of forest through planting and/or deliberate seeding on land classified as forest' expressed in hectares. This can also include Assisted Natural Regeneration (ANR), coppicing, or other locally appropriate methods. This indicator does not include areas which have been cleared during or in anticipation of the project. Results are disaggregated for reforested areas within Conservation Areas.

- **Farmers adopting productivity enhancing technologies (Number; % Female)**

- (i) This indicator measures the number of farmers adopting SLM technologies that enhance productivity in the Project areas and is gender disaggregated (as a percentage). To measure this indicator, a formal survey will be carried out at regular intervals, as well as at the end of the program. When reporting on this indicator, the progress is equal to the cumulative number of land users adopting SLM technologies since the beginning of the program.
- (ii) Adoption refers to change of practice or change in the use of a technology promoted or introduced by the program.
- (iii) Farmers are the recipients of SLM interventions. They may be farmers, farmer organizations, farmer communities, lessees, or customary holders of the land that benefited from such



interventions. Where farmers' associations or cooperatives exist in a program area or community, care must be taken to ensure that only the farmers specifically reached by the SLM interventions are recorded.

- (iv) *SLM technologies* include technologies and approaches to increase land quality and productivity. The practice must be site-specific because different areas require different interventions.
- (v) *Sustainable landscape management practices* can include, but are not limited to:
 - a) Conservation/climate-smart agriculture
 - b) Agroforestry
 - c) Fertility-boosting technologies
 - d) Terraces
 - e) Irrigation management technologies
 - f) Rainwater harvesting
 - g) Pastoralism and rangeland management
 - h) Improved grazing management
 - i) Integrated crop livestock systems
 - j) Catchment management

- **Total land area brought under sustainable management plans (ha)**

- (i) Total land area brought under sustainable management plans including where relevant: forest plans, biodiversity plans, and land use plans. It includes plans that outline a set of actions and responsibilities for: (a) forest management; (b) biodiversity management, including wildlife and plans for an ecosystem, area, or species; and (c) land use plans that can include the use of land for socioeconomic activities such as agriculture, housing, industry, recreation, and commerce as well as the protection of areas from development.
- (ii) *Sustainable management plans* are defined as plans for managing the use of land resources to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions. Plans must be site-specific because different areas require different interventions.
- (iii) In the case of Jambi, Long-term Forest Management Plans (RPHJPs) for KPHs are included in this indicator. Similar to RPHJP for KPH is RPJP (Long-term Management Plan) for Conservation Areas, which are included in this indicator as well.
- (iv) For the baseline value, in Jambi 9 KPHs have their RPHJPs which are already approved: KPH 1 Kerinci, KPH Bungo, KPH Merangin, KPH Sarolangun Hulu, KPH Sarolangun Hilir, KPH Tebo Barat, KPH Tebo Timur, KPH Unit 13 Muaro Jambi, KPH Tanjab Timur, and KPH Tanjab Barat - where the total area of these KPHs is equal to 970,695 ha of which only 419,517 ha is forested. Jambi has several Conservation Areas equal to 672,031 ha, of which 561,074 ha is forested. In addition, APL totals 434,994 ha, of which 56,847 is forested. Accordingly, the total forest area in Jambi is 2,082,286 ha, of which 1,038,981 ha is forested.
- (v) The Project prioritizes 4 KPHs and 5 Conservation Areas. The KPHs are Bungo, Merangin,



Sarolangun Hilir, and Tanjab Barat, with a total area of 440,816 ha of which 218,821 ha is forested. The Conservation Areas are Kerinci Seblat National Park (NP), Berbak NP, Bukit Tiga Puluh NP, Bukit Dua Belas NP, and Pantai Timur Nature Reserve, with a total area of 635,953 ha of which 558,451 ha is forested. The total forested areas in the prioritized KPHs and Conservation Areas is 777,272 ha.

- **Community partnerships established with private sector (Number)**

- (i) Community partnerships include, but are not limited to:
 - a) Community cares about fire (*Masyarakat Peduli Api*/MPA)
 - b) PROKLIM
 - c) *Sekolah lapang/Field Schools*
 - d) Green villages

- **Area under compliance with relevant sustainability guidelines by smallholders (ha)**

- (i) This indicator measures the area under the certification of local value chain-specific stakeholder platforms of large companies, intermediaries, producers, and other stakeholders' companies that certify relevant sustainability criteria, i.e., the implementation of sustainable production standards, for example international and national palm oil certification requirements (RSPO and ISPO) as well as standards in coffee, rubber, and timber (including the *Sistem Verifikasi Legalitas Kayu* or SVLK).

- **Community groups/villages reached with benefits (assets and/or services) (Number; % Female)**

- (i) This indicator defines the direct beneficiaries of community groups/villages reached by the grant financing only and does not include benefits from leveraged sources of financing or the ERPA. They include KPH-level experts as well as community members who are trained in PFM, A/R, land use planning, safeguards, and extension. Reporting also includes percentage of female beneficiaries.
- (ii) *Direct beneficiaries* are people or community groups who reached with assets and/or services from the Project. Family members of beneficiaries are excluded.

**ANNEX 1: Detailed Project Description****COUNTRY: Indonesia**

ID: Jambi Sustainable Landscape Management Project

1. The J-SLMP and forthcoming ER Program are a strategic umbrella for multi-sector, multi-stakeholder interventions across land uses in Jambi. Together, they contribute to a transformation in how landscapes are managed in Jambi to deliver multiple benefits such as climate change mitigation, improved livelihoods and environmental services, and strengthened coordination and partnerships with key stakeholders. The J-SLMP fosters equitable and low-carbon development by addressing drivers of emissions, deforestation, and land degradation primarily through strengthening policies and institutions that are engaged in land use and implementing sustainable land management approaches. Taken together, the activities supported by this Project aim to intensify the productivity of degraded land while limiting further conversion of forests and peatland. All activities identified have been prioritized based on their potential for improving livelihoods for communities and smallholders and generating ERs and are primarily implemented by government and villages, intersecting with activities by the private sector and CSOs.

Drivers of emissions and Project activities

2. In order to address the primary direct and indirect drivers of GHG emissions from land use in Jambi, it is essential to create an enabling environment for low-carbon development and improve management of peatland areas, fire, agriculture, and forests. Peatland areas in Jambi contain critical carbon stocks and their degradation has contributed significantly to emissions from land use in the province. Therefore, a primary focus of the J-SLMP is on improvements to peatland management. Multiple sectors operate in peat areas, including agriculture, forestry, and public works, and activities are being implemented by government, communities, civil society, and the private sector. The BRG also plays a central role in monitoring peat given its mandate to restore 2 million hectares of fire-damaged peatland nationally.

3. Jambi is also one of the provinces in Indonesia that is prone to forest and land fire. Between 2011 – 2015, fires in Jambi occurred mainly on APL as a result of land clearing activities for cultivation. The government of Jambi subsequently established provincial policies to prevent forest and land fire in 2016, however, its enforcement still faces challenges. Given that fires occur in areas managed and used by different authorities, there is a need to coordinate and consolidate functions across stakeholders that prevent and manage fires.

4. The Project aims to address underlying drivers of emissions, including weak governance and management, enforcement, and the lack of harmonization across sectors. Specific gaps in governance include those related to: consistent approaches and tools (including spatially explicit information) for peatland, forest, and fire management; coordinated enforcement and implementation of sustainable land use approaches; transparent monitoring of changes and social issues related to land use; and stakeholder capacity to engage in and manage their natural resources sustainably. Together Components 1 and 2 aim to address the drivers of emissions, including weak governance, by providing resources to test sustainable land use management practices and enforcement in Jambi.

5. Further improvements to governance, transparency, and social inclusion will be made through the creation of a framework and conditions for Jambi's forthcoming ER Program. Specifically, the J-SLMP



enhances the readiness of stakeholders and institutions to operate a jurisdiction-wide ER Program that meets specified technical, legal and design requirements. Broadly, this entails the capacity to a) systematically, consistently and transparently track significant sources of emissions during program implementation, b) mitigate environmental, social and financial risks, and c) manage the proceeds from future ER payments effectively.

Leveraging existing activities and programs for community, civil society, and private sector engagement

6. Given that the J-SLMP and forthcoming ER Program are a strategic umbrella for Jambi, the Project is intended to complement and fill gaps in ongoing initiatives to further leverage and scale-up approaches for sustainable land management. This includes leveraging ongoing government programs that contribute to sustainable forest and land management and that produce positive development outcomes for stakeholders. The J-SLMP particularly leverages actions that are being implemented and are planned to be scaled-up by the government in Jambi under social forestry, KPH, and OneMap programs. Social forestry aims to increase community access to and management of forests through the distribution of access permits; this combined with efforts under the OneMap policy system, which addresses overlapping claims to land, are implemented by the government in Jambi to reduce tenurial conflicts, ultimately improving land management. These improvements are further bolstered by the government's plans to support KPH's essential role in localized forest management.

7. In addition to government programs, according to an initial institutional mapping exercise conducted by the GOI, there are at least 16 CSOs implementing over 75 projects that are directly complementary to the objectives of the J-SLMP. Given these activities, the J-SLMP has been designed to coordinate and leverage ongoing initiatives to increase the impact of the Project. Furthermore, each component under the J-SLMP has the potential to contribute to private sector engagement, for example, through improvements to the regulatory environment for land use as well as supporting sustainable production and supply chain development. More specifically, these activities build on successful initiatives with the private sector and focus on improving livelihood options for villages, farmers, and smallholders to incentivize them to intensify production and reduce land conversion, including through fire. In coordination with and to complement the J-SLMP, a separate BioCFplus ISFL-funded BETF operation is being proposed to support private sector engagement, including through smallholder replanting and training (refer to Annex 5 for more information). See Annex 4 for more information on complementary activities and leverage, including programs being implemented by government, CSOs, and development partners, in addition to the private sector.

Engagement in the oil palm sub-sector

8. The proposed Project addresses key drivers of deforestation, which includes land use change driven by the expansion of oil palm and other commodity crops. Under the Project, engagement with the oil palm sub-sector closely follows World Bank Group guidelines and principles. In March 2011, the World Bank Group approved the World Bank Group Framework and IFC Strategy for Engagement in the Palm Oil Sector (referred to as 'the Framework'). The Framework requires a Country Situation Analysis (CSA) to be jointly prepared by the World Bank and IFC for each country in order to re-engage in the oil palm sub-sector. The CSA is intended to set parameters for a World Bank Group sectoral approach within each relevant country's context with particular focus on environmental and social (E&S) risks and opportunities. The CSA is also required to identify and document prospective investment opportunities and appropriate risk mitigation measures at the governance and transactional levels, prior to re-engagement in the sub-



sector. The CSA for Indonesia was prepared and approved in 2015. The following are its main findings and conclusions:

- a) In view of increasing demand for the commodity both domestically and globally, expansion of oil palm plantations (and/or increases in productivity of existing production enterprises) is expected to continue into the next decade, with growth driven by smallholder production and private companies. In the context of the GOI's commitment to reduce GHG emissions, as well as intense pressure from CSOs and Western consumers, as well as Western food companies' commitments to delink palm oil production from further deforestation, the key challenge will be to achieve future expansion in the sub-sector sustainably without causing unacceptable negative environmental and social impacts.
- b) The key challenges in the oil palm sub-sector in Indonesia involve environmental, social, economic and governance aspects that are often interlinked. Stakeholder consultations as part of the CSA identified several issues to be addressed in order for the Indonesian oil palm sub-sector to move toward a more sustainable path:
 - i. The link between palm oil production and continuing deforestation, forest degradation and conversion of peatland is a controversial issue. The use of fire for land preparation, particularly on peatland, has contributed to air pollution and emissions of GHGs.
 - ii. Weaknesses in the regulatory and policy environment are often cited as an important reason why these issues have not been effectively addressed.
 - iii. With regard to land governance, stakeholders highlighted the need for more comprehensive spatial planning at the national and local levels to facilitate improved land use planning, classification of forest and non-forest lands, and better definition of lands that could be available for sustainable oil palm expansion.
 - iv. There are also on-going conflicts involving indigenous peoples arising from inconsistencies in the recognition and respect of customary land rights.
 - v. Many stakeholders raised concern over the social and economic well-being of smallholders. A significant gap continues to exist between the productivity of smallholders and that of private and state-owned plantations. This gap is attributable to smallholders planting on less suitable soils or steeper slopes, poor management capacity and adoption of best agronomic practices, weak farmer organization, lack of access to good quality inputs, adverse climate conditions and limited access to finance.

9. The Project's engagement in the oil palm sub-sector in Indonesia is consistent with the Framework and Indonesia CSA. The latter outlines four central pillars for World Bank Group engagement in the sub-sector:

- a) An enabling palm oil sector-based policy and regulatory environment that promotes economically, environmentally and socially sustainable investments;
- b) Mobilization of sustainable private sector investment in palm oil producing countries;



- c) Benefit sharing with smallholders and communities, through project design; and
- d) Sustainable codes of practice that can be adopted by producers and buyers of palm oil.

10. Project activities focus on pillars a), c) and d), and contribute to addressing all the issues and challenges identified by stakeholders during the CSA consultations.

Prioritization of Project activities

11. Given the ongoing activities being implemented in Jambi by other stakeholders, the J-SLMP and its activities have been designed to address identified gaps and to scale successful approaches throughout the province. Activities were selected based on five criteria: 1) expected impact on reducing emissions; 2) geographic prioritization given the landscape in Jambi; 3) livelihood impacts for communities and smallholders; 4) complementarity and ability to leverage other programs and initiatives being implemented by government, CSOs, development partners, communities, and the private sector; and 5) the unique value that the World Bank Group provides on sustainable land use, particularly as it relates to governance, policy, and regulations.

12. A spatial planning approach informs the geographic prioritization and selection of Project activities, bringing together various government institutions to implement an integrated multi-sector set of actions around conservation, restoration, agriculture intensification and diversification, and sustainable value chain development. To this end, a geographic map of ER-potential hotspots was prepared, which identifies the forest and non-forest HCV areas with the greatest likelihood of generating ERs. The PMUs have proposed that Performance Assessment Areas (*Wilayah Pengukuran Kinerja*; WPK) are identified as a basis for targeting activities. The criteria for determining the WPK included a ranking of regions that have the largest primary and secondary forest cover and also the largest emission levels, including from peat decomposition. The WPK also refers to economic development zoning, following the Jambi Province Regional Spatial Plan (RTRW): Upstream (Conservation Zone), Middle (Production), and Downstream (Distribution). Based on this, a long list of proposed WPK locations includes the following districts: *Batanghari, Bungo, Kerinci, Merangin, Muaro Jambi, Sarolangun, Tanjung Jabung Barat, Tanjung Jabung Timur, Tebo, and Sungai Penuh*. The GOI has also analyzed the KPHs and Conservation Areas within the WPK long-list. While activities primarily under Component 1 have an impact across the jurisdiction, implementation of investments primarily under Component 2 are implemented in prioritized locations identified in the PIM.

13. Finally, given the Project runs through 2026, activities are sequenced to ensure effective implementation, including activities required for the preparation of the ER Program (primarily Component 1) as well as during the implementation of the ER Program. This detail is in the PIM.

Ecological and biodiversity aspects of the Project

14. The Project aims to maintain and restore natural habitat, especially considering that degradation and deforestation in HCV areas are major contributors to emissions. The activities under the Project facilitate positive ecological impacts that include, among others: restored and better maintained biodiversity, environmental services and ecosystems; reduced deforestation and increased carbon uptake; reduced degraded land; better protected forest areas and wildlife habitats; decreased fire hotspots; enhanced ecosystems; reduced GHG emissions; reduced possible risks of changes in physical and chemical properties of the soil; more appropriate measures for post-mining reclamation and revegetation; better assurance for well qualified reclamation; and enhanced ecosystem sustainability.



15. The J-SLMP includes activities that specifically target the enhancement of biodiversity in Jambi. First, the Project supports the assessment of and capacity building for biodiversity and habitat protection in HCV, HCS, and KEE areas. Also, the J-SLMP promotes conservation partnerships between communities and national parks. Specifically, the Project enables effective inclusion of communities, including *adat* communities, in participatory mapping, restoration, ecotourism, Conservation Area establishment, business development for alternative livelihoods, and firebreaks. These activities aim to directly improve the management of resources to conserve biodiversity.

16. In addition, other activities supported by the J-SLMP contribute to biodiversity conservation. For example, peatland and forest restoration and management activities include support for revegetation using native species as well as non-timber forest product (NTFP) investments that both rely on and promote biodiversity conservation as part of their success, like beekeeping and ecotourism. Also, there are several stakeholders in Jambi engaging on ecosystem service and biodiversity issues, including KPHs which are central to forest management at the local level. This Project supports KPHs, including for sustainable forest and fire management approaches, which, given KPHs central role in forest management, contribute to the management and rehabilitation of forest ecosystems. Finally, the Project capitalizes and leverages the robust work being done by partners, including CSOs, on biodiversity conservation, the details of which can be found in Annex 4.

Component 1. Strengthening Policy and Institutions

17. The objective of Component 1 is to enhance the effective land management regulation and enforcement in Jambi with a focus on harmonizing policies and approaches across sectors, peat management, and fire prevention and management. Furthermore, this component supports the national and provincial governments, communities, and other stakeholders to effectively achieve the objectives of the Project. This component is implemented through technical assistance and capacity building activities.

18. Sub-component 1.1 Institutional Strengthening and Cross-sectoral Coordination

19. Existing Provincial Institution Role Enhancement on Climate Change. There is a need for a dedicated institution to manage climate change issues in Jambi. The *Sekber* is a joint secretariat in Jambi that includes membership from government, private sector, civil society, and community groups. It has been identified as having the highest potential, due to its representation, for taking a more significant role in climate change management issues in Jambi. Currently, the *Sekber*'s primary focus is managing forest resources. However, the *Sekber* has the potential to coordinate across other land use issues to enhance synergies between key stakeholders. The Project supports expanding and enhancing the *Sekber*'s role to include technical advice on the management of climate change relevant issues such as peatland, fire, and the J-SLMP and forthcoming BioCFplus ISFL ER Program. With this support, the *Sekber* supports implementation of the J-SLMP that is led by *Bappeda*, and implemented by *Dishut*, *DisLH*, *Disbun*, and district, city, and village governments. There is also potential for the *Sekber* to play a coordination role for the implementation of Jambi's GGP.

20. The J-SLMP supports the operationalization of the *Sekber* in this expanded role, including through support for the legalization of this role through academic scripts and draft regulations. In addition, capacity building support is provided to enable the *Sekber* to coordinate across multiple stakeholders and provide relevant technical advice related to peatland management, fire management, coordination of the J-SLMP and ER Program, and implementation of the GGP. As part of this, a capacity building gap analysis and roadmap will be developed and implemented. For example, the gap analysis could identify the need



for trainings on the collection, management, and consolidation of land use data, including ways to improve the quality of this data (e.g., maps, land-based activities, land types, licenses, etc.). Additional support is provided for thematic discussions with relevant stakeholders on policy analysis and coordination, including as related to HCV, HCS, ISPO certification, peatland management, forest management, and land-based fire. As the *Sekber* expands its focus, the Project can support its coordination function, for example in the development of technical guidelines on peatland management (including water management) and stakeholder workshops for cross-sectoral collaboration and organization.

21. Capacity building for non-carbon benefits and habitat protection. The J-SLMP aims to reduce emissions from land use, including through the maintenance and restoration of natural habitat, especially considering that degradation and deforestation in HCV areas are major contributors to emissions. This approach has positive impacts on biodiversity and in order to maximize these impacts, the Project also supports the assessment of biodiversity in HCV, HCS, and KEE areas. Subsequently, capacity building efforts support relevant stakeholders in priority HCV, HCS, or KEE areas, including with *adat* communities, to improve institutions and coordination for biodiversity conservation.

22. Enhancement of private sector participation in generating Emission Reduction (ER) benefit. Jambi's CSR Forum includes membership from critical stakeholders for land use, including banks and companies involved in commodity value chains. The members of the Forum provide funding for various sustainable development efforts in Jambi, including education, health, infrastructure, environmental sustainability, job creation, and cultural and religious issues. These efforts are coordinated with the provincial government and the Forum is a robust example of a successful public-private partnership in Jambi. The J-SLMP provides support for the CSR Forum to compile and map CSR implementation plans that will support the forthcoming ER program. Support is also provided for the development of an information portal for the CSR Forum to consistently record and monitor the activities they support. In addition, workshops and focus group discussions will be held to share lessons across sectors on the integration of ER approaches in private sector activities and CSR support.

23. Sub-component 1.2 Enabling Environment for ER Program

24. Jambi plans to develop an ER Program for results-based payments for verified ERs, which will be elaborated in an Emission Reduction Program Document (ERPD). The following activities create conditions and a framework to prepare an ER Program that meets technical requirements. These activities have benefits beyond enabling Jambi to access results-based payments, including improved transparency, governance, and social inclusion for sustainable land management in the province.

25. GHG emissions accounting, monitoring and reporting. Future ER payments are made against a baseline of GHG emissions. Both the baseline and future emissions are estimated following an established standard for the BioCFplus ISFL. This requires that emissions are periodically measured and reported so they can be independently verified. To do this, various institutions need to collaborate to process and validate emissions estimates. This activity supports the development of standard operating procedures for data collection and processing as well as capacity building and training to meet technical requirements. In addition, support is provided for collecting and analyzing data on deforestation and land use change, historical peat fires, emissions levels and factors, peat decomposition, and mangrove conversion.

26. Given the Agriculture, Forestry, and Other Land Use (AFOLU) accounting approach for the BioCFplus ISFL, there is a need to develop a comprehensive landscape emissions monitoring approach,



which includes coordinated MRV efforts and systems as well as protocols for the integration of the sub-national data management and registry system with the national registry system. A functioning MRV system is critical for the forthcoming ERPA and is therefore prioritized. This activity supports both improvements and alignment of these systems as well as technical assistance for staff managing them. Specifically, activities include the improvement of emission factors through field measurements and literature review; updating, compiling, and generating activity data for GHG accounting; and building capacity for calculating ERs at provincial and sub-provincial levels. This activity also supports drafting relevant carbon accounting sections of the ERPD for the forthcoming ER Program.

27. Benefit Sharing Plan (BSP). The ERPD will have a description of benefit sharing arrangements for the ER Program, including who will benefit from ERPA payments and how these benefits will be delivered. The ERPD also includes information on stakeholder consultations and monitoring provisions as they relate to benefit sharing. In addition to the ERPD, a BSP will be developed, further elaborating on these arrangements and including more detail on stakeholder consultations, funds flow, governance, risk management, and monitoring provisions. This activity supports the development and drafting of both relevant ERPD sections and the BSP. This activity also supports stakeholder communications required for developing the BSP (in addition to stakeholder consultations under safeguards activities), elaboration of protocols for benefit sharing and reporting, capacity building to enable the effective implementation of the benefit sharing arrangements, and the development of a provincial regulation and institutional arrangements for benefit sharing.

28. Environmental and Social Risk Management Development. This group of activities includes the development of environmental and social safeguards frameworks, their operationalization, and related capacity building. J-SLMP supports the development and operationalization of a Project-specific Feedback and Grievance Redress Mechanism (FGRM) for grievances related to the Project and the broader ER Program. The FGRM will be based on the existing national and provincial systems to address grievances and capture citizens' feedback already in existence at the village, provincial, and national levels. As part of the establishment of the FGRM, the J-SLMP supports the clarification of roles and responsibilities and technical support for the institutions responsible for managing and maintaining the FGRM. This activity also supports consultations for the development of the FGRM and coordination and capacity building across government ministries and agencies for effective implementation of the Mechanism.

29. This activity also supports the development and implementation of a safeguard's framework and related instruments for the Project. Since the Project finances both technical assistance for the preparation of the ER Program (primarily Component 1) as well as physical investments (primarily Component 2), assessments of environmental and social risks are a sequential process. During Project implementation, support is provided to strengthen risk mitigation approaches under the planned ER Program, including by synergizing World Bank safeguards instruments with government systems, addressing gaps in institutional capacities, and conducting stakeholder consultations and engagement. A SESA and ER Program-level ESMF, which outlines relevant measures to address potential investments under the Jambi's ER Program will be developed and supported by this Project and will be reflected in the ERPD. This activity also supports stakeholder consultations, capacity building and trainings on social and environmental risks, and the establishment of institutional arrangements for safeguards management including under the ER Program.

30. Finally, this activity also supports the drafting of relevant ERPD sections.



31. Analysis of non-carbon benefits. In addition to results-based finance, the implementation of the ER Program will result in several non-carbon benefits, including improved governance, ecosystem services, and others. The Project supports analyses on *adat* community rights and other non-carbon benefits related to the ER Program. This activity also includes support for knowledge sharing and capacity building related to non-carbon benefits, as well as providing informing policies (under sub-component 1.3) related to non-carbon benefits.

32. **Sub-component 1.3 Policy and Regulations**

33. This sub-component aims to consolidate and strengthen policies and regulations for sustainable land use, including at the national and provincial levels. Particular focus has been given to fire, peatland management, and private sector engagement in order to effectively address drivers of emissions, improve livelihood opportunities for land users, and ensure the long-term sustainability of approaches in Jambi.

34. Conflicting policies and regulations for land use can undermine efforts to reduce emissions and improve livelihoods from agriculture and sustainable land management. Therefore, in order to inform activities under this sub-component, a review will be done of existing policies and policy gaps or conflicts related to green growth, HCV areas, land management, and reducing emissions. This will include policies and regulations for peat, fire, agriculture, forests, and other land use sectors.

35. Governor's regulation (*Pergub*) and permanent moratorium related to peatland. Peatland decomposition is the largest source of GHG emissions from land in Jambi and is therefore critical for the Project. This activity supports the development of a *Pergub* on peatland management (including water management) to ensure consistency and efficacy across Jambi, including by multiple stakeholders (government, communities, civil society, and the private sector), including in conjunction with the GGP. This *Pergub* will include geographically explicit approaches for managing ER-potential hotspots identified through the spatial planning approach, including in HCV, conservation, and other critical areas. The regulation will underscore ongoing efforts by the BRG and the *Tim Restorasi Gambut* (TRG) – BRG's network of partners that are implementing peatland restoration projects.

36. More specifically, the Project supports the drafting and consultations on an academic script and *Pergub*, as well as standard operating procedures. The *Pergub* will include a permanent moratorium on conversion of peatland in Jambi. This would be modeled after the national moratorium signed in 2016 that makes activities that degrade the hydrological functions of peat illegal. While the signature of the national moratorium is a significant milestone, further efforts are needed to properly enforce it, especially at the sub-national level. Jambi has the opportunity to be a leading province in Indonesia on peatland management and the adoption and enforcement of a province-wide moratorium that bolsters the national one would not only solidify their leadership on this issue, but significantly contribute to the objectives of the J-SLMP.

37. District regulation (*Perup*) for fire management. There is a need to align standards for fire prevention and management across the province. While a provincial regulation (*Perda*) on fire management is in place, this needs to be operationalized at the district level. The Project supports the drafting of and consultations on an academic script and *Perup* for fire management, including standard operating procedures and any guidelines needed for the implementation of the *Perda*. The *Perup* is expected to contribute to the standardization of fire management approaches in Jambi, including for fire brigades and concession holders at the district level.



38. Perda for the legal recognition of *adat* communities. Indonesia's constitution only weakly recognizes the rights of *adat communities* towards their claimed land. Competing claims between *adat* communities and the government has resulted in tenure conflicts that could lead to deforestation and forest degradation due uncertainly of land rights. According to Law 5/1960 on the Basic Agrarian Law (UUPA), an *Adat* Law Community (MHA) is a group of people bound together as a community by their *adat* law order with a legal alliance because of the similarity of place of residence or based on offspring. Article 18B (2) of the Constitution recognizes MHA, along with their traditional customary rights, as long as these remain in existence and are in accordance with social development and the principle of Indonesia, as regulated in the constitution and law. For *adat* communities to be recognized as MHA, a regional regulation needs to be established to designate their claimed land. MHA land is managed in order to maintain ecosystem balance including through managing sources of seeds, medicinal plants, upstream rice fields, etc. Most MHA areas that have been assigned by Head of District (*Bupati*) in Jambi are located in conservation forest areas (National Parks), production forests, and protected forests. The J-SLMP supports the development of an academic script for establishing a provincial regulation to acknowledge the *adat* communities as MHA.

39. Accelerating implementation of the OneMap policy in Jambi. The OneMap policy system aims to address overlapping claims to land, including through the consolidation of data across government agencies. Unclear access to land/tenurial rights, uncertain land and forest ownership amongst forest dependent communities, and overlapping concessions holders stem can result in environmental degradation, competing claims, and conflicts. To date, the OneMap policy system has contributed to addressing these issues, but boundaries remain unclear in some areas, including forest areas. The J-SLMP supports targeted efforts to accelerate the implementation of the OneMap policy system in Jambi, including through focus group discussions and workshops, and coordination and consultation to clarify boundaries in priority areas.

40. Regulations related to private sector engagement. The private sector plays a critical role in land use in Jambi. There is potential to strengthen the regulatory environment to better enable private sector companies to implement sustainable land use practices in Jambi. The Project supports these efforts through an analysis of the regulatory framework for sustainable private sector investment in Jambi. Specifically, consultations with the private sector will be held to better understand their legal incentives and disincentives for making sustainable land use investments. Support is also provided for the analysis of regional policies, including those related to primary industry licenses. This analysis could highlight, for example, the potential to include enforcement of an allocation of land for conservation in private sector concessions. Or, it could illuminate legality, conflicts between, and gaps in sustainable management of forestry, estate crops, and mining licenses.

41. Establishment of an Environmental Management and Protection Plan (RPPLH). This activity supports the development of a draft RPPLH, which is the basis for all environmental management and protection activities in the province. The RPPLH is a detailed translation from Law 32/2009 on Environmental Management and Protection. Specifically, the Project supports the drafting and consultations on the RPPLH.

Component 2. Implementing Sustainable Land Management

42. The objective of Component 2 is to integrate forest and land management in Jambi, particularly through sustainable forest management, conservation and restoration, agriculture intensification and



diversification, and value chain sustainability. As with Component 1, peat management, fire prevention and management, and green growth, including through private sector engagement, are priorities to ensure impact in meeting the Project's objectives. Component 2 is supported primarily through physical activities, mostly in the form of technical assistance, technology transfer, and capacity building. Together with Component 1, these activities aim to address the drivers of emissions, including weak governance, by providing resources to test sustainable land use management practices and enforcement in Jambi.

43. There are several implementation vehicles that will be used for this component, including green villages, field schools, and leveraging ongoing CSO programs:

- c) Green villages: Some private sector companies have created programs for designating villages 'green' if they meet criteria for land management, including fire prevention. Through the incentives provided to green villages, companies have been able to strengthen fire prevention activities in their concessions and reduce conflict with villages. This component supports replicating and scaling up green villages through Jambi's CSR Forum, including through the implementation of activities under the component.
- d) Field schools: There is an opportunity to increase the uptake of sustainable agricultural practices in Jambi through targeted field schools. This component supports scaling-up the establishment of field schools to additional locations in Jambi, prioritizing ER-potential hotspots, as well as the development of training modules on sustainable practices and access to finance based on the activities under the component. Particular focus has been given to gender equity for those attending the field schools.
- e) Funding for scaling up ongoing programs implemented by CSOs: At least 16 CSOs are active in Jambi Province, implementing a range of activities that are relevant to the Project. Where a strong potential exists for the rapid achievement of Project results, funding would be made available to scale-up relevant activities.

Sub-component 2.1: Integrated Forest and Land Management

44. Sustainable Forest Management:

45. Protection and security of remaining natural forests, including fire management. This activity engages multiple stakeholders and communities around remaining natural forests at the site level (KPHs, National Parks), including the private sector (HTI and palm oil plantations), to more effectively protect remaining natural forest areas in Jambi. This includes awareness raising and outreach and joint patrolling⁴⁹ in and around these areas. A particular focus of this activity is on hotspot areas to support more effective prevention and control of fires, through fire suppression, emergency response and rewetting of fire-prone (previously drained) peat areas. This includes both equipment to detect and respond to fires to complement the harmonization of fire management approaches under the *Perda* supported by Component 1. KPHs, *adat* communities, Fire Care Communities (MPAs), Strengthening Fire Care Farmers Communities (KTPAs), and National Disaster Management Authority (BNPB)'s *Pokmas* (*Kelompok Masyarakat* or community groups) in hotspot areas receive capacity building support to strengthen participatory fire management in the province. To support the implementation of the ban on fire in Jambi,

⁴⁹ Based on the patrol guideline from MoEF, patrols will involve MoEF, extension services, army, police, NGOs/CSOs. Both army and police will be unarmed and limited to one representative each for each patrol activity. Any violation of law will be processed through the existing law enforcement system, which is under the authority of police.

http://ditjenppi.menlhk.go.id/reddplus/images/adminppi/dokumen/Buku_Patdu.pdf



sustainable alternative ways to land clearing and preparation will be tested and promoted through demonstration plots, building on existing initiatives. The Project supports the development of a process for ensuring preparedness of stakeholders in fire-prone areas to prevent and respond to fires, including concession holders. In addition, the Project provides capacity building and equipment to communities (e.g., *adat* communities and Forest Ranger partner communities (*Masyarakat Mitra Polhut* or MMP) and other stakeholders to patrol priority areas, particularly to complement the supervision of HCV and HCS activities.

46. **Natural resource monitoring, enforcement, and conflict resolution:** Support is provided to facilitate engagement among key government departments and agencies, private companies operating in the landscape, and CSOs and other organizations working on sustainable landscape management. Activities focus on addressing illegal logging, forest encroachment for agriculture, and social conflict. A priority is the identification of conflicts, as well as systems for their assessment and mediation amongst land users. There is also an opportunity to support targeted activities to improve the effectiveness of Social Forestry under the activity with regards to licensing, institutional coordination, *adat* community recognition, and business plan development.

47. **Conservation and Restoration:** These activities are implemented by the government (at various levels) to reduce emissions, working with smallholders, communities and plantations in or near HCV land (i.e. forests, peat, and mangroves, both within and outside of conservation areas). In particular, restoration of priority peatlands is likely to have significant impacts on ER targets.

48. **Peatland restoration planning and management:** Given that a large share of land-based emissions in Jambi are from peatland decomposition, priority activities for support include planning and prioritizing: re-wetting (by canal blocking), identifying economically viable alternative crops, revegetation, establishing community nurseries for appropriate native vegetation, mangrove planting, agroforestry, and NTFP investments (e.g., beekeeping, fisheries, ecotourism). These activities not only reduce emissions from land use but also contribute to biodiversity impacts in the province by restoring habitat and promoting sustainable land use approaches. Particular focus is given to community participation, social inclusion, and gender equity when designing and implementing activities.

49. **Conservation partnerships:** Land use maps indicate that many of the large remaining tracts of forests in Jambi overlap with national parks, denoting that they are critical for conserving forests. Support is required to enable national parks to continue to maintain the resources within their boundaries, including by preventing encroachment. The J-SLMP targets critical gaps and scale up activities to include communities, including *adat* communities, in the protection and conservation of national parks, including through participatory mapping, restoration, ecotourism, establishment of Conservation Areas including in APL, community business development for alternative livelihoods, and the establishment of firebreaks. In focusing on community inclusion in national park management, the J-SLMP is leveraging the ongoing work of Conservation Areas and the national park system, while increasing the scope and impact of these approaches to buffer areas. These activities also have the potential to contribute productively to land and resource issues between communities and protected areas.

50. **Development of incentive mechanisms to prevent encroachment:** The introduction of performance indicators linked to ecosystem protection will form the basis for fiscal transfers to provinces and districts. Support for the development of fiscal incentives is provided to encourage spatial planning offices to incorporate protection in their approaches, including the national parks system. These offices will be encouraged to consider moving production concessions to less vulnerable and/or previously



degraded areas. Payment systems for environmental services will be piloted where communities manage fire, reduce encroachment on forest lands, and adopt new crops and livelihoods as part of restoration efforts (e.g. rewetted peatlands).

Sub-component 2.2 Private Sector and Smallholders Partnerships for Improved Forest and Land Management

51. **Agriculture and Agroforestry Intensification and Diversification:** This activity targets smallholder farmers and collaborate with private sector players (including concession holders) to facilitate enhancements to productivity and sustainability that would reduce emissions in priority areas.

52. Capacity building and technical assistance to farmers. This activity aims to both promote intensification and productivity of existing smallholder plantation crops (thus reducing the risk of expansion and encroachment into forest lands and APL) while also supporting diversification to alternative crops and livelihoods where there is a need and where opportunities exist. Degraded areas, including peatlands, are prioritized for these activities. Support is provided through capacity building and technical assistance on Good Agricultural Practices (GAP), organic farming, climate smart agriculture, post-harvest technology and other relevant technology transfer. Support will be delivered through farmer field schools, farmer associations and other existing learning mechanisms that support established standards and practices such as ISPO.

53. Support may be provided to replanting of unproductive old tree stock by facilitating access to the Oil Palm Plantation Fund (BPDP-KS), for example by organizing farmers and securing land certificates to comply with BPDP-KS requirements. Technical assistance will be provided to oil palm growers with the overarching objective to apply national sustainable production standards (ISPO) and comply with international palm oil (RSPO) certification requirements.

54. Sustainable agroforestry and intercropping. Land utilized for timber, oil palm, rubber, and other crops can be suitable for agroforestry and intercropping, which have the potential to increase productivity while managing emissions by avoiding forest encroachment, particularly if implemented in ER-potential hotspots or bordering primary forest or other HCV areas. This activity supports agroforestry and intercropping in priority areas with input technology (seeds, seedlings) and knowledge transfer based on ongoing Jambi-specific research. Crop diversification is supported as it offers opportunities for income generation; *Liberica*, *Robusta* and *Arabica* coffee, cocoa, *arenga*, cinnamon, rubber, and vegetables are among a number of high-value cash crops (whose potential can be mapped), some of which would do well in sustainable agroforestry conditions. This activity also provides capacity building to improve the use of organic material to produce fertilizer and other byproducts. The promotion of these opportunities includes support to technology and knowledge transfer as well as market development, in close collaboration with private companies, agriculture research institutes, and agriculture extension services.

55. **Value Chain Sustainability:** These activities target value chain actors including communities, commodity aggregators, processors, and in partnership with larger companies who are potential change agents.

56. Market development for commercially viable alternative crops in degraded areas. Especially in areas where oil palm production is hampered by inundation (mostly on peat soils), introducing alternatives to oil palm is extremely relevant. Business development and facilitation services are provided for market development of alternative crops (such as sago palm, jelutong, and *Liberica* coffee) and aquaculture in close collaboration with private companies, agriculture research institutes, and agriculture



extension services. In addition, upland coffee production in Jambi requires technical support to ensure sustainability of the value chain and capitalize on sustainability-based certification.

57. **Coordination of stakeholders in key value chains.** Through facilitation of value chain coordination for key commodities, this activity promotes the implementation of sustainable production standards, for example international and national palm oil (ISPO and RSPO) certification requirements as well as standards in coffee and rubber. Local value chain-specific stakeholder platforms of large companies, intermediaries, producers, and other stakeholders are supported and the development of certification and traceability systems that allow niche marketing (e.g. based on geography) and sustainable sourcing are supported.

Component 3. Project Management, Monitoring and Evaluation, and Reporting

58. This component finances activities related to national and provincial-level Project coordination and management, particularly to achieve the Project's objectives, including AWPB; fiduciary aspects (FM and procurement); human resource management; safeguards compliance monitoring; M&E; knowledge management and sharing; technical expertise (including for agriculture and private sector engagement); and implementation of strategies for communication and stakeholder engagement.

59. Funds cover a portion of the costs for the PIUs/PMUs' contractual staff, and operations and maintenance costs, such as office space rental charges, vehicles and fuel, and office equipment, among others. This component also finances the costs of Project supervision and oversight, as well as other Project administration expenses.

**ANNEX 2: Implementation Arrangements and Support Plan****COUNTRY: Indonesia**

ID: Jambi Sustainable Landscape Management Project

Implementation Arrangements

1. The implementation arrangements for the J-SLMP are consistent with regulations relevant to land use management in the country, including Local Government Law No. 23/2014, which distributes functions and authorities on land use management to national, provincial, and district governments. For the forestry sector, the provincial government has authority over production and protected forest area utilization; the district government has authority over management of Forest Parks; and all other forest areas are under the authority of the central government through MoEF, including the implementation of the forthcoming ER Program as the “Program Entity”. More specifically, MoEF through DG-CC is the primary managing agency that will ensure close coordination among three Directorates in DG-CC namely, MPI, Sectoral and Regional Resources Mobilization (Dit. M2SR), and Green House Gases Inventory and MRV (Dit. IGRK-MPV). Given the J-SLMP is taking a comprehensive landscape approach to reducing emissions and improving livelihoods, the implementation arrangements reflect this through multi-sectoral arrangements. In addition to DG-CC, the MoA is the main authority in charge for agriculture development as part of J-SLMP. The Development Planning Agency (Bappenas) is involved in the implementation arrangements for the J-SLMP due to its essential role in overseeing the synergy between these sectors, as well as between different levels of government (District, Province, and Central).

Table A2.1 National agencies involved in the implementation of the J-SLMP

National Agency	Status	Roles
Secretary General of Ministry of Environment and Forestry	MoEF Representative	<ul style="list-style-type: none">• Submission of ERPD• Chairman of Steering Committee• Signing ERPA
Director General Climate Change (MoEF)	National Focal Point of REDD+ and Technical Advisory	<ul style="list-style-type: none">▪ Program Design▪ Consultation for Methodologies (technical assistance)▪ Preparation for agencies for field implementation▪ Consultation and Communication with Facility Management Team▪ A member of Steering Committee▪ Management of the National Registry▪ Development and management of the FREL▪ Management of the Monitoring, Analysis, and Reporting (MAR) system▪ Finalization and implementation of safeguards plans▪ Finalization and implementation of the FGRM



		<ul style="list-style-type: none">▪ Technical Assistance▪ Recommendation for Payment (BSM)
Ministry of Agriculture		<ul style="list-style-type: none">▪ Program Design▪ Consultation for Methodologies (technical assistance)▪ Preparation for agencies for field implementation▪ A member of Steering Committee
National Development Planning Agency (Bappenas)		<ul style="list-style-type: none">▪ Program Design▪ A member of Steering Committee
Ministry of Finance (DG Ditjen Perbendaharaan)	Financial Authority	<ul style="list-style-type: none">▪ Oversees the BPDLH (BSM)▪ Channels funds to the BPDLH and government agencies (BSM)▪ A member of Steering Committee

2. At the provincial level, implementation of the J-SLMP is led by Bappeda in coordination with the Forestry Service (Dinas Kehutanan), Environmental Service (Dinas LH), Estate Plantation Service (Dinas Perkebunan), and Agriculture Service (*Dinas Tanaman Pangan, Hortikultura dan Peternakan*), with the senior expert/officer of Bappeda acting as coordinator. The *Sekber*, a multi-stakeholder forum, closely supports Project implementation as the participating stakeholders have significant experience in planning, managing, and implementing ER-related projects. The *Sekber* has the potential to enhance its role in the implementation of J-SLMP by providing support to government institutions in the province as well as by liaising with different stakeholders at both the national and provincial levels. Currently, the *Sekber* is incorporated under Forestry Service (*Dinas Kehutanan*) Decision Letter SK Number 96/Kota/Dishut-5.3/IV/2017, on Forest Resource Management. The legal basis of the *Sekber* is expected to be strengthened with a forthcoming Governor Decree. The *Sekber* receives support from the Project to develop dedicated units for specific topics, such as peatland management, fire management, and technical and coordination support for the J-SLMP and forthcoming ER Program.

3. Each respective district, city, and village government is responsible for implementation of the Project in its jurisdiction. Since *Bappeda* is leading the implementation of the J-SLMP in the province with the Forestry Service (Dishut) at the provincial level with its authority over forest management unit (KPHs), Environmental Service (DisLH) with its authority in provincial level, as well as Estate Plantation Service and Agriculture Service (Disbun) and Distan, coordination is based on the existing government coordination mechanism. The utilization of the existing structure with support from an ad-hoc entity, such as *Sekber*, simplifies and strengthens the coordination mechanism for the project implementation.

4. To ensure effective coordination among the various implementing agencies, an NSC will be established to represent the interests of the relevant ministries of the national government and the Governor of Jambi. Other members of the Steering Committee include development partners and civil society. This high-level committee (membership is DGs) is chaired by the MoEF, while the World Bank, and selected partner agencies are observers. Steering Committee meetings are held at least once a year to evaluate activities and progress. It is also important to note that since the Project contributes to the GGP that Jambi has developed, the government is expected to ensure sustainable and strategic budget management beyond the lifetime of the Project, including state budget, grants, and/or other investments.



5. Technical guidance is provided by a National Technical Committee (NTC) and a Provincial Technical Committee (PTC). The NTC provides technical guidance on reducing emissions from land use to the NPMU and sub-national PMU and is led by the Director of MPI under DG-CC, with representation from Directors in MoEF (Dit. IGRK, Dit. M2SR, Dit. PSDH, Biro KLN), Deputy for Maritime Affairs and Natural Resources of Bappenas, Estate Crops Protection of MoA, Ministry of Finance (DJPPR, DG of Financial Balance), and Jambi Bappeda. The PTC under Bappeda provides guidance and recommendations to the sub-national PMU on technical issues related to the ER Program in Jambi, M&E coordination, social and environmental safeguards, and benefit sharing. The PTC is led by the Provincial Secretary of Bappeda, with membership from relevant agencies (Dishut, DisLH, Disbun, and Distan), CSOs, and universities.

Table A2.2 The Sub-National Agencies and Organizations involved in the Implementation of the J-SLMP

Agency	Status	Role
Senior Expert/Officer of Regional Development Agency (Bappeda)	Coordinator at Province Level	<ul style="list-style-type: none">• Responsible for Implementation and achievement of the Program in the Province• A member of Steering Committee
Regional Development Agency (Bappeda)	Implementing agency	<ul style="list-style-type: none">• Local responsibility for cross sectoral activities and integration with provincial development plan and budgeting• Program implementation• Member of Steering Committee
Jambi Environmental Service (<i>Dinas Lingkungan Hidup</i>)	Implementing agency	<ul style="list-style-type: none">• Program implementation
Jambi Estate Plantation Service (<i>Dinas Perkebunan</i>)	Implementing agency	<ul style="list-style-type: none">• Local responsibility for Agriculture Commodity Development• Program implementation
Jambi Forestry Service (<i>Dinas Kehutanan</i>)	Implementing agency	<ul style="list-style-type: none">• Local responsibility for FREL and MMR, and forest-based commodity development• Program implementation
Agriculture Service	Implementing agency	<ul style="list-style-type: none">• Program implementation
The joint Secretariat of multi-stakeholder forum (<i>Sekber</i>)	Advisory	<ul style="list-style-type: none">• Providing advice and inputs to local government in relation to the Program• A Member of Steering Committee
Other Provincial Government Services (OPD)	Implementing Agencies	<ul style="list-style-type: none">• Program implementation• Leading consultation processes within their respective jurisdictions



Development Partners (Prov. & Kab/Kota)	Partner	<ul style="list-style-type: none">• Provide supporting funds and technical advice
University/CSOs (Prov. & Kab/Kota)	Partner	<ul style="list-style-type: none">• Provide scientific supports and facilitation• A Member of Steering Committee (observer)
District/City Secretary	Executing Agency at District/City Level and Field Site	<ul style="list-style-type: none">• Responsible for Implementation and achievement of the Program in the District and Field Site
BAPPEDA District/City	Coordinative implementation at district/city level and field site	<ul style="list-style-type: none">• Coordinate all activities done by OPD in relation to Program at District/City level
OPD District/City	Implementing Agencies	<ul style="list-style-type: none">• Implementing the Program at District/City and Field Site
Village Government	Implementing Agencies	<ul style="list-style-type: none">• Implementing the Program at District/City and Field Site

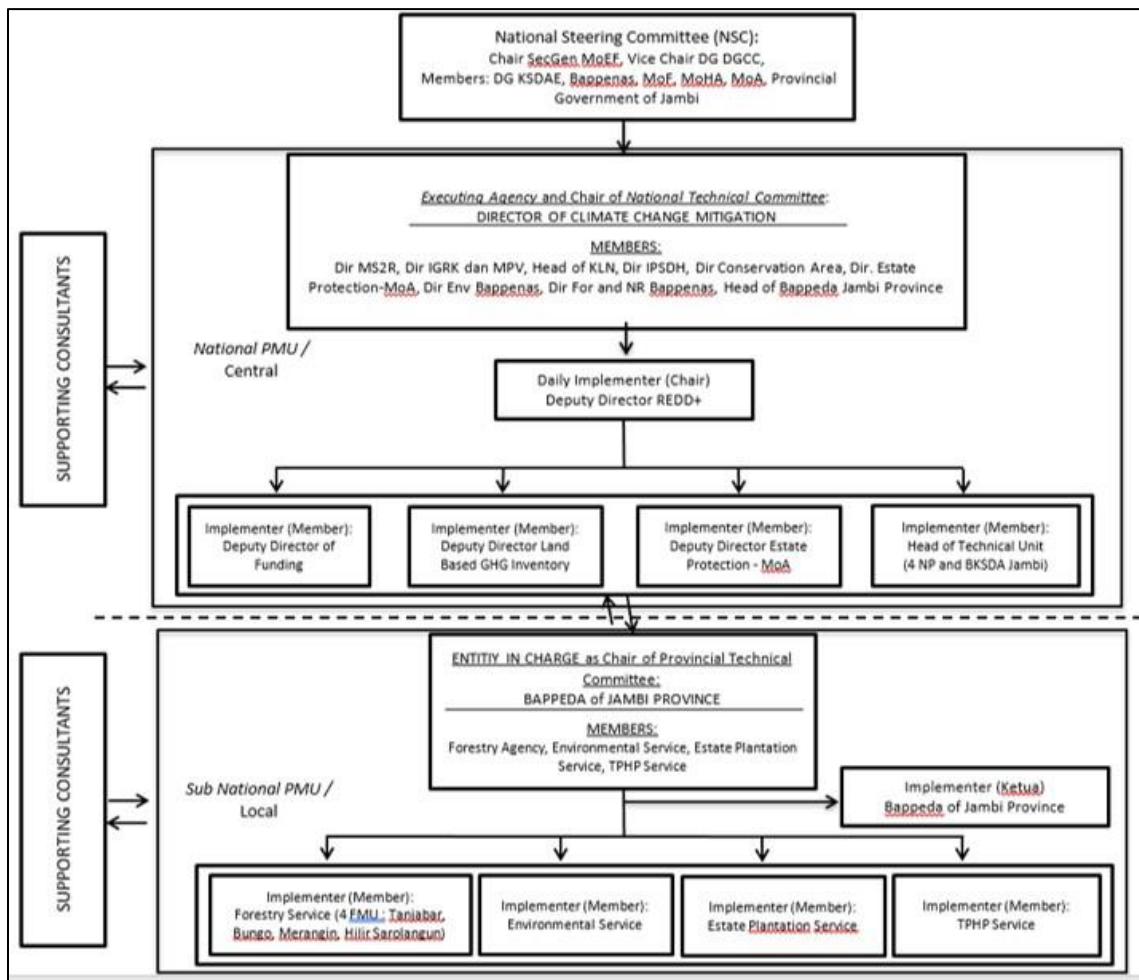


Figure A2.1: J-SLMP institutional arrangements at National and Provincial Level

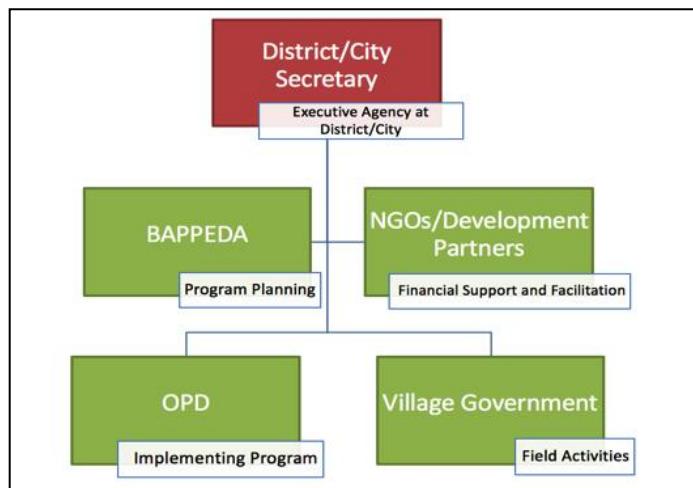


Figure A2.2: J-SLMP institutional arrangements at District and City Level

**Table A2.3 Entities and their roles in J-SLMP components**

Agency	Broad Role	Detailed Role	J-SLMP Components
Climate Change Mitigation (MPI) Directorate – DGCC, MoEF	National Focal Point of REDD+ and Technical Advisory	<ul style="list-style-type: none">▪ Program Design▪ Preparation for agencies for field implementation▪ Consultation and Communication with Facility Management Team▪ A member of Steering Committee▪ Finalization and implementation of safeguards plans▪ Finalization and implementation of the FGRM▪ Technical Assistance	Components 1 and 3
Sectoral and Regional Resources Mobilization (M2SR) Directorate – DGCC, MoEF		<ul style="list-style-type: none">▪ Program Design▪ Consultation for Methodologies (technical assistance)▪ A member of Steering Committee▪ Technical Assistance▪ Recommendation for Payment (BSM)	Component 1
Green House Gases Inventory (IGRK) Directorate – DGCC, MoEF		<ul style="list-style-type: none">▪ Program Design▪ Consultation for Methodologies (technical assistance)▪ A member of Steering Committee▪ Management of the National Registry▪ Development and management of the FREL▪ Management of the Monitoring, Measurement, and Reporting (MMR) system▪ Technical Assistance	Component 1
Ministry of Agriculture		<ul style="list-style-type: none">▪ Program Design▪ Consultation for Methodologies (technical assistance)▪ Preparation for agencies for field implementation• A member of Steering Committee	Component 2



Regional Development Agency (Bappeda)	Implementing agency	<ul style="list-style-type: none">• Local responsibility for cross sectoral activities and integration with provincial development plan and budgeting• Program implementation• Member of Steering Committee	Components 1, 2, and 3
Jambi Environmental Service (<i>Dinas Lingkungan Hidup</i>)	Implementing agency	<ul style="list-style-type: none">• Program implementation	Components 1, 2, and 3
Jambi Estate Plantation Service (<i>Dinas Perkebunan</i>)	Implementing agency	<ul style="list-style-type: none">• Local responsibility for Agriculture Commodity Development• Program implementation	Component 2
Jambi Forestry Service (<i>Dinas Kehutanan</i>)	Implementing agency	<ul style="list-style-type: none">• Local responsibility for FREL and MMR, and forest-based commodity development• Program implementation	Components 1, 2, and 3
Agriculture Service Agency	Implementing agency	<ul style="list-style-type: none">• Program implementation	Component 2
Other Provincial Government Services (OPD)	Implementing Agencies	<ul style="list-style-type: none">• Program implementation• Leading consultation processes within their respective jurisdictions	Component 2
District/City Secretary	Executing Agency at District/City Level and Field Site	<ul style="list-style-type: none">• Responsible for Implementation and achievement of the Program in the District and Field Site	Component 2
BAPPEDA District/City	Coordinative implementation at district/city level and field site	<ul style="list-style-type: none">• Coordinate all activities done by OPD in relation to Program at District/City level	Component 2
OPD District/City	Implementing Agencies	<ul style="list-style-type: none">• Implementing the Program at District/City and Field Site	Component 2
Village Government	Implementing Agencies	<ul style="list-style-type: none">• Implementing the Program at District/City and Field Site	Component 2



Financial Management Arrangement

6. **Budgeting.** The budgeting system follows the existing government procedures. The grant financing provided by this Project will be included in the annual government budget and line ministry budget document (DIPA) and the local government budget (DPA) for the on-granting activity. The budget preparation process is well defined, but there are frequent delays in execution. Parallel budgeting will be made for contracts financed by this Project. Separate budget/DIPA will be prepared for contracts/activity expenditures to be financed by the 3 ISFL grants, and therefore, ISFL grant for the project is at 100%. There are risks regarding delays in budget availability and revisions that may delay Project implementation. The risk of delays for Project implementation also relate to the on-granting mechanism executed by the provincial government given that an activity must first be included in the local government budget. To mitigate this risk, all activities executed in 2020-2021 will be done using the centralized budget under the Executing Agency (DGCC). During such period, activities to be executed in the province, would be carried out through an activity contract between the Executing Agency and the related unit (OPD) in Jambi. The detailed arrangements for the activity contract will be included in the PIM subject to World Bank's prior no-objection. The execution of provincial-/site-level activities from 2022 onwards will be carried out using the on-granting mechanism to Jambi provincial government subject to the fulfillment of the following requirements: **(i) official commitment of the provincial government to implement the on-granting activities, evidenced by a letter from the Jambi Governor to MoF and MoEF; (ii) readiness of the provincial government budget to pre-finance the on-granting activities, evidenced by allocation of Project activities in the proposed local government budget; (iii) inclusion of detailed arrangements regarding the on-granting mechanism in the PIM subject to World Bank's prior review; and (iv) evidence that training has been provided on financial management aspects of the Project to the provincial team.** The Executing Agency is responsible for consolidating evidence on the fulfillment of such requirements and submitting them to MoF prior to signing the on-granting agreement between MoF and Jambi Province. The Financial Management specialist recruited for the Project also assists the PMUs and PIUs on timely budget preparation and revision, consolidating financial information from multiple implementing units, including oversight of activities at the provincial level. **Finally, the PIM will provide a detailed timetable of annual work plan preparation in-line with the timing of when the central and local government budget is processed, with final submission to the World Bank for no objection one month prior to the beginning of the government's fiscal year.**

7. **Accounting and Reporting.** The PMUs' and PIUs' offices including provincial government units maintain separate accounting records for all payment orders (SPM) and remittance orders (SP2D) on a cash basis in accordance with Ministry of Finance regulation 224/PMK.05/2016. All financial transactions are recorded in the government accounting system and included in government accountability reports. The original records are maintained in the file for auditing purposes. The NPMU will prepare a set of consolidated financial reports (Interim Financial Reports; IFR) for Project monitoring purposes and for requesting advances from the Bank. The NPMU can obtain the financial information needed to prepare the IFR from the government treasury information system (SPAN). **The NPMU is responsible for submitting the report to the World Bank no later than 45 days after the end of each quarter.**

8. **Internal Control.** The payment verification process relies on government systems. Direct and independent documentary evidence needs to be furnished to the implementing agencies for them to verify completion before payments are released to third parties. Payment validation procedures require attachment of direct original supporting evidence of completion of activities. A dedicated commitment officer and assistant treasurer will also be appointed in the PMUs and PIUs to assist the Project. In addition



to the existing verification procedures, the PMUs/PIUs will assign staff to conduct detailed verification of the invoices prior to issuance of payment requests. This control can be further improved through the provision of verification guidelines. Strengthening of oversight is also proposed including involvement of the Inspectorate General of MoEF to include the Project in the annual audit plan. Additionally, with regards to activities being implemented by the provincial government using on-granting mechanism, payment from the Project's Designated Account (DA) will be made through a reimbursement mechanism to Jambi's treasury account based on actual expenditures of activities in accordance with the annual work plan approved by the sub-national PMU and subject to World Bank's prior review. The implementation of the on-granting activities will be in compliance with the Ministry of Finance (MoF) regulation 224/PMK.07/2017 and its related revision regarding On-Granting to local government with details arrangement to be included in PIM subject to WB's prior review. In addition, training must be provided to the provincial team on financial management aspects of the Project.

9. **Fund Flow.** A DA denominated in US dollars will be opened by DG Treasury (MoF) in the Bank of Indonesia (Central Bank) specifically for the Project. Access to funds in the DA for payment to third parties will follow the government's treasury system. Work units in the PMUs and PIUs will review requests for payment from third parties before issuing SPMs to the treasury office (KPPN) for payment. The treasury office will input the payment request to the treasury information system (SPAN) and the DG treasury will issue the payment order to operational Bank to process the payment. The work units in PIUs will submit to the NPMU information of all payments remittance (SP2Ds) charged to the Project to use as basis to develop consolidated withdrawal applications. As for the on-granting activities in Jambi, all activities will be pre-financed by the provincial government using local budget. Reimbursement will be requested by the provincial government to MoF (DG Fiscal Balance) after being reviewed and approved by NPMU. The NPMU, through MoF, will submit to the World Bank the consolidated withdrawal application to record the expenditures and request additional fund.

10. **Audit Arrangements.** The Project will be subject to an external audit by BPK as Supreme Audit Institution of Indonesia. Each audit will cover a period of one fiscal year of the recipient and will include all project expenditures including those under on-granting activity. The audits will be conducted based on a TOR agreed with the Bank. Audit reports and audited financial statements will be furnished to the World Bank no later than six months after the end of the fiscal year concerned and shall be made available to the public. The audit will go beyond merely providing an opinion on the financial statements but will also include opinions on internal control frameworks and compliance with the grant covenants and related regulations.

11. **Disbursements.** The DA will be a separate 'pooled' bank account for receipts of the three (3) ISFL grants solely used to finance eligible Project expenditures. Payments from the DA will follow the government mechanism and will be authorized by DG Treasury. The ceiling of the advance to the DA will be variable based on six months projected expenditures. Report of the use of the DA fund and request for additional advance will be based on the quarterly IFR which should be submitted to the Bank no later than 45 days after the end of each quarter and consist of: a) a list of payments for contracts under Bank's prior review and records evidencing such expenditures, or b) a statement of expenditures (SOEs) for all other expenses; c) DA reconciliation statement; d) IFR; and e) projected expenditures for the next six months. The NPMU will be responsible for reconciling the DA and preparing applications for withdrawal of advances and preparing reports on the use of the DA, duly approved by DG Treasury before submission to the Bank. All documentation for the expenditures as reported for disbursements would be retained at the implementing units and shall be made available to the auditors for the annual audit and to the Bank



and its representative if requested. The proceeds of the grant will be disbursed against eligible expenditures as in the disbursement category table (A2.4) below:

Table A2.4 Disbursement categories

Disbursement Category	Sources	Amount of the grant Allocated (<i>expressed in US\$</i>)	Percentage of Expenditures to be Financed (<i>inclusive of taxes</i>)
Goods, works, Training and Workshops, Operating Costs, non-consulting services, and consulting services	A	3,645,000	27 %
	B	8,655,000	64 %
	C	1,200,000	9 %
TOTAL AMOUNT		13,500,000	100 %

The three ISFL grants will finance project expenditures in 27% (Sources A), 64% (sources B) and 9% (sources C) respectively to make up the total 100% of financing under the project. The specific TF sources that is represented by Portions A, B and C under the agreement, namely US DOS - (TF072503), UK DEFRA - (TF073003) and Norway NICFI - (TF072510). Separate withdrawal applications (WAs) are required for each of the three (3) funding sources, but WAs will be supported by the same set of IFRs with reporting of the share of Project eligible expenditures as the above percentage.

Procurement Arrangement

12. All Procurement under the Project shall be carried out under the World Bank's Procurement Framework in accordance with the Procurement Regulations for IPF Borrowers dated July 2016 revised November 2017 and August 2018, and by the provisions of the grant agreement. For procurement of goods, works and non-consultant services procured through National Competitive Bidding, the government's procurement regulations may be used to the extent they do not conflict with the World Bank's Procurement Regulations and subject to the eight requirements listed in para. 5.4 of the Bank's Procurement Regulations and incorporate model bidding documents acceptable for the World Bank and for national open competitive procurement. In such case of a conflict or difference in opinion arising during the procurement process, the World Bank shall provide clarification in writing which shall be followed. The Government's National Electronic Procurement System (*Sistem Pengadaan Secara Elektronik* or SPSE) e-procurement may only be used for procurement of Goods, Works and non-consultant services under the Request for Bids method through the national open competitive procedures and using the harmonized model bidding documents agreed between the World Bank and LKPP the National Public Procurement Agency (*Lembaga Kebijakan Pengadaan Pemerintah* or LKPP). Furthermore, the modified SPSE e-procurement system may be used only for selection of consultant firms under the QCBS method and using the World Bank's standard Request for Proposal document adjusted satisfactory to the Bank for electronic use. Procurement under all other methods shall be carried out through non-electronic process with manual issuance of invitation for bids and receipt of bids, until such time that the modifications of the SPSE e-procurement system has been completed by LKPP acceptable to the World Bank, which will be confirmed through the World Bank's written no objection. During Project



implementation, the World Bank's Systematic Tracking of Exchanges in Procurement (STEP) tool shall be used to record all procurement and contract implementation processing under the Project.

13. Based on the World Bank's assessment, it is envisaged that the Project will require several individual consultants and consulting firms especially under Components 1 and 2 such as technical assistance and procurement of small goods and small works. In order to support the PMUs at the national and subnational levels in Project management, monitoring, and evaluation, several individual consultants will also be hired by DG-CC as the Executing Agency and Jambi Province as the Implementing Agency such as financial management specialist, procurement specialist, human resource management specialist, safeguard specialist, monitoring and evaluation specialist. Procurement of small goods, and non-consulting services particularly for capacity building activities may also be procured under the Project. Selection of individual consultants will be carried out through competitive selection by comparing at least three candidates while consulting firm will follow CQS or QCBS methods. Most of the procurement of small goods and small works will be procured through request for quotation, while a few goods package will be procured through national competitive procurement method. A PPSD and Procurement Plan for the first 18 months of the Project has been prepared by DG-CC with support by the World Bank and was agreed and the World Bank provided no objection to them on April 14, 2020.

14. **Use of e-procurement system.** The Government's SPSE e-procurement system may only be used for procurement of goods, works and non-consultant services under the National Open Competitive Procurement method and must apply the harmonized bidding documents agreed with the World Bank. Furthermore, the modified SPSE e-procurement system of MPWH may be used for the selection of consultant firms under the QCBS method, applying the Bank's Standard Request for Proposal document adjusted satisfactory to the World Bank for use in MPWH's SPSE system. LKPP has not yet made the required modifications in SPSE for the procurement of goods, works and non-consultant services for use under International Open Competitive Procurement method and for selection of consultants under methods other than QCBS. Until such time that the modifications of these e-procurement systems are completed by LKPP, and acceptable to the World Bank, procurement under the above-stated methods will be carried out with manual issuance of invitations for bids and receipts of bids.

15. DG-CC has previous experience in carrying out procurement under World Bank-financed projects and/or other donor's projects including several on-going World Bank's projects such as FCPF. An NPMU will be established under DG-CC and will be supported by consultants. The PPSD describes the detailed procurement risks as well as proposed mitigation actions. Based on the assessment and information provided, the procurement risk is rated *substantial* and the mitigation measures are proposed below.

16. **Procurement Risks:**

- a) Delays due to weak procurement capacity of *Pokja UKPBJ* and limited understanding of the World Bank's procurement procedures, particularly for Jambi province as the Implementing Agency;
- b) Inadequate procurement planning and monitoring, and weak contract management by the PPK;
- c) Procedural non-compliance due to implementing agencies' insistence to follow the Government's Procurement procedures instead of the World Bank's Procurement Regulations, which govern procurement under the Project; and



- d) Implementing agencies' insistence to use national e-procurement systems for consultant selection methods other than QCBS even though such e-procurement systems are not ready for use in World Bank-financed contracts.
17. The risks are mitigated by:
- a) The World Bank will deliver training to PMUs/PIUs on the World Bank's Procurement Regulations for IPF Borrowers as well as provide hands-on support;
 - b) Required use of the World Bank's online procurement planning and tracking tools (STEP);
 - c) Including an explicit provision in the PIM to highlight that the World Bank's Procurement Regulations shall govern all procurement under the Project and take precedence over Government procurement regulations;
 - d) Using manual bidding process (except for the QCBS method) for selection of consultants until such time that the e-procurement system is determined acceptable to the World Bank for such procurement; and
 - e) In addition to the World Bank's prior review, it is proposed that procurement supervision in the field be conducted at least twice per year, including delivering training and carrying ex-post reviews of no less than 20 percent of the contracts subject to the World Bank's post review.

**ANNEX 3: Jambi Province****COUNTRY: Indonesia****ID: Jambi Sustainable Landscape Management Project**

1. Jambi Province is one of Indonesia's most forested provinces, home to significant biodiversity, and among Indonesia's most proactive provinces in terms of preparing for results-based finance for ERs. Jambi is located on the east coast of central Sumatra, covering 5 million ha of land. The province is divided into nine districts and two cities. Jambi's population is around 3.4 million, of which 0.6 million live in the provincial capital, Kota Jambi. The provincial economy is dominated by primary production, and the leading economic sector is agriculture, which in 2009 contributed 26.5 percent of Jambi's GDP. Close to half of this contribution came from plantation crops such as oil palm and rubber. Agriculture and forestry sectors contribute around 30 percent of total wages, and 58 percent of jobs. Extractive industries make-up the second largest economic contribution with 18.5 percent of GDP coming from mining and quarrying and 15.4 percent from oil and gas. The poverty level is approximately 8.4 percent, lower than the national average of 11.3 percent. Poverty levels are slightly lower in rural areas (7.5 percent) than in urban areas (10.4 percent).

2. Jambi consists of highland forest areas in the west, lowlands in the center, and peatlands and coastal mangrove forests in the east. From an emissions perspective, the eastern peatlands contain significant carbon stocks, and the western part of the province, with highland forests, contains important carbon stocks in standing forests. The lowlands have largely been converted to oil palm and rubber plantations but have significant ER potential if peatland can be effectively restored.

3. Jambi is also home to a number of protected species such as the Sumatran tiger (critically endangered), Asian tapir (endangered), Sumatran elephant (critically endangered), and Sumatran rhinoceros (critically endangered). Important ecological zones include mangrove forests, coastal forests, lowland forests, swamp and peatlands, and montane forests.

4. Jambi's forests play an important role in supporting traditional forest-dependent communities, including the *Talang Mamak*, *Orang Rimba*, and *Melayu*, and several other indigenous groups.

5. Based on the Ministry of Forestry's (now MoEF) 2013 analysis of satellite images for Jambi, around 25 percent, or 1.2 million hectares, is natural forest. This includes 958,600 hectares of secondary forest and 266,500 hectares of primary forest. Most of the primary forest (183,700 hectares) is within nature conservation areas, and around 60,600 hectares is within production forest areas.

6. In Jambi, 2.1 million hectares or approximately 40 percent of land area, are administratively designated as Forest Area (*Kawasan Hutan*). According to the MoEF's 2013 analysis, about 87 percent of Jambi's forest is located within the Forest Area (*Kawasan Hutan*). The Forest Area (*Kawasan Hutan*) also covers significant areas that are not forested (about half the Forest Area (*Kawasan Hutan*)), but that are also designated for forestry uses. Eligible forestry uses⁵⁰ include logging concessions (HPHs), industrial timber plantation concessions (HTI), conservation areas, and several types of community forestry

⁵⁰ Defined in Government Regulation Number 6 of 2007 (amended by PP 3 of 2008) and by subsequent ministerial decrees.



concessions. The total production forest area in Jambi is 1.2 million hectares, of which 835,752 hectares are allocated as forestry concessions.⁵¹

7. Within Jambi's Forest Area (*Kawasan Hutan*), conservation areas cover 0.7 million hectares and include four national parks: *Kerinci Seblat* National Park (429,630 hectares), *Berbak* National Park (162,700 hectares), *Bukit Tiga Puluh* National Park (33,000 hectares) and *Bukit Dua Belas* National Park (60,500 hectares). The Protection Forest zone, which is for the protection of watersheds and soils, covers 0.7 million hectares.

8. Jambi is one of Indonesia's DNPI model provinces for REDD+ and green growth, as well as BPREDD+ pilot province, and has seen significant progress toward "REDD+ Readiness", which is an indication of their readiness for a results-based program, like the BioCFplus ISFL. To date, Jambi has accomplished the following milestones:

- a) Part of the Sumatra Vision 2020: Roadmap to Saving Sumatra's Ecosystem. Since 2010, Jambi agreed to create priority conservation zones covering 1.8 million hectares, ecosystem corridor zones covering 1.5 million hectares, and sustainable cultivation zones covering 1.7 million hectares.
- b) In 2012, the DNPI developed a low carbon growth strategy for Jambi in order to stabilize emissions.⁵²
- c) Jambi has developed a SRAP covering the period from 2012 to 2030. The SRAP was developed by the Jambi Regional Commission for REDD+, which consists of CSOs such as the Indonesian Conservation Community (KKI Warsi), Zoological Society of London (ZSL) and World Wildlife Fund (WWF), conservation companies such as *Restorasi Ekosistem Indonesia* (REKI), representatives of governmental agencies such as the provincial planning agency (Bappeda), the provincial forest agencies, the provincial environmental protection authority, and experts from academia.
- d) Two of Jambi's districts, *Merangin* and *Bungo*, participated in the development of the FCPF Carbon Fund's ER-PIN. While the proposed FCPF program was later relocated to East Kalimantan, the Jambi districts were able to propose solid programs, and demonstrated strong ownership and readiness for investment.
- e) Several innovative community forestry models (*Hutan Desa*, *Hutan Kemasyarakatan*, *Hutan Adat*, *Hutan Tanaman Industri*) have been, or are being, launched in Jambi, including Indonesia's first *Hutan Adat*. These represent good opportunities for collaborative management of forests by local communities and a potential opportunity for BioCFplus ISFL support.
- f) Jambi is also home to Indonesia's first ERC, the *Harapan* Rainforest which is managed by REKI. The *Harapan* Rainforest initiative is funded by a range of agencies including the German Ministry of Environment's International Climate Initiative (through KfW *Entwicklungsbank*); the Global Conservation Fund of Conservation International; the European Union; Denmark's Development Cooperation (DANIDA); BirdLife Partner; CSOs

⁵¹ There are eighteen business licenses (690,280 ha) allocated for the utilization of timber from plantation forest (IUPHHK-HTI),⁵¹ three of which are for pulpwood (364,842 ha), two licenses (56,054 ha) for the utilization of timber in natural forest (IUPHHK-HA) and two licenses (87,850 ha) for the utilization of forest products for ecosystem restoration in natural forests (IUPHHK-RE)⁵¹.

⁵² Purnomo et al., 2012



in Germany, Switzerland, Belgium, Denmark, Singapore and the Netherlands; various other foundations and agencies; and thousands of individual donors.

9. Bappeda, World Agroforestry Center (ICRAF) and the Sustainable Trade Initiative (IDH) initiated the development of Jambi's GGP in 2018 through a multi-stakeholder approach. ICRAF modeled different development scenarios for land use sectors and their ex-ante economic, social, and environmental impacts which, through a process of multi-stakeholder consultations and negotiations, are in the process of being translated into a spatially explicit land use plan with a detailed focus on Jambi Province. The September 2019 draft GGP envisions three strategies, including:

- a) Sustainable land productivity, including mapping of forest areas, restoration of priority degraded landscapes (including peatland), conflict and tenure mapping and management, fire management, etc.
- b) Institutional capacity, access to development capital, and livelihoods utilizing environmental services, including restoration policies, support for multi-stakeholder institutions, agriculture and forestry inputs, payment for environmental services, market and voluntary carbon finance initiatives, certifications in agriculture, plantation, and forestry sectors, etc.
- c) Sustainable connectivity and value chains, including facilities, infrastructure, and transport to bring goods to market, capacity building for market access, agroforestry, crop diversification, etc.

10. Jambi's SRAP provides estimates of BAU forest-related emissions for the years 2005, 2020, and 2030. The main drivers of emissions are forest fires, peat decomposition, deforestation and forest degradation. Emissions from forest fires and peat decomposition are expected to increase from 33 MtCO₂e in 2005 to 41 MtCO₂e in 2030 in a BAU scenario. Emissions from deforestation and forest degradation are expected to remain constant at 12 MtCO₂e, while absorption of CO₂ is expected to increase from 7 MtCO₂e to 9 MtCO₂e over the same period. Total net emissions from these sources are estimated at 48 MtCO₂e in 2005, 51 MtCO₂e in 2020, and 53 MtCO₂e in 2030.

11. Deforestation in Jambi from 2006 to 2009 was estimated to be 76,522 hectares per year, and forest degradation was estimated at 9,431 hectares.⁵³ In one year, from 2013 to 2014, total forest loss was 23,448 hectares.⁵⁴ Most of this was secondary forest (18,024 hectares), which was primarily lost in production forestry areas. Primary forest loss was 5,424 hectares, most of which (1,965 hectares) occurred in areas designated for nature conservation (Table A3.1).

Table A3.1: Jambi's forest loss according to administrative zone, 2013 to 2014 (hectares)

Forest Type	Nature Conservation Area	Protection Forest	Limited Production Forest	Production Forest	Converted Production Forest	Non-forest zone	Total
Primary Forest	1,965	375	391	1,522	-	1,171	5,424
Secondary Forest	230	1,074	2,416	12,139	11	2,154	18,024
Total	2,195	1,449	2,807	13,661	11	3,325	23,448

Source: MoEF 2015

⁵³ SRAP

⁵⁴ MoEF 2015



The main drivers of forest conversion in Jambi include the expansion of oil palm plantations, pulpwood plantations, rubber plantations, coffee, and mining. These activities are mainly export oriented. According to the SRAP, land use change is dominated by oil palm. Mining has also increased since 2000 as districts are eager to issue small scale mining licenses due to financial incentives (*Ijin Usaha Pertambangan*, IUP). Deforestation and forest degradation are also perpetuated by weak governance related to land use and natural resources extraction.⁵⁵ Population increases near forested areas, both from in-situ population growth and in-migration, has also increased pressure on remaining forests. Road development has accelerated encroachment and forest conversion. Forest and peat fires are a regular occurrence in Jambi. For example, the fires in 1997/1998 burnt 16 percent of Berbak National Park, releasing an estimated 7 mega tCO₂e into the atmosphere. In 2015, MoEF reported 1,740 fire hotspots in Jambi with 19,528 hectares of forest burnt. Fires are linked to forest degradation and to the draining of peatlands for pulpwood and oil palm plantations.⁵⁶

12. Total plantation crops in Jambi cover 1.58 million hectares, approximately 32 percent of the total provincial land area. Oil palm and rubber plantations comprise 85 percent of the agriculture plantation area and approximately 27 percent of the total land area in Jambi.⁵⁷ These two crops are planted extensively in every district of the province, except Kerinci in the western highlands. This includes both industrial plantations (186 oil palm and three rubber plantations are recorded) as well as plasma⁵⁸ and independent smallholders. Other plantation crops (also referred to as Estate Crops) of some importance include tall coconut, cinnamon, Robusta coffee and betel nut which together account for 13 percent of the plantation area. The remaining plantation crops account for a mere 2 percent of the area and include tea (consolidated in a single state-owned plantation), cocoa, clove, pepper, candle nut, sugar palm, sugarcane, vanilla, patchouli and nutmeg.⁵⁹

13. Jambi Province has a stretch of peatland which is spread over in six districts and 23 sub-districts. Districts that have the largest areas of peat are *Tanjung Jabung Timur Regency* (312,006 hectares), *Muaro Jambi Regency* (229,665 hectares), and *Tanjung Jabung Barat Regency* (154,621 hectares).⁶⁰ In total, Jambi Province has 736,244 hectares of peat, which accounts for 11.8 percent of the peatland area in Sumatra.⁶¹

⁵⁵ ibid

⁵⁶ ibid

⁵⁷ IFC (2019) *Prospective development pathways: Private sector engagement in landscape approaches to reduce emissions from land use activities in Jambi province*. Reference applies to all data in this paragraph.

⁵⁸ Plasma is the term used in Indonesia to describe smallholders that are associated or tied to mills for access to land and inputs, and that exclusively supply that mill.

⁵⁹ Dinas PaekebunanPerkebunan Provinsi Jambi, *Statistik Perkebunan Tahun 2015* (hardcopy).

⁶⁰ KKI-WARSI, 2012.

⁶¹ Forest Watch Indonesia, 2011.

**ANNEX 4: Complementary Activities in Jambi and Leverage Potential****COUNTRY: Indonesia**

ID: Jambi Sustainable Landscape Management Project

1. The GOI, through its NDC, has provided a framework for managing land and emissions sustainably in Indonesia. Given the J-SLMP's objective to improve sustainable landscape management that reduces land-based GHG emissions in Jambi, it directly contributes to the GOI's NDC. Meanwhile, the commitments that both the national and provincial governments have made on green growth and landscape management both support Indonesia in meeting its NDC targets while also complementing the implementation of the J-SLMP. National programs and strategies provide improvements in land use management, the policy and regulatory framework for low-carbon development, and enforcement of sustainable practices, including those under the RPJMN; National REDD+ Strategy; BRG; Social Forestry; KPH; BPDP-KS; ISPO; FRS; KTPA; MPA; Tropical Landscape Finance Facility (TLFF); *Kredit Usaha Rakyat* (KUR); No Deforestation, No Peat, No Exploitation (NDPE); Reduced Impact Logging-Carbon (RIL-C); and others. These strategies also directly address drivers of emissions in Jambi, including forest and peat fires, expansion of concessions and peatland degradation, and weak governance.
2. Jambi has also made several commitments to low-carbon development and sustainable land use, including the ongoing advancement of the GGP for the province. The draft GGP currently envisions three strategies, including: 1) sustainable land productivity; 2) institutional capacity, access to development capital, and livelihoods utilizing environmental services; and 3) sustainable connectivity and value chains. The J-SLMP includes activities that contribute to each strategy under the GGP and the Plan similarly complements the objectives of the Project. The same is true of other programs and strategies being applied in Jambi, including the Sumatra 2020 Vision, the low-carbon growth strategy, SRAP, *Hutan*/forestry models, ERCs, and others. More information on these other programs and strategies can be found in Annex 3.
3. The private sector has an essential role to play in land management in Jambi, especially considering plantation crops alone cover almost one-third of the land area in the province. Given the 2015 fires and history of conflicts between concession holders and villages, private sector companies have an incentive to work with communities to improve land management, ultimately improving livelihoods and reducing emissions through fire and land conversion. In addition, rubber and oil palm mills rely heavily on smallholder production, however, smallholders are seeing declining productivity due to aging plantations and the difficulty of meeting increasing supply chain requirements. Some concession holders and banks have already taken an active approach to working with communities and smallholders and demonstrated success in more sustainably managing land and reducing conflict. Sustainable production of commodities is supported by certifications, such as the RSPO and ISPO that contribute to building smallholder capacity and improving sustainable practices for palm oil production, as well as approaches and programs for sustainable management and conservation, like RIL-C, NDPE, and ERCs. Public-private partnerships and coordination can provide robust solutions for sustainable land use given buy-in from cross-sectoral stakeholders. In Jambi, engagement from the CSR Forum, BPDP-KS, KUR, and others contribute to this coordination. Given the strengths of the private sector potential to leverage investment potential, capacity, and networks, engaging these stakeholders is essential to achieve the objectives of the J-SLMP and the forthcoming ER Program.



4. CSOs are active in Jambi and according to an institutional mapping exercise conducted by the GOI, there are at least 16 CSOs implementing over 75 projects that are directly complementary to the objectives of the J-SLMP. For example, the World Agroforestry Center (ICRAF) has provided technical support to the preparation of the Jambi GGP. As part of an ongoing study on agriculture development in Indonesia's lowlands, ICRAF will produce a Jambi-specific agriculture development strategy that identifies and maps land use constraints, environmental and social risk, alternative crops and their commercial viability, agriculture livelihood options, and related policy and investment recommendations. Table A4.1 summarizes the engagement of these CSOs on sustainable land use in Jambi, though this table is not exhaustive of all CSO activities in the province.

Table A4.1 Summary of complementary CSO projects being implemented in Jambi.

CSO	Number of Directly Complementary Projects	Summarized Objectives of All Projects
<i>Mitra Aksi</i>	16	<ul style="list-style-type: none">• Forest and peatland restoration and management• Alternative livelihood options• Agricultural intensification and diversification• Peat and forest fire management• Stakeholder capacity and social inclusion• Ecosystem monitoring
<i>Gita Buana Foundation</i>	15	<ul style="list-style-type: none">• Sustainable agriculture• Peat and forest fire prevention and management• Peatland restoration• Participatory mapping and planning• Wetland ecosystem protection• Conservation of Sumatran Tiger habitat• Capacity building for REDD+• Alternative livelihood options and value chain capacity building• Forest and water management• Stakeholder capacity and social inclusion• Forest monitoring
<i>SSS Pundi Sumatera</i>	9	<ul style="list-style-type: none">• Stakeholder capacity and social inclusion• Monitoring and reporting• Forest management• Value chain sustainability
<i>CAPPA Foundation</i>	7	<ul style="list-style-type: none">• Stakeholder capacity and social inclusion• Forest and peatland management• Land use planning• Land rights• Safeguards



<i>Zoological Society of London (ZSL)</i>	5	<ul style="list-style-type: none">• Conservation of Sumatran Tiger habitat• REDD schemes to support Sumatran Tiger conservation• Stakeholder capacity and social inclusion• Monitoring and reporting
<i>KKI Warsi</i>	5	<ul style="list-style-type: none">• Land/natural resource management rights• Alternative livelihood options• Forest management• Stakeholder capacity and social inclusion• Monitoring and reporting
<i>WWF Indonesia</i>	4	<ul style="list-style-type: none">• Forest and peatland management and conservation• Agricultural intensification and diversification• Alternative livelihood options• Monitoring and reporting
<i>IDH</i>	3	<ul style="list-style-type: none">• Forest and peatland management• Agricultural intensification and diversification• Cross-sectoral low-carbon land use planning and coordination• Value chain sustainability
<i>SNV</i>	2	<ul style="list-style-type: none">• Value chain sustainability• Alternative livelihood options• Monitoring and reporting• Cross-sectoral low-carbon land use planning and coordination• Agricultural intensification and diversification
<i>Aliansi Masyarakat Peduli Hutan dan Lahan (AMPHAL)</i>	2	<ul style="list-style-type: none">• Peatland and forest management and restoration• Forest and fire management
<i>Yayasan Lahar</i>	1	<ul style="list-style-type: none">• Alternative livelihood options• Agricultural intensification and diversification
<i>Lembaga Tiga Beradik</i>	1	<ul style="list-style-type: none">• Land rights
<i>Kemitraan Kesejatheraan Hijau (Kehijau Berbak)</i>	1	<ul style="list-style-type: none">• Peatland restoration• Peat fire management
<i>ICRAF</i>	1	<ul style="list-style-type: none">• Cross-sectoral low-carbon land use planning and coordination
<i>Frankfurt Zoological Society (FZS)</i>	1	<ul style="list-style-type: none">• Forest and peatland management
<i>Lembaga Bantuan Hukum Lingkungan (YLBHL)</i>	1	<ul style="list-style-type: none">• Peatland management and restoration• Cross-sectoral low-carbon land use planning and coordination



5. Development partners have also supported the GOI and Jambi in developing the enabling environment for reducing and monitoring emissions, including Australia, Germany, Norway, US, UK, World Bank Group, Asian Development Bank, FAO, UNDP, and others. This support includes GHG monitoring and accounting, MRV, management and oversight capacity, improvements to the policy and regulatory environment for land use, sustainable land management, fire prevention and management, peatland restoration, and other critical activities. Forestry and natural management issues are a major interest for developing partners in providing their support for Jambi; some examples include: i) the UK's Climate Change Unit (UKCCU) supported the Indonesia Climate Change Trust Fund on the Peat Restoration and Forest Fire Prevention Program (2016-2019); ii) UNDP initiated Prevention of Forest and Land Fires in Villages Around the Tanjung Tahura and Berbak Landscapes in 2016; iii) the Partnership for Governance Reform in Indonesia (*Kemitraan*) recently launched the Peat Ecosystem Restoration and Protection Model in Tanjung Jabung Barat, which is under operation from 2019 to 2021; and iv) the Rainforest Foundation Norway (RFN) launched a five-year project in 2019 to support the livelihoods of marginalized indigenous tribes through the protection of rights to natural resource management. The World Bank Group also provides targeted support for relevant issues through the GOI through the Sustainable Landscape Management Program, including OneMap, Social Forestry, KPH, DGM, and other projects. These are only some examples of support provided by development partners directly or through the GOI or CSOs relevant to the J-SLMP.



6. Figure A4.1 shows how activities being implemented under the J-SLMP, BioCFplus ISFL-funded BETF operation for private sector engagement, CSOs, private sector, development partners, and governments at the national and provincial level (though these are not exhaustive) contribute to the objectives of the three strategies under the GGP and ultimately Indonesia's NDC.

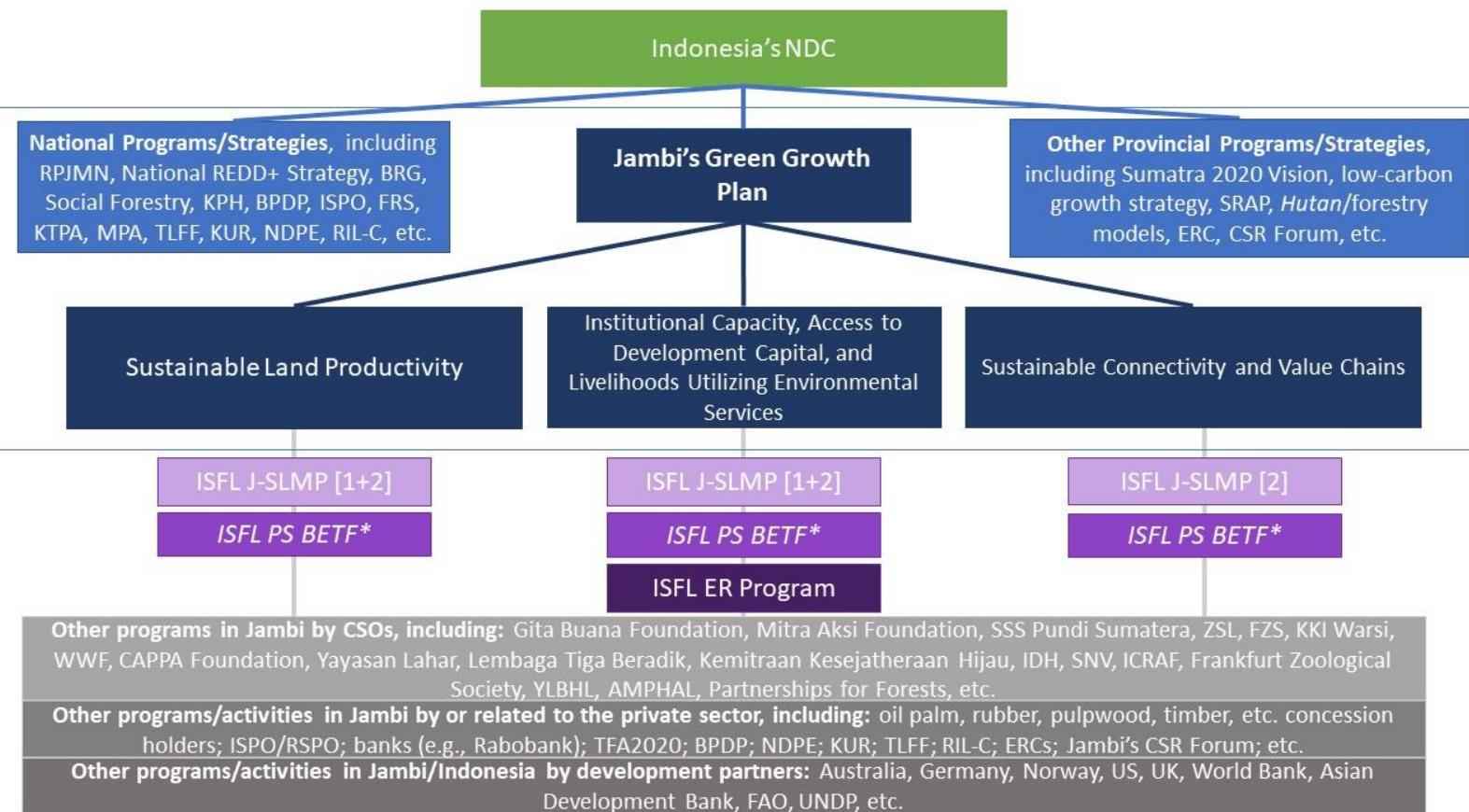


Figure A4.1 Diagram of activities, programs, and interventions being implemented by various stakeholders in Jambi (though these are not exhaustive) and how they contribute to the government's vision for reducing emissions from land use, including Jambi's GGP and Indonesia's NDC (brackets refer to Project components under the J-SLMP and ISFL PS BETF is indicative as it is not yet final).



7. In order to address the primary direct and indirect drivers of GHG emissions from land use in Jambi, it is essential to create an enabling environment for low-carbon development and improve management of peat areas, fire, agriculture, and forests. Given that the ISFL Program is a strategic umbrella for Jambi, the grant is intended to complement and fill gaps in ongoing initiatives to further leverage and scale-up approaches for sustainable land management. The key drivers of emissions from land use in Jambi are forest and peat fires, expansion of plantations (for oil palm, pulpwood, rubber, coffee, and mining), and weak governance. Approaches to address these drivers primarily fall within three categories: 1) sustainable land use and management, including through investments; 2) improvements to the policy and regulatory environment for land use; and 3) governance improvements and enforcement.

8. As indicated above, there are several activities being implemented by the government, CSOs, development partners, and CSOs that address the key drivers of emissions in Jambi and fall within the three approach categories. Some activities are being implemented nationally or at the scale of the entire province. The majority of activities are being implemented at a smaller scale and provide valuable lessons for successful interventions that could be scaled throughout the province, for example promotion of Green Villages through the CSR Forum, capacity building for KPHs, peatland re-wetting, and alternative livelihood options for villages within concessions). There are also gaps that have been identified in the three approach categories specific to Jambi, including the need for a *Perda* on peatland management, consolidated of land-based licenses, a regional regulation for *adat* communities, fiscal incentives for environmental services, and application of sustainable standards for commodities.

9. The J-SLMP and its activities have been designed to address these identified gaps and to scale successful approaches throughout Jambi. Activities were selected based on five criteria: 1) expected impact on reducing emissions; 2) geographic prioritization given the landscape in Jambi; 3) livelihood impacts for communities and smallholders; 4) complementarity and ability to leverage other programs and initiatives being implemented by government, CSOs, development partners, communities, and the private sector; and 5) the unique value that the World Bank Group provides on sustainable land use, particularly as it relates to governance, policy, and regulations. To provide context for this prioritization, figure A4.2 maps activities being implemented by various stakeholders and sources (though this is not exhaustive) according to how they address the key drivers of emissions in Jambi.

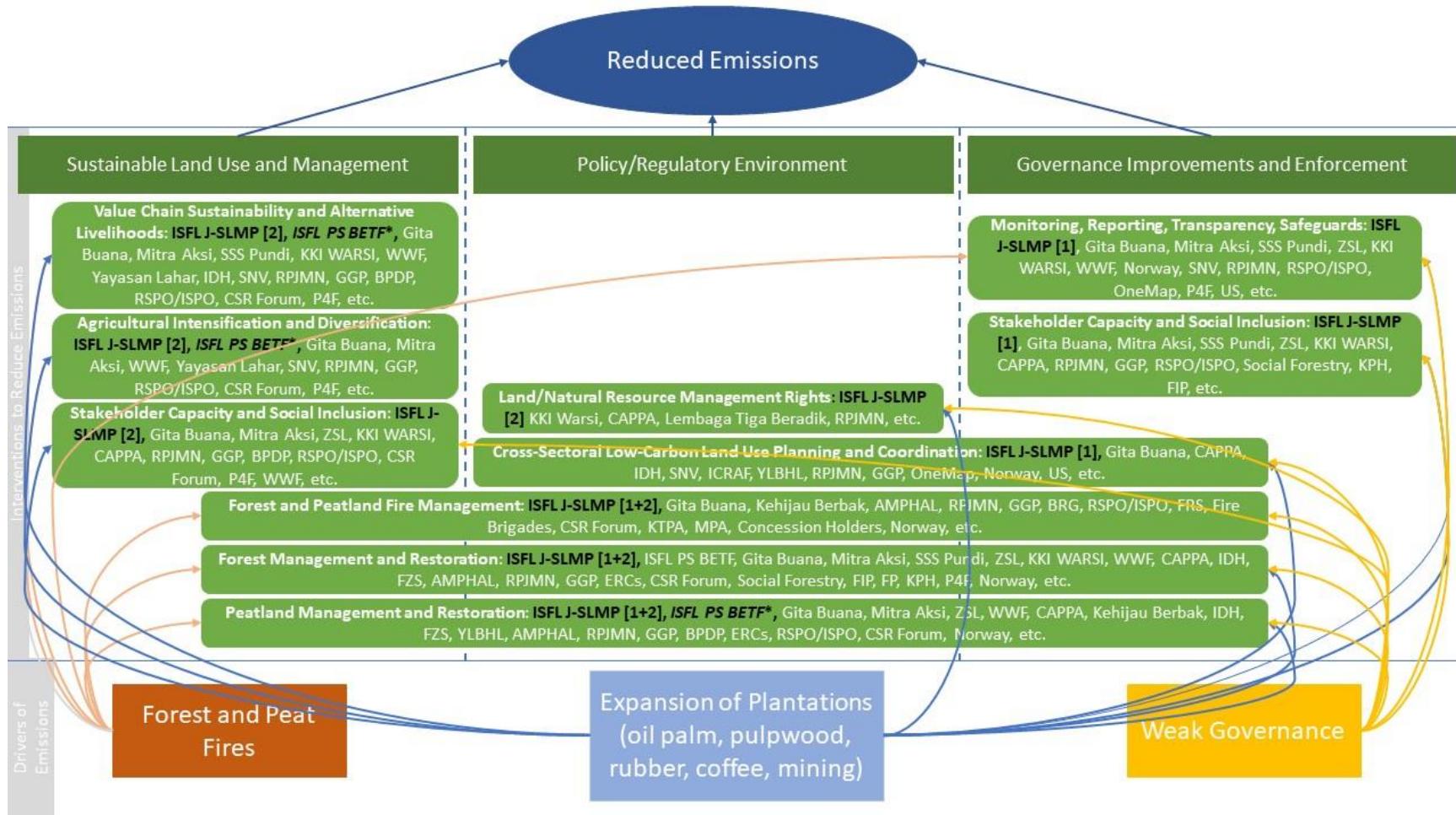


Figure A4.2 Diagram of planned and ongoing interventions in Jambi being implemented by various stakeholders in Jambi (though these are not exhaustive) and how they address the key drivers of emissions in the province (arrows). BioCFplus ISFL funding is indicated in bold and black (brackets refer to Project components under the J-SLMP and ISFL PS BETF is indicative as it is not yet final).

**ANNEX 5: Analysis of Private Sector Activities & GHG Impact and Strategy Recommendations****COUNTRY: Indonesia**

ID: Jambi Sustainable Landscape Management Project

Executive Summary

1. This annex presents the proposed strategy for engaging the private sector in coordination with the larger J-SLMP, with the objective to achieve emission reductions from the land sector through smarter land use planning, policies, and practices. This strategy is, at this stage, a proposal, and will rely on ISFL Contributors' approval before being finalized. This proposal was shared with Contributors for their feedback in October 2019 and it is subsequently being refined.
2. The strategy lays out the approach used to identify key private sector focused activities that are anticipated to have the most cost-effective impact on emission reductions. This approach included quantitative analysis of land use impacts and qualitative analysis, including consultations with private sector and key private sector stakeholders. The shortlisted activities have been presented to highlight their context, private sector incentives/interest, proposed ISFL support, implementation modalities, coverage, and potential emission reductions. This proposed strategy is still under consideration by the GOI (MoEF and MoA) and ISFL Contributors.
3. The Private Sector Strategy aims to integrate the private sector into the broader landscape management activities supported by the J-SLMP and the GOI. The key to this integration is providing the policy and regulatory environment to make investments in sustainable landscape management attractive, while supporting key activities on the ground that reduce emissions and can be scaled. The goal will be to create a system and approach that can be piloted and fine-tuned in Jambi and then replicated across other jurisdictions in Indonesia.

1. Introduction

3. This document presents the strategy for engaging the private sector in the Jambi jurisdiction to reinforce the objectives of the J-SLMP in achieving emission reductions from the land sector through smarter land use planning, policies, and practices. The J-SLMP pilots a jurisdictional landscape approach in Jambi Province that seeks to improve landscape management and reduce emissions from the forest and land use sectors⁶², while promoting alternative livelihoods that help take the pressure off the province's primary forests and peatlands. Indonesia will prepare an ER Program for Jambi which will enable the program to access results-based financing for ERs.

4. The J-SLMP has emphasized the role of the private sector in developing solutions to emission reductions. While government creates the policy environment for landscape management, the private sector is a key stakeholder in solutions on the ground. Therefore, the J-SLMP has made private sector involvement a key input to identify the challenges to ERs and a critical stakeholder to implement solutions.

⁶² Measured as either total greenhouse gas emissions reductions estimated in tons equivalent CO₂e/year, or total enhancement of carbon stocks, estimated in tons equivalent CO₂e/year



Following an initial Jambi diagnostic commissioned by IFC⁶³ to identify potential pathways for engaging the private sector in Jambi, a quantitative and qualitative analysis has been carried out to evaluate potential private sector activities and their related impact on ERs, which is summarized in this document. The analysis concludes with the Private Sector Strategy that includes recommendations for private sector related activities for the J-SLMP.

2. Analytical Process Description

5. The Jambi Private Sector strategy has been developed using a diagnostic, analytics and consultation approach to first identify the potential sectors and entry points for engagement, before selecting the shortlisted private sector activities for implementation. The process highlighted in Figure A5.1, is described below to provide details and results from that process.

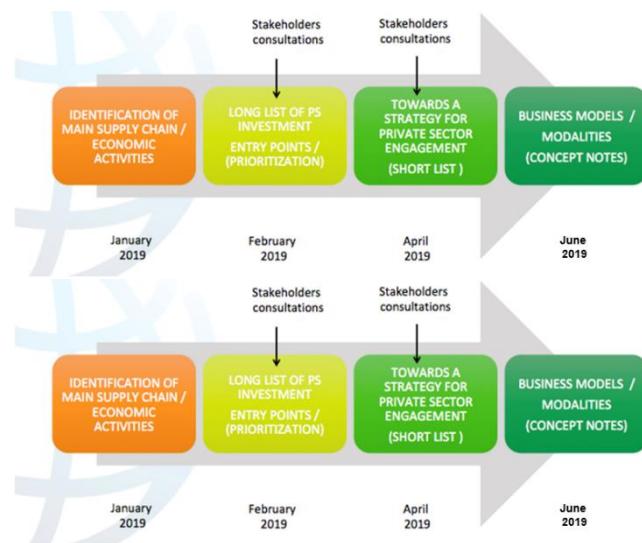


Figure A5.1 The process for shortlisting private sector activities for implementation.

2.1. Analysis of the Commodities

6. The ISFL-funded study “Prospective development pathways: Private Sector engagement in landscape approaches to reduce emissions from land use activities in Jambi” (2018) reviewed rubber, oil palm, pulpwood, coffee and cinnamon as commodities for initial analysis. These commodities are linked to global supply chains and were selected considering the extent of their production in Jambi, the global market, export volumes from Jambi, their role in past land use change, their potential as a low emissions alternative crop, and their potential to increase employment and incomes.

7. Based on that analysis and discussions with private sector stakeholders (Table A5.1), rubber, oil palm and pulpwood were selected as focus commodities for the next phase of analysis with coffee and cinnamon also discussed during the analysis related to geographies where they play a potential role in ISFL activities.

⁶³ “Prospective development pathways: Private Sector engagement in landscape approaches to reduce emissions from land use activities in Jambi” (2018)



Table A5.1 Shortlist of sectors

	Pulpwood	Oil Palm	Rubber	Cinnamon	Coffee
Agri. Production Area	High	High	High	Low	Low
Smallholders	Low	High	High	Medium	Medium
\$ Export	High	High	High	Medium	Low
Deforestation	High	High	Medium	Medium	Medium
Peatland Encroachment	Low	High	Low	Low	Low



8. Indonesia is the ninth biggest pulp producing country globally, with a current (2017) pulp mill processing capacity of 10.43 million tons per year. This represents an increase of 2.5 million tons from 2016, as operations began at the Sinar Mas Group's PT OKI Pulp & Paper Mill (OKI) in South Sumatra. Lontar Papirus, Jambi's only pulp mill, has the largest pulp processing capacity of all of the mills in Sinar Mas's APP Group, with a production capacity of 3,652,000 mt pulp/year and 1,420,000 mt tissue/year, two pulp lines and 6 tissue machines. Both their Riau mill Indah Kiat and their new OKI mill in South Sumatra have capacities of around 2.5 million mt pulp production per year. At the end of 2017, there were 3.7 million m³ of plantation fiber use recorded in Jambi, approximately 10% of the national total.

9. *Pulpwood:* Pulp and paper demand has led to the establishment of large-scale Acacia and Eucalyptus plantations. According to Association of Indonesia Forest Concession Holders (*Asosiasi Pengusaha Hutan Indonesia/APHI*) in 2017, Indonesian plantation log production was 39 million m³, an increase from 33 million m³ in 2016. The pulpwood plantations have a typical rotation of 7 – 8 years, though problems arising with pests, fungus, and disease have been reported after the second pulpwood rotation, which could mean new HTI (Industrial Plantation Forest) sites and new genotypes will be required to maintain yields. Pulpwood is widely considered to have been the key driver of forest change in Jambi province. Harvesting of mixed tropical hardwood (MTH) for pulp mainly occurred from the 1980s to 2000s, after which the natural forest concessions were re-allocated for timber plantation development. Jambi's pulp industry now relies on plantation-grown acacia and eucalyptus. Global demand for paper and tissue is growing, and the Indonesian pulp and paper industry continues to expand its processing capacity.

10. *Oil Palm*⁶⁴: The oil palm plantation area in Indonesia has increased dramatically in the past 25 years. In 1990, there were approximately 1 million Ha of oil palm plantations, and by 2014, this had increased to 10,956,231 Ha. Of this, 58% (6,404,377 ha) was under company management while 42% (4,551,854 ha) was under smallholder management. Jambi ranks sixth in Indonesia for Fresh Fruit Bunch (FFB) production, at 1.947 million mt in 2015. The area under oil palm in Jambi almost quintupled from 150,000 ha in 1996 to 689,966 ha in 2015, equivalent to 6% of Indonesia' oil palm area. Jambi ranks 7th in Indonesia for oil palm area, according to BPS Statistics. In Jambi, 65 percent of oil palm plantations are managed by smallholders, while only 30 percent by large private plantations/estates, and 5 percent by state-owned estates by PT Perkebunan Nusantara (PTPN). Oil palm is planted widely across the province. Many oil palm plantations were established on areas that had been previously harvested for pulpwood. Oil palm has been widely planted in Jambi since the late 1990s, when re-zoning of depleted forest concessions to HGUs (*Hak Guna Usaha: right to cultivate*) occurred. There has also been encroachment into state forest land by oil palm small and medium-sized producers. Global demand for palm oil is

⁶⁴ Indonesian Oil Palm Statistics, 2018, Table 1.1, Page 17. BPS-Statistic Indonesia



increasing, however, oversupply has meant a strong downward trend in price since 2011. Excess mill capacity exists due to ongoing investment in the sector.

11. *Rubber:* Indonesia has the largest planted area of rubber in the world and is the second largest producer. It harvests approximately 30% of the world's total rubber area, ahead of Thailand (25%) and Malaysia (9%). Yet it only produces 22% of the world's rubber, compared with Thailand at 32%, Vietnam at 7% and Malaysia at 5%.⁶⁵ Jambi is the third largest rubber producing province. According to the most recent national statistics, in 2015, Jambi province had the third largest planted area of rubber nationally at 379,900 ha.⁶⁶ Provincial statistics put the figure of mature rubber area at 359,107 ha in 2015, with a total of 668,919 ha including immature and damaged trees.⁶⁷ It is likely that the planted area of rubber is decreasing as a result of declining rubber prices; however, a spike in the global rubber price in 2010-2011 likely resulted in encroachment in the forest estate. There are contradictions in available statistics on whether the area under rubber in Jambi is decreasing, but anecdotal information indicates that farmers are replacing rubber trees with oil palm. Rubber factories are sourcing from other provinces amid steady demand, though oversupply from other countries is likely to put downward pressure on prices for the foreseeable future.

2.2. Analysis of Long List of Private Sector Entry Points

12. In addition to identifying the commodities for analysis, the IFC Jambi diagnostic team reviewed eight different entry points for the private sector to reduce GHG emissions. The list of entry points is found in Table A5.2 with examples of specific activities that could be carried out. While not all entry points are relevant for each commodity, the entry points provide an initial roadmap to identify activities that could be supported.

Table A5.2. Private Sector Entry Points

Entry Points	Sectors		
	Pulpwood	Oil Palm	Rubber
Farmer training	- Improving farmer yields to reduce expansion into remaining forest - Optimizing farmer fertilizer use to reduce emissions of nitrous oxide - Soil conservation to maintain or enhance Soil carbon stock		
Smallholder replanting	- Improving farmer productivity to reduce expansion into remaining forest - Incentivize agriculture practices that reduce emissions through financing conditions		
Conservation / Restoration	- Protect existing carbon stock - Increasing carbon stock through restoration/carbon sequestration - Reducing emissions from peat drying		
Fire management	- Protect existing carbon stock - Reducing emissions from mineral forest fires - Reducing emissions from peat fires		

⁶⁵ FAOSTAT, 2014 data

⁶⁶ Badan Pusat Statistik (BPS - Statistics Indonesia)

⁶⁷ Peluang investasi, Tujuh Komoditi Unggulan Sektor Perkebunan Provinsi Jambi. Dinas Perkebunan Provinsi Jambi Tahun 2017



Sustainable Forest Management	- Working with communities to identify and market non-timber products - Support the establishment of Ecosystem Restoration Concessions (ERC) and their viability
Biogas capture	- Eliminate methane emissions from processing - Reduce use of coal for electricity
Low Emission Alternatives	- Composting of FFB and waste from processing activities - Cultivation of biomass on re-wetted peatlands
Responsible & Jurisdictional sourcing	- Incentivize emissions-reduction activities by producers

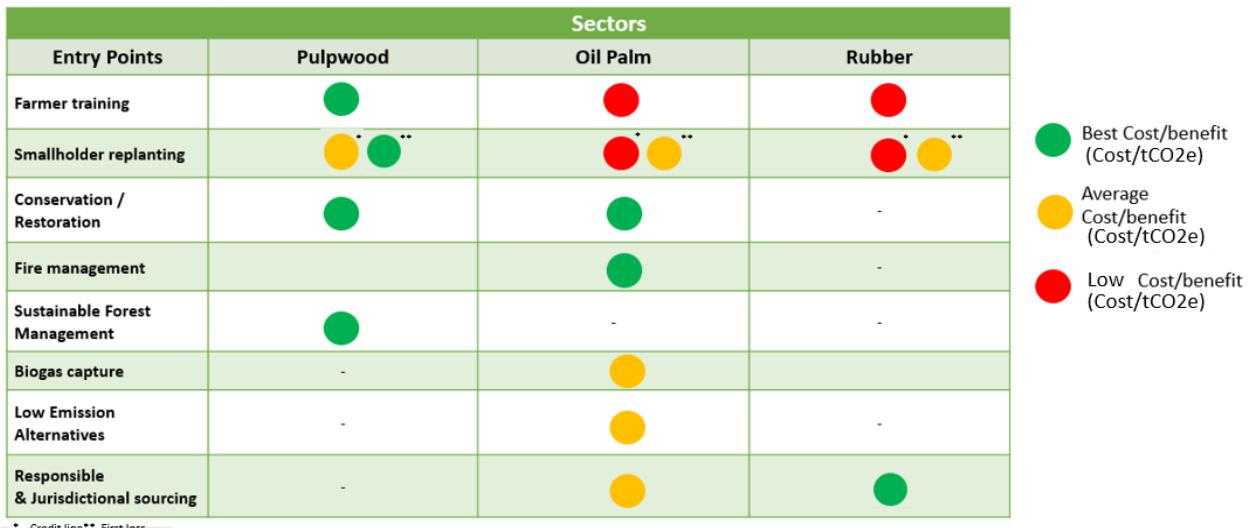
13. The next step in the analysis was to analyze the cost/benefit of each of these entry points across the three commodities in terms of their efficiency in reducing greenhouse gas emissions as well as the “do-ability” of carrying out the activity and the related private sector interest. The quantitative analysis used project examples and in-country data to determine the cost/benefit of those entry point activities (US\$/tCO₂e reduction). The objective of this analysis was to measure the emission reductions per US\$ spent, to allow the team to compare the expected return on investment of the activities and understand where the most cost-effective investments can be made. The qualitative analysis included a review of additional secondary data/information as well as input from meetings and focus group discussions with key private sector stakeholders. The goal of the analysis was to capture the private sector opinion on challenges and opportunities in reducing GHG emissions as well as its view on potential activities that the Project could support.

2.3. Shortlisting of Entry Points

14. The results of the quantitative analysis are presented in Table A5.3. It should be noted that while some activities may have substantial non-carbon impacts (i.e. income generation), the goal of the analysis was to identify the GHG impacts of these activities and compare them on a relative US\$/tCO₂e basis. The analysis results showed activities to support high risk areas have the highest cost/benefit, which includes conservation/restoration, sustainable forestry management and fire management. These activities are typically centered around forest and peatland areas so there is a large emission reduction differential between keeping them intact/restoring them versus the alternatives such as deforestation, draining and/or planting oil palm and rubber. Since many of the proposed activities include aspects of farmer training embedded within the activity (responsible sourcing, fire management, sustainable forestry), the guidance would be to focus this training in high risk areas as opposed to training lowland oil palm and rubber farmers on productivity, which has a low impact on carbon emissions.



Table A5.3: Summary of Quantitative Analysis of PS Entry Points



15. Financing is another area that shows potential related to both smallholder replanting and biogas capture. However, as noted in the analysis, the most cost-effective structures are those using the funding as first loss or other financial leveraging instrument, where the program can support higher risk usage of a limited amount of funds to leverage the biggest impact. Meanwhile, financing of the full biogas investments would require a large amount of project funding, while smallholder financing via credit lines and portfolio guarantees is much less effective on a cost/benefit basis.

16. The qualitative analysis included discussions with private sector companies and other private sector stakeholders to gain their perspective on priority actions and the “do-ability” of those actions. Priority activities identified in those consultations included smallholder replanting, farmer and community training, conservation and restoration, investment in biogas capture and clarity/changes related to policy on ERCS. The most prevalent activities in Jambi seem to be in the broad spectrum of farmer and community training around issues such as fire management, productivity, income generation, conservation and environmental and social practices. While many stakeholders highlighted the need for smallholder replanting, there are few models that seem to be working, with issues even on disbursing the grant funds from the government’s oil palm plantation fund. Additionally, while biogas capture/conversion to electricity to supply to the mill was highlighted as having a potentially significant ER impact, most stakeholders agreed that the investment costs are high (US\$4-5 million) and not financially sustainable due to the low cost of energy in the province.

3. Private Sector Strategy for Jambi

17. The objective of the Private Sector strategy for Jambi is to harness the private sector potential to contribute to sustainable forest landscapes and other land uses to reduce GHG emissions by supporting activities that encourage investments in sustainable land use. To this effect, a 2-prong strategy has been identified. On one hand, the first prong will support policy and regulatory changes that encourage private sector investment in protecting high risk areas of the Jambi landscape, while unlocking access to existing government programs to support plantation intensification. On the other hand, a second prong will provide more direct support to smallholders, communities and private sector to make investments in supporting biodiversity and reducing GHG emissions. Specifically, the following activities have been



identified, which reflect both their ability to most cost effectively reduce GHG emissions while having the support of the private sector and other private sector stakeholders:

- a) Supporting policy and regulatory changes that encourage private sector investment:
 - i. Policy and regulatory modifications to increase private sector investment in Ecosystem Restoration Concessions (ERCs)
 - ii. Technical Assistance Support to the Oil Palm Plantation Fund
- b) Support to smallholders, communities and the private sector to make investments in supporting biodiversity and reducing GHG emissions:
 - i. Financing for independent smallholder replanting
 - ii. Matching Grant Fund to support emission reduction activities in high risk areas
 - iii. Support Value Chain development related to sustainable community forestry

18. The proposed strategy and activities align with the J-SLMP and forthcoming ER Program, which will be a strategic umbrella for multi-sector, multi-stakeholder interventions across land uses in Jambi. The J-SLMP has two components: Component 1: “Strengthening Policy and Institutions”, which focuses on addressing drivers of GHG emissions and land use change through technical assistance and capacity building to more effectively regulate and enforce land management in Jambi, including through the government, communities, and private sector; and Component 2: “Implementing Sustainable Land Management”, which has the objective of integrating forest and land management in Jambi, particularly through sustainable forest management, agriculture intensification and diversification, conservation and restoration, and value chain sustainability.

19. The J-SLMP and the Private Sector Strategy will contribute to a transformation in how landscapes are managed in Jambi to deliver multiple benefits, such as climate change mitigation, improved livelihoods and environmental services, and strengthened coordination and partnerships with key stakeholders. They will foster equitable and low-carbon development by addressing drivers of emissions, deforestation, and land degradation, primarily through strengthening policies and institutions that are engaged in land use and implementing sustainable land management approaches. All activities identified have been prioritized based on their potential for improving livelihoods and generating ERs.

20. In order to address the primary direct and indirect drivers of GHG emissions from land use in Jambi, it will be essential to create an enabling environment for low-carbon development and improve management of peat areas, fire, agriculture, and forests. Given that the J-SLMP and forthcoming ER Program will be a strategic umbrella for Jambi, the Project is intended to complement and fill gaps in ongoing initiatives to further leverage and scale-up approaches for sustainable land management. Figure A5.2 summarizes how the J-SLMP and related Private Sector activities will help address the primary drivers of emissions in Jambi. While interventions may be listed as addressing one driver in particular, each may have spill-over effects on other drivers as well – for example, a provincial regulation on peat management may also help address fire and/or expansion of plantations as drivers of emissions.



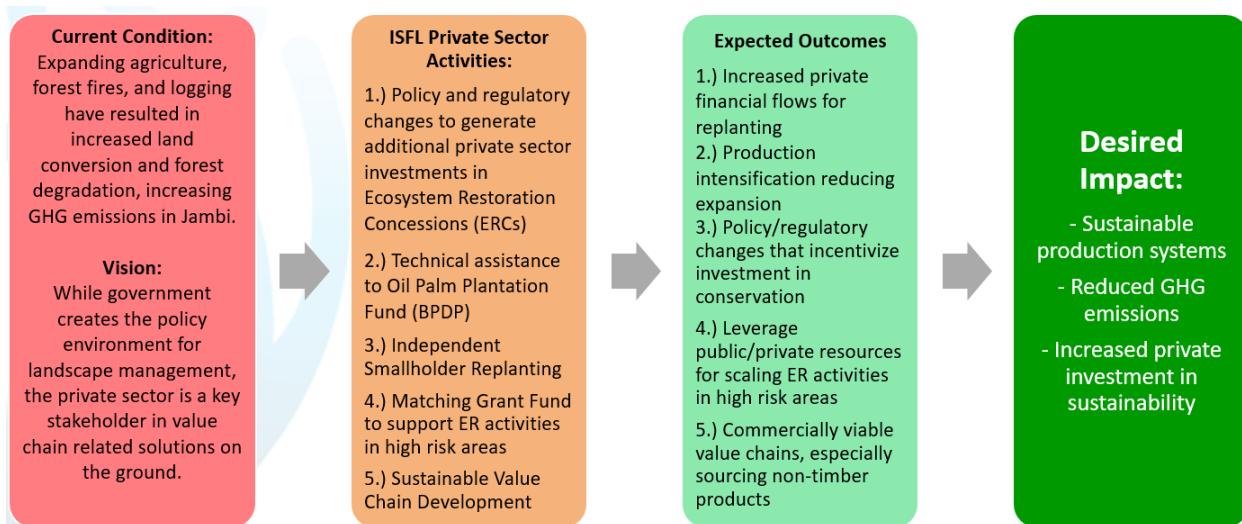
		J-SLMP Development Objective: Improve sustainable landscape management that reduces land based GHG emissions in Jambi	
Primary Drivers of Emissions in Jambi		J-SLMP relevant Interventions	
Direct Drivers	Indirect Drivers		
		1.) Expansion of Plantations <ul style="list-style-type: none"> ▪ ★ Sustainable agroforestry, intercropping and promotion of non-timber forest products to promote intensification and income diversification. ▪ Moratorium on new timber plantation licenses. ▪ ★ <i>Independent Smallholder Replanting</i>. ▪ ★ <i>Technical assistance to Oil Palm Plantation Fund (BPDP)</i>. ▪ Peat restoration and management, including rewetting, canal blocking, and replanting. ▪ Incentive mechanisms to prevent encroachment and promote protection. ▪ ★ <i>Policy and regulatory changes to generate additional private sector investments in Ecosystem Restoration Concessions (ERCs)</i>. ▪ ★ <i>Matching Grant Fund to support ER activities in high risk areas</i>. 2.) Fires <ul style="list-style-type: none"> ▪ Improvement of value chain sustainability through financing instruments (e.g., guarantees) and coordinated implementation of ISPO and RSPO certifications 2.) Fires <ul style="list-style-type: none"> ▪ Enhancements to early warning systems. ▪ Capacity building and training for fire brigades. ▪ Harmonization of fire management standards and approaches across fire brigades and with the private sector and villages. ▪ Expansion of Green Villages, particularly for fire prevention. 	
		3.) Weak Governance and Management: <ul style="list-style-type: none"> ▪ Land use policy and regulation review to ensure consistency. ▪ Improvement in consistency and sustainability of land-based licenses. ▪ Development of provincial regulations on peat and fire management, with a focus on ER-potential hotspots. ▪ Enforcement of sustainable peatland management practices. 	<ul style="list-style-type: none"> ▪ Community-based participatory land mapping, demarcation of boundaries and issuance of maps. ▪ Work program mapping for agencies and stakeholders involved in forest, fire, and peat management. ▪ Capacity building for KPHs and farmer groups. ▪ Preparation of an ER Program, including improvements to and clarifications to systems and approaches for GHG accounting, benefit sharing, and safeguards.

Figure A5.2 Private Sector Activities (★) w/in the broader J-SLMP

21. As noted previously, the J-SLMP and private sector activities are an integral part of the Jambi government's Green Growth Plan. The Plan focuses on building agreements between farmers, companies and governments to enhance the sustainability and productivity of land and secure community livelihoods by diversifying their income sources in exchange for natural resource protection.

4. Theory of Change

22. The Private Sector Strategy aims to integrate the private sector into the broader landscape management activities supported by the J-SLMP and GOI. The key to this integration is providing the policy and regulatory environment to make investments in sustainable landscape management attractive, while supporting key activities on the ground that reduce emissions and can be scaled. Figure A5.3 captures the essence of this theory of change by highlighting the specific private sector activities in the short/medium term that will yield the intended long-term impacts, including sustainable production systems, reduced GHG emissions and increased private investment in sustainability. The goal will be to create a system and approach that can be piloted and tested in Jambi and then replicated across other jurisdictions in Indonesia.

**Figure A5.3 Private Sector Strategy Theory of Change**

5. Selected Entry Points Description and Modalities

23. This section presents details of the entry points identified and prioritized as the basis for the private sector strategy in Jambi jurisdiction. These include the context, private sector incentives/interest, proposed highlights of ISFL support, implementation modalities, coverage, and potential emission reductions.

5.1 Policy and regulatory modifications to increase private sector investment in ERCs.

Entry point	Profile
Policy and regulatory modifications to increase private sector investment in ERCs.	<p>Context:</p> <p>The GOI has established mechanisms to promote conservation and restoration, including ERCs. ERCs were launched by the government with the purpose of restoring ecosystems via 60 yr. concession licenses to private companies. ERCs play an important role in providing conservation and protection of high-risk lands (peat and degraded production forests), which are prone to encroachment and emissions release as a result of lack of presence of state actors. Weak enforcement is an issue highlighted by stakeholders who note the lack of government monitoring and supervision of protected forests and peatland in concessions and degraded lands. Unlike national parks, protected forests do not have rangers and are prone to degradation and deforestation activities. By creating the right investment climate, the ERC model has potential to provide significant protection, restoration and therein emission reductions.</p> <p>There are three types of land use permitted under ERCs:</p> <ol style="list-style-type: none">1) Area use: Ecotourism, animal conservation2) Non-timber forest product (NTFP): Rattan, sago, bamboo, Resin, bark, leaves, fruit, seed, eaglewood, cinnamon, etc.3) Environmental/ecosystem services: water utilization, biodiversity conservation, environmental protection, carbon sequestration and carbon storage.



	<p>As of December 2016, 16 ERCs had been granted covering a total of 623,075 ha, and 14 ERC Business Plans have been approved. MOEF allocated 1.93 million ha for new ERC development. The first ERC license in Indonesia was issued in 2007 to Hutan Harapan in Jambi (founded by Burung Indonesia, Birdlife International and the Royal Society for the Protection of Birds), and a second ERC in Jambi was granted in 2015 to PT Alam Bukit Tigapuluh, a joint activity of WWF, Frankfurt Zoological Society (FZS) and The Orangutan Project (TOP).</p> <p>To date there have been three different types of ERC investors:</p> <ol style="list-style-type: none">1) CSOs: run mostly with CSO partners and donor grants2) Large business entity groups: RAPP, Sinar Mas, SIPEF and ADARO all whose main purpose is to establish a green company and meet RSPO obligations, etc.3) Investors: develop ERCs with a modest grant to operate over the long term with business-oriented approach to obtain a positive return on investment (<i>i.e.</i> RMU, RRC, EKL, and GAL) <p>ERCs should be operated as commercial businesses, but it has been anecdotally reported that companies are struggling to find income streams to sustain restoration operations, while at the same time dealing with encroachment and social conflict. To date, ERCs have been a mix of business and investment models with no clear template for success.</p> <p>The two ERCs in Jambi, PT. Restorasi Ekosistem Indonesia and PT. Alam Bukit Tigapuluh, are both classified as type 1 investments. These ERCs received donor grant-based funding for business development and require additional support to develop business plans that are financially feasible and sustainable.</p> <p>Private Sector Incentives/Interest</p> <p>As noted above, there are 16 current investments in ERCs with investments across a number of different types of investors, including investment funds, private sector companies and CSOs. In addition, there are investment funds established that are supporting the ERC business models. Lestari Capital is one such fund that is purchasing carbon credits from ERCs on behalf of companies with carbon offset commitments. In speaking with stakeholders, there are additional investors interested in ERCs; however, there are concerns related to the business model and related investment return under the current policy/regulatory environment.</p> <p>One issue highlighted by stakeholders is how the ERCs are treated legally. ERC concessions are treated like a production forest with limitations as to the productive activities that can be carried out, with the aim of ERCs to conserve. However, the ERCs are taxed, licensed and audited like forest production companies creating high operating costs.</p> <p>Another issue to be addressed for ERCs is the question of ownership of the carbon credits and how those credits are counted vis a vis NDC (nationally determined contributions). Currently, there is uncertainty as to control over the credits, specifically related to selling the credits on either the national market (lower price) or international market (potentially higher price). There needs to be a clear understanding of how the future ERC carbon credits will be handled to enable investors to have a clearer understanding of revenue streams.</p> <p>Finally, the business model for ERCs is still not clear. An ERC holder must make investments in fostering community relationships and supporting income generation of non-timber species, while dealing with encroachment and other land use issues. Currently, there are few revenue generation models that are able to support these ongoing financial commitments.</p> <p>An ERC working group, made up of ERC concession holders, has been established to support the interests of ERC concession holders. They have identified several issues to be addressed for creating the right</p>
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	<p>enabling conditions to support ERC development. These include: i.) support on developing solutions to community encroachment, social conflict, illegal logging and fire prevention, ii.) community development, iii.) providing financial incentives (related to non-tax revenues), and iv.) support to Forest Management Units (KPH). The working group, with support from Directorate PES and NTFP of the MOEF, is interested in engaging with the ISFL project on public/private sector dialogue to address these issues.</p> <p><u>Highlights of potential ISFL Support</u></p> <p>The ISFL Private Sector strategy would focus on creating a public private dialogue to discuss the issues related to ERCs as a means to support policy and regulatory reform for ERCs. The following activities would be carried out.</p> <ul style="list-style-type: none">• Establish public/private dialogue between the ERC working group and other ERC stakeholders and the government to identify priority issues.• Based on public/private dialogue, review/modify existing policies and regulations related to ERCs to unlock private sector investment in ER.• Support implementation of policy and regulatory changes, specifically using Jambi as a jurisdiction of interest.• Support review/identification of potential ERC lands in Jambi, specifically looking at peatland areas.• <i>(Support to ERCs under Entry Point #4: Matching Grants: Support ERC holders on development of business plans and piloting downstream community engagement schemes)</i> <p><u>Potential benefits</u></p> <p>The ISFL data analysis shows that the cost/benefit of conservation and restoration is the most cost-effective means for the private sector strategy to reduce GHG emissions reductions. The two examples reviewed for the analysis included the investment and impact of GHG emission reductions from ERCs. The proposed ISFL project cost of \$250,000 has the potential to unlock private sector investment in ERCs across Indonesia with 1.93 million ha available for new ERC development. This creates a potential win/win scenario wherein regulatory and policy changes improve the viability of investments, thereby bringing in investment proceeds to the government, while putting conservation and restoration resources on the ground in high risk areas, many times left unprotected by the government. In Jambi, peatland areas could be made a focus for ERCs to protect those critical habitats.</p> <p><u>Stakeholder Mapping</u></p> <ul style="list-style-type: none">• MOEF in the Directorate of PES & NTFP is working on the revision of regulations related to the ERC permit and fiscal issues• Ministry of Finance (MoF) works on fiscal regulations• Climate Change for the Carbon Credit Selling and the MoF• Lestari Capital: linking financing to carbon credits• ERC Working Group (<i>POKJA Konsesi Restorasi Ekosistem</i>)• Current ERC holders: <table border="1"><thead><tr><th>No</th><th>Company</th><th>Province</th><th>Area (ha)</th></tr></thead><tbody><tr><td>1</td><td>PT. Restorasi Ekosistem Indonesia</td><td>West Sumatera</td><td>52,170</td></tr></tbody></table>	No	Company	Province	Area (ha)	1	PT. Restorasi Ekosistem Indonesia	West Sumatera	52,170
No	Company	Province	Area (ha)						
1	PT. Restorasi Ekosistem Indonesia	West Sumatera	52,170						



		2	PT. Restorasi Ekosistem Indonesia	Jambi	46,385
		3	PT. Restorasi Habitat Orangutan Indonesia	East Kalimantan	86,450
		4	PT. Ekosistem Khatulistiwa Lestari	West Kalimantan	14,080
		5	PT. Gemilang Cipta Nusantara	Riau	20,265
		6	PT. SIPEF Biodiversity Indonesia	Bengkulu	12,672
		7	PT. Rimba Makmur Utama	Central Kalimantan	108,255
		8	PT. Rimba Raya Conservation	Central Kalimantan	37,151
		9	PT. Gemilang Cipta Nusantara	Riau	20,450
		10	PT. Karawang Ekawana Nugraha	South Sumatera	8,300
		11	PT. Sinar Mutiara Nusantara	Riau	32,830
		12	PT. Global Alam Nusantara	Riau	36,850
		13	PT. The Best One Unitimber	Riau	39,412
		14	PT. Alam Bukit Tigapuluh	Jambi	38,665
		15	PT. Alam Sukses Lestari	Central Kalimantan	19,520
		16	PT. Rimba Makmur Utama	Central Kalimantan	49,620
		TOTAL			623,075

Costs

Activity	# farmers	# Hectares	GHG Savings	
			tCO2e	
1.) Policy and regulatory modifications to increase private sector investment in ERCs as a means to support conservation and restoration of high risk areas in Jambi	N/A	100,000	2,000,000	
Assumptions				
US\$250,000 for policy & regulatory review, PPD and implementation of changes to encourage investment. Estimated 100,000 ha of additional ERC investments valued at US\$60 million and 20 tCO2e/ha GHG savings.				

Enabling conditions

Initial indications from the Government are that the GOI is interested in engaging on policy and regulatory modifications to ERCs. The MOEF in the Directorate of PES & NTFP is working on revisions of regulations related to the ERC permit and fiscal issues (related to the Ministry of Finance (MoF)) and will discuss the plan to revise the fiscal regulation with the private sector. Discussions with the private sector highlight that there are external investors interested in ERCs as a potential investment, but they are looking for regulatory changes to improve the business case and provide clarity related to potential revenue streams.



5.2 Technical Assistance Support to Oil Palm Plantation Fund

Entry point	Profile
Technical Assistance Support to Oil Palm Plantation Fund	<p>Context:</p> <p>The Oil Palm Plantation Fund (<i>Badan Pengelola Dana Perkebunan Kelapa Sawit</i> – BPDP-KS) was established by the Government of Indonesia in 2015 to support market development, replanting, infrastructure, human resource and farmer development, research & development and promotion & advocacy. To fund these activities, fees are collected from CPO exports. As of January 2019, the fees collected amounted to US\$1.5 billion. One important aspect of the Fund's operations is its support to smallholder replanting (see Entry Point 3 for more details on smallholder replanting). As a means to support this replanting effort, the Fund provides a 25-million-rupiah grant/ha (@US\$1700/ha) to smallholders for up to 4 hectares. The grant is provided in the form of goods, i.e. land clearing services, better quality seedlings, fertilizers, equipment, etc. The grant is important as it is estimated that farmers require 60 million rupiah/ha (@US\$4000/ha) for both costs related to replanting and the costs of forgoing income for 3 years during plantation growth.</p> <p>In order to qualify for funding, farmers must have a land certificate, provide financials (demonstrating their ability to repay the remaining 35 million rupiah/ha (US\$2300/ha)) and must be part of a cooperative or group, as fund requests must be for a minimum of 50 ha. Applications for funding must be raised at the local and provincial Agriculture Agency offices for review and verification before being sent to the Ministry of Agriculture for approval and then sent to the Ministry of Finance (BPDP-KS) in Jakarta for approval/processing.</p> <p>While the Fund's replanting objective is an important part of the government's effort to improve productivity (and reduce expansion), access to the fund's resources has been limited. As of November 2018, only @15,000 ha had been financed versus a goal of 180,000 ha. Stakeholders on the ground raise a number of issues related to accessing the funding. First, many farmers have problems meeting the Fund's application requirements, which include an inability to secure their land certificate and problems accessing additional financing to cover the remaining 35 million rupiah/ha among other issues. In addition to the requirements, slow processing of the requests can also act as a disincentive to access funds, with stakeholders stating the processing takes 9-12 months (vs. the Fund's goal of 1 month). It was noted that there are several approvals need at each level of local government that delay the process. Finally, local stakeholders note that there is limited dissemination and outreach to the farmers who need the funding the most (independent smallholders), with "more connected" farmers having better access to funds. As a result of these factors, to date only 2,306 hectares have been financed by the Fund in Jambi.</p> <p>Private Sector Incentives/Interest</p> <p>There is significant interest on the private sector side to make the Fund's grants available to farmers as the funding comes from their own exports (as opposed to a subsidy from government). IFC has worked with one company to support its farmers that supply to them to access the funding but note the challenges and delays in securing the funds. Companies see replanting as a key aspect of reducing encroachment into new areas and securing better quality raw materials.</p> <p>Highlights of potential ISFL Support</p> <p>The ISFL Private Sector strategy would focus on working with both the BPDP-KS Fund as well as the Ministry of Agriculture to improve access to the funding. The following activities would be carried out.</p>



	<ul style="list-style-type: none">• Review BPDP-KS requirements to identify areas for simplification of requirements while ensuring land protection is maintained.• Review the approval process and create a process map as a means to identify areas for simplifying the approval/processing of applications• Pilot in Jambi: Work with the responsible entities in Jambi to provide assistance and capacity building support to implement the changes on the ground and build the pipeline of applications for funding. <p>Potential benefits</p> <p>The ISFL data analysis shows that the cost/benefit of replanting as having direct correlation with the amount of funding needed to unlock financing for replanting. Working with the government on policy and regulatory changes related to the BPDP-KS fund is a highly cost-effective means to support replanting and therein reduce GHG emissions. Unlocking the BPDP-KS grant funds could be an important step in supporting the government's commitment to replanting 180,000 ha/yr. This work will also feed into/complement the related work on smallholder replanting proposed in Entry Point #3.</p> <p>Stakeholder mapping</p> <ul style="list-style-type: none">• BPDP-KS• Ministry of Agriculture• Local and Province Agricultural Agency• Local CSOs (SETARA, Mitra Aksi, etc.) and Development Bank of Jambi <p>Costs</p> <table border="1"><thead><tr><th>Activity</th><th># farmers</th><th># Hectares</th><th>GHG Savings tCO2e</th></tr></thead><tbody><tr><td>2.) Technical Assistance Support to Oil Palm Plantation Fund</td><td>10,000</td><td>25,000</td><td>675,000</td></tr></tbody></table> <p>Assumptions</p> <p>US\$250,000 for policy & regulatory review, implementation of changes to encourage uptake of funds. Estimated increase of 25,000 has (over 5 yrs) of replanting.</p>	Activity	# farmers	# Hectares	GHG Savings tCO2e	2.) Technical Assistance Support to Oil Palm Plantation Fund	10,000	25,000	675,000
Activity	# farmers	# Hectares	GHG Savings tCO2e						
2.) Technical Assistance Support to Oil Palm Plantation Fund	10,000	25,000	675,000						
	<p>Enabling conditions</p> <p>Regulatory and policy related activities will require engaging with both the Ministry of Finance BPDP-KS unit (responsible for managing the funds) as well as the Ministry of Agriculture (responsible for approving the funding requests). The ISFL team has engaged with BPDP-KS office in Jakarta and the unit is supportive of the approach to look at simplification of processing and approvals to access the funds. Additional discussions are required with the Ministry of Agriculture and the local and provincial Agricultural agency to ensure alignment and buy-in.</p>								

5.3 Financing for independent smallholder replanting



Entry point	Profile
Financing for independent smallholder replanting	<p>Context:</p> <p>Rubber and oil palm yields have fallen in Indonesia as tree crops and oil palm trees age. After 20 – 25 years, rubber and oil palm should be replanted to maintain yields. Oil palm replanting is needed for an estimated 2.4 million ha in Indonesia; of this, 400,000 ha is to replace old crops, and the remaining 2 million ha to replace poor quality planting material. Rubber replanting is needed for at least 400,000 ha in Indonesia. Access to high quality seedlings can increase smallholder oil palm yields, and financing smallholders to replant can increase yields and reduce the need for expansion. This is therefore an excellent tool for reducing emissions.</p> <p>Stakeholders in Jambi suggested that the focus of replanting should be on independent smallholders in oil palm, as plasma scheme smallholders have access to replanting schemes through the mills. Differences in yields between plasma scheme and independent oil palm smallholders has been estimated anywhere from 11–48 percent. As part of smallholder ('plasma') schemes, companies provide seedlings and later deduct costs from the sale of the smallholder's fresh fruit bunches to the mill. It was noted that independent smallholders typically have fewer financial means to replant, do not have a land certificate and are more prone to burning land either for replanting rubber or converting rubber to oil palm, with burning being a cheaper option. Independent smallholders are also more prone to have plantations in protected zones and lack a formal contract with offtakers. A related issue is the lag between replanting and production (3 years) and a lack of income during those years. In all, these make it financially difficult for independent smallholders to replant.</p> <p>Rubber is another sector where there was a stakeholder agreement that replanting is needed with an estimated 25-40% of trees in Jambi needing replanting. Rubber trees are aging, productivity is falling, and rubber prices are falling further. Typically, rubber is grown in previous forest concessions with a mix of both jungle rubber and monoculture. One issue is that due to the low price of rubber and a higher operating cost (labor cost/ha is higher than for oil palm), farmers are switching from rubber to oil palm. This creates a few impact issues including a loss of carbon stock (higher carbon stock in rubber plantations) and lack of raw material for plywood factories.</p> <p>Cinnamon was identified as another commodity that requires financing for replanting. It was noted that cinnamon smallholders typically cut their trees at age 7-10 years, as farmers need to realize income for their livelihoods. However, the ideal planting/cutting is 20-30 years, which yields the highest quality and therein the highest price, as well as sequesters more GHG. To enable this planting scheme, smallholders would require replanting with a mix of both an intercrop (coffee) and cinnamon. Typically, the cinnamon farmers are outside of the national parks and do have the letter of land ownership. McCormick, an international buyer of cinnamon, is trying to establish more direct relationships with farmers to provide training to farmers on ideal harvesting/replanting schemes.</p> <p>Financing of replanting is a large undertaking and to date little replanting has been carried out with respect to oil palm independent smallholders and rubber small holders in Jambi. In total, replanting costs for oil palm average @US\$4,000/ha for both the replanting and the living costs associated with no production in years 1-3. For rubber, the cost is similarly @ US\$4,000/ha, including both the replanting and living costs over a 5-yr. period before production begins. Commercial banks have shown little interest in financing replanting of these two groups, with E&S and lack of land certificate issues for independent smallholders in oil palm and commercial viability of rubber plantations being primary issues.</p>



	<p>As noted, there are a few government activities to support replanting including the Oil Palm Plantation Fund (previously discussed) and the KUR (<i>Kredit Usaha Rakyat</i>), which provides micro & small businesses with soft loans at a subsidized interest rate with the objective of the small business using the funds to expand their business. The government cooperates with SOEs and private sector banks/financial institutions to distribute funding. KUR is a good source of working capital for first time borrowers and it can be used for replanting, although the challenge is that it is shorter term than ideal for the replanting scheme.</p> <p>Private Sector Incentives/Interest</p> <p>There is significant interest on the private sector side of processing to support smallholder replanting. Companies see replanting as a key aspect of reducing encroachment into new areas and securing better quality raw materials. However, commercial banks are reluctant to lend, especially to riskier borrowers such as independent smallholders and rubber farmers. In both cases, banks look for offtake agreements and land title as two important aspects of lending. There are some funds interested in supporting replanting including TLFF, but risk sharing is required.</p> <p>Highlights of potential ISFL Support</p> <p>The ISFL Private Sector strategy would focus on supporting smallholder replanting by structuring a risk reduction mechanism (ISFL funds taking on credit risk) to unlock financing for higher risk independent smallholders. In parallel, there will be support to farmers/farmer groups to access funding (i.e. securing land certificates). The following activities would be carried out.</p> <ul style="list-style-type: none">• Deepen discussions with partners (commercial banks, DFOs, funds) on a first loss, partial guarantee or other risk-taking financial instrument to reduce credit risk exposure in a replanting scheme.• Finalize the structure, commitments and roles of partners in the financial structure. Where possible leverage existing government facilities (BPDP-KS, KUR).• Design a complementary technical assistance component to support land certificate acquisition, business plan development for financing and downstream support on replanting. <p>Potential benefits</p> <p>The ISFL data analysis shows that the cost/benefit of replanting as having direct correlation with the amount of funding needed to unlock financing for replanting. When considering the impact of supporting smallholder replanting refinancing through the ISFL Indonesia Program, the ISFL data analysis looked at three different alternatives for support: i.) providing a credit line for supporting smallholder financing, ii.) providing a portfolio guarantee on a portfolio of loans to reduce risk/exposure to banks, and iii.) providing first loss on a portfolio of loans to reduce risk/exposure to banks. The three options above provide different levels of incentives to commercial banks and other financiers to finance smallholder replanting. A credit line provides liquidity to banks to lend for small holders. A portfolio guarantee is an instrument to share risk on a portfolio of loans with commercial banks based on a pre-arranged split of risk (for example 50/50, where the commercial bank is exposed to 50% of the loan portfolio risk). Finally, a first loss provision on a portfolio of loans covers a fixed amount of non-performing loans, typically covering all of the initial losses (to all funding participants) up to a specific amount. Typically, first loss can be combined with a portfolio guarantee to cover all of the initial losses up to a threshold and then the risk sharing coverage begins.</p> <p>When analyzing the different smallholder replanting financing options, the first loss facility and similar high-risk offsetting structures are the most attractive option, as it provides the biggest leverage of external</p>
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	<p>financing. Therefore, the project will look to higher risk offsetting/higher leverage uses of funds. The goal will be to unlock financing for independent smallholders to increase replanting in Jambi and demonstrate the commercial viability of this lending. The reach of the financing facility will be dedicated by the size of the structure and related ISFL risk taking instrument.</p> <p>Stakeholder mapping</p> <ul style="list-style-type: none">• Commercial banks (e.g. Bank of Jambi, BNI)• MFIs• BPDP-KS• Funds (TLFF, &Green)• DFOs (USAID)• Oil palm/Rubber mill offtakers• CSOs (SNV, WWF, IDH) <p>Costs</p> <table border="1"><thead><tr><th>Activity</th><th># farmers</th><th># Hectares</th><th>GHG Savings tCO2e</th></tr></thead><tbody><tr><td>3.) Financing for independent smallholder replanting</td><td>3000</td><td>7500</td><td>205,000</td></tr></tbody></table> <p>Assumptions</p> <p>1st loss facility (or other risk taking leverage instrument): US\$2.0 million FL leverages US\$30 million loans for replanting. Additional technical assistance funding to farmers (US\$ 0.5 million)</p>	Activity	# farmers	# Hectares	GHG Savings tCO2e	3.) Financing for independent smallholder replanting	3000	7500	205,000
Activity	# farmers	# Hectares	GHG Savings tCO2e						
3.) Financing for independent smallholder replanting	3000	7500	205,000						
	<p>Enabling conditions</p> <p>Smallholder replanting is understood by all stakeholders as a critical element of intensifying production and reducing encroachment. The project will leverage existing government programs aimed at replanting (BPDP-KS, KUR), while also leveraging J-SLMP level initiatives related to securing land certificates. Commercial banks have shown some willingness to lend to independent smallholders with the right mix of credit risk support. There are several discussions amongst funds and DFOs around smallholder replanting financing initiatives, and the project will look to leverage those opportunities.</p>								

5.4 Matching Grant Fund to support emission reduction activities in high risk areas

Entry point	Profile
Matching Grant Fund to support emission reduction activities in	<p>Context:</p> <p>Discussions with private sector stakeholders throughout this analysis highlight a variety of training/engagement activities being carried out in Jambi by CSOs, government entities and private companies. The most prevalent activities in Jambi are in the broad spectrum of farmer and community training around issues such as fire management, productivity, income generation, conservation and</p>



high risk areas	<p>environment and social practices. These activities are typically centred around forest and peatland areas so there is a large emission reduction differential between keeping them intact/restoring them versus the alternatives such as deforestation, draining and/or planting oil palm and rubber. Below is a brief summary of the types of activities carried out.</p> <p><i>Farmer Training:</i></p> <p>The analysis covered a variety of farmer training programs being carried out in Jambi by civil society organizations (CSOs), government entities and private companies. Training typically is focused on productivity, environment and social (E&S) awareness raising, alignment to commodity standards (RSPO/ISPO), and training on good agricultural practices. Most stakeholders see training as a fundamental element of farmer engagement; however, there was little availability or knowledge of cost/benefit of training related to GHG emissions and little to no tracking of this impact. There are close to 600,000 farmers in Jambi growing key plantation crops (around 20% of the population), which means developing training solutions to train all of them would be a challenging but important opportunity.</p> <p><i>Responsible Sourcing</i></p> <p>Responsible sourcing was highlighted across the sectors as a key principle that is being pushed down through supply chains of the main commodities in Jambi. Specific standards have been established with RSPO and ISPO being the most talked about amongst stakeholders. There were some differences of opinion as to the effectiveness of the RSPO and ISPO standards (ISPO is the Indonesian standard). While the standards share a similar checklist of compliance criteria, there are some credibility issues related to ISPO's certification as the government owns the standard. ISPO is mandatory for all mills in Indonesia but not for farmers, while RSPO is a voluntary standard. RSPO notes that 7 million of the 35 million tons of CPO production in Indonesia is certified.</p> <p>There is no specific sustainability standard for rubber but there is an ongoing effort to establish a platform for Sustainable Rubber (SNRI), which could eventually lead to a certifiable standard.</p> <p><i>Fire Management</i></p> <p>In Jambi, fire has historically been a large source of GHG emissions and cost. During the haze crisis in 2015, financial losses in Jambi were estimated at Rupiah 12 trillion (US\$870 million) and emissions were estimated at 850 million tCO₂. Fire has historically been used for land clearing and preparation for plantation crops, and 'slash and burn' for cash crops and subsistence agriculture. Fire is also used as a tool for land acquisition. This broadly falls into two categories: smallholder farmers looking to expand their holdings, and rogue operators (often from other provinces) clearing forests for land acquisition. There is a strong incentive to continue this practice, as studies show oil palm planted on newly opened sites can generate over US\$3,000/ha within just three years, and there is reportedly little enforcement of laws against burning and encroachment.</p> <p>Fire management is seen as a key activity to protect existing carbon stock, reduce emissions from mineral forest fires and reduce emissions from peat fires. There were several stakeholders who noted fire management as an area of need and support in Jambi. Some mills have been working with communities on fire management training around prevention and securing equipment (water pump/fire engine). These activities are typically carried out with communities that border the concession plantations, and it was noted that there is a need to work with communities not on the border of the concessions.</p> <p>Stakeholders noted that training is community/value chain specific and relative to the land/environment of the beneficiaries. Many of the activities on the ground are focused on key engagement around</p>
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	<p>particular geographies and land assets so the grass roots nature of the activities helps to ensure their relevance to local issues.</p> <p>Private Sector Incentives/Interest</p> <p>There is significant interest from the private sector on engaging communities and their farmer supply chains on the landscape related challenges affecting their lands, especially in vulnerable/high risk areas, as evidenced by the variety of activities on the ground. Resources are the main limiting factor to the scope/reach of those activities. ERC holders are one example of a stakeholder with limited resources to work with communities on the varied land use challenges they face. Many private sector stakeholders are interested in working together to scale up their efforts, pilot and test new approaches and learn from others' experiences, while sharing their own.</p> <p>Highlights of potential ISFL Support</p> <p>The ISFL Private Sector strategy would focus on supporting high impact ER activities in areas with high risk for encroachment, burning, draining of peatland and other activities that increase GHG emissions. This would be accomplished through establishing a matching grant facility that supports ER activities between smallholder/communities and private sector companies with a focus on activities in high risk areas. The matching grant facility would leverage funding from other partners, ensure private sector commitment and contribution via >50% counterpart funding, and prioritize activities that can be scaled/ replicated with high impact with a focus on activities in high risk areas.</p> <p>The following activities would be carried out.</p> <ul style="list-style-type: none">• Deepen discussions with partners on establishing a matching grant facility (MGF).• Establish the parameters of the MGF support: particularly around governance, processes and procedures, cost sharing arrangements, areas/activities of focus, approval/management/supervision of activities and other MGF functions.• Finalize the structure, commitments and roles of partners in the matching grant structure, where possible leverage existing initiatives. <p>Potential benefits</p> <p>ISFL analysis shows the highest cost/benefit when training/engagement activities are supporting high risk areas and are centred around conversion/restoration, sustainable forestry management, responsible sourcing and fire management. There are many important training activities taking place in "at risk" and buffer areas that support fire management, conservation/restoration, income generation and E&S awareness raising to reduce the pressure to infringe on both forest and peatland areas. From the analysis, these are some of the most cost-effective investments on reducing emissions. However, it is difficult for the ISFL Program to fund these activities individually as many of them are small in scale and designed to meet the specific need on the ground. Therefore, the ISFL Program can work with partners on a matching grant scheme to establish a mechanism for supporting these initiatives. Focus could be on those activities deemed to have the greatest GHG impact and could include support to ERC holders on community engagement activities. Two important aspects to this activity would be to leverage funding from other donors/bilaterals and "house" the program in a structure/institution that can efficiently and properly manage the selection and supervision of activities.</p>
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Activity	# farmers	# Hectares	GHG Savings tCO2e
4.) US\$7 million Matching Grant Facility for ER activities in High Risk areas	56,000	67,000	532,000

Assumptions

Matching Grant (MG) Facility consisting of US\$1.5million from ISFL BETT to leverage an additional US\$5.5 million for a total MG facility of US\$7 million.

	<p><u>Enabling conditions</u></p> <p>IDH, who works with companies via cost sharing activities, is one potential partner on the matching grant scheme. IDH would be interested in leveraging its own resources for scaling up activities and has an existing governance/project supervision structure for funding and supervising projects. During project discussions, several private sector companies and related CSOs also saw the benefit of additional leveraging resources for activities in Jambi. Finally, the matching grant component would complement other proposed ISFL private sector activities including support to ERCs to engage with communities in their concessions as well as the replanting activities, to bring in support on adhering to sustainable commodity standards.</p>
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5.5 Support Value Chain development related to sustainable community forestry

Entry point	Profile
Support Value Chain development related to sustainable community forestry	<p>Context:</p> <p>Jambi's natural forests have limited remaining high value timber, as the forest concessions were depleted and then abandoned. Log production fell from 1.49 percent of the national total in 2003 to just 0.14 percent in 2015; equivalent to 8,340 m³. At its peak, Jambi province had 17 concessions for harvest of natural forests, which has now been reduced to just two, and much of the area has now been converted to pulpwood plantation forestry and oil palm concessions.</p> <p>Conservation and Restoration of forest landscapes in Jambi is vital to protect the last landscapes in the province where high carbon stock is located. ERCs potentially offer a long-term route to private sector restoration and commercial harvest, as they are degraded timber concessions awarded to companies for the purposes of restoration. However, no timber harvesting is permitted in ERCs until the 'ecosystem balance' is reached.</p>



	<p>Restoring commercial timber species and producing an annual sustained yield of timber holds potential for maintaining or increasing carbon stocks. Examples of native species with commercial value that are found in Jambi province include meranti (<i>Shorea curtisii</i>) and ironwood (<i>Eusideroxylon zwageri</i>). The Reforestation Fund (<i>Dana Reboisasi</i> or DR) is a national forest fund, financed by a volume-based levy paid by timber concessionaires. It was created with a mandate to support reforestation and rehabilitation of degraded land and forests.</p> <p>KPHs are being promoted as a key element of forest governance reform in Indonesia. KPH are a new type of public service provider under the responsibility of central, regional and district authorities and a permanent forest management entity. The management includes long-term and short-term management plans for natural and plantation forest, village, community, cultural forests, smaller village license areas (HKm) and areas of various size without licenses. In Jambi, there are reportedly 17 KPH planned, of which 6 have been provisionally established.</p> <p>Village Forest licenses (<i>Hutan Desa</i> or HD), Community-Based Forest licences (<i>Hutan Kemasyarakatan</i> or HKm), and Community plantation forest (<i>Hutan Tanaman Rakyat</i> or HTR) can secure communal rights and protect the forest resource against outside encroachment. These are 35-year licenses for communities to manage state forests and harvest forest products. In 2009, Lubuk Beringin in Bungo District received the first HD license in Indonesia. Local CSO Komunitas Konservasi Indonesia WARSI has been supporting villages in Jambi to apply for HD licenses, and under this program more than 20 villages have been granted licenses for over 50,000 ha. In addition to HTR licenses, HTI (Industrial Plantation Forest) concession holders are required by law to allocate a maximum 5 percent of the total plantation area to develop a partnership program with the local community, which could include planting commercial timber plantation species.</p> <p>Supporting activities that increase incomes of the communities living in these forest landscapes is a key step towards restoration of these landscapes.</p> <p>Private Sector Incentives/Interest</p> <p>The private sector understands the challenges of creating viable incomes from non-timber activities. Private sector concession holders and ERC holders both commented on the need to engage communities within and surrounding their landscapes. However, they note the challenges related to supporting communities on developing value chains around particular non-timber species. Potential products such as a) wild forest honey, b) dragon blood sap (jereng) for medicinal use, c) jelutong latex and d) cinnamon have been identified as potential value chains; while carbon credits from community forest preservation could be another revenue stream however, more work needs to be done to transition these ideas to viable value chains and revenue streams. There is some on-going work supported by CSOs, which could provide both valuable lessons and potential project partners.</p> <p>Highlights of potential ISFL support</p> <p>The ISFL Private Sector strategy focuses on supporting development of sustainable value chains around forestry concessions. Key to this is identifying value chains of non-timber forestry products and supporting their development through partnerships on the ground with KPH and other partners.</p> <p>The following activities would be carried out:</p> <ul style="list-style-type: none">• Identify communities, KPHs and other partners for building sustainable, non-timber based value chains;• Support development of a business model to identify and develop those products• Identify offtakers and markets for those products
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	<ul style="list-style-type: none">• Consider financing required for both on-going business operations and capital investments.• Provide on-going support to community business and offtakers to ensure long term sustainability. <p>Potential benefits</p> <p>An important part of sustainable forestry management is supporting neighbouring communities on identifying revenue streams beyond timber. Based on the DNPI (The National Council on Climate Change) GHG Abatement Cost Curve (2014), investing in sustainable forestry management has a better than average return on GHG emissions reductions. The project would focus on supporting development and implementation of sustainable value chains of non-timber species working with both production forest concession holders as well as ERC holders, while also building the capacity of the KPH to take more of these initiatives forward. Successful approaches developed would be showcased and disseminated.</p> <p>Stakeholders mapping</p> <ul style="list-style-type: none">• Local Communities• CSOs (SNV, IDH, Wetland International Indonesia, WARSI)• Directorate PES & NTFP of the MOEF• Forestry/ERC concession holders• KPH <p>Costs</p> <table border="1"><thead><tr><th>Activity</th><th># farmers</th><th># Hectares</th><th>GHG Savings tCO2e</th></tr></thead><tbody><tr><td>5.) Support Value Chain development related to sustainable community forestry</td><td>10,000</td><td>12,000</td><td>300,000</td></tr></tbody></table> <p>Assumptions</p> <p>Support 5 KPH/Community forest group pilot projects @\$200,000/pilot.</p>	Activity	# farmers	# Hectares	GHG Savings tCO2e	5.) Support Value Chain development related to sustainable community forestry	10,000	12,000	300,000
Activity	# farmers	# Hectares	GHG Savings tCO2e						
5.) Support Value Chain development related to sustainable community forestry	10,000	12,000	300,000						
	<p>Enabling conditions</p> <p>The project will take lessons that have been learned from the GOI-led Forest Investment Program (FIP; piloted in eight provinces, including in Jambi) that aims to support KPHs by strengthening capacity of the government (national and local level), community organizations, and forest management permit holders, including through partnerships among them. The FIP program also aims to support regulatory reforms to strengthen KPH performance. KPHs will play a crucial role in the implementation of the J-SLMP, as they govern and manage forest areas and functions at the local level, based on forest management plans, and in close consultation and coordination with relevant stakeholders, including local government, communities (inside and around the KPH area), license holders, local industries and other stakeholders.</p>								



24. A summary of the potential impact of the proposed private sector activities are shown below. Based on preliminary estimates, the table shows the potential impact in terms of number of farmers, area covered, and ERs (Figure A5.4). In addition, a separate analysis (Figure A5.5) provides the potential impact based on increasing the amount of funding available.

Table A5.4 Private Sector Activities Impact

Activity	US\$	# farmers	# Hectares	GHG Savings tCO2e	Assumptions
ISFL Funding					
Policy and regulatory modifications to increase private sector investment in ERCs as a means to support conservation and restoration of high risk areas in Jambi	250,000	N/A	100,000	2,000,000	US\$250,000 for policy & regulatory review, PPD and implementation of changes to encourage investment. Estimated 100,000 ha of additional ERC investments valued at US\$60 million and 20 tCO2e/ha GHG savings.
Technical Assistance Support to Oil Palm Plantation Fund	250,000	10,000	25,000	675,000	US\$250,000 for policy & regulatory review, implementation of changes to encourage uptake of funds. Estimated increase of 25,000 has (over 5 yrs) of replanting.
Support Value Chain development related to sustainable community forestry	1,000,000	10,000	12,000	300,000	Support 5 KPH/Community forest group pilot projects @ \$200,000/pilot (US\$1 million total)
Subtotal ISFL	1,500,000	20,000	137,000	2,975,000	Policy changes can unlock funding for investment.
ISFL BETF Funding					
Financing for independent smallholder replanting	2,500,000	3000	7500	205,000	1st loss facility (or other risk taking leverage instrument): US\$2.5 million FL leverages US\$30 million loans for replanting.
US\$7 million Matching Grant Facility for ER activities in High Risk areas	1,500,000	56,000	67,000	532,000	Matching Grant (MG) Facility consisting of US\$1.5million from ISFL BETF to leverage an additional US\$5.5 million for a total MG facility of US\$7 million.
Subtotal ISFL BETF	4,000,000	59,000	74,500	737,000	Significant leverage of external funding.
Total ISFL	5,500,000	79,000	211,500	3,712,000	US\$ Leveraged: US\$95 million

Table A5.5 Private Sector Activities Impact based on increasing amount of funding

Activity	Base case		Medium		High	
	US\$	GHG Savings tCO2e	US\$	GHG Savings tCO2e	US\$	GHG Savings tCO2e
ISFL Funding						
Policy and regulatory modifications to increase private sector investment in ERCs as a means to support conservation and restoration of high risk areas in Jambi	250,000	2,000,000	250,000	2,000,000	250,000	2,000,000
Technical Assistance Support to Oil Palm Plantation Fund	250,000	675,000	250,000	675,000	250,000	675,000
Support Value Chain development related to sustainable community forestry	1,000,000	300,000	2,000,000	600,000	3,000,000	900,000
Subtotal ISFL	1,500,000	2,975,000	2,500,000	3,275,000	3,500,000	3,575,000
ISFL BETF Funding						
Financing for independent smallholder replanting	2,500,000	205,000	4,000,000	328,000	6,000,000	492,000
US\$7 million Matching Grant Facility for ER activities in High Risk areas	1,500,000	532,000	3,000,000	1,064,000	5,000,000	1,773,000
Subtotal ISFL BETF	4,000,000	737,000	7,000,000	1,392,000	11,000,000	2,265,000
Total ISFL	5,500,000	3,712,000	8,500,000	4,667,000	14,500,000	5,840,000

**ANNEX 6: Safeguards****COUNTRY: Indonesia**

ID: Jambi Sustainable Landscape Management Project

1. The J-SLMP finances activities that focus on the enabling environment for an ER Program, which includes policy and institutional strengthening as well as support to sustainable land management through select investments. The Project triggers several World Bank environmental safeguards policies including Environmental Assessment (OP 4.01), Natural Habitats (OP 4.04), Forests (OP 4.36), Pest Management (OP 4.09), and Physical Cultural Resources (OP 4.11). Social Safeguards policies applicable include Involuntary Resettlement (OP 4.12) and Indigenous Peoples (OP 4.10). The Project is classified category B given the expected mostly positive impacts from protection and sustainable management of forests and natural habitats through the activities to be supported and technical assistance to be provided and directed toward the reduction in deforestation and land degradation.

2. **Background.** In the context of the national REDD+ program, the GOI has earlier prepared safeguards instruments that address the country's systems and the United Nations Framework Convention on Climate Change (UNFCCC) safeguards. These efforts have been carried-out over many years with support from the FCPF Readiness Fund, national budget resources, and donors including the United States Agency for International Development (USAID), GIZ, and others. Earlier safeguards initiatives represent compliance with the UNFCCC, which Indonesia adheres to, include development of a SIS-REDD+, which serves as a website platform to monitor and report on compliance of Cancun safeguards, development of the Principles, Criteria, and Indicators for REDD+ Safeguards (PRISAI). While these national and sub-national initiatives did not directly address the World Bank's safeguards, previous processes have enabled engagement and consultations with key stakeholders, including CSOs. These instruments have been reviewed and assessed in light of their applicability to the Project and the forthcoming ER Program in Jambi.

3. The Project's investments are well aligned with the overall design of the forthcoming provincial ER Program which is oriented towards addressing key drivers of deforestation and forest degradation in Jambi Province. Such drivers will be further assessed as part of the on-going preparation of the Project. Since this Project finances both technical assistance aspects to support the preparation of the province's ER Program as well as physical investments to complement the ER Program, assessments of environmental and social risks are therefore be a sequential process. An initial assessment of environmental and social risks with focus on select investments under Component 2 has been conducted as part of the Project preparation and hence, safeguards instruments are tailored to address specific risks identified through this assessment and made available prior to the Project's Appraisal. Further efforts to refine the assessment and strengthen the risk mitigation system under the planned ER Program, including addressing institutional capacities, consultations and stakeholder engagement as well as policy and regulatory development processes will be made during the Project implementation. Consistent with the approach adopted for the FCPF EK-JERP, it will include a SESA and program-level ESMF, which outlines relevant measures to address potential investments under the Jambi's ER Program. All activities involving technical assistance will be consistent with World Bank policy standards and the latest OESRC Advisory Notes dated May 21, 2019 on safeguards application for TA activities.



4. **Project Typologies:** The project focuses much on land and forest management, particularly peatland, forest fire management and protection of remaining forest cover. A large portion of the funds are for capacity building and system strengthening activities (Component 1) and NRM pilot activities in select locations (Component 2). Table A6.1 provides a breakdown of the project activities organized by typologies.

Sub-component	Activity	Typology	Boundaries/Targets	E&S aspects	Mitigation Measures
Component 1. Strengthening Policy and Institutions (US\$2.5 million)					
Sub-component 1.1 Institutional Strengthening	<ul style="list-style-type: none">Cross-sectoral coordination and decision making for peatland, forest and fire prevention management;Operationalization of the joint secretary;Low carbon development support for Jambi's Green Growth Plan	Technical Assistance (TA) for coordination and planning	Whole province	Downstream impacts (analysis will be subject to further policy details during implementation)	To be assessed as part of the on-going SESA process as per the World Bank's interim guideline for TA FGRM
	Local capacity and social inclusion for improved land management: <ul style="list-style-type: none">KPH capacity improvement;Establishment of social forestry licenses,Support to <i>adat</i> recognitionSupport to smallholder replanting via improved access to the Oil Palm Plantation Fund	TA for capacity building and conflict resolution, good agricultural practices	To be defined	Potential exclusion of groups without recognizable rights, potential conflicts in areas with overlapping claims, potential expansion of smallholder plantation and increased use of pesticide	ESMF, IPPF, FGRM Policy related aspects will be addressed as part of the SESA process.
Sub-component 1.2 Enabling Environment for ER Program	<ul style="list-style-type: none">GHG Emission AccountingMonitoring and Reporting of Land and Forest Resources ChangesDevelopment of Benefit Sharing Plan (BSP)Development of FGRMPreparation of safeguards instruments and system strengthening for ER Program	TA for capacity building and multi-sector dialogue and coordination and mobilization of experts	Whole province	Institutional capacities to undertake inclusive consultations, potential exclusion of groups without recognizable land rights for the purpose of BSP	ESMF, RPF&PF, IPPF, FGRM under the pre-investment grant to set the building blocks E&S aspects for the ER design to be assessed as part of the on-going SESA process as per



					the World Bank's interim guideline for TA FGRM
Sub-component 1.3 Policy and Regulations	Support to consolidate and strengthen policies and regulations for sustainable land use including at the national and provincial levels, including: <ul style="list-style-type: none">• Provincial regulation (Perda) and permanent moratorium related to peatland• Provincial regulation (Perda) for fire• Improvement of Land-Based Licenses and ERCS for Private Sector Engagement	TA for policy improvements and development, stakeholder coordination and policy analysis	Whole province	Downstream impacts (analysis will be subject to further policy details during implementation)	E&S aspects for the ER design to be assessed as part of the on-going SESA process as per the World Bank's interim guideline for TA FGRM
Component 2. Implementing Sustainable Land Management (US\$8.5 million)					
Sub-component 2.1: Integrated Forest and Land Management	Activities under sustainable forest management include: <ul style="list-style-type: none">• Fire management: hotspot control, fire suppression, emergency response, rewetting• Natural resource monitoring and conflict resolution: stakeholder engagement, development of forest monitoring system, capacity building for non-litigation conflict resolution• Conservation and restoration: peatland restoration• Development of incentives systems to prevent encroachment	TA activities for capacity building for fire brigades and communities, conflict resolution, forest monitoring system strengthening, law enforcement Physical activities: <ul style="list-style-type: none">• Small-scale infrastructure i.e. peatland rewetting (canal blocking);• Revegetation and establishment of community nurseries	To be defined	Occupational, Health and Safety (OHS) risks particularly for fire prevention and suppression, escalation and/or exacerbation of existing conflicts, restrictions of land use, lack of community participation/buy-in, introduction of invasive species and increased use of pesticide	ESMF, RPF&PF, IPPF, FRGM



Sub-component 2.2 Private Sector and Smallholders Partnerships for Improved Forest and Land Management	Activities under private sector engagement include: <ul style="list-style-type: none">Sustainable agroforestry and intercropping for intensification and diversificationTA for technology transfer for smallholder tree crop productivity enhancementValue chain sustainabilityPromotion of alternative crops and livelihoods in degraded areasTechnical innovation to support traceability and sustainable sourcingSupport coordination of stakeholders in value chains	TA activities for capacity building on good agricultural practices and technology transfer for small holder farmers, private sector engagement and coordination and innovation Physical activities: <ul style="list-style-type: none">Establishment of nurseriesDemonstration plotsReplanting and revegetationAgroforestry and intercropping in degraded areasPurchase of equipment, inputs (seeds, seedlings)	To be defined	Lack of community participation, increased use of pesticide, introduction of invasive species	ESMF, RPF&PF, IPPF, FRGM
Component 3. Project Management, Monitoring and Evaluation, and Reporting (US\$2.5 million)					
	This component will finance activities related to national and provincial-level Project coordination and management, particularly to achieve the Project's objectives, including AWPB; fiduciary aspects (FM and procurement); human resource management; safeguards compliance monitoring; M&E; knowledge management and sharing; and implementation of strategies for communication and stakeholder engagement.	TA for the overall project management	n/a	n/a	n/a



5. Under the ESMF, each sub-component of the J-SLMP will be screened to identify: a) safeguards policies triggered, b) environmental assessment category, c) safeguards instruments and associated analyses to incorporate risk and impact minimization, mitigation measures and monitoring program. Based on the results of this screening, specific safeguards instruments including EMP for each sub-project will be developed as guided by the ESMF.

6. **Environmental Safeguards.** The J-SLMP is expected to generate overall positive environmental impacts at global, national, and local levels. This will be achieved through a reduction of land-based carbon emissions, increased carbon storage, reduced land degradation, and protection of globally threatened ecosystems and endemic biodiversity. Small-scale negative impacts may result from the support for sustainable production activities under this Project that provides the grant financing for pre-investment activities prior to the planned ER Program. Sub-projects will be screened for environmental risks and impacts including potential for increased pesticide use from agricultural intensification, pollution from ecotourism or small-scale NTFP processing or cottage industries, unsustainable use of natural resources from extractive projects, invasive species from productive and plantation activities, possible physical cultural resources impacts among other impacts that will be considered in the ESMF to be prepared for the Project. The ESMF will include measures and ECOP applied effectively in other projects in the country and region supported by the Bank. Land tenure strengthening may lead to more intensive use or conversion of forest and natural resources, however one of the Project's key objectives will be supporting villages, agriculture and private sector through technical assistance to plan and sustainably manage their resources while conserving critical habitat such as HCV forests within their lands.

7. Landscape-scale impacts are also expected to be positive, however displacement of emissions (and consequent loss of forest) to other provinces or nearby countries may be possible given increased enforcement and focus on managing land sustainably in the Jambi province. The forthcoming ER Program design will incorporate measures to consider this through monitoring at a landscape scale. A dialogue however will be maintained with the GOI regarding appropriate measures if monitoring indicates displacement as part of the reporting process.

8. The J-SLMP is classified as Category B for environmental assessment because the potential environmental impacts are not significant, complex, large in scale, sensitive and unprecedented. The identified activities under the Project have distinct boundaries to allow proper environmental mitigation measures to be undertaken using the existing methods or mitigation tools available to the Project. The Project triggers OP 4.01 Environmental Assessment, Natural Habitats (OP/BP 4.04), Forests (OP/BP 4.36), OP 4.11 Physical Cultural Resources, and Pest Management (OP 4.09).

9. In compliance with OP 4.01 on the environmental assessment, an initial identification of potential risks, impacts, and proposed mitigation measures will be conducted. A SESA is being prepared and considers key risks and impacts and strategic options for management in the forthcoming ESMF. These documents will be the result of a long process of consultations and analyses during the country's REDD+ Readiness process. Relevant risks, impacts and mitigation measures as part of safeguards requirements will be aligned with the analysis of the drivers of deforestation and degradation and subsequently, inform the design and selection of Project components, sub components and activities. The use of the country safeguards instruments such as Environmental Impact Assessment (AMDAL) or UKL-UPL will also be applicable per GOI's regulations on environmental management. Some preliminary assessments as part



of SESA and ESMF processes have been conducted and will be refined further. This Project has benefited from the earlier assessments and lessons learned through the FCPF ER Program in East Kalimantan's development of the SESA and ESMF and also from extensive engagements in the Project from government agencies such Bappeda; Provincial Environmental, Forestry, Agriculture, and Plantation Agencies; private sector (implementation of HCV, RSPO); and the direct involvement of CSOs at community levels. Other project and/or activity-level environmental assessments (Environmental and Social Impact Assessment (ESIA), AMDAL, or UKL-UPL) will be part of the requirement for program activities in accord with the existing government regulatory frameworks on environmental management.

10. The Project triggers Natural Habitat (OP 4.04) with more positive than potential negative impacts expected on natural habitat. The overall Project aims to maintain and restore natural habitat since degradation and deforestation in HCV areas are major contributors to emissions. These measures will facilitate positive impacts that include, among others: restored and better maintained biodiversity, environmental services and ecosystems; reduced deforestation and increased carbon uptake; reduced degraded land; better protected forest areas and wildlife habitats; decreased fire hotspots; enhanced ecosystems; reduced GHG emissions; reduced possible risks of changes in physical and chemical properties of the soil; more appropriate measures for post-mining reclamation and revegetation; better assurance for well qualified reclamation; and enhanced ecosystem sustainability. These are in line with the current government regulatory frameworks on biodiversity, such as Law No 11/2013 on the ratification of the Nagoya Protocol of the Convention on Biological Diversity. Spatial analysis shows that the proposed Project area (including forest and palm oil concessions) overlaps with key biodiversity areas, and habitat of the endangered Sumatran Tiger (*Panthera tigris sumatrae*), elephants and some migratory birds at Berbak National Park. There is also potential negative impact from the incidental loss of HCV forests due to lack of oversight, control and monitoring of it in the production forests or APL.

11. The J-SLMP supports reductions in deforestation and forest degradation, leading to positive impacts on the health and quality of forests in the program area. The forest policy OP 4.36 is triggered since the program may enforce protected forest boundaries that impact access of forest dependent communities. No commercial-scale forestry will be financed; however, the Project will engage with forest companies and private sector operations through technical assistance seeking to conserve HCV forest within their operations. Any technical assistance and advice provided will be consistent with policy provisions related to OP 4.36. Consideration of potential impacts and proposed mitigation measures will be included in the forthcoming ESMF.

12. Key safeguards risks related to lack of capacity in preparing and implementing safeguards instruments, both at provincial and district levels have been identified. Capacity building on the SESA and ESMF has also been identified and budgeted as part of the Project activities under Component 1 and 2 for Sustainable Landscape Management. Some of the identified challenges for safeguards are related to capacity and resource constraints which affect oversight ability amongst program entities, incentives for compliance and reporting of safeguards performance guided by the ESMF, lack of awareness of the broader ER Program, and safeguards requirements at the local and community levels. The most effective way to mitigate this risk is by providing close and intensive support and mentoring on safeguards implementation to the sub-national PMU and also during implementation to community groups and facilitators with the active involvement of local CSOs. At the same time, subnational government agencies such as district environmental agencies will receive necessary support from Bank team during supervision missions or through existing Bank's projects such as FIP, DGM, or One Map. On 3-4 July 2019 a Working



Group on Risk Management (Tim Kerja Risk Management) has been established led by BLH (Environmental Agency) Jambi and co-chaired by YLBHI with members from academia, government officers, CSOs, KPHs, national parks etc. The main task of the team will be to provide input to the safeguard's instruments being prepared and to identify capacity building needs from related stakeholders involved in the ER program in Jambi especially for the pre-investment activities. The team shall be formalized further to ensure its functioning and sustainability. Representative from Bappeda also present during the workshop to be made aware of this initiative.

13. The draft SESA and ESMF has been consulted and will continue to be improved as the stakeholder consultation process is a continual process. The first stakeholder consultation for the SESA and ESMF occurred on February 22, 2019 in Jambi and was attended by government officials, private sector, CSOs and academic sector representatives. Under the ESMF, each sub-component of the J-SLMP will be screened to identify: a) safeguards policies triggered, b) environmental assessment category, c) safeguards instruments and associated analyses to incorporate risk and impact minimization, mitigation measures and monitoring program. Based on the results of this screening, specific safeguards instruments including EMP for each sub-project will be developed as guided by the ESMF.

14. **Social Safeguards.** The J-SLMP triggers both the Involuntary Resettlement (OP 4.12) and the Indigenous Peoples (OP 4.10) policies of the World Bank. The Project area include Indigenous or *adat* communities while there is also a need to consider issues of access and land-rights related to activities supported through this Project.

15. A social assessment, as part of the SESA process, is currently being undertaken to address proposed investments under the pre-investment grant. Such investments will involve multiple stakeholders across important sectors in land and natural resource management, and hence, presents institutional risks associated with fragmented coordination and weak capacities to address potential social risks (i.e., managing conflicts/disputes, lack of community participation, lack of access and inclusion of vulnerable groups to benefit from the Project, etc.). As part of the SESA process, a series of stakeholder consultations have been conducted since November 2017. Preliminary results of the assessment indicate the following potential risks of the Project: a) failures to reach inter-sectoral consensus particularly with regards to resolution of tenure conflicts in forest and non-forest lands, leading to uncertainties and unmet community expectations (C.1), inequitable benefit sharing distribution, particularly at the expense of communities without recognizable land claims (C.1), lack of community participation due to high-transaction costs to switch to sustainable practices (C.1 and 2), access restrictions and restrictions on land uses resulting from determination of forest management blocks and reforestation under sustainable forest management (C.2). Resettlement risks are considered very remote as the GOI commits to ensuring amicable conflict resolution and at the same time, seeks to facilitate social forestry schemes to enable forest dependent peoples to obtain tenure security. However, there could be residual risks following tenure dispute settlements which may result in the state's decision to renounce one's claims over the claimed state lands (C.1 and 2). In addition, there could be issues stemming from potential exclusion of Indigenous communities and vulnerable groups from the Project due to lack of legal personality and/or recognizable tenure claims. Livelihoods impacts are considered positive across Project sub-components. However, there may be livelihood implications following imposition of zero-burning policy (C.2) and community and health safety risks for fire prevention and suppression (C.2).

16. In the contexts of land tenure recognition, some communities may not fulfil the GOI's framework on *Masyarakat Hukum Adat* or lack of clearly codified rights and hence may not be fully eligible to social



forestry and land tenure schemes, including *Hutan Adat* rights (C.1). These may have implications on community expectations and the Project's ability to address disputes and conflicts. In addition, sub-national capacities to undertake such recognition processes in a transparent and participatory manner remains to be further assessed.

17. Various nature of tenurial and natural resource conflicts in Jambi requires different interventions and efforts to address. Conflict typologies in Jambi Province can be generally categorized as follows: a) overlapping land claims and encroachments in forest areas especially in the upstream (conservation) zone, b) conflict with palm oil and industrial timber plantations due to overlapping land claims and perceptions of inequitable benefit sharing in the middle (production) zone and c) a combination of inter-communal conflicts and conflict with concession companies, mostly palm oil in the east (distribution) zone. Such conflicts typically involve concession holders, KPHs, national park managers, local communities including *adat* communities as well as in-migrants from other regions and a combination of these stakeholders. Tenurial conflicts in palm oil concessions are typically complex and difficult to solve and sometimes involve violence. Such due to multiple interests and stakeholders involved, often embroiled in local politics, length of such conflicts where they are allowed to fester, institutional silos and capacities to address such conflicts.

18. Other relevant aspects that have also been considered under the risk assessment also include: gender inequality in land use rights and access to natural resources which may prevent women from fully accessing and participating in the Project; lack of participation amongst vulnerable groups, including women and youth due to limited understanding, information or incentives to participate in planning and decision-making processes; lack of access to agricultural technology, sustainable markets and post harvesting technology for forest commodities; and potential lack of trust for forest partnerships particularly in areas with history of conflicts.

19. Key mitigation measures will need to address the identified risks above, in particular: a) land disputes/conflicts, b) access restrictions, including measures to enhance positive livelihoods impacts, c) community participation and free, prior and informed consultations, d) FGRM, and e) gender gaps. An IPPF and RPF, which includes a PF have been developed to guide implementing agencies in managing these risks and broader social aspects. These instruments will be further consulted with Project-affected stakeholders and interested groups prior to the Project's Appraisal.

20. A Project-specific FGRM is being developed to address the broader ER Program as part of the technical assistance support by the Project. Such a FGRM is based on the existing national and provincial systems to address grievances and capture citizens' feedback that already exist at the village, provincial, and national levels. Operations of such mechanisms will be monitored and coordinated by MoEF and Jambi's provincial taskforce. Depending on the types of grievances, a different mechanism may apply and enable escalation to appropriate levels should resolution not be achieved.

21. **Indigenous Peoples.** The Project triggers OP 4.10 given the significant presence of Indigenous Peoples as defined by the Bank policy in the Project area. Jambi has a population of 3,570,272 (2018) that includes ethnic groups such as Malay, Indigenous *Orang Rimba*, *Marga Serampas*, and *Talang Mamak*, as well as Javanese, and Chinese descendants. Malay, who are mostly Muslim, dominate the province (95.44%), followed by in-migrants who mainly reside in Jambi City. Customary groups or *adat* communities (such as *Orang Rimba*, *Talang Mamak* and *Marga Serampas*) continue to maintain their traditional or customary ways of life, reside in rural areas, and are dependent on agriculture and small-scale plantation for their livelihoods (mostly rubber, palm oil, coffee and cinnamon). The Project preparation has included



consultation specific to the requirements and needs of Indigenous Peoples in the jurisdiction. Given the extensive geographic scope and the framework approach, consultations will be based on the potential types and nature of the Project's impacts and risks, as well as accessibility of these stakeholders. As part of the Project's preparation and safeguards processes, an identification of stakeholders is currently ongoing.

22. In the contexts of land tenure recognition, there may be potential exclusion of Indigenous communities and vulnerable groups from the Project due to lack of legal personality. Some communities may not fulfil the GOI's framework on *Masyarakat Hukum Adat* or lack of clearly codified rights and hence may not be fully eligible to social forestry and land tenure schemes, including *Hutan Adat* rights (sub-component 2.1). These may have implications on community expectations and the program's ability to address disputes and conflicts. In addition, sub-national capacities to undertake such recognition processes in a transparent and participatory manner remains to be further assessed.

23. Livelihoods impacts are considered positive across Project sub-components, however there may be livelihood implications following imposition of zero-burning policy and community and health safety risks for fire prevention and suppression (sub-component 2.1). Other issues may also stem from social jealousy or perceptions of social exclusion due to inequitable benefit distribution and/or lack of transparency under future BSP implementation.

24. Other relevant aspects that have also been considered under the risk assessment also include gender inequality in land use rights and access to natural resources which may prevent women from fully accessing and participating in the Project; lack of participation amongst vulnerable groups, including women and youth due to limited understanding, information or incentives to participate in planning and decision-making processes; lack of access to agricultural technology, sustainable markets and post harvesting technology for forest commodities; and potential lack of trust for forest partnerships particularly in areas with history of conflicts.

25. **Consultations and Stakeholder Engagement.** The draft SESA and ESMF have been consulted and will continue to be improved as the stakeholder consultation process is iterative. Initial consultations took place from November 2017 until 2018 through a series of focus group discussions (FGDs) on drivers of degradation and deforestation, ER Program activities, and the benefit sharing mechanism. A series of FGDs at the village level in select villages was undertaken from April 19-20, 2019, followed by a district level consultation in *Tanjung Jabung Timur* on May 23, 2019. These consultations were attended by government officials, private sector, CSOs, academic sector, and communities, including Indigenous Peoples representatives. Issues around lack of inter-sectoral coordination and capacity constraints to effectively are particularly acute within KPHs. In addition, overlapping land claims as a result of past licensing practices have also been attributed to tenure conflicts, involving local and *adat* communities, particularly in oil palm plantations.

26. **Institutional Arrangements for Safeguards.** Project-level management and oversight will be under coordination from the NPMU and a Provincial Task Force. Together with the proposed safeguards institutional arrangement for this Project and provisions of safeguards resourcing made available by this Project, such a framework level instrument will form the safeguards "system" for the overall safeguards system for the Project, which will be subject to further strengthening in anticipation of the eventual Jambi's ER Program. Technical support for such system strengthening will be made available under Components 1 and 2.



27. **Project-level Grievance Redress.** A FGRM will be developed to address specific investments under the Project and will continue to be refined to address the broader Jambi's ER Program as part of the TA support by the Project. Such a FGRM is based on the existing national and provincial systems to address grievances and capture citizens' feedback that already exist at the village, provincial, and national levels. Operations of such mechanisms will be monitored and coordinated by MoEF and Jambi's provincial taskforce. Depending on the types of grievances, a different mechanism may apply and enable escalation to appropriate levels should resolution not be achieved.

**ANNEX 7: Gender Analysis of the J-SLMP****COUNTRY: Indonesia**

ID: Jambi Sustainable Landscape Management Project

1. Indonesia is a largely patriarchal society, even among matrilineal groups and, in particular, land tenure and forest management processes in the country tend to be male dominated. While regulatory frameworks (such as those for community participation, marital property and inheritance) in Indonesia are not discriminatory towards women, challenges remain for the implementation of these frameworks and ultimately the local realities for women.
2. Land administration and customs in Indonesia in particular do not provide equal protection and opportunities for women. Tenure uncertainty and unequal recognition of land rights is particularly acute for women. Discriminatory customs on women's land rights increase the negative impact on women. Female heads of households (except those not legally identified as such) have legal protection in securing land tenure and inheritance for their children. Nevertheless, land and asset distributions remain unequal in practice. Even in matrilineal societies, where property rights and land titles remain with women, brothers and husbands tend to make the land use decisions. Limited women's participation is in part attributable to cultural factors and religious beliefs which do not enable/allow women to be outspoken, as well as household burdens which often restrict mobility and participation of women. There is widespread lack of understanding that has led to misunderstanding within communities, particularly women, and amongst village leaders regarding the possibility and benefits of joint titling of land and property rights. This is coupled with the prevailing conservative attitude in the land offices and lack of field staff orientation, thus resulting low demand from women to register land titles under their names.
3. Married (Marriage Law) and unmarried (Civil Code) women have equal rights and by law equal inheritance and division of property (in the event of a divorce) are a women's right, but practice is likely to differ. In 1963, the Supreme Court revoked certain provisions (Articles 108 and 110) of the Indonesian Civil Code which required a wife to obtain prior written consent from the husband for managing her own assets and for appearing before the court of law. Islamic laws on family and inheritance (which apply to the Islamic marriages in Indonesia) regulate a specific portion of inherited estates for the wife/wives, which differs from the portion for other heirs. Book Two on Inheritance Law from the Islamic Law Compilation prescribes the division of assets between male and female beneficiaries at a 2:1 ratio, and Article 183 allows the inherited parties (men and women) to agree on the distribution of property. Also, Book Two of the Indonesian Civil Code on Inheritance governs the equal division of inheritances (movable and immovable assets) for both Muslims (who are allowed to choose to subject themselves to the Civil Code provisions instead of the Islamic Law) and Non-Muslims. Certain customary laws, including *adat* laws, may treat legal rights of women differently as compared to men.
4. There is a common lack of awareness about the benefits of registering family land holdings to the names of both spouses resulting in male dominant ownership of land. According to a Demographic and Health Survey (DHS; 2012) 58 percent of men own land, with about half under joint ownership. In comparison, an Asian Development Bank study (2016) finds only 36 percent of married women (aged 15 to 49 years) own land individually or jointly. This disadvantages women in the event of a divorce as spouses are legally required to divide joint assets equally and retain whatever property they owned prior to marriage. Despite the provisions of equality as specified in the Indonesian Constitution and Book Two



of the Indonesian Civil Code on inheritance, the DHS (2012) found that women were in danger of losing their land rights upon widowhood, divorce, or desertion with some ending up landless and destitute.

5. The likelihood that a woman owns a house or land (alone or through a joint ownership) is associated with her age, with women aged 45 to 49 most likely to hold such assets. Rural women are also somewhat more likely than urban women to own both a house and land, either alone or jointly. The percentage owning both assets is highest among women with no or only some primary education - likely correlated with the higher percentage of ownership in rural areas. Women's ownership of land and house assets does not vary consistently with wealth quintile.

6. Gender norms (and the expectations and stereotypes these create) will likely reinforce inequalities in access to land and assets or resources unless joint-ownership and individual ownership registration in women's names for female-headed households are part of consultations and operationally embedded with targets and tracked through monitoring and reporting.

7. Women tend to be more dependent on forests and play a critical role in collecting and using forest products than men to meet their family's daily needs, though they are disproportionately represented in forest management institutions and decision-making processes. Participation in decision-making and access to and control over land and natural resources can be sub-optimal because of gender issues, stigmatization, and the under-representation of women in consultations. Projects which consult women and succeed in creating "safe spaces" for them to voice their opinions and assume positions of leadership have better outcomes and sustainability of results. Women use their detailed knowledge of landscapes to selectively nurture important species or build assets, collect NTFPs, and protect HCV areas or resources. These areas are part of traditional usufruct patterns that may be lost if women are not consulted.

8. There are several identified constraints to the meaningful participation of women in decision-making, including: the lack of self-confidence and representation of women; limited knowledge about legal rights and a shortage of dispute resolution institutions or knowledge of grievance redress mechanism; conditions of poverty and scarcity that result in short-term thinking and environmental degradation; and, stereotyping of women's roles and contributions to domestic domains. These have implications for participatory processes, conflict and dispute resolution, resource management, and the access to and participation in consultative processes by women.

9. At the local level, women and other marginalized groups' participation in village development planning consultative meetings (*Musyawarah Perencanaan Pembangunan Desa/Musrenbangdes*) is a challenge. *Musrenbangdes* are often dominated by village elites and men, ultimately excluding and/or limiting the participation of marginalized and vulnerable groups, including *adat* communities and women. Addressing this issue is vital, considering the current implementation of Village Law 42—particularly on Village Funds—presents an important opportunity for mainstreaming low-carbon initiatives, conservation efforts and sustainable livelihoods at the village level. Village governments are responsible for administering Village Funds (*Dana Desa* and *Alokasi Dana Desa*) and accommodating community needs through democratic processes (hamlet and village deliberations). Under the framework of the Village Law, villages now have the autonomy to determine development based on their own understanding and needs through participatory process from the hamlet to the village level. *Musrenbangdus* (hamlet deliberation) was often perceived by villagers, especially women, to be more participatory and receptive to proposals from various community groups. This is, however, not the case of *Musrenbangdes* (village deliberation) where men and village elites usually dominate the meeting. Through this deliberation process, a long-list of proposed activities will be produced by each hamlet and subsequently short-listed and consolidated



against other hamlets' short-lists through a competitive process during *Musrenbangdes* (village deliberation). During these deliberations, women's interests and needs are often at risk of being disregarded due to lack of participation and voice.

10. Considering the broader context for gender issues in Indonesia, the Project conducted a gender analysis to understand the implications for the implementation and outcomes of the J-SLMP. The following key issues have been identified:

- a) Gender inequality in land use rights and access to natural resources which may prevent women from fully accessing and participating in the Project;
- b) Lack of participation amongst vulnerable groups, including women and youth due to limited understanding, information, or incentives to participate in planning and decision-making processes;
- c) Lack of access to agricultural technology, sustainable markets and post harvesting for forest commodities; and
- d) Potential lack of trust for forest partnerships, particularly in areas with a history of conflicts.

11. In addressing gender and inclusive development issues particularly for the vulnerable groups and *adat* communities, the GOI acknowledges that mainstreaming gender and social inclusion are key to ensuring the sustainability of its J-SLMP. Indonesia has adopted a twin-track policy approach for gender mainstreaming and women's empowerment. Gender-specific activities incorporated in relevant policies and legal frameworks, include: gender budgeting, gender-disaggregated data collection, and an empowerment program for women. This approach aims to ensure that gender equality concerns are well integrated and addressed in the country's development frameworks. Such political commitments have been specifically translated into legal and budget commitments with the issuance of relevant regulatory frameworks and the adoption of gender-responsive planning and budgeting, as stipulated in the joint decree of the Ministry of Home Affairs (MoHA), MoF, Ministry of Women's Empowerment and Child Protection (MoWE-CP), and Bappenas on the National Strategy on Gender Responsive Planning and Budgeting (NOMOR: 270/M.PPN/11/2012 NOMOR: SE-33/MK.02/2012 NOMOR: 050/4379A/SJ NOMOR: SE 46/MPP-PA/11/2012); and MoF's regulation on the guidance for the development and review of annual workplans and budgets of line ministries (No 94/PMK.02/2017) that requires a gender budget statement.

12. The GOI's National REDD+ Strategy also recognizes gender equity gaps and includes principles for ensuring gender sensitivity and considerations in the implementation of REDD+, including as a key consideration for changing paradigms and culture in forest management. More specifically, the REDD+ Strategy notes that transparent information will be provided on REDD+, including to marginalized groups and women, and capacity building will be implemented with communities, especially for women, to improve both their understanding of available information and participation in decision-making processes. Furthermore, the REDD+ Strategy specifies that reporting on the distribution of benefits under BSPs will be disaggregated by gender. If these measures are implemented effectively, they will directly respond to some of the key issues identified for women's participation in forest management.

13. The forthcoming ISFL ER Program in Jambi builds on the J-SLMP, as well as forms part of and is intended to be consistent with the National REDD+ Strategy. Given this, several approaches have and will be utilized to enhance women's access to participation and benefits specifically under the J-SLMP. In the preparation process, women were represented in stakeholder consultations and their unique needs will be reflected in the design of the Project. Specific considerations will be made for women's participation



in field schools and peatland restoration investments under the Project. This will include not only the identification of gender-appropriate investments, but also ways to best engage women in their implementation. The GOI will also disaggregate the reporting of two indicators by gender: adoption of sustainable land management approaches and beneficiaries. In addition, an IPPF and RPF, which includes a PF, have been developed to guide implementing agencies in managing risks and broader social aspects, including for gender gaps.

14. The J-SLMP will also support the preparation of the forthcoming ISFL ER Program in Jambi, which will require compliance with the ISFL ER Program Requirements. These requirements include the preparation of an ESMF, which will identify gender and social inclusion gaps for both the J-SLMP and forthcoming ER Program. In addition, the GOI will prepare a BSP for the ER Program. The ISFL ER Program Requirements specify that beneficiary demographics, including gender, need to be considered when determining the benefits, they will receive.

**ANNEX 8: Economic Analysis****COUNTRY: Indonesia**

ID: Jambi Sustainable Landscape Management Project

1. This section presents an analysis of the economic (welfare) benefits generated by the proposed investment. By estimating the (partial) values of changes of carbon sequestration and livelihoods and comparing them against the cost of the proposed investment, the overall economic welfare generated by the project is assessed. Due to the complexity of the project, the anticipated economic benefits cut across many sectors and aspects. Given time and data constraints, the consideration of benefits for the quantitative simulation will be limited to a few aspects and complemented by a qualitative discussion of other benefits. The section discusses anticipated economic benefits and the presentation of results of a numerical simulation, including a brief assessment of the economic feasibility of the project.
2. The proposed investment is generating a diverse portfolio of economic benefits ranging from direct, tangible benefits to indirect, intangible benefits. A direct, tangible benefit is, for example the reduction of GHG emissions. On the other side of the scale, indirect and intangible economic benefits of the project are, for example the improvement of the public administration and associated delivery of public services triggered by the project's supported capacity building for land rights. Table A8.1 provides a limited overview of selected examples of the four categories of benefits that can be associated with the project.
3. Given the lack of data and time and resource constraints for this ex-ante project economic analysis, only the benefits from emission reduction are used for the quantitative economic assessment of project feasibility.

Table A8.1: Selected economic benefits generated by the Project

	Tangible	Intangible
Direct	<ul style="list-style-type: none">• Reduction in GHG emissions• Increase in income	<ul style="list-style-type: none">• Reduction in soil erosion• Increase in soil conservation• Reduction in deforestation• Afforestation / reforestation• Biodiversity conservation• Improved socio-cultural benefits• Poverty reduction
Indirect	<ul style="list-style-type: none">• Reduced pressure on protected areas• Increased resilience to external shocks• Reduced malnutrition• Better access to credit	<ul style="list-style-type: none">• Strengthened self-governed capacity of communities and community groups• Lowering marketing costs• Improved schooling and education

4. Cost-Benefit-Analysis was applied to conduct the economic efficiency assessment for this project. Sensitivity analysis is applied for the main simulation parameters notably discount rate and project



performance. For the discount rate, alternative rates of 5 percent, 10 percent, and 20 percent are applied. To test the robustness of initial results a simulation is run for the case that only 10 percent of the expected emission reductions are achieved. All sensitivity analyses are run for all discount rates scenarios. The results of the quantitative results will be complemented with qualitative benefits to conclude overall project feasibility.

5. The distribution of costs and benefits over time follows the actual disbursement of the project. The benefits start to arise in 2021 but after 2026 it is assumed that there are no further benefits and no further improvements are achieved even though it is likely that the project will trigger further improvements in the future without substantial additional costs.

6. Following the document provided by the GOI, the amount of emission reductions expected to be generated under the program is estimated at 3 MtCO₂e annually. Emission reductions are reported over several reporting periods. In the case that the program does not perform as expected, less emission reductions will be available for purchase.

7. The valuation of project carbon benefits requires the assignment of a dollar value per ton of carbon. The market price of carbon does not reflect the social value of carbon storage of forests. Instead the social cost of carbon is used which attempts to capture the marginal (global) damage cost of an additional unit of emitted carbon. Using the official guidance for the social value of carbon as provided by the World Bank (2017) a baseline shadow value of carbon starting at US\$ 41 in 2021 and increasing to US\$ 156 in real terms by 2050.

8. A net present value analysis is applied to compare project's net benefits and net costs at the time of the first payment. In addition to applying conservative values for the quantitative assessment, sensitivity analysis is applied in various ways for the key simulation parameters, notably discount rate, assessment of performance variation and lower social cost of carbon values. Alternative discount rates of 5 percent, 10 percent, and 20 percent are chosen. Quantitative results will be contrasted with qualitative benefits to arrive at overall project feasibility. Additionally, Benefit-Cost Ratio (B/C-Ratio) is used as criteria to assess the economic feasibility of the project.

9. Results show positive simulation outcomes for the Project, thus confirming economic feasibility. Given the relatively large carbon benefits expected from the project, the economic robustness was tested for a low carbon price and under low program performance. Even with a low carbon price and performance at 10 percent, the project yields positive results at all discount rates.



ANNEX 9: Map

COUNTRY: Indonesia

ID: Jambi Sustainable Landscape Management Project

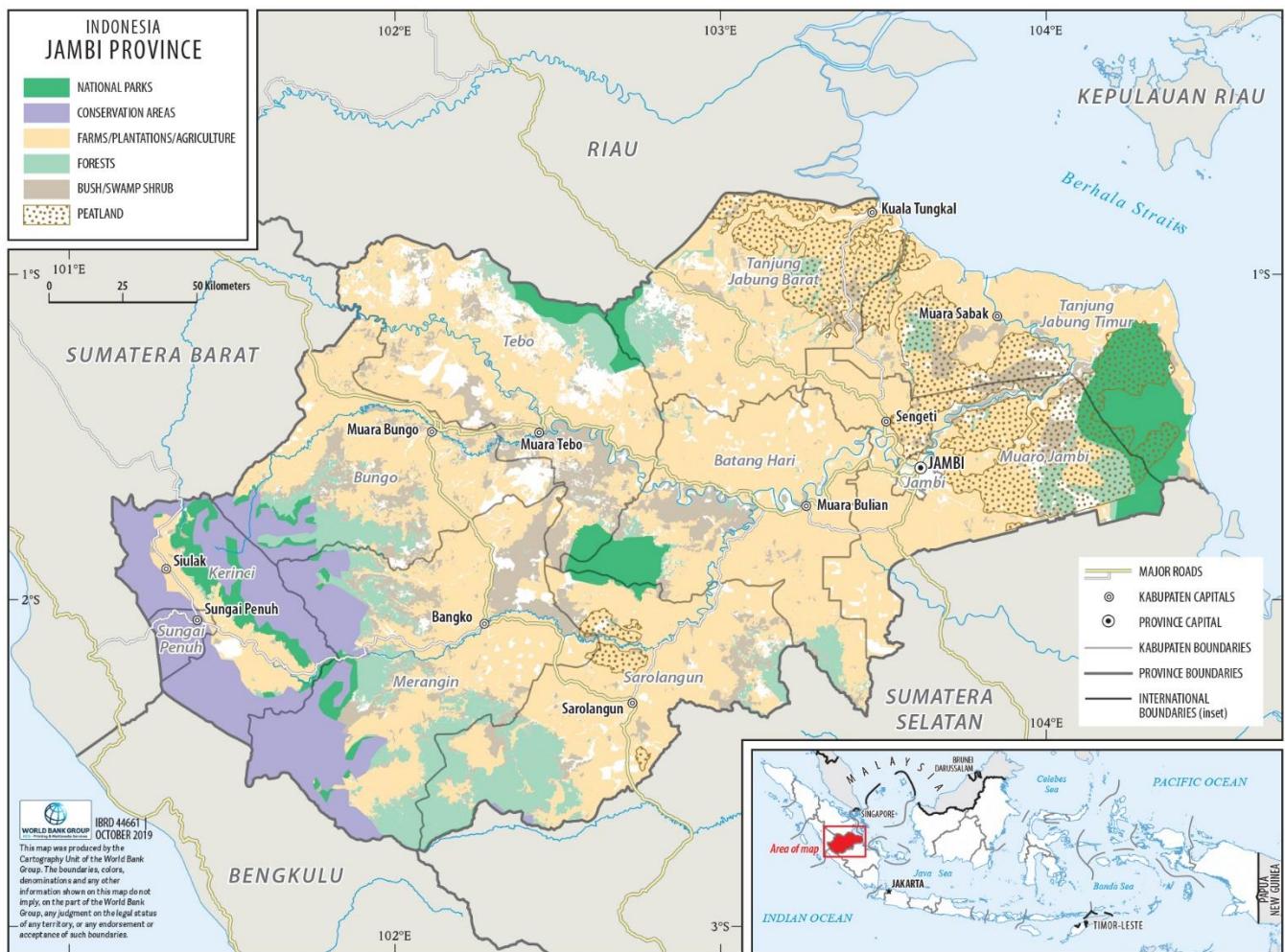


Figure A9.1: Detailed forest and land classification map of Jambi.