United Nations Development Programme
in collaboration with
Food and Agriculture Organization of the United Nations

Project Document

<table>
<tr><td colspan="3">Project title: Strengthening sustainability in commodity and food systems, land restoration and land use governance through integrated landscape management for multiple benefits in Indonesia</td></tr>
<tr><td>Country:
Indonesia</td><td>Implementing Partner (GEF Executing Entity):
Coordinating Ministry for Economic Affairs</td><td>Execution Modality:
Assisted National Implementation Modality (NIM)</td></tr>
<tr><td colspan="3">Contributing Outcomes:
UNSDCF Indonesia 2021-2025, Outcome 3/ UNDP OUTCOME 3: Institutions, communities and people actively apply and implement low carbon development, sustainable natural resources management, and disaster resilience approaches that are all gender sensitive; Output 3.2: Strengthened and expanded protection, governance and management of terrestrial and aquatic ecosystems, habitats, and species; Output 3.4: Conservation and resilience strategies with local priorities (income and food security) contribute to global environment benefits.

UNDP Strategic Plan 2022-2025: Outcome 1: Structural transformation accelerated, particularly green, inclusive and digital transitions; Signature Solution 4: Environment, Output 4.1 Natural resources protected and managed to enhance sustainable productivity and livelihoods.</td></tr>
<tr><td colspan="2">UNDP Social and Environmental Screening Category:
HIGH</td><td>UNDP Gender Marker:
GEN2</td></tr>
<tr><td colspan="2">Atlas Award ID: 00127927</td><td>Atlas Project/Output ID: 00121876</td></tr>
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<tr><td colspan="3">LPAC meeting date: 31 March 2021</td></tr>
<tr><td colspan="3">Latest possible date to submit to GEF: 03 December 2020</td></tr>
<tr><td colspan="3">Latest possible CEO endorsement date: 30 Sep 2021</td></tr>
<tr><td colspan="3">Project duration in months: 72 months</td></tr>
<tr><td colspan="2">Planned start date: 1 March 2022</td><td>Planned end date: 28 Feb 2028</td></tr>
<tr><td colspan="2">Expected date of Mid-Term Review: 31 Sep 2024</td><td>Expected date of Terminal evaluation: 16 Aug 2027</td></tr>
<tr><td colspan="3">Brief project description:</td></tr>
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Indonesia is a mega-diverse country and one of world's largest producers of oil palm, cocoa, rice, and coffee. The project aims for a transformational change in sustainable commodity and crop supply chains and land governance, leading to a reduction in loss of high conservation value and high carbon stock forests in five jurisdictions in the country: Aceh Province (target district: Central Aceh), North Sumatera Province (target district: Mandailing Natal), West Kalimantan Province (target district: Sanggau), South Sulawesi Province (target district: Luwu), and West Papua Province (target district: Sorong). In line with the GEF-7 FOLUR Impact Program, the project strategy is predicated on integrated landscape management approaches facilitated through multi-stakeholder collaboration in achieving genuine systems change that results in durable global environmental benefits and sustainable livelihoods for local communities both men and women.

The project is closely aligned with the National Medium-Term Development Plan (RPJMN) 2020-2024, regarding the objectives to mainstream green growth and low carbon development. There is significant potential for the project to generate multiplier impacts beyond target jurisdictions through scaling up the integrated approaches to other parts of Indonesia. Further, the project will promote equitable representation and participation of women and men in landscape governance and management. Specific considerations of special needs of both men and women in conservation and/or restoration of ecosystem functions and services will also be demonstrated.

(1) FINANCING PLAN	
GEF Trust Fund	USD 16,213,762
(1) Total Budget administered by UNDP and FAO:	**USD 16,213,762** **UNDP: USD12,154,129** **FAO: USD4,059,633**
(2) CONFIRMED CO-FINANCING	
Coordinating Ministry for Economic Affairs (grant / recurrent expenditures)	USD 517,241
Ministry of National Development Planning (grant / recurrent expenditures)	USD 3,000,000
Ministry of Agriculture (public investment / investment mobilized)	USD 27,590,000
Ministry of Environment and Forestry (public investment / investment mobilized)	USD 14,950,000
Indonesian Palm Oil Fund Management Agency (grant / investment mobilized)	USD 50,000,000
UNDP (grant / recurrent expenditures)	USD 5,000,000
FAO (grant / recurrent expenditures)	USD 3,222,073
FAO (in-kind / recurrent expenditures)	USD 131,148
Unilever (grant / investment mobilised)	USD 6,000,000
Mondelez (grant / investment mobilised)	USD 10,000,000
Olam (grant / investment mobilised)	USD 1,100,000
GIZ (grant / investment mobilised)	USD 11,000,000
(3) Total confirmed co-financing	**USD 132,510,462**
(4) Grand-Total Project Financing (1)+(2)	**USD 148,724,224**

SIGNATURES		
Signature: Musdhalifah Machmud Deputy Minister for Food and Agribusiness, the Coordinating Ministry for Economic Affairs	**Agreed by Implementing Partner**	**Date/Month/Year:** 21/02/2022
Signature: Norimasa Shimomura Resident Representative Indonesia	**Agreed by UNDP**	**Date/Month/Year:** 21/02/2022

Key GEF Project Cycle Milestones:

Project document signature: within 25 days of GEF CEO endorsement
First disbursement date: within 40 days of GEF CEO endorsement
Inception workshop date: within 60 days of GEF CEO endorsement
Operational closure: within 3 months of posting of TE to UNDP ERC
Financial closure: within 6 months of operational closure

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Abbreviations and Acronyms:

AFOLU	Agriculture, Forestry, and Other Land Use
APBI-ICMA	Indonesian Coal Mining Association
APL	Other land use (*Areal Penggunaan Lain)*
ATR/BPN	Ministry of Agrarian Affairs and Spatial Planning/National Land Agency
AWP	Annual Work Plan
BAPPEDA	Provincial/District Planning Agency
BAPPENAS	Ministry of National Development Planning
BAU	Business as Usual
BKSDA	Provincial Natural Resource Conservation Centre
BMKG	Meteorological, Climatological, and Geophysical Agency (*Badan Meteorologi, Klimatologi, dan Geofisika*)
BMZ	German Federal Ministry for Economic Cooperation and Development
BNPB	National Disaster Management Authority (*Badan Nasional Penanggulangan Bencana)*
BPSB	Provincial Seed Control and Certification Agency (*Balai Pengawasan dan Sertifikasi Benih)*
BPDPKS	Indonesian Palm Oil Fund Management Agency
BRG	Peatland Restoration Agency (*Badan Restorasi Gambut*)
CC	Climate Change
CGF	Consumer Goods Forum
CMEA	Coordinating Ministry for Economic Affairs
CoP	Community of Practice
CSO	Civil Society Organisation
CSP	Cocoa Sustainability Partnership
CTA	Chief Technical Advisor
CV	*Commanditaire Vennootschap*, a joint venture company
EMD	Association of Exploration and Mining Development
ESG	Environmental, Social and Goverance
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organization of the United Nations
FMU	Forest Management Unit
FoKSBI	Indonesian Palm Oil Platform
FOLUR	Food Systems, Land Use and Restoration
GAEZ	Global Agro-ecological zoning
GAP	Good Agriculture Practices
GCP	Green Commodities Programme
GDI	Gender Development Index
GGP	Good Growth Partnership
GHG	Greenhouse Gas
GEF	Global Environment Facility
GI	Geographical Indication
GIZ	German Corporation for International Cooperation GmbH
GSP	Global Soils Partnership
ha	Hectare
HCS	High Carbon Stock
HCV	High Conservation Value
HCVF	High Conservation Value Forest
HCVRN	High Conservation Value Resource Network
HDI	Human Development Index
ICCTF	Indonesian Climate Change Trust Fund
ICO	International Coffee Organization
ICS	Internal Control System
IDH	The Sustainable Trade Initiative
IFL	Intact Forest Landscape
IFPRI	International Food Policy Research Institute
ILM	Integrated Landscape Management
IP	Implementing Partner / Impact Program
ISPO	Indonesia Sustainable Palm Oil
IUCN	International Union for Conservation of Nature
KAP	Knowledge, Attitudes and Practices
KBA	Key Biodiversity Area
KEE	Essential Ecosystem Area (*Kawasan Ekosistem Esensial)*
KEHATI	Indonesian Biodiversity Foundation

KM	Knowledge Management
LAT	Landscape Analysis Tool
LDN	Land Degradation Neutrality
LGU	Local Government Unit
LULUCF	Land Use, Land-Use Change, and Forestry
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MoEF	Ministry of Environment and Forestry
MTR	Mid-term Review
NBSAP	National Biodiversity Strategy and Action Plan
NAP SPO	National Action Plan for Sustainable Palm Oil
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organisation
NPD	National Project Director
OJK	Financial Service Authority of Indonesia (*Otoritas Jasa Keuangan)*
PA	Protected Area
PB	*Penggilingan Beras*, a rice mill company
PFD	Program Framework Document
PIMS	Project Information Management System
PIR	GEF Project Implementation Review
PMU	Project Management Unit
PNG	Papua New Guinea
POPP	Programme and Operations Policies and Procedures
PPG	Project Preparation Grant
PPCP	Public Private Community Partnership
PPP	Public Private Partnership
PSC	Project Steering Committee
PT	*Perseroan Terbatas,* a limited/private company
RPJMN	National Medium-Term Development Plan (*Rencana Pembangunan Jangka Menengah Nasional*)
RSPO	Roundtable on Sustainable Palm Oil
RTA	Regional Technical Advisor
SCOPI	Sustainable Coffee Platform of Indonesia
SDG	Sustainable Development Goal
SES	Social and Environmental Standards (UNDP)
SESA	Social and Environmental Strategic Assessment
SESP	Social and Environmental Screening Procedure (UNDP)
SLM	Sustainable Land Management
SOP	Standard Operating Procedure
SPKS	Oil Palm Farmers Union (*Serikat Petani Kelapa Sawit*)
SPOI	Sustainable Palm Oil Initiative
SRI	System of Rice Intensification
SRLI	Sustainable Rice Landscapes Initiative
SRP	Sustainable Rice Platform
STAP	GEF Scientific Technical Advisory Panel
STDB	Cultivation Business Permit (*Surat Tanda Daftar Budidaya Perkebunan*)
TBD	To Be Determined
TE	Terminal Evaluation
TFA	Tropical Forest Alliance
ToC	Theory of Change
TOR	Terms of Reference
TORA	Agrarian reform programme (*Tanah Objek Reformasi*)
ToT	Training of Trainers
TSA	Targeted Scenario Analysis
UNDP	United Nations Development Programme
UNDP CO	United Nations Development Programme Country Office
UNSDCF	United Nations Sustainable Development Cooperation Framework
USD	United States Dollar
VSS	Voluntary sustainability standards
WBCSD	World Business Council for Sustainable Development
WCF	World Cocoa Foundation
WPEA	Women's Empowerment in Agriculture Index
WWF	World Wide Fund for Nature

II. DEVELOPMENT CHALLENGE

CONTEXT

1. The Republic of Indonesia is the largest archipelagic country in the world, situated between the Indian and Pacific Oceans and having a combined land area of 1,904,569 km^2, the fifth largest country by land area. Indonesia harbours some of the world's most important areas of tropical forests, possessing substantial globally significant biodiversity. As reported in the Indonesian Biodiversity Strategy and Action Plan (IBSAP)[1] 2015-2020, the country contains 15% of the world's mammals, 40% of lizard, 16% of bird species. These terrestrial ecosystems are also vital to the livelihoods of millions of vulnerable individuals living under poverty line.

2. Approximately 64% of Indonesia's total land area is classified as forest land[2] – representing some of the largest carbon stocks in the world. The total forest area is approximately 120.3 million ha and non-forest area is 367.5 million ha. Roughly 18% of forest area is categorized as conservation forest, 25% as protection forest, 47% as production forest and 10% as convertible production forest. Yet, these mega-diverse forests are threatened by continuous deforestation and forest degradation. Forest governance is one of the persistent challenges faced by the country, intertwined with layers of nested jurisdictional systems, poverty, livelihood vulnerability and tenure insecurity. Additionally, competing land use priorities and allocations, especially for commodity and crop production, have led to more forest losses attributed to agricultural expansion into forests and protected peatlands. Unsustainable natural resource management has resulted in extensive land degradation; degraded land in Indonesia was estimated at 24.3 million ha in 2013.[3] The consequences of unsustainable forest and land management are having widespread impacts, e.g., an estimated 52% of national greenhouse gas (GHG) emissions are resulting from Agriculture, Forestry and Other land uses (AFOLU) including peat fire.[4][5]

3. As outlined in the 2016 First Nationally Determined Contribution (NDC), Indonesia's plans to transform to a low carbon economy and build resilience into its food, water, and energy systems primarily comprise actions in the agriculture, forestry, and other land use (AFOLU) sectors:

- Sustainable agriculture and plantations.
- Integrated watershed management.
- Reduction of deforestation and forest degradation.
- Land conversion.
- Utilization of degraded land for renewable energy.
- Improved energy efficiency and consumption patterns.

4. There are considerable challenges associated achievement of these actions, as Indonesia is the largest producer of palm oil globally, and a top ten producer of cocoa, coffee, and rice. And as the largest country in Southeast Asia, with a population of approx. 270 million, the domestic demand for these commodities and crop are substantial.

5. The unsustainable management of globally traded commodity crops (cacao, coffee and oil palm), and their expansion into forest areas, are leading to major impacts on globally important biodiversity, the degradation of soil and water resources, the loss of carbon stocks, and the degradation of watersheds that are vital for maintaining water flows to rice production areas. Rice production is itself a source of globally significant environmental impacts, in the form of the contamination of soil and globally important aquatic ecosystems due to excessive and inappropriate use of agricultural chemicals, and the generation of methane (a potent greenhouse gas) from flooded paddy systems.

6. A narrow focus on the production of globally-traded cash crops by farmers is environmentally and socially unsustainable – even in the case of perennial crops such as coffee and cacao that have the potential to

[1] Indonesian Biodiversity Strategy and Action Plan (IBSAP) 2015-2020, The Ministry of National Development Planning (BAPPENAS), 2016.

[2] Indonesia state of the forests, December 2020

[3] Republic of Indonesia – Land Degradation Neutrality National Report, Jakarta 2015.

[4] Republic of Indonesia – First Nationally Determined Contribution, November 2016.

[5] 2018 Biennial update report to UNFCCC

yield environmental benefits if appropriately managed – because of the volatility of global markets for these crops and their vulnerability to the effects of global climate change.

7. A large number of major global value chain actors have committed to sustainable sourcing of the products that they trade, in order to comply with corporate social and environmental responsibility goals and to satisfy consumer requirements for sustainable production. This presents farmers with a major potential source of market-based incentives for sustainable production, but at present their ability to take advantage of this opportunity is constrained by their disconnection from these "green" value chains and their limited technical capacities to satisfy their requirements in terms of environmental standards, product quality and reliability of supply.

8. Despite significant policy commitments to sustainability by the Government of Indonesia, there remain conflicting priorities. For instance, the Ministry of Agriculture has prioritised policies to support the availability of food staple, namely rice and corn, but also to accelerate export of strategic commodities. The government has also promoted utilisation of palm oil as a biofuel, further increasing concerns regarding encroachment into HCV/HCS ecosystems. Moreover, capacities, knowledge, tools, regulatory instruments and incentives for putting progressive policies into practice are still inadequately developed, and the agricultural and environmental sectors continue to be highly compartmentalized, lacking the integrated vision that is required if social and economic development and landscape management are to be sustainable.

Project purpose:

9. The project specifically focuses on generating multiple benefits for biodiversity, climate change, and land degradation through integrated landscape management, sustainable and resilient commodity production and farming systems, and participatory restoration and forest governance. Oil palm, coffee and cocoa are three of the five globally-traded commodities specifically targeted by the FOLUR Impact Program, for which growing demand as sources of raw material for global commodity trade will increase deforestation risks worldwide; while rice is one of globally-important staple food crops, the sustainable global supply of which is jeopardized by environmental degradation, and the value chains of which are associated with loss of natural habitats, erosion of genetic diversity, overexploitation of land and water resources, overuse of chemical fertilizers and pesticides, increased greenhouse gas (GHG) emissions, and inefficient practices that lead to food loss and waste. Strengthening sustainability in these sectors in Indonesia would make substantive contributions towards transformation of global food systems, considering Indonesia is the largest producer of palm oil worldwide and a leading producer of cocoa, coffee, and rice, and the fact that the country contains vast areas of globally significant biodiversity and enormous carbon stocks within a complex array of forest and peatland ecosystems.

10. The project aims to foster and strengthen sustainable value chains of palm oil, coffee, cocoa and rice through implementation of a comprehensive landscape management approach integrating biodiversity conservation, ecosystem restoration and the sustainable production of cash and food crops at scale. The project has selected five target geographies, each one corresponding to provincial administration boundary (jurisdiction) and containing one key district, considered the intervention landscape, based on the criteria below:

i. Production landscape that remains critical for GEBs but where remaining forests are threatened by expansion of commercial commodities.
ii. Production landscape/system for globally important food crops or livestock that creates major externalities.
iii. "Frontier" landscape where opportunity exists to preempt expansion and get ahead of commercial-driven forest loss.
iv. Highly degraded landscape in need of restoration for the ecosystem services they provide to agriculture production.

11. The specific ways in which each of the target landscapes complies with these criteria are detailed in their respective jurisdictional profiles compiled in **Annex 16**.

Target jurisdictions:

12. The project will work in the following five provinces (see **Figure 1**): Aceh, North Sumatera, West Kalimantan, South Sulawesi, and West Papua. The cumulative size of the five provincial jurisdictions is approximately 41.5 million ha and the five districts roughly 3.2 million ha. Most of these jurisdictions still have large extent of remaining forest cover expanding ≥ 20.5 million ha of primary and secondary forests with valuable carbon sinks. However, these forests are being threatened by expansion and/or unsustainable management of oil palm, coffee, cocoa and rice.

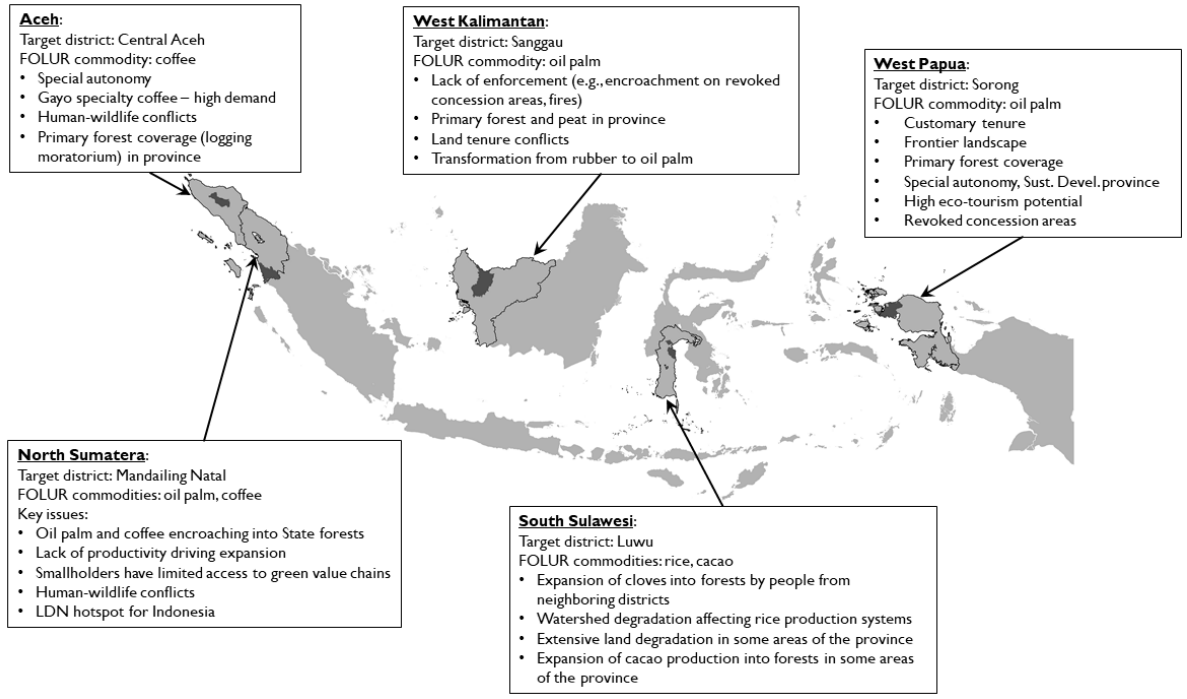


Figure 1: Country map showing project jurisdictions and main issues

13. Although, as shown above in **Figure 1**, priority crops/commodities have been identified for each of the target landscapes (coffee in Central Aceh, oil palm and coffee in North Sumatera, oil palm in West Kalimantan, rice and cacao in South Sulawesi and oil palm in West Papua), in reality each of the landscapes contain multiple landscape elements, crops and production systems, the interactions among which determine the nature of the landscape dynamics, threats and opportunities that will be addressed by the project. Rice, for example, is a staple food crop in all of the landscapes, despite being specifically prioritised in South Sulawesi; while Mandailing Natal district contains areas of cacao and rubber in addition to the priority crops of oil palm and coffee; and sago production is an important element of landscapes and food systems in West Papua.

14. Two of the five geographies – Aceh and West Papua – are often referred to Indonesia's "last frontiers" where potential deforestation is high mainly driven by reclassification of estate forest area to allow agriculture expansion. The project also contributes to Indonesia's targets regarding land degradation neutrality (LDN), as North Sumatera is one of the three provinces identified as LDN hotspots in the national LDN country report[6]. The project landscapes include a large number of globally threatened and endemic species, as well as coinciding with a number of Key Biodiversity Areas (KBAs) and Important Bird Areas (IBAs).

Aceh (landscape: Central Aceh District):

15. Aceh Province contains extensive forest ecosystems and harbours globally significant biodiversity, including large populations of Sumatran Rhinoceros (IUCN Red list: Critically Endangered CR), Sumatran Tiger (IUCN Red list: CR), Sumatran Orangutan (IUCN Red list: CR), and other endangered species including the Smooth-coated Otter (VU), Binturong (VU), Otter Civet (EN), Masked Finfoot (EN), White-Winged Duck (EN), Sunda Pangolin (CR), Sun Bear (VU), Southeast Asian Box Turtle (EN) and Great Hornbill (VU). KBAs and IBAs in the province include Geureudong, Gunung Leuser and Danau Laut Tawar. Aceh is also one of the five largest

[6] Indonesia – Land Degradation Neutrality National Report, Jakarta, 2015.

coffee producing provinces, accounting for approximately 10% of the national production.[7] According to the data provided by the Ministry of Environment and Forestry, Aceh Province had 3,046,385 ha of forest coverage in 2018, comprising 3,345,006 ha of state forest and 2,285,033 ha of non-state forest/other land use area, as shown below in **Figure 2**. There were 2,562,208 ha of essential ecosystem areas within this forest designation in 2018.

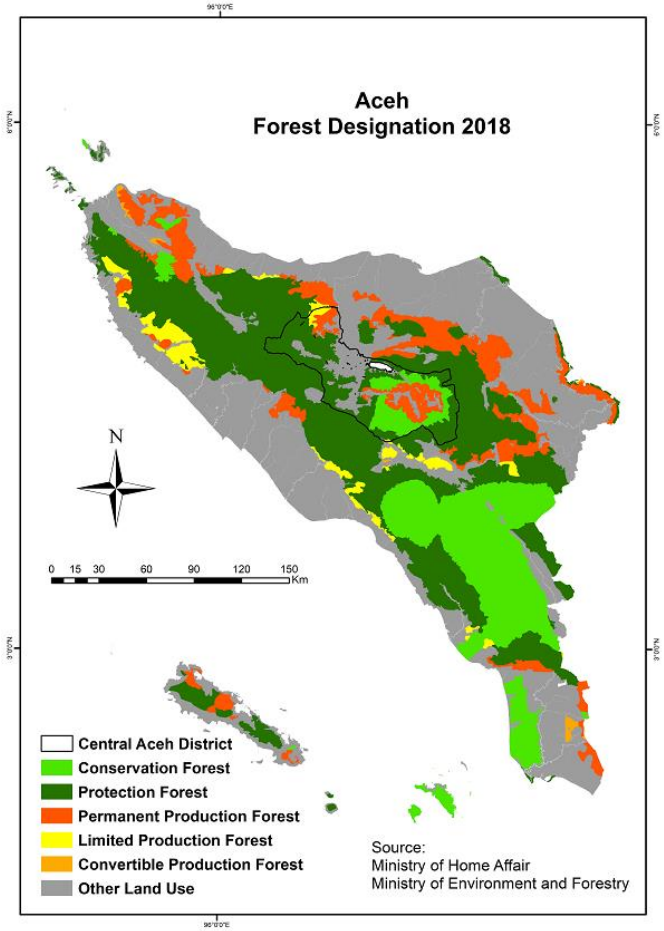


Figure 2: Forest designation 2018, Aceh Province

16. Peatlands are the largest natural terrestrial carbon reserves and of significance in the Aceh landscape. Peat swaps in Sumatera and Kalimantan are large and sequestering between 0.5 and 1.5 Mg/C/ha^{1} year^{-1} in peat (Warren et al., 2017[8]). Additionally, peat forests in the two islands are high in biodiversity and important for various rare and endangered species such as Sumatran tigers, orangutans, leopards and so on. Peat swamp forests can also provide significant ecosystem services. However, peat forests continue to face deforestation and conversion predominantly for agriculture and commodity production purposes, utilizing extensive drainage and fire. Thus, opening of peat forests has led to massive GHG emissions in Indonesia. In fact, per unit area, GHG emissions from peatland conversion are higher than those from any other Indonesia's LULUCF activity (Warren et al., 2017).

17. Loss of primary and secondary forests across Aceh Province comparing data from years 2013 and 2018 was 63,009 ha, and during the same time period the area of monoculture plantations expanded by 415,019 ha, from 177,823 ha in 2013 to 592,842 ha in 2018, as shown below in **Table 1**.

Table 1: Land cover breakdown 2013 and 2018, Aceh Province

Classification	Land cover 2013 (ha)	Land cover 2018 (ha)
Water body	30,114	35,987

[7] Indonesian Coffee Statistics, Central Bureau of Statistics, 2017

[8] Warren et al, 2017. An appraisal of Indonesia's immense peat carbon stock using national peatland maps: uncertainties and potential losses from conversion. Carbon Balance and Management. (2017) 12:12.

Classification	Land cover 2013 (ha)	Land cover 2018 (ha)
Airport/harbor	333	829
Shrub	685,748	569,540
Swamp Shrub	96,038	84,348
Primary Dry Land Forest	1,209,172	1,934,253
Secondary Dry Land Forest	1,748,707	988,675
Secondary Mangrove Forests	27,876	25,856
Primary Swamp Forest	8,541	10,746
Secondary Swamp Forest	115,098	86,855
Plantation Forest	47,260	53,605
Residence	20,991	140,815
Monoculture Plantation	177,823	592,842
Mining	419	236
Dryland agriculture	349,064	151,850
Mix dryland agriculture	564,659	543,350
Swamp	1,165	2,189
Savanna	113,107	106,526
Rice field	309,460	233,105
Fishpond	70,563	69,331
Cleared land	89,943	33,217
Transmigration land		2,238
(not described)	321	6
Grand Total	**5,666,402**	**5,666,402**

18. Central Aceh District in 2018 had 365,026 ha (78.3%) of state forests in 2018, 99,556 ha (21.4%) of non-state forest (other land use or APL), and 1,0349 ha of inland water bodies (0.3%). The state forest consisted of 202,292 ha of Protection Forest, 86,125 ha Conservation Forest, and 76,609 ha of Production Forest[9].

Additional information is provided in **Annex 16** (*Jurisdictional profile: Aceh Province*).

North Sumatera (landscape: Mandailing Natal District):

19. North Sumatera Province has extensive forest ecosystems, harbouring globally significant biodiversity, e.g., home to Malayan Tapir, Sumatran Tiger (EN), Malaysian Giant Turtle (CR), Otter Civet (EN), Masked Finfoot (EN), White-Winged Duck (EN), the endemic Tapanuli Orangutan (CR), Sunda Pangolin (CR), Bearded Pig (VU) and Sun Bear (VU), and supporting the livelihoods of many local communities. KBAs and IBAs in the province include Batang Gadis, Rawa Pesisir Pantai Barat Tapanuli Selatan (Angkola), Batang Toru and Danau Toba. According to the data provided by the Ministry of Environment and Forestry, in 2018 North Sumatera Province had 3,004,928 ha state forest and 4,049,859.58 ha non-state forest/other land use. State forest coverage consisted of 1,190,621.70 ha of Protection Forest, 424,753.61 ha of Conservation Forest, and 1,389,552.98 ha Production Forest, as illustrated below in **Figure 3**. There were 1,404,049 ha of indicative essential ecosystem areas within this forest designation in 2018.

[9] Ministry of Environment and Forestry, 2019 (MoEF Geoportal <http://geoportal.menlhk.go.id/arcgis/rest/services/KLHK>)

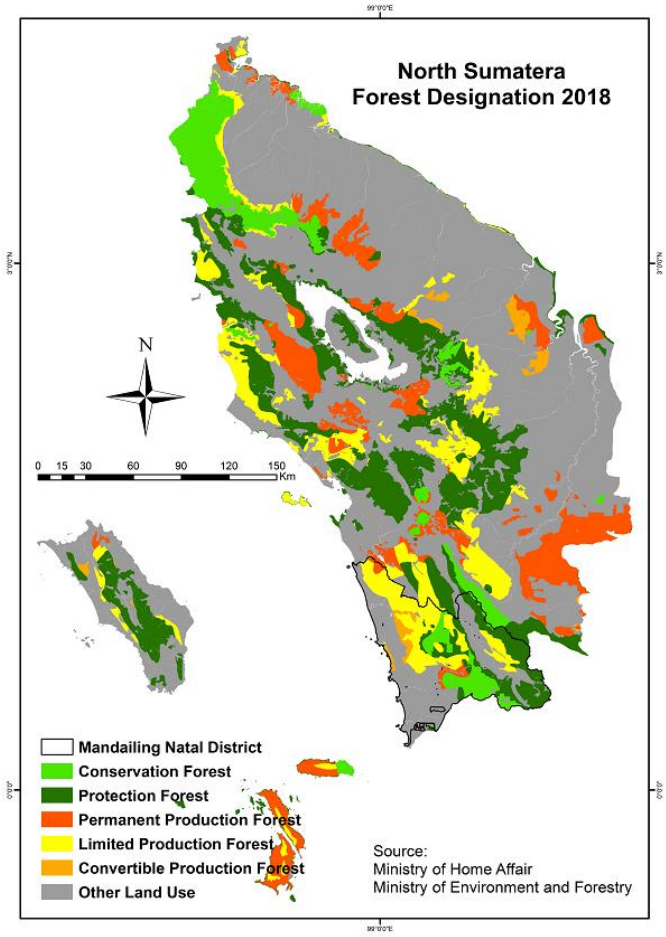


Figure 3: Forest designation 2018, North Sumatera Province

20. Loss of primary and secondary forests across North Sumatera Province comparing data from years 2013 and 2018 was 62,481 ha, and during the same time period the area of monoculture plantations expanded by a similar amount, specifically 59,783 ha, from 1,359,449 ha in 2013 to 1,419,232 ha in 2018, as shown below in **Table 2.**

Table 2: Land cover breakdown 2013 and 2018, North Sumatera Province[10]

Classification	Land cover 2013 (ha)	Land cover 2018 (ha)
Water body	142,765	142,846
Airport/harbor	948	1,015
Shrub	608,049	608,868
Swamp Shrub	63,044	49,248
Primary Dry Land Forest	581,269	576,278
Secondary Dry Land Forest	995,307	948,477
Primary Mangrove Forests	1,439	1,366
Secondary Mangrove Forests	34,758	34,690
Primary Swamp Forest	828	558
Secondary Swamp Forest	70,673	60,423
Plantation Forest	136,979	132,575
Residence	80,740	82,030
Monoculture Plantation	1,359,449	1,419,232
Mining	24	337
Dryland agriculture	2,221,601	2,226,119
Mix dryland agriculture	310,533	330,220

[10] Source: Ministry of Environment and Forestry, 2019 (MoEF Geoportal <http://geoportal.menlhk.go.id/arcgis/rest/services/KLHK>)

Classification	Land cover 2013 (ha)	Land cover 2018 (ha)
Swamp	8,917	7,763
Rice field	292,600	295,424
Fishpond	24,145	27,429
Cleared land	267,563	256,845
Transmigration land	1,009	1,009
(not described)	186	73
Grand Total	**7,202,826**	**7,202,826**

21. The district of Mandailing Natal District had 388,169.2 ha of state forest in 2018 and 250,693.84 ha of non-state forest/APL. The indicative essential ecosystem areas in Mandailing Natal total 278,903 ha, the largest coverage among the 25 districts and 8 cities of North Sumatera Province. The district also contains two Key Biodiversity Areas (KBAs), specifically the Batang Gadis National Park and the Angkola Wilderness Ecosystem. These two KBAs are important components of the Northern Sumatera Biodiversity Corridor.

Additional information is provided in **Annex 16** (*Jurisdictional profile: North Sumatera Province*).

West Kalimantan (landscape: Sanggau District):

22. West Kalimantan is one of few provinces in Indonesia with a massive extent of remaining forest cover. The entire province covers an area of about 14.7 million ha[11], which is the third largest province in Indonesia in terms of land area after Papua and Central Kalimantan, and there are approximately 1.7 million ha of conservation forests, consisting of national parks, strictly protected nature reserves, and nature recreation parks. As part of the Heart of Borneo, West Kalimantan is home to many endemic birds and Borneo Orangutan. Other IUCN Red List species include the Malaysian Giant Turtle (CR), Smooth-coated Otter (VU), Philippine Slow Loris (VU), Binturong (VU), Otter Civet (EN), and the Bornean Peacock-Pheasant (EN). KBAs and IBAs in the province include Gunung Niut-Poteng, Rawa di Pesisir Kapuas, Rawa Di Pesisir Paloh, Danau Sentarum and Betung Kerihun. According to data provided by the Ministry of Environment and Forestry, West Kalimantan Province had 8,198,656 ha (8,389,600 ha including territorial water) of forest coverage in 2018, consisting of 1,621,046 ha of conservation forest, 2,310,874 ha of protection forests, 2,132,398 ha of limited production forests, 2,127,365 has of permanent production forests, and 197,918 ha of convertible production forests, as illustrated below in **Figure 4**.

[11] Based on the spatial data calculation. Based on West Kalimantan RPJMD, total area of West Kalimantan is 14,730,700 ha

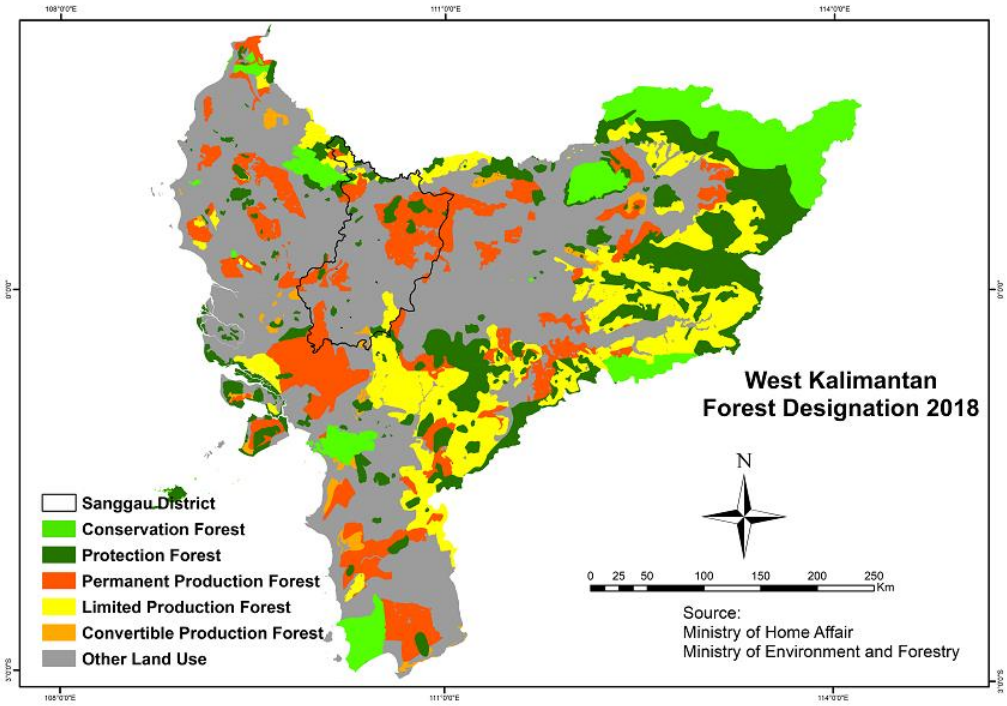


Figure 4: Forest designation 2018, West Kalimantan Province

23. As discussed under the description of the project landscape in Aceh, there are extensive peatland ecosystems across the islands of Sumatera and Kalimantan. These peat systems contain enormous quantities of carbon stocks. Loss of primary and secondary forests across West Kalimantan Province comparing data from years 2013 and 2018 was 274,169 ha, and during the same time period the area of monoculture plantations expanded by 614,147 ha, from 959,612 ha in 2013 to 1,573,759 ha in 2018, as shown below in **Table 3**.

Table 3: Land cover breakdown 2013 and 2018, West Kalimantan Province[12]

Classification	Land cover 2013 (ha)	Land cover 2018 (ha)
Water body	112,968	125,115
Airport/harbor	64	99
Shrub	503,567	332,689
Swamp Shrub	845,088	702,838
Primary Dry Land Forest	2,271,703	2,218,328
Secondary Dry Land Forest	2,175,585	2,117,386
Secondary Mangrove Forests	116,616	110,062
Primary Swamp Forest	22,753	7,291
Secondary Swamp Forest	1,181,838	1,041,259
Plantation Forest	43,692	62,196
Residence	34,216	50,921
Monoculture Plantation	959,612	1,573,759
Mining	106,653	59,094
Dryland agriculture	299,287	408,054
Mix dryland agriculture	5,179,833	5,304,902
Swamp	110,286	93,716
Rice field	200,324	139,391
Fishpond	9,342	11,988
Cleared land	492,167	307,687
Transmigration land	12,417	11,445
(not described)	211	0
Grand Total	**14,678,219**	**14,678,219**

[12] Source: Ministry of Environment and Forestry, 2019 (MoEF Geoportal <http://geoportal.menlhk.go.id/arcgis/rest/services/KLHK>)

24. Sanggau District, having a total land area of approximately 1.2 million ha[13] , is located at the northwest part of the province, bordering the Malaysian state of Sarawak. The district includes 99,639.83 ha of protection forests, 1,577.51 ha of conservation forests, 359,055.36 ha of permanent production forests, 63,594.34 ha of limited production forests, and 6,294.02 ha of convertible production forest.

Additional information is provided in **Annex 16** (*Jurisdictional profile: West Kalimantan Province*).

South Sulawesi (landscape: Luwu District):

25. South Sulawesi is among the largest rice and cacao producing provinces in Indonesia. According to data provided by the Ministry of Environment and Forestry, South Sulawesi Province had 4,341,683.76 ha of forest coverage in 2018, comprising 2,054,068.78 ha of state forest and 2,377,614.98 ha of non-state forest/other land use area, as illustrated below in **Figure 5**. Based on the 2018 data, there were 654,195.35 ha of indicative essential ecosystem areas within this forest designation. IUCN Red List species present in South Sulawesi include the Sulawesi Warty Pig (NT), the Lowland Anoa (EN), the rainbowfish *Tominanga sanguicauda* (NT, endemic to Lake Towuti), and the Maleo (EN, endemic to Sulawesi). KBAs and IBAs in the province include Pegunungan Latimojong, Danau Tempe and Cani Sirenreng.

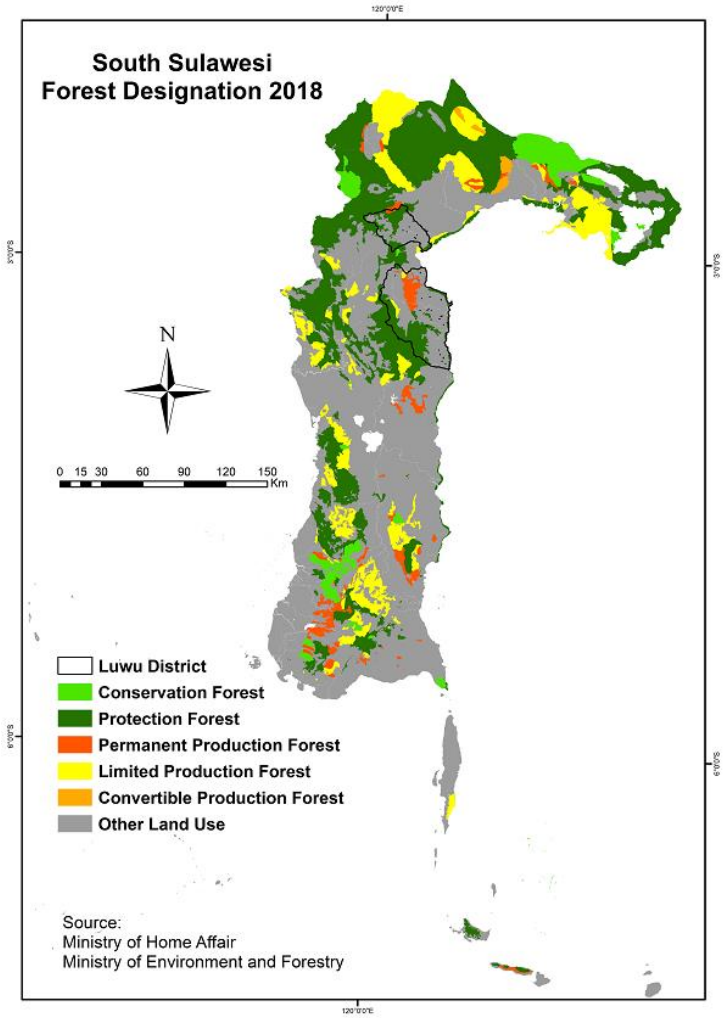


Figure 5: Forest designation 2018, South Sulawesi Province

[13] Source: Ibid.

26. Loss of primary and secondary forests across South Sulawesi Province comparing data from years 2013 and 2018 was 55,360 ha, and during the same time period the area of monoculture plantations increased by 20,148 ha and rice fields expanded by 60,339 ha, as shown below in **Table 4.**

Table 4: Land cover breakdown 2013 and 2018, South Sulawesi Province[14]

Classification	Land cover 2013 (ha)	Land cover 2018 (ha)
Water body	112,242	113,799
Airport/harbor	936	978
Shrub	497,904	467,229
Swamp Shrub	15,553	16,137
Primary Dry Land Forest	570,133	576,596
Secondary Dry Land Forest	812,260	757,820
Primary Mangrove Forests	2,887	2,148
Secondary Mangrove Forests	21,301	14,667
Secondary Swamp Forest	54	43
Plantation Forest	13,578	12,163
Residence	22,639	68,279
Monoculture Plantation	39,972	60,120
Mining	2,493	3,368
Dryland agriculture	43,192	257,793
Mix dryland agriculture	1,571,522	1,306,028
Swamp	-	295
Savanna	90,789	86,061
Rice field	605,811	666,149
Fishpond	112,094	121,879
Cleared land	10,800	14,539
Transmigration land	1,881	2,207
(not described)	261	0
Grand Total	**4,548,301**	**4,548,301**

27. The target of Luwu District in 2018 had a total area of state forest of 107,022.47 ha and non-state forest (other land use or APL) of 181,648.31 ha. The state forest comprised 83,197.83 ha of Protection Forest, and 23,824.64 ha of Production Forest (20,012.98 ha of Permanent Production Forest, and 3,811.66 ha of Limited Production Forest).[15]

Additional information is provided in **Annex 16** (*Jurisdictional Profile: South Sulawesi Province*).

West Papua (landscape: Sorong District):

28. Often referred to as one of Indonesia's last frontiers, West Papua has extensive forest cover, approximated 89% in 2018 according to data available at the Ministry of Environment and Forestry.[16] According to these data, West Papua Province had 9,515,377.15 ha of forest coverage in 2018, comprising 8,675,199.4 ha of state forest, and 840,177.75 ha of non-state forest/other land, as illustrated below in **Figure 6**. Based on the 2018 data, there were 3,700,471.88 ha of indicative essential ecosystem areas within this forest designation. IUCN Red List species present in West Papua include the Papuan Eagle (VU), *Calostoma insigne* (EN), Salvadori's Teal (VU), and the Western Crowned-pigeon (VU). KBAs and IBAs in the province include Tamrau Utara, Aitinyo, Kebar Valley, Ayamaru Plateau, Minyambouw – Warmare and Arfak.

[14] Source: Ministry of Environment and Forestry, 2019 (MoEF Geoportal <http://geoportal.menlhk.go.id/arcgis/rest/services/KLHK>)

[15] Ministry of Environment and Forestry, 2019 (MoEF Geoportal <http://geoportal.menlhk.go.id/arcgis/rest/services/KLHK>)

[16] Ibid.

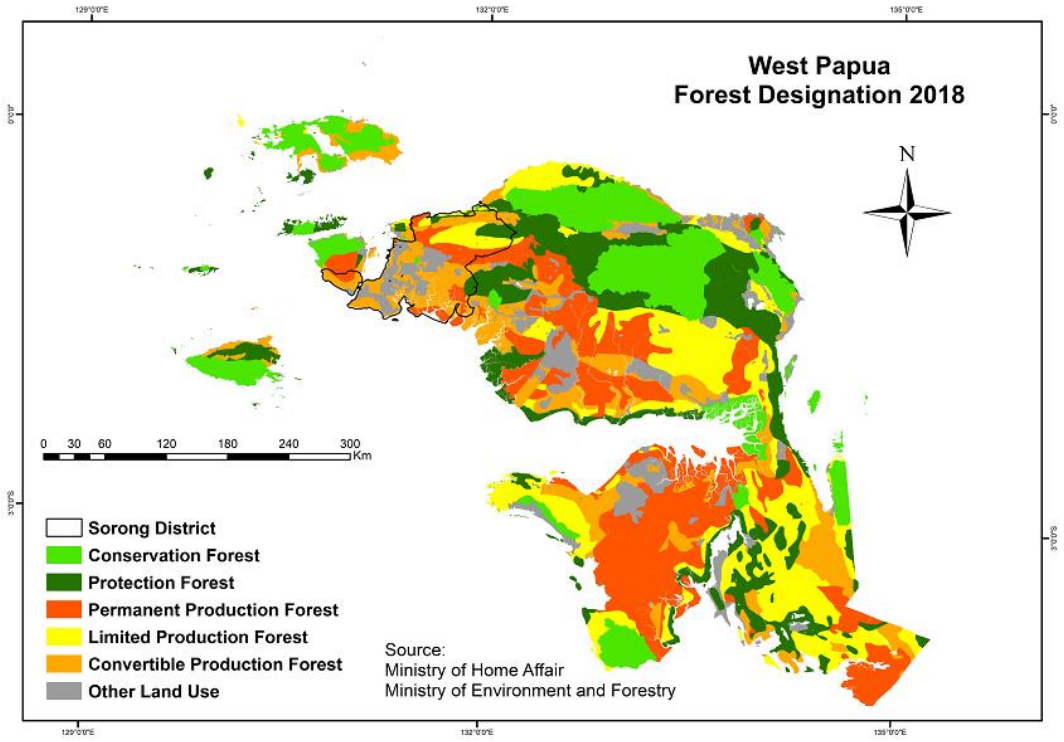


Figure 6: Forest designation 2018, West Papua Province

29. Loss of primary and secondary forests across West Papua Province comparing data from years 2013 and 2018 was 51,843 ha, and during the same time period the area of monoculture plantations expanded by 19,886 ha, from 47,045 ha in 2013 to 66,931 ha in 2018, as shown below in **Table 5**.

Table 5: Land cover breakdown 2013 and 2018, West Papua Province[17]

Classification	Land cover 2013 (ha)	Land cover 2018 (ha)
Water body	143,242	143,712
Airport/harbor	312	657
Shrub	357,477	375,091
Swamp Shrub	66,919	74,288
Primary Dry Land Forest	4,916,212	4,560,711
Secondary Dry Land Forest	2,384,411	2,690,113
Primary Mangrove Forests	337,063	334,642
Secondary Mangrove Forests	104,094	108,008
Primary Swamp Forest	682,111	667,062
Secondary Swamp Forest	79,808	91,320
Residence	18,244	43,414
Monoculture Plantation	47,045	66,931
Mining	9,229	4,060
Dryland agriculture	6,544	6,568
Mix dryland agriculture	108,960	110,280
Swamp	6,522	7,239
Savanna	161,990	137,409
Rice field	1,905	1,566
Cleared land	13,714	21,358
Transmigration land	10,190	12,820
(not described)	1,257	0
Grand Total	**9,457,247**	**9,457,247**

[17] Source: Ministry of Environment and Forestry, 2019 (MoEF Geoportal <http://geoportal.menlhk.go.id/arcgis/rest/services/KLHK>)

30. In 2018, the target district, Sorong, had 107,022.47 ha of state forest, and 181,648.31 ha of non-state forest (other land use or APL). The state forest comprises of 83,197.83 ha of Protection Forest, and 23,824.64 hectares of Production Forest (i.e., 20,012.98 ha of Permanent Production Forest, and 3,811.66 ha of Limited Production Forest. And the district has 72,033.07 ha of indicative essential ecosystem areas. According to MoEF data[18], there are 197,736.74 ha of damaged land in the Sorong district, consisting of: potentially degraded (122,478.49 ha); degraded (75,083.6 ha); and highly degraded (174.65 ha).

Additional information is provided in **Annex 16** (*Jurisdictional profile: West Papua Province*).

Target Crops/Commodities:

Oil palm:

Production and trade

31. Palm oil is the highest-volume vegetable oil in the world, with global demand and supply growing robustly year-on-year for more than 25 years. Palm oil (and palm kernel oil) demand is expected to continue to grow at a faster rate than that for most other vegetable oils (except for soybean and perhaps sunflower seed oils), and to continue to capture the largest single share of the vegetable oil market, because palm oil is extremely versatile in its range of uses, and also cheaper than any other vegetable oil. Indonesia remains the global leader in palm oil production, accounting for 56.8% of worldwide output in 2019 (see **Figure 7**).

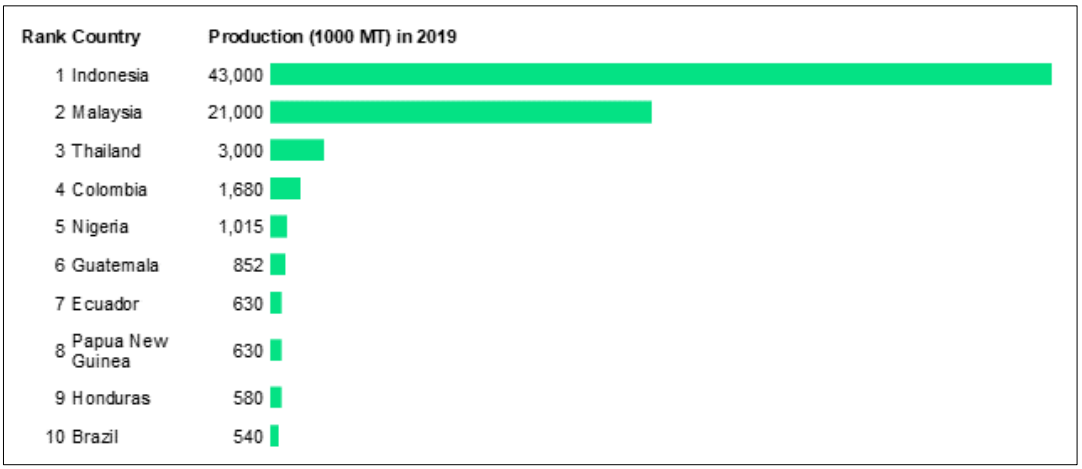


Figure 7: Global palm oil production, 2019[19]

32. Indonesia is the largest exporter of palm oil products and also accounts for the highest level of domestic consumption, as shown below in chart in **Figure 8.**

[18] Ibid.

[19] Source: Index Mundi, U.S. Department of Agriculture

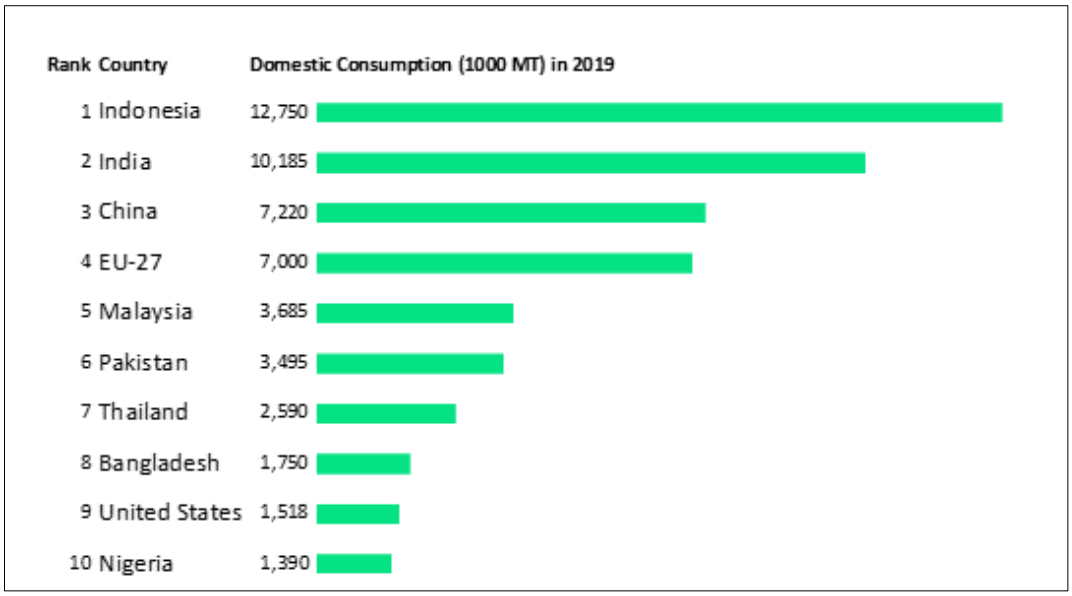


Figure 8: Domestic consumption of palm oil products, 2019[20]

33. Crude palm oil (CPO) prices saw significant peaks in 2007-8 and 2010-12, but prices have since declined to half of the levels reached in those years (see **Figure 9**). This price trend suggests that supply growth has been outstripping demand growth, though both supply and demand continue to grow.

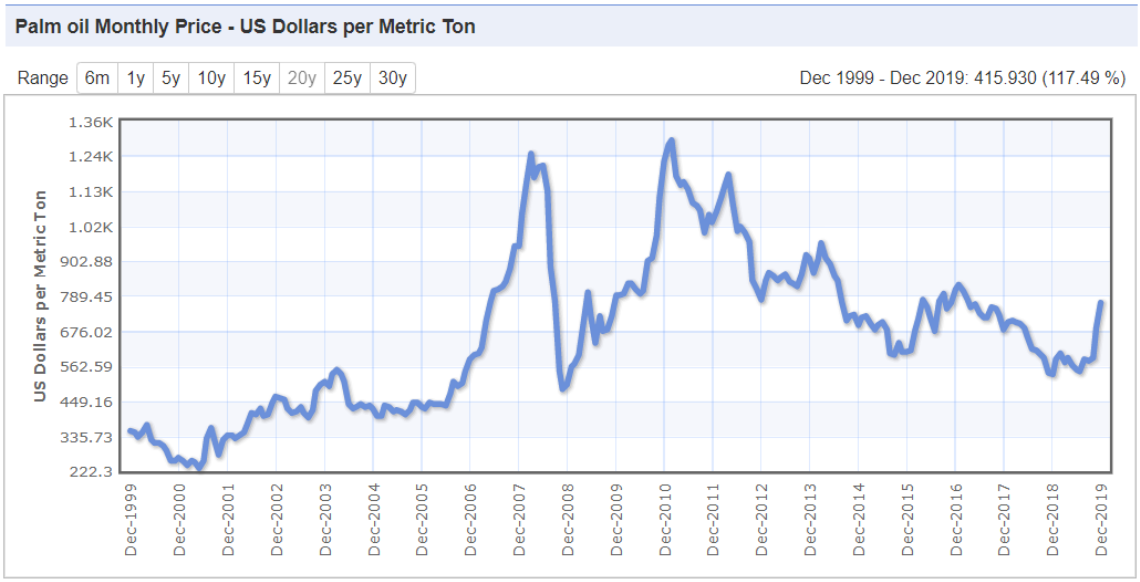


Figure 9: Palm oil monthly price, Dec 1999 - Dec 2019

34. Oil palm plantation area in Indonesia increased rapidly over the past approximate 25 years, growing from roughly one million ha in 1993 to 11.8 million ha in 2019 (see **Figure 10)**.

[20] Source: Index Mundi, U.S. Department of Agriculture

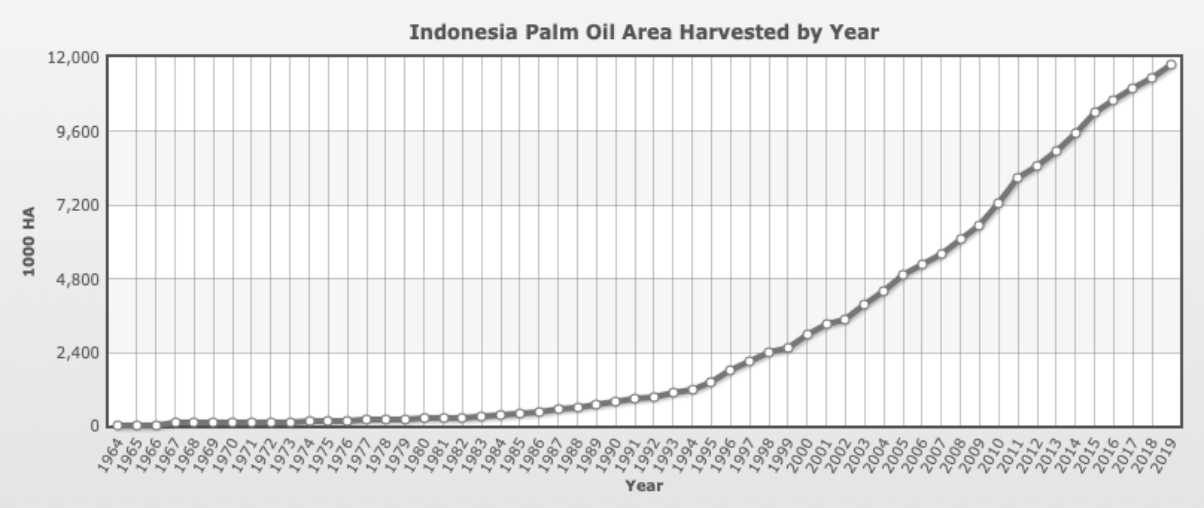


Figure 10: Oil palm area harvested, 1964-2019[21]

35. According to information published in the 2018/19 FAS report, the percentage of palm oil plantation area in Indonesia among large holders, independent smallholder farmers (generally considered less than 25 ha), and state-owned plantations is estimated at 52%, 41%, and 7%, respectively. In terms of the number of oil palm plantation companies in the country, 57% are located on the island of Sumatera, followed by 38% in Kalimantan (see **Figure 11**). At the provincial level, the highest number is found in North Sumatera Province, where there were 329 companies registered in 2018. West Kalimantan Province had 319 companies, Riau Province had 196 companies, Central Kalimantan Province had 143, and South Sumatera Province had 133.

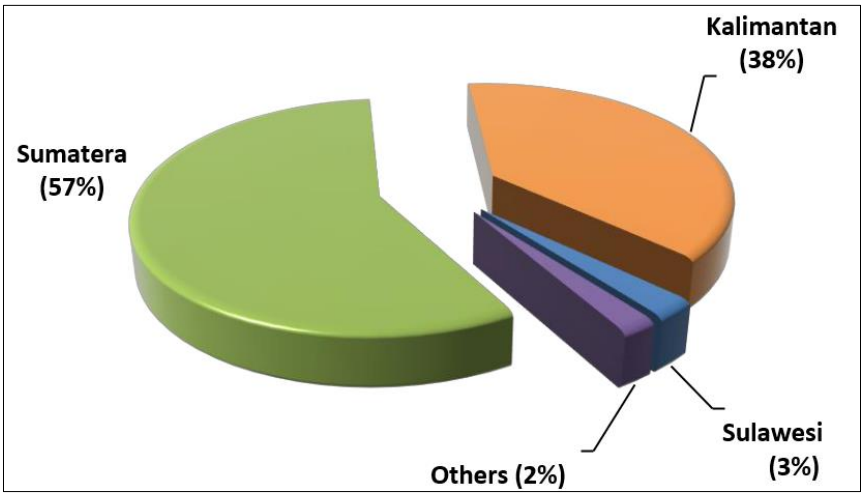


Figure 11: Geographical breakdown of oil palm plantation companies, 2018

36. In 1987, the Government of Indonesia introduced the Plasma Transmigration Programme, which involved relocating villagers to oil palm growing areas and given 2 ha of land to farm and 0.5 ha for housing and food crops. The plasma smallholders were partnered with plantation companies, which provide technical support and the plasma smallholders agreed to sell to the companies at a price set by the government. In 2007, plantation companies were required to allocated 20% of their land to so-called plasma farms, with the intention of benefitting rural communities through obtaining guarantees from buyers and eventual title to the land. There have been challenges associated with this programme, including many plasma farmers being dissatisfied with the fixed prices and companies having difficulties in finding land to fulfil the 20% requirement when expanding production.

37. Independent smallholders typically do not have long-term agreements with plantation companies, and rather work through intermediaries in selling their fresh fruit bunches (FFB). Independent smallholders have low

[21] Source: Index Mundi, U.S. Department of Agriculture

levels of bargaining power and lack access to information, e.g., on good agricultural practices, leading to low productivity and unsustainable practices.

Certification

38. Certification standards are criteria that palm oil producers, products or supply chain actors must meet in order to be credited as "sustainable". Certification systems include standards, certification, accreditation, labelling, and auditing. Two of the international, voluntary schemes include the Roundtable on Sustainable Palm Oil (RSPO) standard and the International Sustainability & Carbon Certificate (ISCC) scheme which were introduced in 2004 and 2010, respectively. The RSPO covers about 20% of globally traded palm oil, and a separate standard for smallholders in 2019. Certified Sustainable Palm Oil (CSPO) production area under the RSPO has increased from 106,384 ha in 2008 to 3,155,025 ha in 2020, with 2,174,334 ha of this total located in Indonesia (see **Figure 12**).

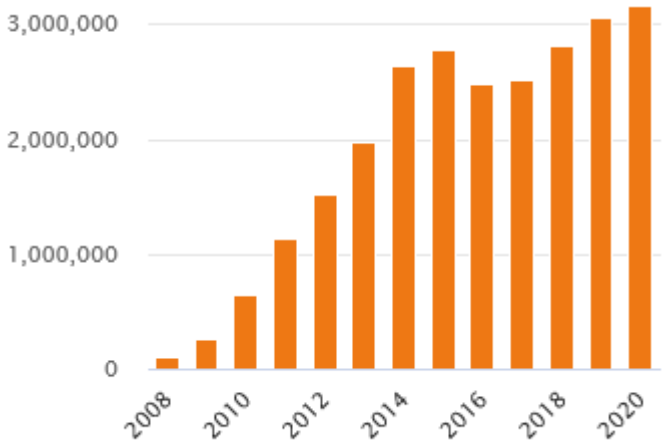


Figure 12: Certified Sustainable Palm Oil production area globally (ha)[22]

39. The ISCC has two standards relevant to palm oil; the ISCC EU standard was developed for biomass and bioenergy industries to show compliance with the EU Renewable Energy Directive, and the ISCC PLUS standard allows producers with ISCC EU certification to also be certified for the food and animal feed sectors.

40. In 2011, the Government of Indonesia adopted the Indonesian Sustainable Palm Oil (ISPO) standard and mandating that plantation companies, plantations with no mills and mills with no plantations obtain certification. ISPO-certification remains voluntary for plasma and independent smallholders. As of 2019, 2.67 million smallholders in Indonesia manage 40% (5.8 million ha) of the total oil palm plantation area in the country, but only 12,200 ha or 0.21% is certified under ISPO.[23]

Coffee:

Global Market Outlook[24]

41. World coffee consumption in the current crop year 2019/2020 is forecast to be a record 167.9 million bags (60 kg/bag), and the production forecast to 5.4 million bags lower than the previous year of 169.1 million bags. The world coffee production is dominated by Brazil (32%) and Vietnam (19%), followed by Colombia (9%) and Indonesia (7%).

42. Coffee consumption continues to increase globally at the rate of about 1% per year with this year projected at 167.9 million bags (60 kg/bag). Demand growth remains stable in traditional markets of Europe,

[22] Source: RSPO website: https://rspo.org/impact#membership-figures

[23] Source: "Indonesia aims for sustainability certification for oil palm smallholders", 29 April 2020, https://news.mongabay.com

[24] Identification of Opportunities for FAO to Facilitate Plantation Commodity-based Inclusive Growth in Indonesia. Analysis of high-value horticulture supply chains in Indonesia. Swisscontact, 31 October 2019.

North America, and Japan. The biggest potential for growth is emerging markets and coffee exporting countries. Over the period of 2014-2017, Asia and Oceania had the highest annual growth of 2.16% of any region.

43. Global prices for coffee are highly volatile over time, varying from less than USD 0.50/lb in 2002 to a peak of USD 3.00/b in 2011, before falling again to the current level of around USD 1.30/lb (see **Figure 13**).

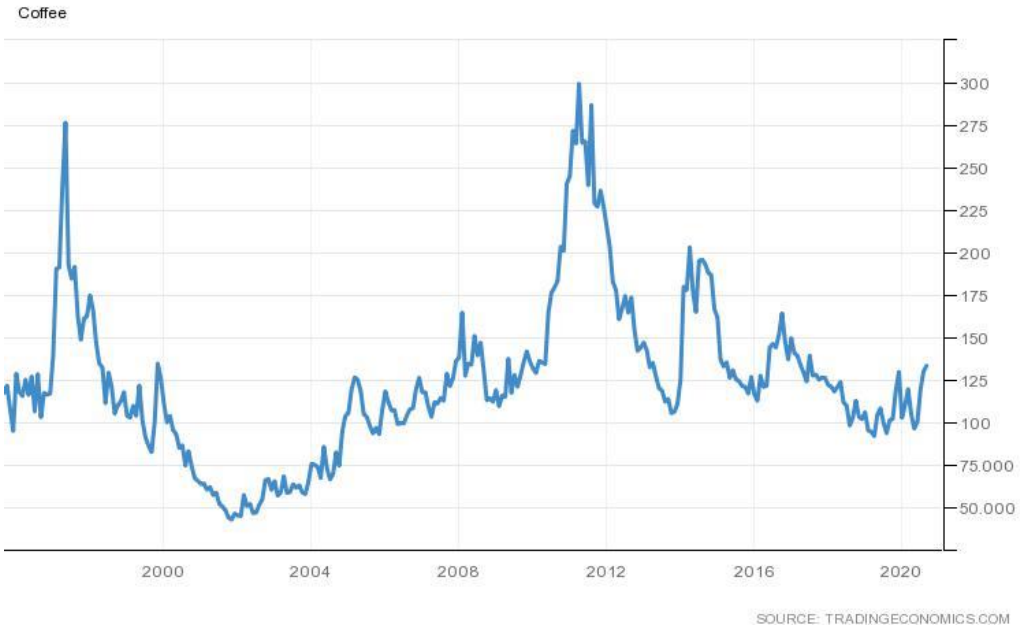


Figure 13: Trends in global price of Arabica coffee (US cents/lb) [25]

National Production

44. The overall production of coffee in Indonesia has steadily increased over the last 60 years (**Figure 14**). Indonesia produces mainly Robusta coffee (86%). The conditions that favour Robusta production, lower elevation, consistent high temperatures throughout the year, and frequent rainfall, are prevalent in Indonesia and confers it an advantage for Robusta production.

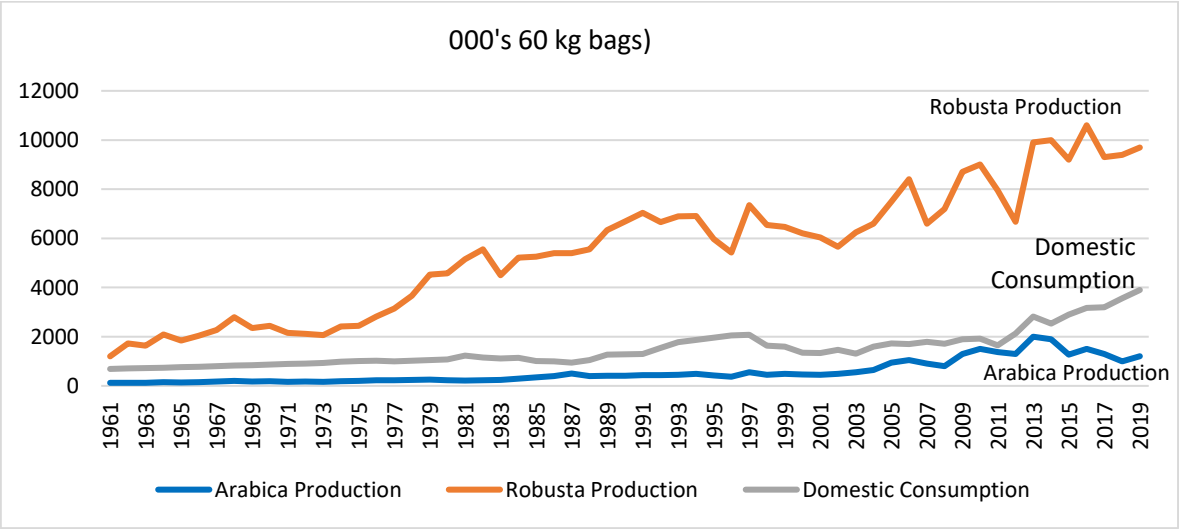


Figure 14: Trend in Indonesian green bean coffee production and consumption (ICO, 2019)

[25] https://tradingeconomics.com/commodity/coffee

45. There are seven distinct regional coffee-industry clusters that vary in terms of producing Arabica or Robusta beans presented in below in **Figure 15**. Sumatera island contributes the majority of total coffee production in the country.

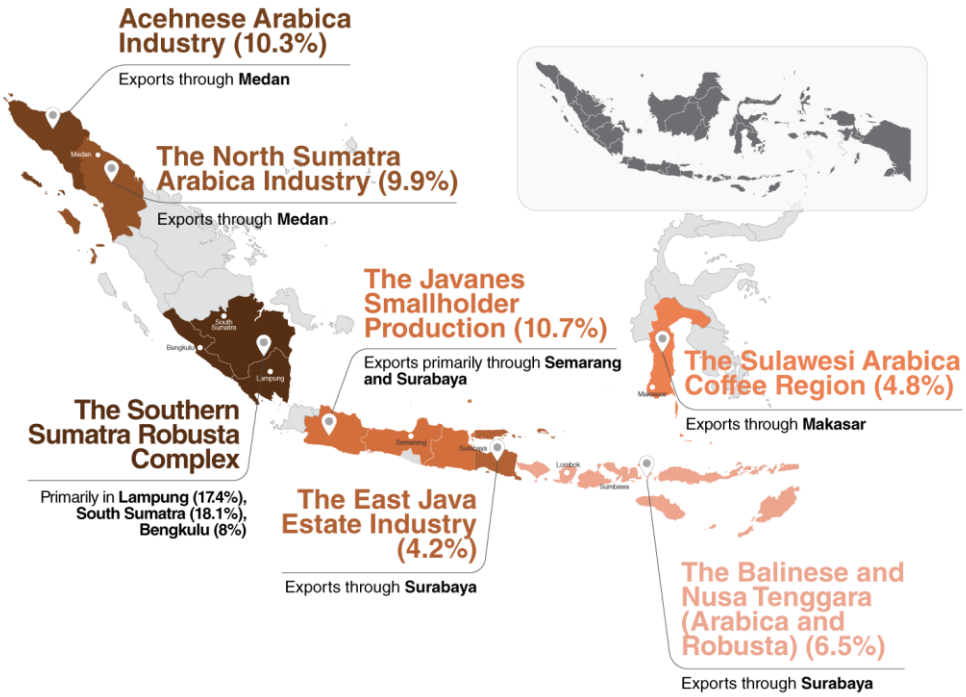


Figure 15: Coffee industry cluster map

46. Indonesia' Robusta yields vary by region, and official data estimate is 740 kg/ha (BPS, 2017). However, this is far lower compare to Robusta yields of 1,800 kg/ha in Brazil and 2,400 kg/ha Vietnam (Wolf, 2013). Contrary to Robusta, estimated Arabica yields in Indonesia particularly in Sumatera, are 875-1,200 kg/ha.

47. Since 2000, Indonesia has been the fastest growing national coffee market in Asia at a rate of CAGR of 6.9%, from 0.5 kg to 1.1 kg/capita (TPSA, 2018). Driving this consumption growth has been Indonesia's population growth in the same period from 210 million in 2000 to 250 million in 2018 and an expanding middle class with more disposable income. Indonesia's market for Ready to Drink (RTD) coffee sales are booming. Demand for fresh, roasted beans is also expanding as coffee outlets, both chain and independent, open across the country. Indonesia is currently ranked 5th of global exporters, accounting for 6% of global exports while producing 7% global supplies (TPSA, 2018). The rapid increase in domestic consumption, if continued, indicates that Indonesia's share of the global coffee trade will decrease if overall production remains flat.

Coffee Smallholder Profile

48. Approximately 98% of all coffee growing area is under smallholder production systems, with 668,000 farmer households primarily producing Robusta and 160,000 households Arabica (see **Table 6**).

Table 6: Smallholder coffee production

	Robusta	Arabica
No. of farmers (households)	668,000	160,000
Ave. Farm Size	1-2 Ha	1-2 Ha
Average yield	740 kg/ha	875-1,200 kg/ha
Local price (green bean)	IDR 24,000 per kg	IDR 30,000 per kg
Gross income	IDR 26 million per ha	IDR 39 million per ha

49. Coffee farmers typically generate 40% of their household income from coffee production, making coffee just one part of the household livelihood strategy (Neilson, 2015). Indonesian coffee farmers use fewer agricultural inputs with high labour cost (30% of total production cost) compare to other smallholder coffee growers in other countries. Past studies also cited that there has been low adoption rate of good agricultural

practices. Most of coffee trees are well beyond a coffee bushes best year of production (over 25 years). Indonesian coffee farms experience pests attack such as the Coffee Berry Borer (CBB) that reduces Robusta production by as much as 20%. These are the similar traits of coffee production in Indonesia. Yet, Indonesian coffee production differs on levels of ecology, ethnicity, and geographically.

Cocoa:

Geographical distribution of production

50. Cocoa has been an important commercial crop in Indonesia since the 1980s, produced commercially in 10 provinces in the country (see **Figure 16**).

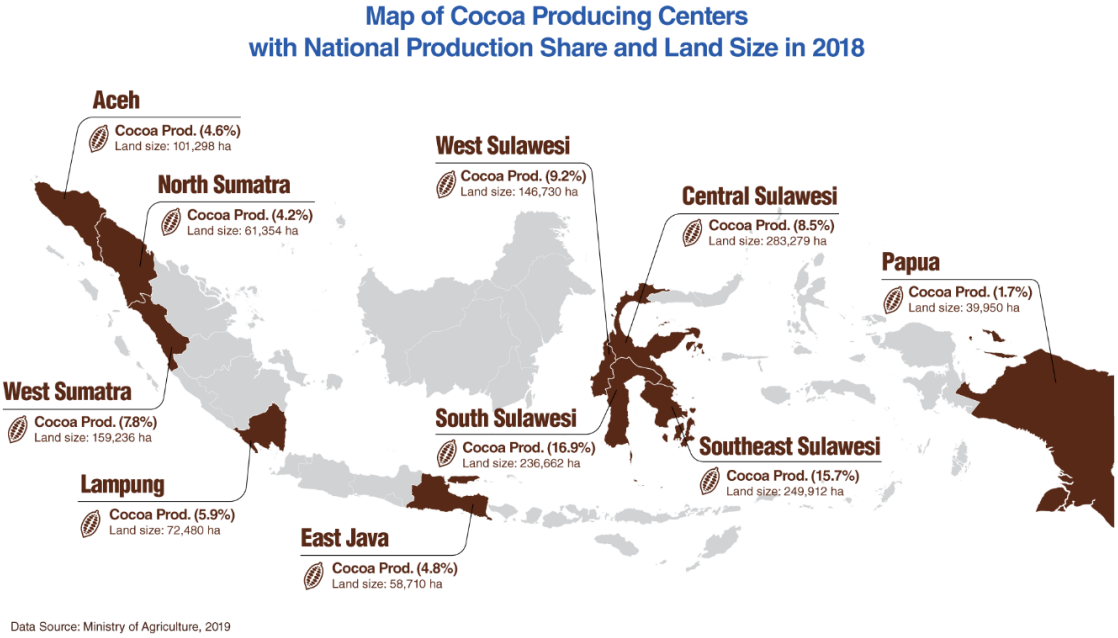


Figure 16: Geographical distribution of cocoa production in Indonesia

51. Cocoa production is concentrated on the island of Sulawesi (see **Table 7**), which in 2018 accounted for 57.5% of national production.

Table 7: Cocoa production by province (MT)

Province	2013	2014	2015	2016	2017
Central Sulawesi	149,071	161,469	100,651	118,337	126,599
Southeast Sulawesi	120,243	125,079	91,808	100,619	114,245
South Sulawesi	117,672	118,329	99,339	103,858	112,381
West Sumatra	58,740	56,675	58,822	66,137	59,593
West Sulawesi	71,823	72,037	57,141	57,650	72,667
Lampung	25,507	34,689	33,177	40,594	34,604
Aceh	28,329	28,015	30,661	33,072	32,403
East Java	30,364	24,871	24,803	29,142	29,370
North Sumatra	31,789	19,380	16,655	19,171	17,582
NTT	11,755	11,581	12,863	14,524	14,262
Others (TBD)					
Total Government Est.	**645,293**	**652,125**	**525,920**	**531,219**	**613,706**
Industry Estimates	**447,635**	**368,925**	**377,000**	**350,610**	**326,026**

52. With total cocoa plantation area of 1,741,008 ha, Indonesia is the second largest cocoa area after Ivory Coast (2,642,500 ha). In relation to cocoa production, Indonesia is the third largest cocoa producers after Ivory

Coast and Ghana. With the average production of 749,325 ton during the period of 2010 to 2014, Indonesia contributes 16.67% of the total global cocoa production.[26]

53. Cocoa production occurs across most of Indonesia territory. The total cocoa area in 2017 was estimated 1,691,334 ha, which is dominated by smallholder cocoa plantation (1,649,827 ha) (MoA, 2017).[27] However, the production area declined by an estimated 0.59% compared to 2016 caused by some factors, in particular the old age of plantations and the lack of replanting. Cocoa farms remain concentrated on the island of Sulawesi, in Central Sulawesi, Southeast Sulawesi, and South Sulawesi in particular (BPS, 2017).

54. Indonesian is third in terms of cocoa bean processing capacity, behind The Netherlands and Ivory Coast. There are 11 factories operational in Indonesia with a combined processing capacity of 747,000 MT per year. They are currently utilizing 59% of that capacity. The domestic market needs 93,800MT of cocoa beans for local products consumed in Indonesia. The domestic processing industry needed to import about 50% of its raw materials, which is over 226,613 MT in 2017 (Directorate General of Agro-Industry, 2019).

Cocoa farmers

55. There are approximately 650,000 cocoa farm households in Indonesia (see **Table 8)**. Farmers typically have a landholding size of less than one hectare. The average farm size is 0.71Ha. Cocoa-producing households earn 25–75% of their income from cocoa[28] (Neilson *et al*. 2011; Janudianto *et al*. 2012; Khususiyah *et al*. 2012) They have moderately dense planting density of 734 trees per hectare with average yield of 599 kg/ha. Smallholder farmers faced increasing production difficulties with pest and disease infestation mainly Cocoa Pod Borer and the sap sucking insects. The cocoa tree stock has also aged beyond its productive lifespan (over 18 years) with an average age of trees being 19.7 years. Adoption of good agricultural practices such as good planting clones, pruning, rational fertilizer application, and crop protection remains low. Most cocoa farmers sell their beans unfermented to local traders according to the Indonesian Fair Average Quality (FAQ) Standard. As cocoa became a less reliable, and with the drop of prices, farmers increasingly switched to other crops or leave the farm altogether in search of better work outside of agriculture. Number of active farmers have nearly halved since 2010 (SCPP, 2019).

Table 8: Characteristics of cocoa farmers in Indonesia

No. of farmers (households)	650,000
Ave. Farm Size	0.71 ha
Average yield	599 kg/ha
Local cocoa bean price (unfermented)	IDR 22,000 – 33,000 per kg
Gross income	IDR 8 – 16 million per ha
Utz Certified Volume 2018	25,162 MT

Processing

56. Indonesia processes the vast majority of its cocoa beans locally: there are 20 processing companies in the country with a combined processing capacity of 747,000 MT year: 11 factories are currently operational in the country, which are utilizing 59% of that capacity. Most of the production is destined for export: the domestic market accounts for only 93,800 MT[29].

57. The existing cocoa value chain in Sulawesi is characterized by farmgate sales. Farmers generally wait for collectors to arrive in the village. Collectors buy the beans and sell them to provincial traders, who may be

[26] Cocoa Outlook 2017. Center of Agricultural Data and Information System, Secretariat General of the Ministry of Agriculture.

[27] Ibid.

[28] Neilson J, Palinrungi R, Muhammad H, Fauziah K. 2011. ACIAR Cocoa technical report. Securing Indonesia's cocoa future: farmer adoption of sustainable farm practices on the island of Sulawesi Canberra: Australian Centre for International Agricultural Research (ACIAR). Janudianto K, Isnurdiansyah N, Suyanto S, Roshetko JM. 2012. Agroforestry and forestry in Sulawesi series: livelihood strategies and land use system dynamics in Southeast Sulawesi. Bogor (Indonesia): World Agroforestry Centre. Khususiyah N, Janudianto I, Suyanto S, Roshetko JM. 2012. Agroforestry and forestry in Sulawesi series: livelihood strategies and land use system dynamics in South Sulawesi. Bogor (Indonesia): World Agroforestry Centre.

[29] Directorate General of Agro-Industry, 2019

agents for exporters or sell the beans to manufacturers (Perdana and Roshetko, 2012)[30]. A large number of collectors and traders are engaged in the chain.

Global production and trade

58. In 2017, the total world cocoa bean production reached 4 million tonnes. The world cocoa production is dominated by Western Africa countries of Cote d'Ivoire (43%) and Ghana (20%), followed by Ecuador (6%). In Asia, Indonesia is the top cocoa beans producer and 6th globally (6%)[31].

59. Increasing incomes globally and growing preference for chocolate confectionary with high cocoa content creates a long-term positive market outlook. Cocoa consumption is dominated by European countries and the USA. Of any region, chocolate consumption is growing fastest in Asia CAGR of 5% per year.

60. Despite continuing demand growth, there has been a structural oversupply in the last 3 years and expected to continue. The world market price for cocoa bean experience steep decline since the end of 2016 (see **Figure 17**). This is caused by strong increase of bean production, mostly due to increased cocoa expansion in Cote d'Ivoire, the largest producer. The projected surplus of production in 2018/2019 year is expected to sustain downward pressure on prices going into the following season (Cocoa-Barometer, 2018).

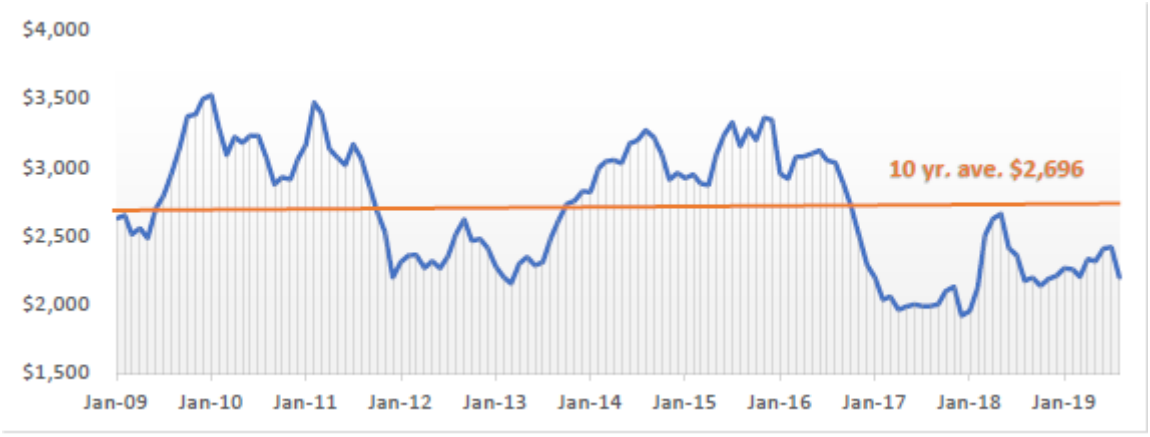


Figure 17: Volatility of global cocoa prices (USD/MT), 2009-2019 (ICCO, 2019)

International trading, processing, and manufacturing[32]

61. Once cocoa beans are exported from Indonesia, they become part of the global trade in cocoa which includes multinational traders, processors and manufacturers. Multinational traders sell cocoa beans to processors and manufacturers around the world. Multinational processors, including Cargill, are major producers of processed cocoa products (cocoa liquor, butter and cake). Multinational manufacturers, such as Hershey's, are dedicated chocolate producers and are generally located close to their final consumer markets. There are also integrated multinational processors and manufacturers who are involved in multiple functions of processing and manufacturing of final products. One of the largest, Mars, has significant presence and representation in Indonesia.

End markets for Indonesian cocoa[33]

62. In terms of export, cocoa forms Indonesia's fourth largest foreign exchange earning source in the agriculture sector (after palm oil, rubber. and coconut). However, the majority of Indonesia's cocoa export constitutes raw beans instead of processed cocoa, meaning that Indonesia loses out on added value revenues. The most important destination countries for Indonesia's cocoa beans are Malaysia, the USA and Singapore.

[30] Perdana and Roshetko 2012

[31] ICCO, Quarterly Bulleting of Cocoa Statistics, Vol. XLV, No.3, Cocoa Year 2018/19

[32] Indonesia Cocoa Bean Value Chain Case Study. USAID microReport #65, 2006.

[33] Ibid.

63. Indonesia's national cocoa production and export over the period of 2010 to 2013 is shown below in **Table 9** and a value chain map for Indonesian cocoa is shown in **Figure 18**.

Table 9: National cocoa production and export, 2010-2013

	2010	2011	2012	2013
National Production (in tons)	575,000	435,000	500,000[1]	575,000[1]
National Export (in tons)	280,000	200,000	120,000[1]	

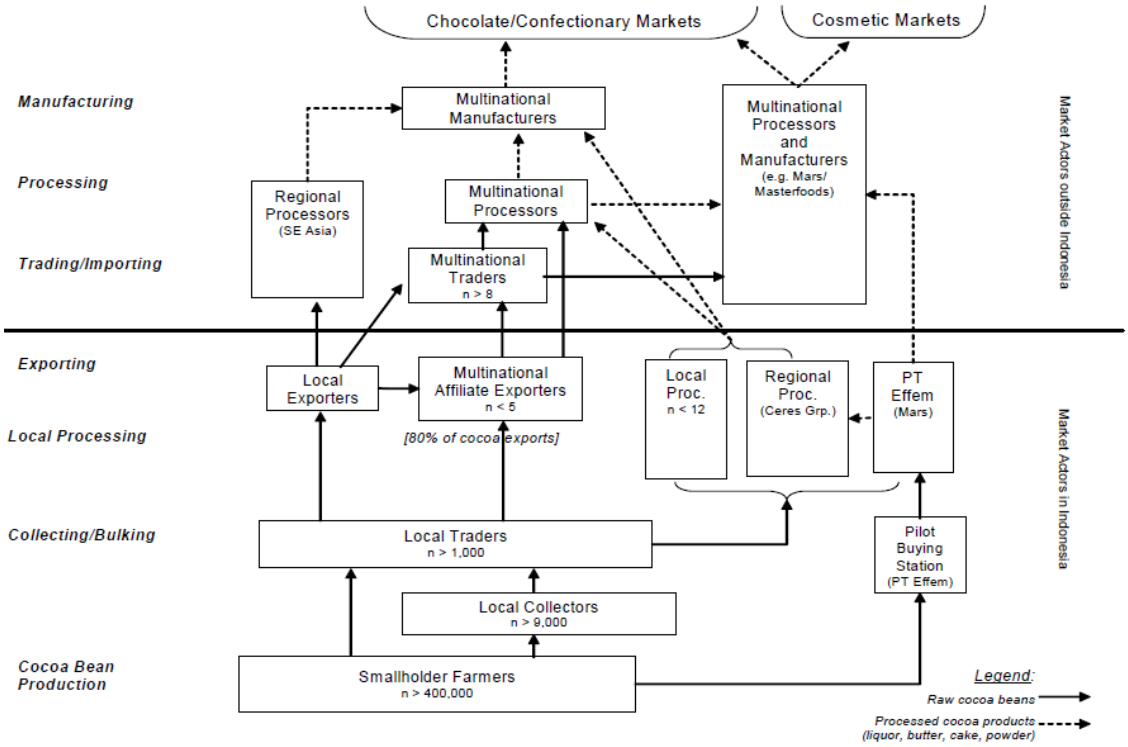


Figure 18: Value chain map for Indonesian cocoa

64. Sulawesi cocoa is traded on the global market as an unfermented, fat, bulk bean. Processors and manufacturers use Sulawesi bean as filler, due to its sufficient fat content and lower cost, and blend it with other fermented beans that add flavour. Global demand for these unfermented bulk beans has become relatively inelastic and is not significantly affected by changes in price.

Trends

65. The harvested area of cocoa in 2018 was 1,678,269 ha and total production was 593,832 tonnes (see **Figure 19**).

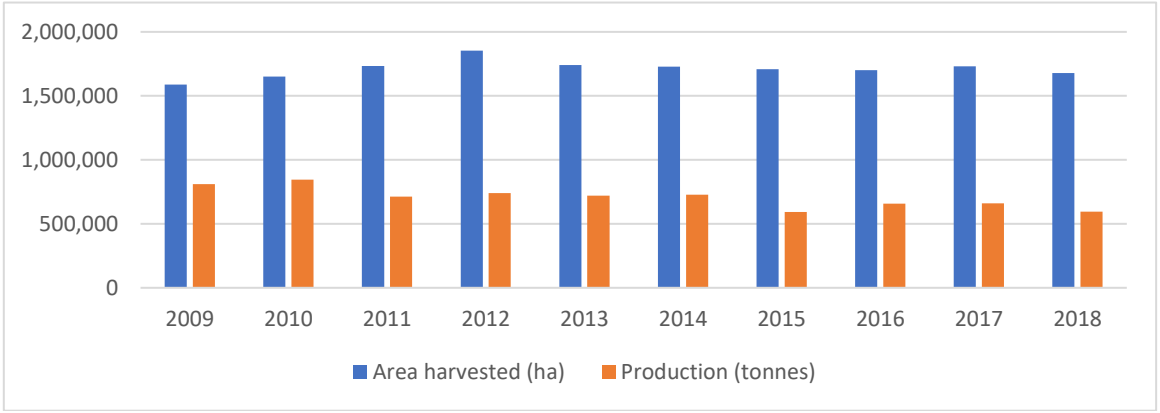


Figure 19: Trends in cocoa harvested area and production in Indonesia, 2009-2018 (FAOSTAT)

66. Cocoa production has fallen significantly in recent years, due principally to declines in yields (**Figure 20**). The fundamental reason for this is the incidence of pests and diseases, coupled with increasing age of the cocoa estate, and the inadequacy of management response measures by farmers. Declining productivity, coupled with price volatility, has led many farmers to switch to other crops or to non-agricultural income sources.

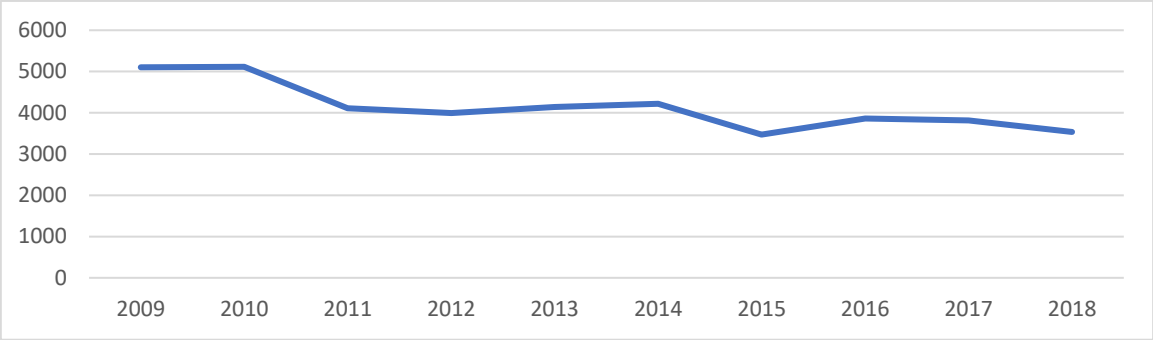


Figure 20: Trends in cocoa yields in Indonesia (hg/ha), 2009-2018 (FAOSTAT)

Rice:

67. Indonesia remains the world's third largest producer of rice (after China and India) with a productivity 5.114 tons per hectare that is higher than Thailand, for example. Rice is mostly cultivated by smallholders in all provinces in Indonesia. Out of total 11,377,934 ha of national harvested area in 2018, there are four provinces become national rice production centres. The highest harvested area was Central Java (1,821,983 ha), followed East Java (1,751,192 ha), West Java (1,707,254 ha), and South Sulawesi (1,185,484 ha). Refer to the national rice production and its contribution to the national, out of total 59,200,533 tons of the national rice production, Central Java contributed 10,400,508 tons (17.57%), East Java 10,203,213 tons (17.24%), West Java 9,647,358 tons (16.30%), and South Sulawesi 5,952,616 tons (10.06%) (BPS, 2019).[34] In other word, those three provinces in Java Island contributed more than a half (51.10%) of the national rice production in Indonesia.

68. According to the BPS data, for the year 2019 the total paddy harvest area is 10.68 million ha and the total production of mill dry paddy is 54.6 million tons, compared to a total paddy harvest area of 11.38 million ha and total production of mill dry paddy of 59.20 million tons in 2018.

69. For the year 2018, there was a milled rice surplus of 2.85 million tons for the whole of Indonesia. Following the BPS data for 2019 there should be no surplus in the year 2019, because production of mill dry rice (*gabah kering giling*/GKG at 13-14% moisture) dropped by 4.6 million tons. Applying a conservative conversion rate from mill dry paddy to milled rice of 70% the drop in milled rice is expected at 3.22 million tons. Consumption of milled rice is not expected to have dropped significantly from 2018 to 2019.

70. National rice production is almost entirely for domestic consumption: the Government aimed to export 100,000 to 500,000 tons of rice in 2020,[35] but this is equivalent to less than 1% of national production.

71. Domestic rice from the farmers goes through four to six distribution actors before it reaches the consumers. First, farmers sell their harvested rice paddy to the middlemen or to the paddy cutters, who dry the rice and sell it to the rice millers. After the rice is milled, the millers sell to the major wholesalers who own storage warehouses. Major wholesalers then sell the rice to the smaller scale wholesalers in the provincial-level markets (such as Central Rice Market of Cipinang in DKI Jakarta Province), or to those who sell the rice to the different islands in Indonesia. These smaller wholesalers bring the rice to the retailers, or, in the case of Central Rice Market of Cipinang, the rice must go through the selling agents before they could reach the retailers. Only then, the consumers can purchase the rice in the market. The distribution process is shown below in **Figure 21**[36].

[34] https://www.bps.go.id/dynamictable/2019/04/15/1608/luas-panen-produksi-dan-produktivitas-padi-menurut-provinsi-2018.html.

[35] https://www.world-grain.com/articles/13067-indonesia-to-export-rice-in-2020

[36] Rice Policy Reform: Removing Restrictions on Rice Trade in Indonesia. Author: Hizkia Respatiadi, Hana Nabila. Center for Indonesian Policy Studies (CIPS), Jakarta, Indonesia

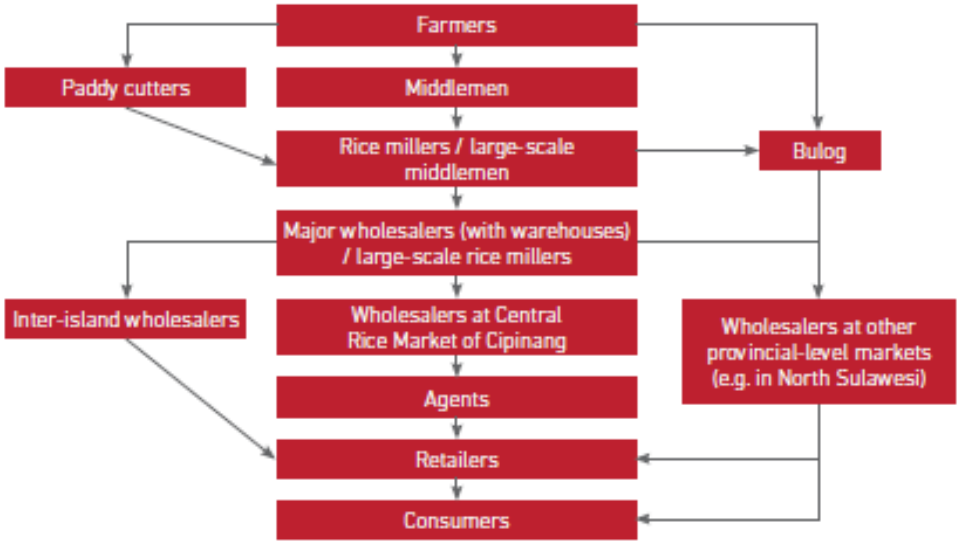


Figure 21: Distribution supply chain of domestic rice in Indonesia

72. Rice is mostly cultivated by smallholders on areas of 0.8 ha on average. The highest populated island of Java produces and consumes most rice. In the year 2019, Java's provinces contribute to more than half of the country's total production, followed by South Sulawesi Province (**Figure 22** and **Figure 23**). Given the geographical heterogeneity of production, there is significant inter-island trade.

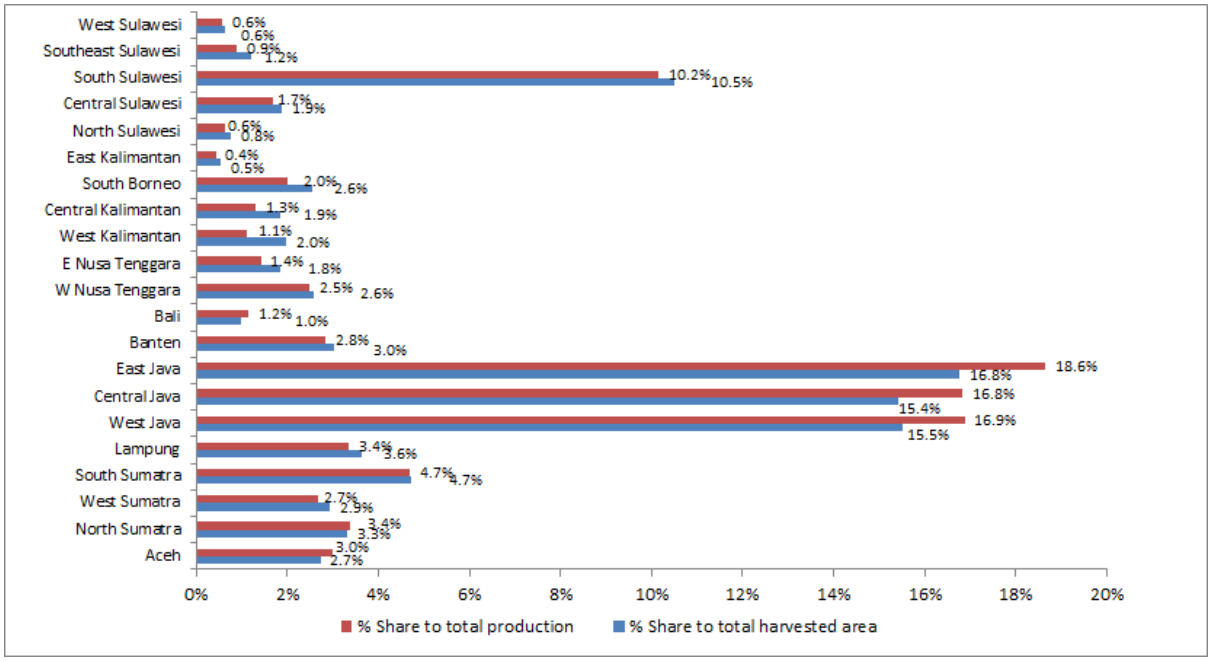


Figure 22: 2018 rice harvested area and production, selected Indonesian provinces (BPS, 2019)[37]

[37] https://www.bps.go.id/dynamictable/2019/04/15/1608/luas-panen-produksi-dan-produktivitas-padi-menurut-provinsi-2018.html

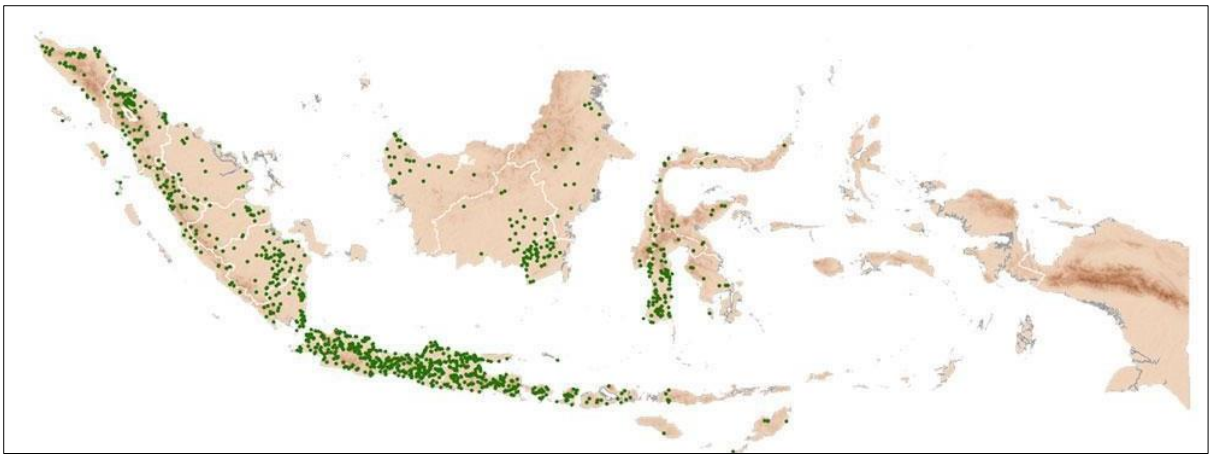


Figure 23: Indonesia map with indication of rice growing areas (1 dot = 10,000 ha)

Trends

73. Rice production in Indonesia has increased approximately fourfold since 1960, with an average annual growth of 2.8%, resulting from a combination of increased area (2.2% growth per year) and increased productivity (1.7% growth per year) (**Figure 24**).

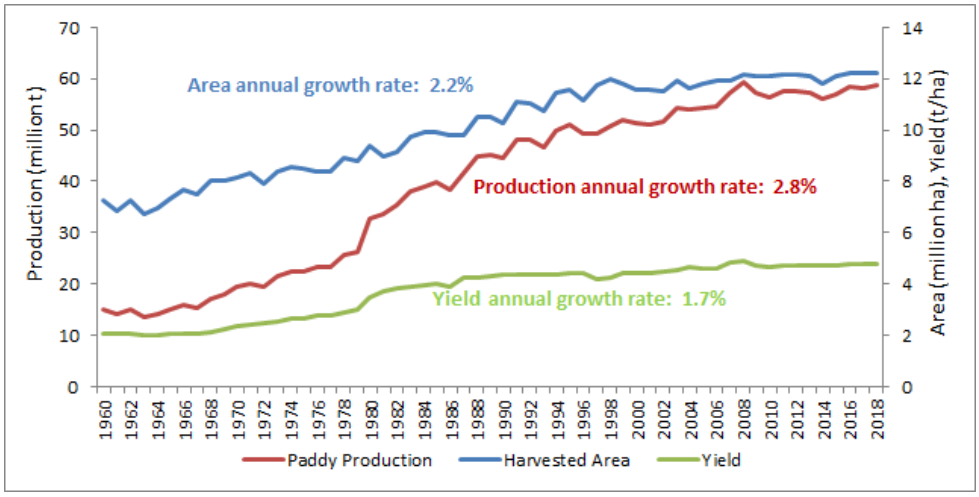


Figure 24: Trends in rice area, paddy production, and yield in Indonesia, 1961-2018[38]

74. Despite increases in production over the last 25 years, there has been little increase in national consumption: as a result, the national stock of rice (BULOG) has increased significantly (see **Figure 25**).

[38] Data source: USDA Retrieved from World Rice Statistics http://ricestat.irri.org:8080/wrs on 13 February 2020

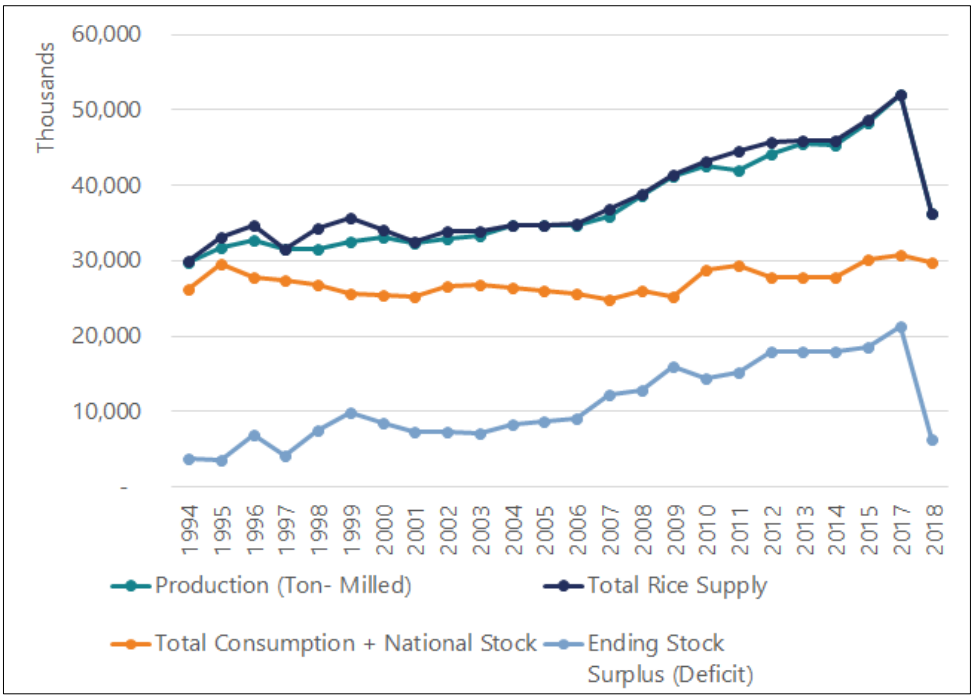


Figure 25: Indonesia rice supply and demand, 1984-2018 (BPS, 2018)

75. Rice provides the highest share of employment and income in the agriculture sector in Indonesia, although the contribution of agriculture to overall employment declined from around 40% 10 years ago to around 30% today[39]. According to the Ministry of Agriculture, out of the total rice cultivation area in Indonesia, approximately 30% have technical irrigation infrastructure.[40]

76. A few papers studying on *climate change impacts on the rice economy* (Oktaviani, Amaliah, Ringler, Rosegrant, & Sulser, 2011; Sekhar, 2018)[41] predict the "largest adverse impact for rice and paddy" in Indonesia with "domestic prices increasing significantly". Temperature increases are expected and "rainfall patterns are predicted to change, with the rainy season ending earlier and the length of the rainy season becoming shorter". The year 2019 saw an example of the impact of climate change on Indonesian rice farmers with reports of the worst drought since 2015.[42] This severe drought in 2019 has affected more than 100,000 ha of rice cultivation land in 100 regencies.[43] Cities and regencies across Lampung, Banten, West and East Java, Yogyakarta, Bali, West and East Nusa Tenggara as well as South and Southeast Sulawesi were impacted.[44] The reduction in rice area planted occurs even in systems that are usually irrigated, as lower rainfall leads to a reduced availability of irrigation water.[45]

Crop/Commodity Production and Value Chains in the Project Jurisdictions:

<u>Coffee production and value chains in Central Aceh District, Aceh Province</u>

77. Arabica coffee production in the district of Central Aceh, located in the Gayo Highlands, which also includes the districts the districts of Bener Meriah and Gayo Lues. Coffee varieties planted in these 3 districts are the same due to similar climate and soil conditions. The Gayo Plateau has been registered as a Geographical Indication (GI) to maintain Arabica coffee production in this region. The Gayo Coffee Geographical Indication

[39] https://www.statista.com/statistics/320160/employment-by-economic-sector-in-indonesia/

[40] Ministry of Agriculture. *Agricultural Statistics*; Susanti, A.A., et al; Center for Agricultural Data and Information System: Jakarta, 2018

[41] http://www.fao.org/3/CA2207EN/ca2207en.pdf

[42] https://www.thejakartapost.com/news/2019/11/22/climate-change-brings-worst-drought-to-indonesia-since-2015.html

[43] https://www.thejakartapost.com/news/2019/07/08/drought-affects-103000-ha-of-rice-fields-in-100-regenciescities.html

[44] Meteorology, Climatology and Geophysics Agency (BMKG) data, November 2019

[45] http://ricepedia.org/indonesia

area in the Gayo Highlands covers 232,303 ha and consists of 27 sub-districts: 7 sub-districts in Bener Meriah District, 13 sub-districts in Central Aceh District and 7 sub-districts in Gayo Lues Districts.

78. In general, coffee farmers in Central Aceh are applying good cultivation techniques and the coffee plantations look are better managed compared to other regions in Indonesia: e.g., there is sufficient distance between trees and the height of trees is between 1-1.5 meter, making it easy to harvest. However, further rejuvenation is still needed for coffee plants that are older than 15 years.

79. The size of farmers' coffee plantations in Central Aceh is relatively small, with an average of 0.5 hectare per family. Most farmers manage their own coffee plantations, but many also rent out their land to other farmers. The average coffee production in Central Aceh is 750 kilograms of green beans equivalent per hectare per year. This figure is low, considering Arabica coffee production could reach 1.5 tons per hectare. The limited application of organic and appropriate fertilizer prevents the optimum potential of coffee production. The practice of applying only chemical fertilizers in the long run will damage the soil structure and reduce coffee production in the long run. Interviews during the PPG phase with 2 cooperatives in Central Aceh show that the availability of compost is very limited, making it difficult for farmers to carry out organic cultivation. Efforts to make liquid organic fertilizer to overcome the lack of compost have not been done. Partly this is caused by small number of livestock in the area. There is also a concern regarding herbicide application. In October 2019, the Ketiara Cooperative bought coffee from farmers at random and tested it in the laboratory. The result was that most of the coffee samples contained traces of the herbicide glyphosate.

80. The suitability of coffee cultivation in the Gayo Highlands could be affected by the impacts of climate change. This is consistent with the preliminary suitability analyses conducted during the project preparation phase using the Global Agro-ecological Zoning (GAEZ) approach (see **Annex 12**). For example, higher temperatures have resulted in increases in pests and diseases that were formerly only experienced at lower altitude plantations. Farmers also described prolonged dry periods and more frequent incidents of intensive storm events. Shorter coffee harvest periods result in increased harvesting burdens which could delay in peeling and over-fermenting that results in quality deterioration. The occurrence of heavy rain in a short time results in erosion and landslides which reduce the carrying capacity of the land and eventually disrupts production.

81. Low production rates of Gayo Arabica coffee has also been attributed to shortcomings in the capacities of farmers in regard to post-harvest and processing practices, from cherry picking, peeling, fermentation, drying, sorting and hulling. Proper handling of these processes will enhance the quality and taste of the coffee.

82. The high demand from both domestic and international markets on coffee from this area has attracted many players in the value chain, ranging from individual farmers, local intermediaries-collectors as well as small and large traders. Local small collectors operate at the village level to buy coffee directly from farmers. When it is not in the main harvest time, farmers normally sell in the form of wet parchment and the small collectors pay low price as they have to sell the coffee to the large collectors. During the harvest peak period, large collectors will also buy directly from farmers in the form of wet parchment or cherries. The coffee is further sold to local coffee processing facilities to be processed further into green beans. Each facility has an average of 10-12 large collectors as suppliers. The green beans are sold to traders at the district level. Arabica coffee from Central Aceh is mostly sold to traders based in the Aceh Province capital city of Banda Aceh, mainly for local consumption, and to the North Sumatera Province capital city of Medan, where it is further sold in domestic and international markets.

83. Coffee traders in Aceh are quite diverse, from local companies, cooperatives, national and international companies. With so many coffee players, the bargaining power of local coffee farmers has increased because of competition among coffee players. However, due to the long supply chain (see **Figure 26**), farmers are obtaining limited benefits, as they receive the smallest portion of the price.

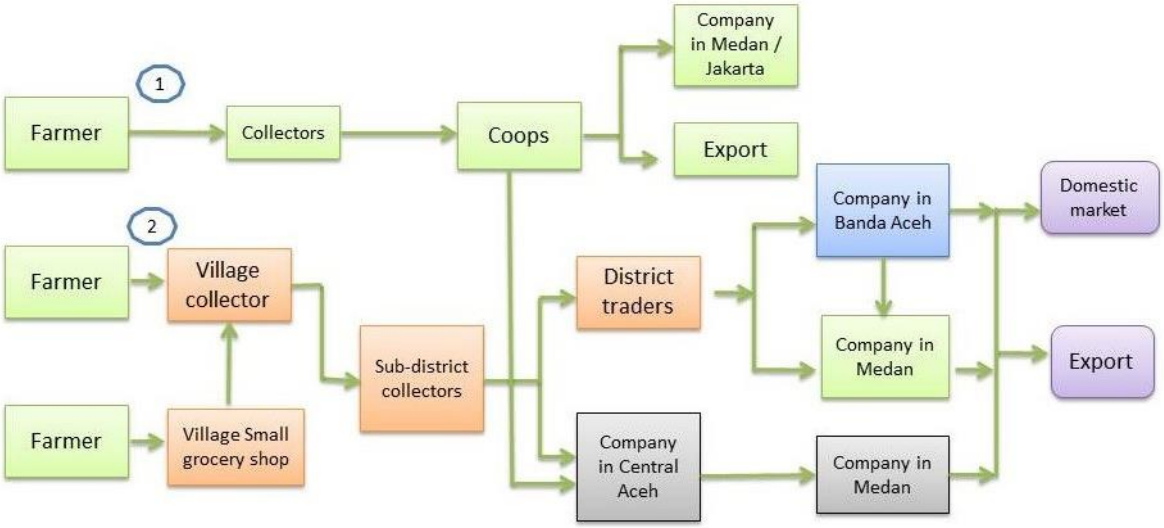


Figure 26: Coffee supply chain, Central Aceh District

84. There are more than 10 coffee cooperatives in Central Aceh District that sell Arabica coffee, but some of them have been closed due to fierce competition on price and to get supply. The top five cooperatives include: KBQ Baburrayan, Gayo Mandiri Cooperative, KSU Permata Gayo, Arinagata Cooperative, and Ketiara Cooperative. All of them already have international organic certificates that meet EU and USDA standards, as well as Fair-trade. They deal directly with overseas and domestic buyers.

85. Meanwhile, several coffee companies purchase coffee both directly and through traders in Central Aceh. These companies include CV. Aridalta Mandiri, PT. Ihtiyeri Keti Ara, CV. Putra Darma, CV. Ateutamount, CV. Alfi Datinggoco, PT. Fajar Jeumpa, and PT. Sumatra Arabica Gayo.

- A warehouse receipt system was developed in Central Aceh, adopting the coffee auction market model. PT. Meukat Komuditi Gayo (MKG) holds a license to develop the auction market in Central Aceh using government facility warehouse that can accommodate 400 tons of coffee. This auction market was established in 2014, but it has stopped because competition in the local market is quite fierce.
- Baitul Qiradh Baburrayyan (KBQB) is an Indonesian coffee producer's cooperative founded in Central Aceh District in 1995. KBQB officially registered with the government in 2002, with 600 members. By 2006, after members received their first organic premium, the membership started to grow dramatically, with almost 5,000 members. KBQB became Fair Trade Certified in October 2007. The average annual export is 100 containers to New Zealand, the United States and Europe.
- Ketiara Cooperative was established in 2009 by 38 persons. In 2011 Ketiara decided to restructure the overall organisation into 100% small farmer organisation. Ketiara now has 1,979 members (926 in Aceh Tengah and 784 in Bener Meriah), of which above 50% are women members. It is by intention as Ketiara has a policy to promote women in the coffee business. Each member owns on average 1-2 hectares of coffee farms as the primary family income. In average, Ketiara sells 70 metric tons per month to local traders/exporters. Almost all recognised trader/exporters from Medan have been sourcing their green bean from Ketiara.
- The Arinagata Cooperative is an Organic and Fairtrade certified Gayo Arabica Coffee producer and exporter. Arinagata was established in 2006, and currently have 2,582 coffee farmer members covering 39 villages in Central Aceh. Arinagata Cooperative has a capacity to export 30 containers of coffee per year to the markets of Europe, Canada, and the United States.

Coffee production and local value chains in Mandailing Natal District, North Sumatera Province

86. Coffee farmers, in general, are still faced with a trading system that are mainly controlled by traders. The trading system regulates coffee sales transactions in terms of timing, place, and to whom the farmers' coffee will be sold. The system usually results in a low selling price received by coffee farmers and getting the least of

the chain actors. Sustainable, high quality coffee should be supported by an efficient system that can fairly distribute gains and risks between all parties involved in coffee trading.

87. Productivity of Robusta coffee, which is 0.53 tons/ha, is significantly lower than the potential of 2 tons/ha; for arabica coffee the yield gap is 0.55 versus 1.5 tons/ha. The combination of this low productivity and the low-price farmers receive, ultimately has implications for the farmers' financial ability to expand their plantations, intensifying, and rejuvenating.

88. The Agropolitan[46] Coffee Region developed by Ministry of Villages, Development of Disadvantaged Areas, and Transmigration in Mandailing Natal has a total area of 94 ha. The villages included in the Coffee Agropolitan are Huta Godang Village (48%), Huta Padang Village (27%), Alahan Kae Village (17%), and Habibincaran Village (8%). Topographically, 3 villages in the area are on slopes while Huta Godang Village is on the plain. Most of the land that is on a ridge or is included in the mountains is very good for the growth of coffee plants.

89. Coffee produced in Mandailing Natal is mostly cultivated by smallholder farmers, but also several companies have coffee plantations in Ulu Pungkut Sub-district which is the centre of Arabica coffee production region. Farmers in Mandailing Natal receive less attention from agricultural extension workers, partly because the coffee plantation areas are far from residential areas.

90. The Coffee Agropolitan Rural Area development program is running from 2017 to 2021 and covers several coffee Agropolitan implementation programs:

- Coffee plant quality improvement program,
- Coffee crop productivity improvement program,
- Coffee infrastructure improvement program for Agropolitan coffee support,
- Coffee processing facility and infrastructure procurement program,
- Coffee plant cultivation training program,
- Horticultural crop cultivation training program and
- Horticultural crop quality and productivity improvement program,
- Farmer institutional strengthening program

91. In 2014 the Mandailing Natal District Government made an effort to develop Mandailing Arabica coffee by launching a movement that also involved NGOs, such as the Sumatra Rainforest Institute (SRI), Batang Pungkut Green Conservation (BPGC) to socialize and provide an understanding of the importance of coffee commodities to the community, to restore the enthusiasm of coffee farmers. The result of this cooperation is the protection of the geographical indication of Mandailing Natal coffee which was recognized by the Indonesian government in 2016. This geographical indication applies to the area around the Batang Gadis National Park (TNBG) in the District Mandailing Natal. The Bukit Barisan Mountains around the Batang Gadis National Park differ from other mountains in Central Aceh, as they are steeper, so it is necessary to pay attention to the slope of the land so as not to cause landslides.

92. In 2014, Sumatra's Tropical Forest Conservation Action (TFCA) through its Sumatra Rainforest Institute (SRI) partner, initiated a community empowerment program in 6 villages around protected forests and TNBG. SRI supported coffee farmers with a coffee field school (on agroforestry), coffee nurseries and planting as well as with the establishment of the Mandailing Arabica Coffee Cooperative. The aim of this program is to encourage the economic improvement of the community around Protected Forests and national park areas in the hope of reducing pressure on forest areas.

[46] Agropolitan is agricultural city that grows and develops from its agribusiness and is able to support and trigger agricultural development in the surrounding area. It is an integrated government program that is implemented across sectors. The agribusiness component is in the domain of the Ministry of Agriculture while the agricultural infrastructure development is handled by the Ministry of Public Works, under the Directorate General of Human Settlements. It is a concept of rural development, by improving the agriculture and agribusiness and the development of infrastructure like those developed in cities. In Indonesia, there have been 390 Agropolitan area.

93. SRI assisted farmers to form a Mandailing coffee producer cooperative named Koperasi Kopi Mandailing Jaya in 2016 with 45 members covering 3 villages in Ulu Pungkut sub-district. SRI helped strengthen the cooperative as an organization that was able to run a business for two years and after that the Mandailing Jaya Cooperative had to struggle on its own to help members and market their products. Strengthening farmers for two years has not been able to make cooperatives strong, the district government of Mandailing Natal supports cooperatives to rise by providing opportunities for training and marketing. This support is quite helpful so that there are some buyers interested in buying coffee from cooperatives, but because this organization is not strong enough, bigger business cannot be done. At present only 10 members sell to the cooperative, and most of the coffee farmers in this district sell to collectors.

94. There are several coffee companies in Mandailing Natal, including PT. Kopi Rakyat Indonesia, which buys Arabica coffee and a subsidiary of PT. Kopi Legenda Khatulistiwa that buys Robusta coffee. PT. Mandheling Gayo International (Mandago) buys Arabica coffee. In addition, there is an Australian company that has a 150-ha coffee plantation in the village of Langgamtama, Ulu Pungkut. Also PT. Kopi Rakyat Indonesia has a plantation of 14 ha. Both companies are also sourcing from collectors.

95. Ulu Pungkut sub-district is the centre of Arabica Mandailing coffee production, there are several villages in the “Simpang Banyak” area where coffee is developed. Coffee harvesting usually occurs every day apart from the big harvest around June. Most farmers in this area sell coffee to collectors, because to reach the city of Mandailing Natal it takes about 1 hour with poor road conditions, while public transportation is very limited. Moreover, this means selling in small quantities which is not very economical. This lack of transport infrastructure has resulted in many small traders functioning as coffee collectors. The Ulu Pungkut sub-district is controlled by collectors, although there are large companies that grow Arabica coffee themselves.

96. Coffee can be harvested during the main harvest season, and there is a small portion of coffee that can be harvested every day, leaving farmers with no regular income. After the big harvest, farmers prefer to sell to collectors in the village. Many farmers are in debt with both collectors and small stalls in the village. Village collectors provide loans to farmers, and when harvesting farmers must sell to these collectors. In addition, several grocery stalls in the village also act as collectors, recovering in this way what farmers have borrowed from them to cater for their daily food needs.

97. In the main harvest season, farmers can find out the prices on the market, but the price is still determined by collectors who have received a benchmark price from large traders. Farmers who are already in debt to collectors will send the harvest to collectors and when the harvest is not the peak season, farmers collect wet parchments at home to sell to collectors who come every week, or sell to grocery stalls in the village to buy basic necessities.

98. The result of this is that coffee is of a low quality. Each individual farmer dries the pulped beans him/herself on the roadside or in the yard and does not have good quality standards. They do not want to do the sorting, because when selling products that have been sorted, the price is no better and the rest of the sorting cannot be sold. Wet parchments that are sold to collectors will be dried by larger collectors at the sub-district level to get dry parchments before they are sold to coffee refineries that have hullers.

99. Coffee refineries get wet parchments from collectors and sell to traders from outside the city in the form of dry parchments or green beans depending on the request of traders.

100. Obtaining good quality coffee beans at Mandailing Natal is difficult because most coffee beans are of different qualities, often mixed by collectors and traders as illustrated below in **Figure 27**. Strengthening at the farm level to be able to produce good coffee beans requires investments in processing equipment such as pulpers and drying tables. Only companies that have their own coffee plantations and can collaborate with coffee farmers who produce quality coffee beans will develop. The needs and opportunities of overseas markets for Mandailing coffee are quite large, the application of organic standards, HACCP, and others is a serious concern for the development of coffee in the future.

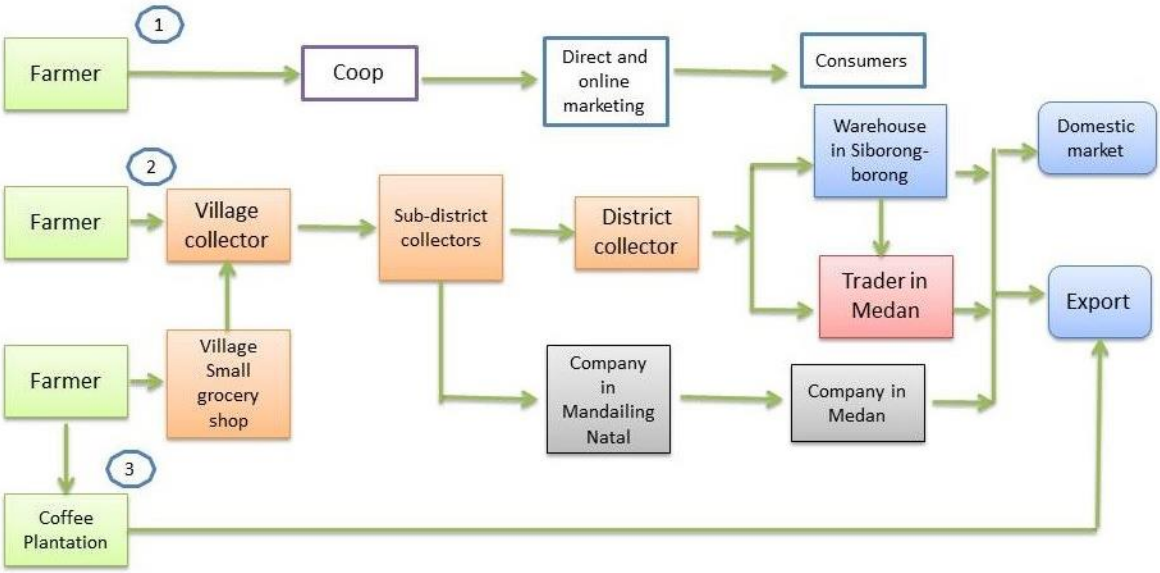
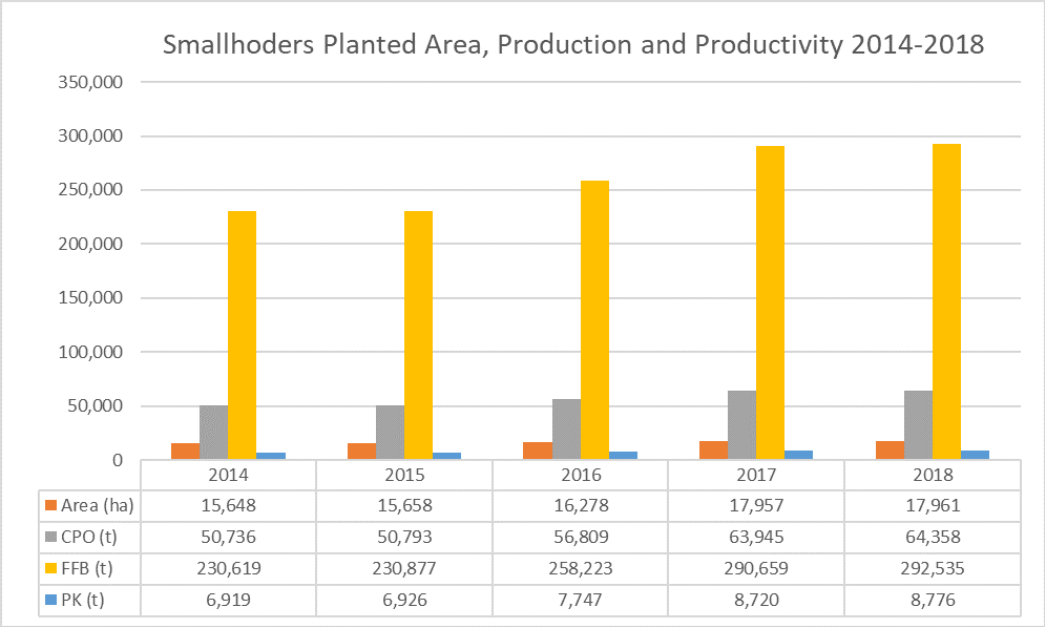


Figure 27: Coffee supply chain, Mandailing Natal District

Oil palm production and value chains in Mandailing Natal District, North Sumatera Province

101. There are 16 large oil palm growers in Mandailing Natal, and GAR, Wilmar, Apical, and Musim Mas are actively sourcing from the district.[47] Oil palm production from independent smallholders in 2018 was 64,358 tonnes with a planted area of 17,961 ha, up from 50,736 tonnes and 15,648 ha in 2014 (see **Figure 28**).



	2014	2015	2016	2017	2018
Area (ha)	15,648	15,658	16,278	17,957	17,961
CPO (t)	50,736	50,793	56,809	63,945	64,358
FFB (t)	230,619	230,877	258,223	290,659	292,535
PK (t)	6,919	6,926	7,747	8,720	8,776

Figure 28: Smallholder oil palm planted area and production, 2014-2018, Mandailing Natal

102. Through the Sustainable Oil Palm Forum Indonesia (FoKSBI) and coordinated by Plantation Office North Sumatera Province, SK Governor Regulation No. 188.44.343/2018 was adopted on 7 November 2018. This regulation concerns in strengthening the smallholder farmers position and farmers institution in the oil palm plantation industry to achieve a sustainable oil palm plantation industry, including by implementing good agriculture practice (GAP) as outlined in five-provincial action plan (RAP); 1) development of farmers basic data, increased socialization, synergy between government institutions and the palm oil industry, 2) increasing the

[47] Source: Direktori Perusahaan Perkebunan Besar Kabupaten Mandailing Natal 2017

capacity of farmers, 3) management and environment monitoring and evaluation, 4) governance and conflict handling, 5) implementing ISPO certification and oil palm marketing.

103. There are 69 plantation cooperatives and 65 village unit cooperatives (KUD) in Mandailing Natal in 2019[48]. In 2016, an independent smallholder partnership programme was introduced in Mandailing Natal, initiated by Asian Agri and the North Sumatera University Development Cooperative (Koperasi Pengembangan Universitas Sumatera Utara/KP USU). KP USU was formed to aimed for establishing ± 10,000 ha, a Land Grant University, of oil palm plantation in Mandailing Natal through partnership with Asian Agri. 5,610.93 ha is currently under development in Kebun Tabuyung, Muara Batang Gadis Sub-district.

Oil palm production and value chains in Sanggau District, West Kalimantan Province

104. West Kalimantan Province has the second highest number of oil palm companies (319), following North Sumatera. Based on data from 2018, Wilmar was sourcing from 11 of the companies, and GAR, Apical, and Musim Mas were sourcing from 10, 7, and 3 companies, respectively.[49]

105. The total area and palm oil production of smallholders, state-owned and private companies in 2017 was 93,650 ha.[50] Smallholder farmers covered the largest area and produced the most CPO compared to both state-owned and private companies. By contrast smallholder FFB productivity is considered the lowest with only 2.21 ton of FFB per hectare.

106. An initiative by the Oil Palm Farmers Union (*Serikat Petani Kelapa Sawit* - SPKS) with the support of the Sanggau Plantation Office to support independent smallholder farmers involves the following:

- Program socialization to independent smallholders as well as completing farmer data for oil palm smallholder replanting program (*program peremajaan sawit rakyat*/PSR).
- Training in Good Agricultural Practices/GAP to increase the productivity of independent smallholders.
- To encourage the formation of a Multi Stakeholder Forum as a joint forum for oil palm actors in Sanggau including large grower companies, farmer associations/forum, cooperatives, and the government in order to create good governance in oil palm production as well as empower the smallholder.
- Conduct data collection and mapping of independent oil palm smallholders in 11 villages with support from the district government.

107. Sanggau District is a member of Lingkar Temu Kabupaten Lestari/LTKL (Sustainable District Platform). One of the main focuses of LTKL is to support some commodity priorities, including oil palm, by evaluating the possibility of providing premium prices or subsidies for commodities that are produced sustainably.

Cocoa production and value chains in Luwu District, South Sulawesi Province

108. According to the data provided by BPS during the period of 2014 to 2019, the average productivity of cocoa plantations in South Sulawesi was between 0.55 and 0.63 tons per hectare[51], which is considered low compared to global cocoa production centres, i.e. Guatemala (2.84 tons/ha), Thailand (2.47 tons/ha), Madagascar (1.94 tons/ha), Togo (0.87 ton/ha), and Tanzania (0.86 ton/ha).[52] The average cocoa plants in South Sulawesi are over 12 years old and without rejuvenation or significant replanting, productivity is low. Productivity shortcomings are also due to lack of crop maintenance and pest control. The average income of farmers in 1 hectare is USD 1,720 per year, while the average farmer has a cocoa farm of 0.5 hectares, so that farmers' income is only USD 857 per year to provide for the whole family's living needs. This has resulted in farmers looking for new land to grow more profitable crops such as rice and cloves.

[48] Mandailing Natal Regency in Figures 2020, *Number of Cooperative by type of cooperative in Mandailing Natal Regency,* p.383

[49] Source: Direktori Perusahaan Perkebunan Kelapa Sawit Indonesia 2018

[50] Tree crop estate statistics of Indonesia 2017-2019, Palm Oil

[51] Collected from the "South Sulawesi in Figures" reports for years 2014 to 2019. Central Bureau of Statistic of South Sulawesi Province.

[52] Cocoa Outlook 2017. Center of Agricultural Data and Information System, Secretariat General of the Ministry of Agriculture.

109. Cocoa production and productivity are very vulnerable to climate change and disease, which lately tends to fluctuate and difficult to predict, besides that the land is already in an unbalanced condition. Soil conditions already show 'fatigue'. Low production and income of cocoa farmers is parallel with farmers' attention to cocoa plantations, resulting in a reduction in fertilization and pruning of cocoa plants.

110. On the farmer side, problems were still found that hampered the success of the cocoa farming business, among others, fertilizer application was still low. Farmers only use urea fertilizer from three types of recommended fertilizers (urea, SP-36 (superphosphate, 36% P_2O_5), potassium chloride (KCl), and it is even found that some farmers do not use fertilizer, whereas inadequate fertilization will reduce crop production, both in quantity and quality of the product.

111. Accessibility to capital is still limited. The majority of farmers obtain artificial fertilizer or cash by borrowing from collectors, fertilizer kiosks, or moneylenders. In addition, loans from traders do not take the form of interest, but in the form of harvests, so farmers must indirectly sell cocoa to them.

112. In general, cocoa farmers in Luwu District who have a distance from the collection warehouse owned by traders usually sell to traders in their villages or to the shop owners. Cocoa is used to pay debts. The dependency to traders and owners of grocery stalls is due to cocoa harvesting, which is in certain seasons and limited production, so there is an attachment of farmers to traders and grocery store owners. This is to meet daily needs and traders will receive cocoa either in large or small quantities.

113. Cocoa farmers who have received extension services from the private sector are more organized because they have the opportunity to gain more knowledge and cocoa sales can be done through buying stations owned by companies or traders who work with cocoa companies.

114. Most of the cocoa farmers in the district do not fully work in the cocoa farm, they have other jobs to cover the shortfall from the sale of cocoa by working as laborers, traders or planting other more profitable crops. Cocoa prices that depend on international market prices make it difficult for farmers to guarantee their income in the future. Changes that occur every day and even though production is good but cannot guarantee they can get a good price, because prices are determined internationally by looking at supply demand abroad.

115. The cocoa marketing chain is relatively long (see **Figure 29**), starting from farmers selling their harvest to collectors, then to large traders and then to processing or exporters.

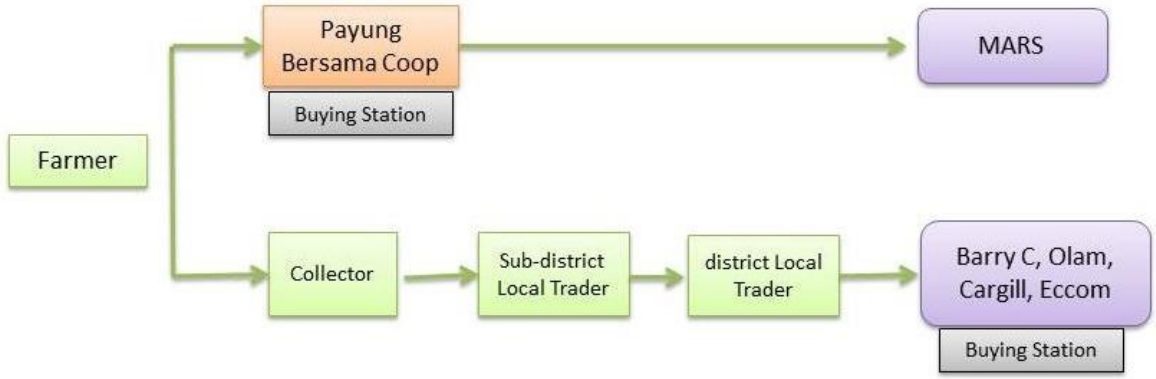


Figure 29: Cocoa supply chain, Luwu District

116. There are some global companies who purchase cocoa beans in Luwu District. Mars gets around 55% of cocoa production in Luwu District because the company has a large and dominant purchasing team in several sub-districts, there are around 20 people in the cocoa purchasing team for regular and sustainability products in Luwu District. Olam bought 40% of cocoa in Luwu District with a team of 10 people. While Cargill, Eccom, and other buyers buy the remaining 5%.

117. In an efficient trade system, an adequate market information is needed, because if the incomplete information obtained causes a weak bargaining position for farmers. Market information is only known by

traders who get information from larger buyers. Farmers who have debt have a weak bargaining position to continue to receive prices from the creditor.

118. Cocoa Sustainability programs in Luwu District are carried out by multi-national corporations with a variety of business models that use cooperative models such as those of Mars with the Payung Bersama Cooperative and local trader models. The company cooperates with local traders in gathering seeds at the village and sub-district levels while buying units at the district level are managed directly by the multi-national company.

Rice production and value chains in Luwu District, South Sulawesi Province

119. Sulawesi is one of the main suppliers of rice for national needs, largely grown in South Sulawesi. The South Sulawesi Province is the fourth largest rice field production in Indonesia with 5,445,930 tons on average during the period of 2013 to 2018.[53] The rice production in 2018 is 5,952,616 tons and contributed 10.06% to the 2018 national rice production. The production is to meet the demands from eastern and central Indonesia. However normally at the end of the year, where the rice production in Java and Sumatera declines, Sulawesi rice enters the Java region as well. Several districts in South Sulawesi have large rice farms. The lowlands are suitable for growing rice and water sources are available in mountainous regions. Hence most of the rice is under irrigation conditions and there are 2 harvests per year.

120. Rice is produced in almost all districts in South Sulawesi Province. The biggest five rice producers in South Sulawesi Province are Bone (813,513 tons/year), Wajo (705,494 tons/year), Pinrang (602,384 tons/year), and Sidrap (509,864 tons/year). Luwu District, although its rice field has placed in the fifth rank in the province, their production places on the sixth rank with the annual production of 309,645 tons/year. Table 10 provides data of annual rice production in each district in the South Sulawesi Province during the period of 2013 to 2018. The average productivity of wet-land rice is 5.194 tons/ha, while the productivity of dry-land rice reaches 3.815 tons/ha. This productivity is still lower than the national average (5.744 tons/ha).[54]

121. Luwu District has 33,333 ha rice field spread across all sub-districts. The agricultural infrastructure and equipment in Luwu District are quite adequate. There are at least 3 large dams, namely Tomatoppe in Kadong-kadong Village of Bajo Sub-district, Padangsappa in Noling Village of Bua Ponrang (Bupon) Sub-district, and Lamasi in Batusitanduk of Lamasi Sub-district. These three dams supposed to be able to irrigate 28,723 ha. However, disruption of the hydrological functions of the protected areas at the upstream has caused floods during the rainy season and lack of water during the dry season. As result, some rice fields are located downstream has not got sufficient water to support rice production and, therefore, unable to be cultivated.

122. In relation to the point above, during the period of 2013 to 2018, the rice cropping index in Luwu District was 1.93/year on average with productivity of 5.05 tons/ha, which is categorized low compared to the national productivity which is 5.744 tons/ha on average during the last five years. The low productivity had been caused by insufficient irrigation water for rice fields at downstream in particular, as well as by poor cropping pattern and crop management, to support rice production in sustainable manner.

123. There are three fertilizers distributors namely CV. Karya Tani Kamanre, PT. Mega Eltra, and PT. Qaqa Resky Tani covering Luwu District. There are 8,833 tons of Urea, 5,931 tons of ZA, 2,910 tons of SP-36, 9,859 tons of NPK, and 874 tons of organic fertilizer have been distributed in Luwu District in 2016. However, some remote villages in Latimojong and West Bajo Sub-districts have difficulty in accessing fertilizer due to road condition. While pesticides and growth stimulants are provided by salesman of each company (Bayer, Dupont, Petrokimia, Rolimex, etc.) through their distributors to the agricultural shops. There is no rice seed supply chain available since the farmers prefer to use “recycled rice seed” they selected from previous harvest.

124. Most farmers in Sulawesi do not understand post-harvest technology as they sell their wet paddy directly to rice mills through traders. Farmer groups are not taking the initiative to dry and market their rice collectively to get additional income.

[53] South Sulawesi in Figure 2014 to 2019. Central Bureau of Statistic of South Sulawesi Province.

[54] https://www.pertanian.go.id/Data5tahun/TPATAP-2017(pdf)/31-ProdtvPadiSawah.pdf

125. Most farmers sell their production in the form of wet paddy directly in the fields: only a small portion is brought home to be stored for own consumption. Farmers rarely sell in the form of rice because they think it is impractical. The pattern of selling wet paddy or dried paddy grains is influenced by several things, such as the level of grain prices on the market, postharvest handling capability constraints, and immediate needs for cash to meet daily needs and cover the farm production costs.

126. There are at least 3 groups of key actors in the rice value chains in South Sulawesi, namely collectors and rice millers (including rice mill providers), wholesalers, and distributors/retailers. The group of collectors and rice millers buy paddy grain from farmers at a certain agreed price without referring to the government purchase price set by BULOG. Some of the large rice mills identified in South Sulawesi are PB. Rahma 35 in Sidrap District, PB. Bedu 'All, Hj. Sudi, PB. Multita, and PB. Hj. Sanni Madimeng in Pinrang, PB. Tison in Lamasi - Luwu District, PB. Cahaya Tani Belawae and PT. Pertani in Bone, and PB. Hj. Minasa in Makassar.[55] The rice mills at the provincial level are coordinated by the Provincial Leadership Council of *Perkumpulan Pengusaha Penggilingan Padi dan Beras Indonesia*/PERPADI (the Indonesian Rice Mill and Trader Association) of the South Sulawesi Province.

127. There is no big rice mill established in Luwu District. Most of paddy has been produced in Luwu District collected by collectors and transported mostly to Sidrap and Bone Districts for further process. Recently, the district government gave permission to PT. Mutiara Pantilang from East Kutai District of East Kalimantan Province to build a large-scale rice milling plant (RMP) in Karang-karangan of Bua Sub-district.[56] Three and a half hectares of land have already purchased in November 2019. Its capacity is estimated at 30,000 tons of rice per year, with the assumption operated at 8 hours a day. The rice mill is expected to be operated in 2021. The establishment of rice mill in Luwu District is expected able to improve rice value chains in Luwu District compare to the existing chain which is the paddy has been mostly purchased by rice mill companies from Sidrap and Bone in particular.

128. In addition to the market player as stated above, there is government funding allocated to the State Logistics Agency (*Badan Urusan Logistik*/BULOG), also referred to as the national Food Reserve Agency, to stock up its rice reserve. BULOG maintains a monopoly on the import and export of rice, protecting Indonesian rice producers from cheaper imports. In addition to maintaining national rice reserves, BULOG also plays an important role in maintaining the stability of rice prices in the market. When the price of rice on the market begins to increase significantly, BULOG releases its rice reserves at a low price with the aim that the price of rice will remain stable so that it can be affordable by the people's purchasing power. However, BULOG sets the Government Purchase Price often far lower than the prices offered by traders which lead to difficulty in buying rice directly from farmers to fill the government's rice reserve.

129. In South Sulawesi case, there are two main paths for producers to reach consumers outside the production region. The first path is selling to BULOG. The second path is selling to traders outside the region. Those traders either "export" to a wholesaler and traders on another island. The alternate path is that the trader is selling to a wholesaler in Makassar, followed by retailers in Makassar. The disadvantage of the BULOG path is that the buying and selling price is set by the government which can lead to discrepancies with the actual market prices. A mill might be forced to sell below the market price in order to fulfil the quota set by BULOG. Another potential distortion occurs when BULOG sells rice directly to consumers. However, BULOG is mostly selling its rice through partners, either traders or local retailers.

130. The second actors, there are some wholesalers have been identified in South Sulawesi which are based in Makassar, such as PT. 88-Enterprise, CV. Gudang Tani, PT. Pembangunan Sulawesi, and PT. Hasil Tani. These wholesalers take role to sell the rice from South Sulawesi to other provinces.

131. Based on data obtained from the Central Statistics Agency, from a total of 6,016,016 tons of rice produced by South Sulawesi Province in 2018, in addition to consumption within the South Sulawesi province, 56.31% of rice produced by South Sulawesi was sold to other provinces such as Maluku (10.46%), Aceh (10.05%), East Kalimantan (9.29%), Papua (9.17%), Jakarta (7.42%), North Sumatera (4.80%), Southeast Sulawesi (3.04%),

[55] The data was collected from various sources including communication with the Provincial Leadership Council of PERPADI of South Sulawesi.

[56] https://koranseruya.com/pt-mutiara-pantilang-bangun-pabrik-penggilingan-padi-berskala-besar-di-luwu.html

West Papua (0.94%), Central Sulawesi (0.94%), East Nusa Tenggara (0.07%), South Kalimantan (0.06%), West Sulawesi (0.04%), and East Java (0.03%).[57]

Oil palm production and value chains in Sorong District, West Papua Province:

132. The palm oil industry is one of the main industries in the Special Economic Zone in Sorong (KEK Sorong). There are 8 large oil palm plantation company in Sorong District[58] [59]. However only 2 companies have operated while the others are just holding their location permits (see **Table 10**).

Table 10: Oil palm plantation companies in Sorong District, West Papua

No.	Company Name	Location Permit (ha)	Planted Area (ha)	Sub-District	Parent Company
1	Henrison Inti Persada	32,546	12,047	Klamono	COFCO
2	Inti Kebun Lestari*	14,337		Salawati Timur	Kayu Lapis Indonesia Group
3	Inti Kebun Makmur*	23,000			Kayu Lapis Indonesia Group
4	Inti Kebun Sawit*	13,351		Salawati Timur	Kayu Lapis Indonesia Group
5	Inti Kebun Sejahtera	23,205	2,218	Salawati Timur	Kayu Lapis Indonesia Group
6	Papua Lestari Abadi*	15,631		Seget	Mega Masindo Group
7	Semesta Bintang Sentosa*	n.a			
8	Sorong Agro Sawitindo*	18,070		Mariat	Mega Masindo Group

* not operated yet

133. PT. Henrison Inti Persada does not purchase FFB from independent suppliers with plasma/scheme smallholders planted area at 898 ha, rather the company uses the Identity Preserved (IP) supply chain model. The mill uses FFB only from plantations that are owned by the company and will be certified by RSPO. All FFB are traceable to plantation level for all operations, including smallholding which are managed as an integral part of the group operations. This makes it possible to certify the group and the smallholdings at the same time.[60]

134. Since 2014, the local community is still waiting for PT IK Sejahtera to establish a plasma scheme for the local indigenous people.

POLICY CONTEXT

135. **Medium-Term Development Plan 2020-2024:** There are four pillars under the current medium-term development plan, comprising of: (i) sound political institutions and laws, (ii) improved community livelihoods, (iii) improved and strong economic structure, and (iv) biodiversity conservation. The four pillars are translated into seven agendas, one of which is "protecting the environment and strengthening resilience against natural disasters and climate change." The achievement of this agenda will be delivered through three strategic policy actions:

- Improving the quality of the environment, with a target to achieving the Environment Quality Index of 73.25-75.25 by 2024.
- Strengthening resilience against natural disasters and climate change.
- Low carbon development, with two targets: (i) GHG emission reduction by 27.3% by 2024, and (ii) reduction of GHG emission intensity by 24% by 2024.

136. In terms of low-carbon development plans, the government is focusing on developing green and renewable energy, reforestation, restoration/rehabilitation of degraded land, promoting practices that reduce loss of forest and peatland ecosystems, improving waste management practices, and rehabilitating coastal and marine ecosystems. Sector specific policies are discussed below and described in more detail in **Annex 14** (*Baseline report on governance, policy, and land use planning*).

[57] Rice Trading Distribution in Indonesia 2018. Central Bureau of Statistic. p. 67.

[58] Kabupaten Sorong dalam Angka 2018

[59] http://www.mongabay.co.id/wp-content/uploads/2016/09/Atlas-Sawit-Papua.pdf

[60] https://www.rspo.org/acop/2017/noble-plantations-pte-ltd/NoblePlantationsOct2017.pdf

137. **Commodity**: Oil palm, coffee and cocoa continue to become strategic commodities and the focus of the plantation sector under the Ministry of Agriculture (MoA). In 2015, Indonesia established the CPO-Fund under President Regulation No. 61/2015, aimed to expand oil palm–related programs on replanting, R&D and biodiesel. The government also focuses on the provision of quality/certified seedlings, agricultural inputs, and extension service for farmers. Note that the extension services are not commodity-specific but general, but there is generally a stronger emphasis on delivering extension support to food crop farmers and less so to cash crops or commodities. Part of MoA's policy directions for commodity sector, government priorities are on: (1) strengthening farmer institutions and partnerships with private sector companies especially in the form of farmer capacity building and (2) enhancing access to finance for smallholders.

138. **Food production**: The government's current food policy framework was conceptualised under the President's Nawacita Programme, a nine-point development initiative established in 2014, and aims to achieve food self-sufficiency in the context of national food security. The MoA then developed its agriculture policy and programmes surrounding land optimization and adding planting area for crops, infrastructure, and extension service. In October 2014, the MoA launched a special programme aiming to increase food crop production (rice, corn and soybeans).

Key Policy and Institutional drivers for rice sector transformation[61]

139. In Indonesia, while agricultural policy developments since the mid-1960s can be divided into three main stages, policy support to the rice sector has been a constant feature throughout the period[62].

- ***Mid-1960s-mid-1980s***: Increasing rice production was a political and economic priority for the New Order government under President Soeharto. It established the National Logistics Agency (*Badan Urusan Logistik*, BULOG) and gave it an increasing role over the purchase (at minimum guaranteed prices), distribution and trade in strategic products, and access to cheap credit. Farmers were provided with subsidised inputs (i.e., high-yielding seeds, fertilisers and pesticides) and concessional credits, and supported with extension services and upgraded irrigation systems.
- ***Mid-1980s-1999***: many of these programmes were scaled back because the government lost oil revenue. Extension services went through a variety of restructuring phases. Border protection in the form of tariff surcharges was gradually and unilaterally eliminated. As a consequence, Indonesia was constrained to meet its commitments under the WTO (Uruguay Round Agreement on Agriculture). However, few reforms occurred in terms of the regulatory control given to BULOG and other parties over domestic and international flows of agricultural products. As a consequence of the Asian financial crisis (1997-1999), reforms were implemented that terminated BULOG's monopoly over the importation and domestic marketing of rice. Several agricultural tariffs were reduced including for rice. Most fertiliser subsidies were eliminated. Subsidised credit was provided to farmers to assist them in coping with the difficulties caused by the financial crisis and the worst drought in 50 years. The government responded to the plight of poor consumers by introducing "Rice for the Poor" (*Beras Untuk Orang Miskin*, RASKIN), a targeted rice distribution programme, which has become a mainstay of the social assistance policy framework.
- **2000-present**: Many of these policy reforms have been reversed. Fertiliser and seed subsidy programmes have been reintroduced and greatly expanded. Tariffs and quantitative limitations have been placed on the importation of rice to protect farmers. Additional import restrictions have been mandated for many products including rice, including extra licensing requirements, product registration, shipment approval and border inspection. These measures have added to the cost of trading with Indonesia. The decentralisation process led to a deterioration of extension services and irrigation systems supporting producers despite efforts by the central government to fund the increase of the number of extension workers and the quality of their advice. Responsibilities for irrigation systems have been given to the Water Users Associations (WUA) that are responsible for the operation and maintenance and rehabilitation of on-farm irrigation systems. RASKIN has been replaced by a registered card holder non-cash food support program called *Bantuan Pangan Non-Tunai* (BPNT).

[61] Linking Farmers to Global Rice Markets for Sustainable Agriculture: The case of the rice value chain in South Sulawesi. Peter Sprang, Marie Claire Custodio, and Jean Balié, IRRI (2020).

[62] C.P. Timmer *Food Security, Structural Transformation, Markets and Government Policy* (2017) https://onlinelibrary.wiley.com/doi/pdf/10.1002/app5.161

140. Today, four main objectives shape Indonesian agricultural policy:

1. *Achieve **self-sufficiency** in the production of certain commodities* is the government's main approach to assuring food security. Self-sufficiency targets are chiefly set for rice but also for a few other commodities.
2. ***Make food prices affordable** for the poor*. The government is concerned not only with producing enough of these strategic commodities but also ensuring that prices are affordable for consumers and that supply is distributed across the archipelago. Efforts to balance concerns between producers and consumers is an important feature of agricultural policy in Indonesia.
3. ***Diversify production and consumption** away from carbohydrates* (rice and wheat) towards animal-based products, and fruits and vegetables, particularly tuber vegetables.
4. *Raise the level of competitiveness of agricultural production and value-added processing.* Improving the welfare of farmers through **higher incomes** is also a desired policy outcome to reduce the level of rural poverty.

141. Reducing the overall intake of carbohydrates is a government health policy driven by the soaring number of diabetic patients in Indonesia. At the same time, the Indonesian government is promoting a diversified consumption of carbohydrates with the aim to reduce the domestic demand for rice. With a reduced demand for rice, it would become easier for the Indonesian government to achieve its target of rice self-sufficiency.

142. The Indonesian Government is affecting supply and production of rice through a highly regulated price, both with a floor price at production and a ceiling price for retailers. As these are national policies, these interventions apply and affect the operations in all the value chains across islands. However, given the structure and dynamics of each regional value chain, the effects of these interventions may vary. The Indonesian government also adopts initiatives to reduce price fluctuations not only between the international and the domestic market but also between provinces. This has been done through various measures including improvements in transport infrastructure (ports) and providing more transparency on commodity prices.

143. The government of Indonesia heavily intervenes in agricultural markets and particularly in rice markets. The main domestic policy instruments influencing the relative performance of the various rice sectors are as follows:

- *Minimum purchase prices*: Applied to rice (and sugar). BULOG is required to purchase rice for distribution through RASKIN and stock requirements at guaranteed prices set by the government.
- *Fertiliser subsidies*: Farmers producing on less than 2 ha are able to purchase fertilisers at subsidised prices. The subsidy is provided to fertiliser manufacturers. The value of this subsidy has increased dramatically due to the decision to hold the subsidised prices of fertilisers constant despite growing costs of fertiliser production.
- *Seed subsidies*: Rice (as well as maize and soybean) farmers are the major beneficiaries of subsidized seeds. They can also apply for an annual allocation of free seeds and receive seeds in response to natural disasters.
- *Credit schemes*: Farmers are able to access credit at interest rates 5-7 percentage points below commercial rates (late 2000s). These loans have been channelled through commercial banks. New concessions have been made available to companies working with growers of perennial crops and livestock farmers. A credit guarantee scheme was introduced in 2005. Since 2008, a rural finance scheme has provided funds directly to federated farmers' groups as seed-money for them to on-lend to members based on the microcredit model.
- *Income support*: Assistance is provided for those affected by bad weather and natural disasters.
- *Extension services:* Provided free to farmers. The availability and quality of this advice varies across regencies.

144. **Environment, forestry and land use**: In the environment, forestry sector, and land use sector, the Government of Indonesia has been focusing on efforts related to: (1) halting illegal deforestation and mining within estate-forests, (2) improving conservation and forest governance, (3) improving environment quality, (4)

climate change mitigation and adaptation, (5) land use-based sustainable development planning, (6) protection of peatlands, and (7) resolution to land conflict for community living in the state forest through social forestry. Currently, the government is also in the process of establishing a trust fund for conservation efforts within estate-forests. On land use, government continues to work on Agrarian Reform (Government Regulation No. 11/2010) to utilize abandoned land optimally, as well as curbing land conversion.

145. The Government of Indonesia has demonstrated commitment towards sustainable commodity and crop production, in particular, to halt forest loss by oil palm through Presidential Instruction No. 8/2018 on palm oil moratorium and extensification, and Presidential Instruction No. 6/2017 on moratorium on license granting on primary forest and peatland. The commitment is backed by sector specific regulations and initiatives, including Government Reg. No.76/2008 on Forest Rehabilitation & Reclamation, and Presidential Reg. No. 88/2017 on Land Conflict Resolution, and Government Reg. No. 71/2014–revised through Government Reg. No.57/2016 on protection and management of peatland ecosystems; Ministry of Environment and Forestry's (MoEF's) Director General of Conservation Reg. No.5/2017 on Technical Guideline on HCV Identification outside conservation/protected areas

146. Presidential Instruction 6/ 2019 concerning the national action plan for sustainable palm oil plantations (RAN-KSB) year 2019 to 2024, a strong commitment of the government to ensure sustainable oil palm plantations implemented, including to support the implementation Goal 13 (Climate Action) and Goal 15 (Life on Land to protect, restore and promote sustainable use of terrestrial ecosystems) of Sustainable Development Goals (SDGs).

147. Another important policy advance was realised through Presidential Instruction 5/2019, on the termination of issuance of new permits permanently and improving governance of primary natural forests and peatlands, a continuation and reinforcing policies previously been applied, namely Presidential Instruction 10/2011, Presidential Instruction 8/2015 and Presidential Instruction 6/2017 regarding the postponement of the granting of new permits and improving governance of primary natural forests and peatlands. This presidential instruction aims to contribute significantly to stop the expansion of oil palm plantations and the destruction of natural forests. Termination of the issuance of new licenses in primary natural forests and peatlands including in conservation forests, protected forests, production forests which include limited production forests, fixed production forests, and convertible production forests, as well as other land use areas. The government has stopped the expansion of additional oil palm plantations, although demand for oil palm is increasing. The policy was carried out to support various efforts to improve forest and peatland management and governance to save the existence of primary natural forests and peatlands, and to continue efforts to reduce emissions from deforestation and forest degradation.

148. Descriptions of land use classifications relevant for protection and production forests and other, agricultural areas are outlined below in **Table 11**. Legally, commodity cultivation is only allowed on other land use (APL) areas but not within state forests. Multi-strata commodity cultivation (such as coffee and cocoa) can happen in production forests only under social forestry schemes.

Table 11: Land use classifications

Abbrev.	Description	Management	Designation
HL	Protection forest (state forest)		
KK	Conservation area	MoEF, provincial Natural Resource Conservation Centre (BKSDA)	MoEF
KP	Protection area	Provincial Forestry	MoEF
HP	Production forest (state forest)		
HP	Permanent Production Forest	Provincial Forestry; forest management units (FMUs)	MoEF
HPT	Limited production forest	Provincial Forestry; FMUs	MoEF
HPK	Convertible production forest	Provincial Forestry; FMUs	MoEF
APL	Other land use (*Areal Penggunaan Lain)*	District Government	ATR/BPN

149. **Social forestry**: Traditionally, according to Law No. 41/1999, communities have not been able to cultivate areas classified as state forests. This law resulted in major land conflicts in the country, there are many traditional communities living inside state forests. As part of an action to address land conflicts in state forests,

the Government of Indonesia issued Minister of Environment and Forestry Regulation No. P.83/MENLHK/SETKEN/KUM.1/10/2016 on Social Forestry, which provides the legal framework for establishment of social forestry schemes. Social forestry is an initiative that provides permits for customary peoples or local communities to manage forests sustainably for their livelihoods. There are 5 types of social forestry schemes: (1) Village Forest, (2) Community Forest, (3) Community Plantation Forest, (4) Customary Forest, (5) Partnership Forest. There are at least three derivative regulations for social forestry: (i) General Director of Social Forestry & Environmental Partnership Regulation No. P.11/11/PSKL/SET.0/11/2016 on Guidance for Verification of Village Forestry Management Rights; (ii) General Director of Social Forestry & Environmental Partnership No. P.12/PSKL/SET/PSL.0/11/2016 on Guidance for Verification of Business Rights to Utilize Community Forest's Non-Timber Products; and (iii) General Director of Social Forestry & Environmental Partnership No. P.13/PSKL/SET/PSL.0/11/2016 on Guidance for Verification of Business Rights to Utilize Community Forest's Timber Products. Between the period of 2015 and 2019, the government allocated 12.7 million ha of state forests for various social forestry schemes. Currently, the government is maintaining the target of 12.7 million ha of land for social forestry schemes, as this area was not achieved by the end of 2019.

150. **Climate change and climate resilience:** in 2009, a trust fund, namely the Indonesia Climate Change Trust Fund (ICCTF), was established through BAPPENAS Decree No. KEP. 044/M.PPN/HK/09/2009 and No. KEP.059/M.PPN/HK/09/2010 to support the government in adopting low-carbon development and strengthening resilience to climate change. Showing its strong commitment to address climate change, the government legalized President Regulation No. 61/2011 on the National Action Plan to Reduce GHG Emissions. In this action plan, the country commits to reduce emissions by 26% and by 41% with international support, against business as usual (BAU) scenarios. These original targets have been revised to (i) a reduction of 848 M tons CO2e or 29% from BAU by 2030 without international support, and (ii) 1.2 G ton CO2e or 41% compared to BAU by 2023 with international support. The issuance of the national action plan was followed by the formulation and implementation of the provincial action plans to reduce GHG emissions. Additionally, the government issued the Minister of Environment Regulation No. 19/2012 on Climate Village Programme. The Climate Village is a national programme managed by the Ministry of Environment and Forestry to support communities improve their capacities to adapt to climate change. Awards have been given to communities who show notable actions to mitigate GHG emissions and implement adaptation actions locally.

151. **Agrarian Reform:** referencing Law No. 5/1960 on Agrarian Principles, President Jokowi enacted the agrarian reform programme under a President Regulation No. 86/2018 with objectives consisting of: (i) reducing inequality in land tenure and ownership, (ii) addressing agrarian conflicts; (iii) improving community livelihoods by providing better tenure access, (iv) reducing poverty; (v) improving community's access to economic resources, (vi) strengthening food security and food sovereignty, and (vii) improving the quality of the environment. Key tenure objects for land distributions are Business Permit (HGU) and Cultivation Permit (HGB) which license has ended and has not been proposed for extension within a year. Application may be submitted individually or certified group. The agrarian reform programme (*Tanah Objek Reformasi Agraria* – TORA) targets 9 million ha of land, involving distribution of land and formalisation of land ownership, benefitting landless farmers and farmers with small holdings.

THREATS AND ROOT CAUSES

152. If well managed, perennial crops such as coffee and cacao have the potential to yield greater environmental benefits than many alternatives such as annual crops and pasture, and if sustainable and profitable may allow farmers to meet their livelihood needs without having to resort to encroaching on or otherwise degrading natural habitats. The complex interaction of a number of factors, portrayed in **Figure 30**, means however that this potential is currently not realized, and the target landscapes (together with many others in Indonesia with which they share characteristics) are as a consequence subject to serious problems of forest loss and environmental degradation with local, national and global implications.

153. While each of the 5 target jurisdictions have different characteristics, there are commonalities in the threats affecting them. In all of the target jurisdictions, cash crops are expanding into forest areas, leading to the loss of biodiversity values and carbon stocks, and the degradation of ecosystem functions and services. This is happening in both "convertible" and "non-convertible" forests. In the case of convertible forests, forest conversion for crop production is in fact allowed by law; however, in many cases the ways that this is being carried out lead to unnecessary environmental impacts – for example environmentally-damaging practices are

used (such as disruptive mechanical land clearance or the application of high levels of pesticides), or environmentally sensitive areas are not subject to specific protection or management provisions. Crop expansion into "non-convertible" forests is particularly significant in causing the loss of environmental values, given that these forests have specifically been categorized by the Government for protection or sustainable management, due to their importance for biodiversity and/or ecosystem service provision. These processes are further increasing the challenges of ensuring the security and resilience of the livelihoods and food supply of the populations who participate in and/or depend on food systems and natural resource management, in a global context affected by climate change, volatile markets and prices for commodities, and exposure to other crises with far ranging social and economic implications such as the COVID-19 pandemic.

154. The generalized problem tree in **Figure 30** summarizes the main causal linkages contributing to the environmental problems that will be addressed by the project. Their immediate and underlying causes include the following:

- **Unselective demand** for the crops in national and global markets constitutes a direct incentive to farmers to increase the area they have under production with these crops; this is in turn a function of consumers' limited willingness to pay price premia for sustainably produced crops.
- Forest loss and environmental degradation result when market incentives for crop expansion are coupled with **weak governance conditions**, which mean that farmers and other resource managers and users are unconstrained from acting in ways that cause negative environmental impacts.
- **Climate change** threatens to undermine the viability of perennial crops (see **Annex 12**), especially coffee and cocoa (both of which have relatively narrow temperature tolerance ranges), potentially leading to their abandonment: this may have impacts in the form of loss of the carbon stocks, biodiversity values and ecosystem services generated by such diverse perennial-based production systems; it also threatens to lead farmers to shift to other productive or extractive activities characterized by encroachment and environmental degradation, such as annual cash-crop monocultures or pasture.
- In the short term, faced with rising temperatures and associated increases in agronomic problems such as pests and diseases, farmers may apply **maladaptive responses to climate change, such as increases in the use of agricultural chemicals**, with resulting negative environmental impacts both on farm and downstream, and as well as a vicious cycle of further productivity decline, vulnerability and maladaptation.
- **Global price volatility** for internationally traded commodities such as coffee, cocoa and palm oil further undermine their long-term viability and sustainability as the basis for landscape management strategies and livelihood resilience: current development models, however, are strongly focused on a dependence on cash-crops.
- **Low productivity of cash crop plantations**, due largely to limited technical and organizational capacities among farmers and inadequate farmer support systems, leads (in the absence of adequate governance) to expansion and encroachment in order to meet production and income goals.
- **Inadequately developed mechanisms for land use planning** lead to productive activities being inappropriately located in the landscape in relation to environmental carrying capacity and vulnerability; conservation, restoration and ecosystem management initiatives failing to respond adequately to the location and nature of ecosystem values and services; and trade-offs among the interests of different stakeholder groups failing to be addressed equitably, effectively and sustainably.

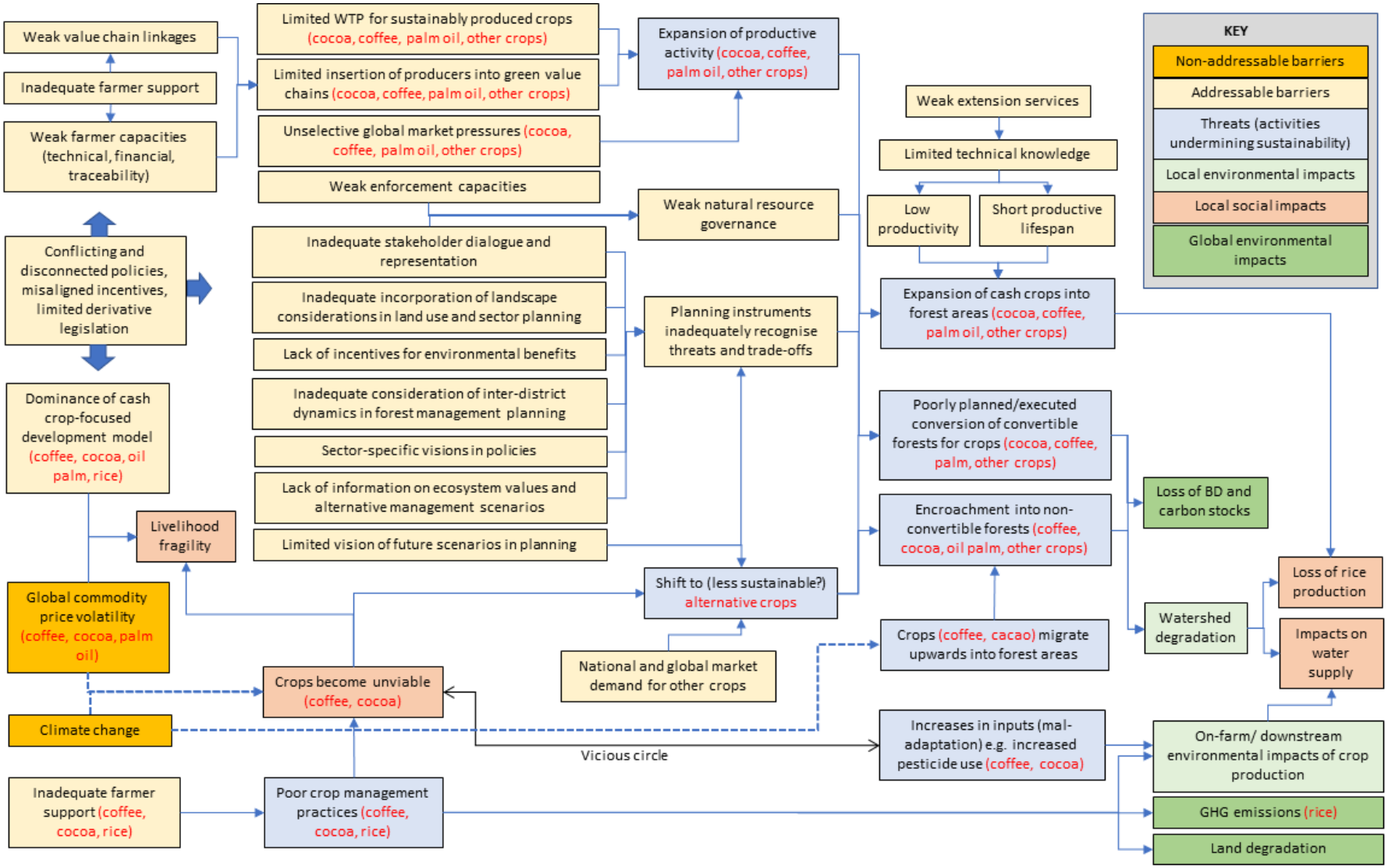


Figure 30: Problem tree analysis

Global demand and the actors involved along the supply chains:

155. Major actors along the global supply chains of palm oil, cocoa and coffee are listed below in **Table 12.** Rice is not included because production is mostly consumed by the domestic Indonesian market.

Table 12: Major actors along the global supply chains of palm oil, cocoa and coffee

	Palm oil	Cocoa	Coffee
Traders / processors	AAK ADM Bunge Cargill Fuji Oil KLK Olam Sime Darby Wilmar	Barry Callebaut Cargill ADM Blommer Olam Ecom	Ecom Armajaro Trading, Olam International Louis Dreyfus Group ED&F Man Amtrada
Manufacturers	Unilever Nestle Mars Mondelez PepsiCo General Mills Kraft Heinz	Mars Mondelez Nestle Meiji Holdings Ferrero Hershey	JDE Nestle JM Smucker Tchibo Starbucks Lavazza

Global value chains:

156. Schematic illustrations showing the global value chains for palm oil, cocoa and coffee are shown below in **Figure 31**, **Figure 32**, and **Figure 33**, respectively.

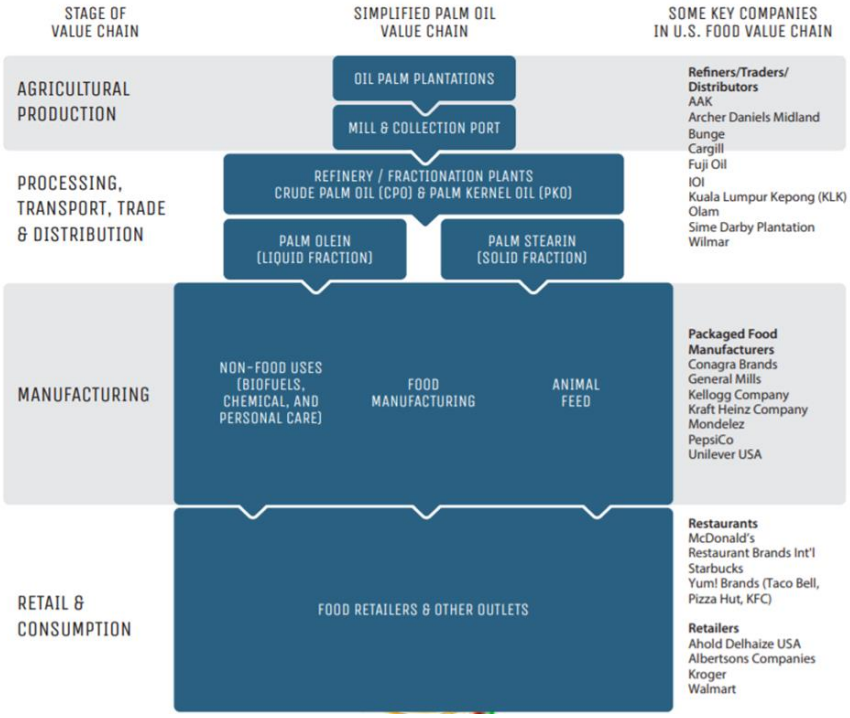


Figure 31: Global value chain for palm oil[63]

[63] Source: An Investor Brief on Impacts that Drive Business Risks: Palm Oil. CERES, August 2018 (https://engagethechain.org)

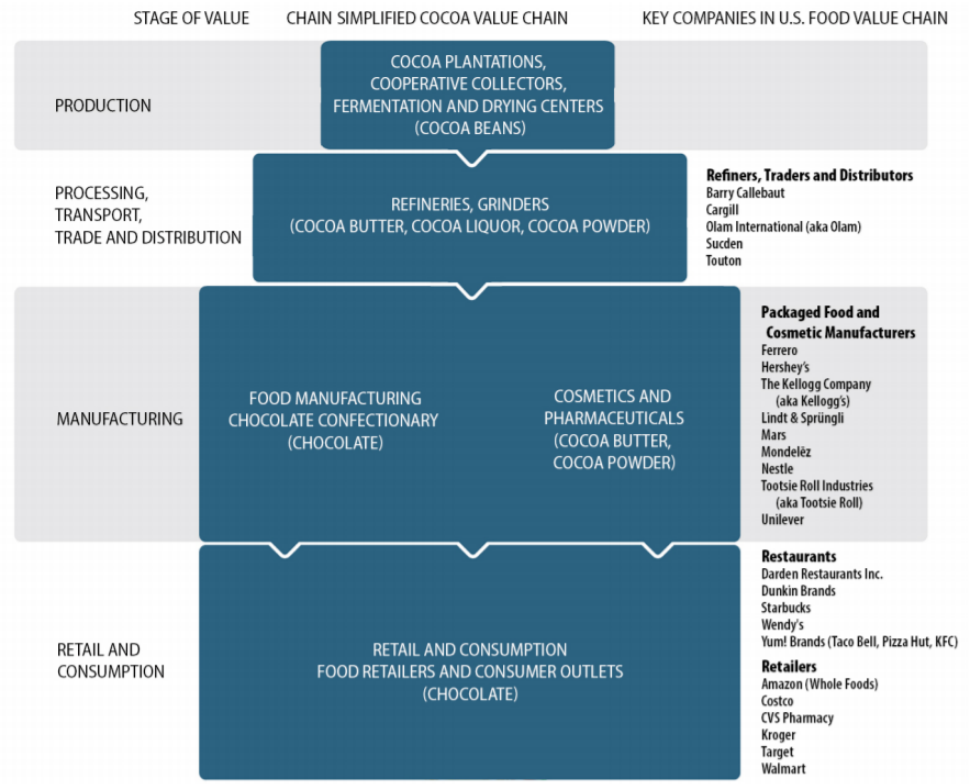


Figure 32: Global value chain for cocoa[64]

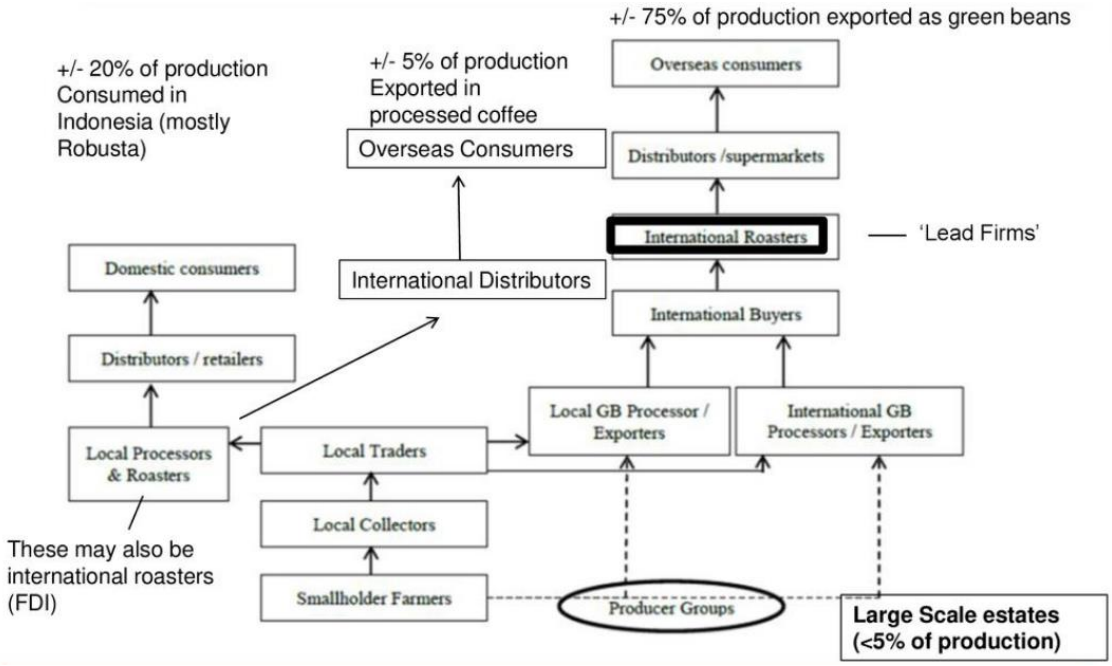


Figure 33: Global value chain for coffee[65]

<u>Lower level of awareness of environmental impacts in Indonesian domestic markets</u>:

[64] Source: An Investor Brief on Impacts that Drive Business Risks: Cocoa. CERES, October 2020 (https://engagethechain.org

[65] Source: Value chain profile for Robusta and Arabica coffee in Indonesia and its impact on farmer livelihoods, Jeffrey Neilson School of Geosciences, M. Nurmi, 2018.

157. Over the past 30+ years, global concern about sustainability issues in commodities (especially palm oil) has been significantly driven by international NGOs. For much of that time their approach to catalysing change in commodity production has focused on raising consumer awareness in European and North American markets and putting pressure on major international food manufacturing brands (e.g., Nestle, Unilever, Mars, Mondelez, PepsiCo, etc) plus international large retailers (e.g. Walmart, Carrefour, Tesco, etc) and large global commodity trading companies (e.g. Cargill, Louis Dreyfus, ADM, etc.) to ensure that they were sourcing from sustainable sources of production, validated via voluntary sustainability standards (VSS). The theory was that this would catalyse a shift in global demand, driving systemic change on the ground. In fact, VSS certified products have largely failed to move beyond being niche markets. RSPO, one of the most successful standards, has still only achieved 20% market penetration after more than 15 years.

158. What was overlooked by international NGO pressure has been the very significant demand from other markets where there are much lower levels of awareness and demand for sustainably produced products.

159. Indonesia itself is the fourth largest country in the world by population (270 million) and is a major consumer of the four commodities included in this project – palm oil, coffee, cocoa and rice. Raising domestic Indonesian awareness of environmental issues relating to commodity production is therefore important in relation to increasing consumer demand for sustainably produced products.

Further details on domestic consumption:

160. Indonesian domestic consumption of palm oil (15 million metric tonnes) accounts for a third of total production and make Indonesia the world's largest consumer of palm oil.

161. Indonesian coffee production was 660,000 metric tons (2017 figures) of which approximately 25% was for domestic consumption.

162. After declines in cocoa production volumes in recent years, current production volumes of approximately 200,000 tons of cocoa beans, most of which is exported. However, Indonesia is a net importer of cocoa in order to meet its own domestic demand.

163. Indonesia is self-sufficient in rice production and almost the entire rice crop goes towards domestic consumption with very low amounts going to export markets.

Unsustainable investor as a driver:

164. Under the Roadmap for Sustainable Finance (2015-2019) and the Application of Sustainable Finance Regulation (2017), the Indonesia Financial Services Authority (OJK) requires banks to show how they are addressing ESG risks connected to their financing, However, NGO investigations have revealed that banks have failed to disclose major ESG risks such as illegal plantation development, land rights violations, fire risks in plantations, destruction of forests and peatlands, indicators of tax evasion, and violations of labour laws, suggesting that banks were either unaware of their exposure to such risks or that they were failing to properly disclose and address them.

165. A 2020 report by forestsandfinance.org found that between 2014 and 2019 (August) at least USD 60.2 billion worth of loans and underwriting facilities were provided to the forest-risk sector operations in South East Asia (Indonesia, Malaysia, Thailand, Cambodia, Laos, Vietnam) across 100 companies in the study. The banks most exposed include Maybank, SMBC Group, Mizuho, Bank Rakyat Indonesia, Bank Mandiri, OCBC, MUFG, Bank Negara Indonesia, CIMB and ICBC. The forest operations of the 100 forest-risk sector companies were supported by an additional USD 25.6 billion worth of bond and shareholdings as of the August 2019. The major investment funds identified include Malaysia's Permodalan Nasional Berhad, Employees Provident Fund, KWAP Retirement Fund, Public Bank and FELDA; US-based Vanguard and Blackrock; Japan-based Government Pension Investment Fund (GPIF) and Sumitomo Mitsui Trust Holdings; and Singapore-based OCBC.

166. The report recommended the OJK should step up its efforts by tightening regulations, issuing improved technical guidance, and applying strict sanctions against non-conforming banks. It also recommended improved

sustainability disclosure standards, ESG risk management processes, and better policy coordination in natural resource governance and enforcement.

Specific Sustainability Issues in each of the Targeted Jurisdiction:

167. Specific sustainability issues associated with crop/commodity production in each of the targeted jurisdictions include the following (further detail on each of the target jurisdictions is provided in **Annex 16**):

Aceh Province (landscape: Central Aceh District):

168. Forests and critical ecosystems in Central Aceh are threatened by ongoing deforestation and degradation. Overall, Aceh Province and its administrative regions experience capacity challenges related to forest governance. At the same time, the province has been granted "special autonomy" to manage its resources (production and protection functions), which complicates decision making process over land use allocations, and has led to weak linkages between national policies and sub-national implementation.

169. The causal linkages underlying the problems of environmental degradation in the target landscape in Central Aceh, and the spatial configuration of the processes (highlighting the importance of the integrated landscape management approach), are portrayed below in **Figure 34**.

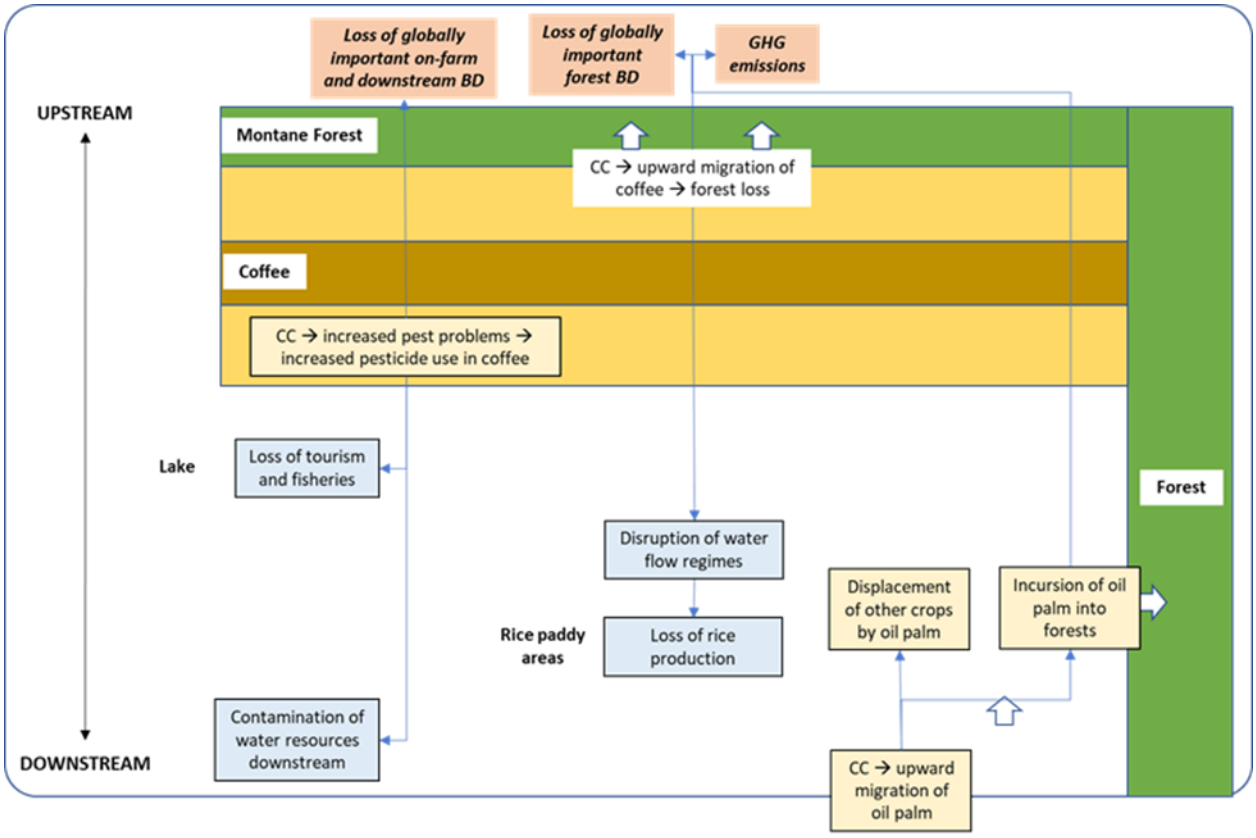


Figure 34: Causal relations and spatial dynamics of environmental degradation in Central Aceh

170. As depicted in **Figure 34**, the upward migration of coffee production in Central Aceh is leading to the loss and degradation of montane forest: this has negative impacts on the biodiversity and carbon stocks of the montane forests themselves, and also generates flows of sediment and pesticides with downstream impacts on aquatic ecosystems and rice production systems. This upward expansion of coffee production is driven by a combination of the strong market demand for the speciality Gayo coffee produced in the area, and climate change (which makes coffee production increasingly feasible at higher altitudes). Climate change is conversely making coffee production less viable at lower altitudes: instead of abandoning it, however, in the absence of adequate technical support farmers are typically applying maladaptive responses including the application of excessive amounts of pesticides (causing impacts on biodiversity both on-farm and downstream) and expansion

of production into forest areas to compensate for declining yields. Climate change is also facilitating the incursion of oil palm into the area from lower altitudes, leading to the risk of encroachment on forests both directly by the oil palm and indirectly by existing crops which it displaces.

171. Despite the market potential of the speciality Gayo coffee produced in this area, the participation by farmers in Aceh in green value chains that reward sustainable and resilient production is constrained by their limited technical capacities to apply necessary management practices (such as soil erosion prevention measures and the production and correct application of compost fertilizer) and their limited organizational capacities. These factors limit the quality, productivity and therefore profitability of their coffee, which in turn reduces their motivation and ability to reinvest in necessary management measures.

Additional information is provided in **Annex 16** (*Jurisdictional Profile: Aceh Province*).

North Sumatera Province (landscape: Mandailing Natal District):

172. Overlapping ownership claims on forest land leading to conflict between government, private sector and local community. Capacity gaps among authorities and governments to implement environmental regulations an additional factor leading encroachment of the remaining 1,763,054 ha of forest (per 2017, or 24% of the province's area). Especially in the target district (Mandailing Natal), absence of a multi-stakeholder platform results in lack of cross-sectoral coordination and collaboration to pursue sustainable development. Between 2006 and 2017, North Sumatera lost a total of 211,353 ha of its primary and secondary forests attributed to degradation (70%), monoculture plantation mainly oil palm (19%) and mixed-dry land cultivation mainly coffee and cocoa (11%).

173. Threats and drivers of forest loss and degradation in Mandailing Natal is illustrated below in **Figure 35**. The main processes impacting global environmental values in Mandailing Natal, depicted in **Figure 35**, are as follows:

- Poor management practices in oil palm plantations, and consequent low productivity, are leading farmers to expand the area under production, resulting in its expansion into existing rice production areas and forests.
- Market demand for speciality Arabica coffee, coupled with low productivity per unit area and climate change, is leading to its expansion into forest areas.
- Poor management and correspondingly low productivity of Robusta coffee, typically in lower altitude areas, are leading to its abandonment in favour of annual crops.
- The conversion and poor management of natural forests to coffee or oil palm, the poor management of coffee plantations (both Robusta and Arabica) and the conversion of Robusta coffee plantations to annual crops are leading to the loss of environmental values both in natural ecosystems and on-farm, including biodiversity, carbon stocks and watershed protection functions.
- The loss of watershed protection functions in turn affects the viability of rice production downstream, which depends on irrigation.

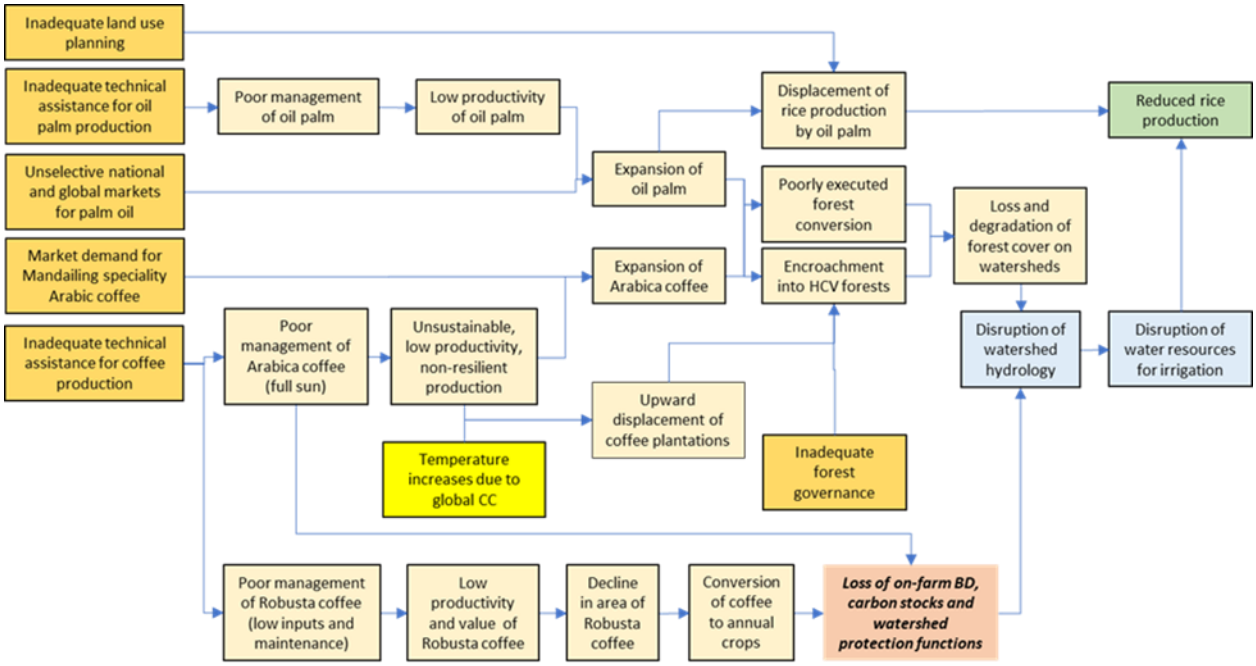


Figure 35: Problem tree for Mandailing Natal District, North Sumatera

Productivity and sustainability issues with coffee production in Mandailing Natal

174. Coffee production has increased significantly in North Sumatera Province and Mandailing Natal District. In Mandailing Natal, the cumulative area of Arabica coffee planted increased from 2,421 ha in 2014 to 3,230 ha in 2018, while the planted area of Robusta coffee decreased from 1,130 ha in 2014 to 1,109 ha in 2018. Generally low levels of productivity have been attributed to the following two factors: (1) inefficiencies during the development of the plantations, and (2) inaccurate assessment and insufficient application of fertilizers. Based on interviews during the PPG phase with farmers in Ulu Pungkut Sub-district, it was found that farmers did not yet have basic knowledge of coffee plants. Moreover, steep mountainous terrain makes it difficult for farmers to carry fertilizer, especially compost. The availability of livestock in this region is also limited, so there is a possibility of greater use of chemical fertilizers compared to organic fertilizers. The steep topographic conditions without any buffer strips or other erosion control measures also pose a risk for landslides and loss of fertile soils.

175. Arabica plantations in this landscape are in general poorly managed in terms of sustainability, with a predominance of full sun production (i.e. with no shade trees). There is therefore much opportunity for improving management to benefit biodiversity, sustainability and climate change resilience through the promotion of the use of shade trees, with diverse structure and composition.

Productivity and sustainability issues with oil palm production in Mandailing Natal

176. According to data from the Agriculture Service of Mandailing Natal, the district is the largest palm oil producing district in North Sumatera. Smallholder oil palm farmers play a significant role in the province, with >52% of total planted area managed by smallholders.

177. Like many other places in Indonesia, oil palm smallholders in Mandailing Natal continue to face the following challenges: i) low productivity caused by lack of knowledge on good agriculture practices, ii) FFB price fluctuations, iii) significant reliance on intermediaries, and iv) unclear and overlapping land tenure.

178. For decades, there has been an insufficient number of oil palm extension officers in the region; and as a result, farmers are not well trained in implementing GAP. Additionally, government programs tend to focus on food-crops and provide limited technical support and subsidies to farmers producing commodities such as oil palm. The prolonged decrease in FFB prices has also prevented farmers' ability to make proper investments on their plantations. This is particularly the case when it comes to purchasing appropriate agricultural inputs for their plantations. Due to the lack of partnerships with the private sector companies (e.g., mills), many

smallholder farmers are compelled to sell their fruits to intermediaries at below market prices. Although many ISPO/RSPO-certified companies are making efforts to partner with smallholder farmers within their supply chains, these efforts are challenged by the tenure issues faced by smallholders. Many smallholder plantations are located within state forest areas or within company's concessions. Moreover, most of smallholders have not obtained land certificates that are prerequisite for partnership with companies. It is also important to note that GAP and legal land certificates are mandatory to pursue ISPO and RSPO sustainability certification process.

Additional information is provided in **Annex 16** (*Jurisdictional Profile: North Sumatera Province*).

West Kalimantan Province (landscape: Sanggau District):

179. During 2006-2017, the province had converted a total of 814,618 ha of its primary and secondary forests where key drivers of deforestation were: monoculture plantation mainly oil palm (49%), land degradation (38%) and mixed dryland cultivation mainly coffee and cocoa (13%). Most of the province's area has been granted concession licenses (forest-based and oil palm concessions), although many of these licenses have been revoked by the current governor. These abandoned concession areas still contain significant forest cover but is threatened by encroachment done by smallholders and local logging companies. Capacity gaps among local government officials exacerbate the situation. However, there are opportunities to strengthen forest governance to drive private sector investments and community participation to pursue restoration and conservation.

Productivity and sustainability issues with oil palm production in West Kalimantan

180. West Kalimantan is one of the largest palm oil production provinces in Indonesia. The average annual oil palm production in West Kalimantan during the period of 2013 to 2018 was 2,226,632 tons, and the cumulative total area oil palm plantations in 2018 was 1,757,919 ha. Oil palm is planted in 13 of the 14 districts/cities in the province, with Ketapang District (631,074 tons/year) and Sanggau District (578,311 tons/year) producing the most.

181. As graphically illustrated in the problem tree presented below in **Figure 36**, the expansion of oil palm plantations, weak governance, and inadequate planning have resulted in forest encroachment and a poorly managed conversion of convertible forests. The environmental impacts are not limited to loss of forests, e.g., damage to water sources has contributed to negative effects to water supply and quality. The weak governance of the oil palm industry is partly attributed to limited stakeholder involvement, including customary people, lack of incentives to smallholder farmers, lack of information on ecosystem values and alternative management scenarios, and short-term strategic visions.

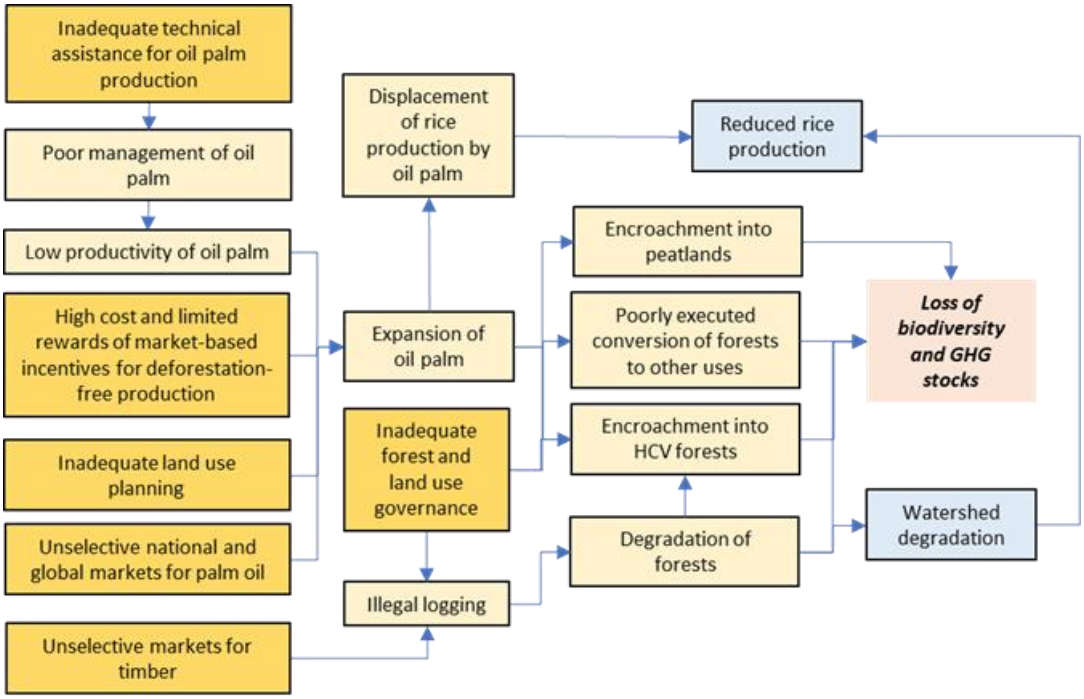


Figure 36: Problem tree associated with oil palm production in West Kalimantan and West Papua

182. Poor management practices, particularly among smallholder farmers, contribute to low productivity and lead to higher pressure to grab more lands, resulting in increased loss of biodiversity and ecosystem services. Moreover, the development of oil palm plantations in West Kalimantan, including in Sanggau District, have also disrupted traditional ways of life practiced by customary people. Furthermore, dissatisfaction among some of the plasma farmers in the province has resulted in conflicts between local communities, companies, and local governments.

Additional information is provided in **Annex 16** (*Jurisdictional Profile: West Kalimantan Province*).

South Sulawesi Province (landscape: Luwu District):

183. Although the target FOLUR crops in South Sulawesi are cocoa and rice, the dynamics of the landscape and of the process of environmental degradation that are affecting it are also determined by other productive elements, particularly clove production. As shown below in **Figure 37**, the economic attractiveness of clove production, coupled with inadequate forest governance conditions and the currently limited productivity and viability of cocoa, is leading to the expansion of clove production into forest areas: this in turn is resulting in watershed degradation with consequent impacts on the viability and sustainability of the major rice growing areas, located mostly on the lowlands downstream. Due to poor or inappropriate management, rice production in these areas, in turn, generates environmental impacts in the form of chemical contamination, soil degradation and GHG emissions.

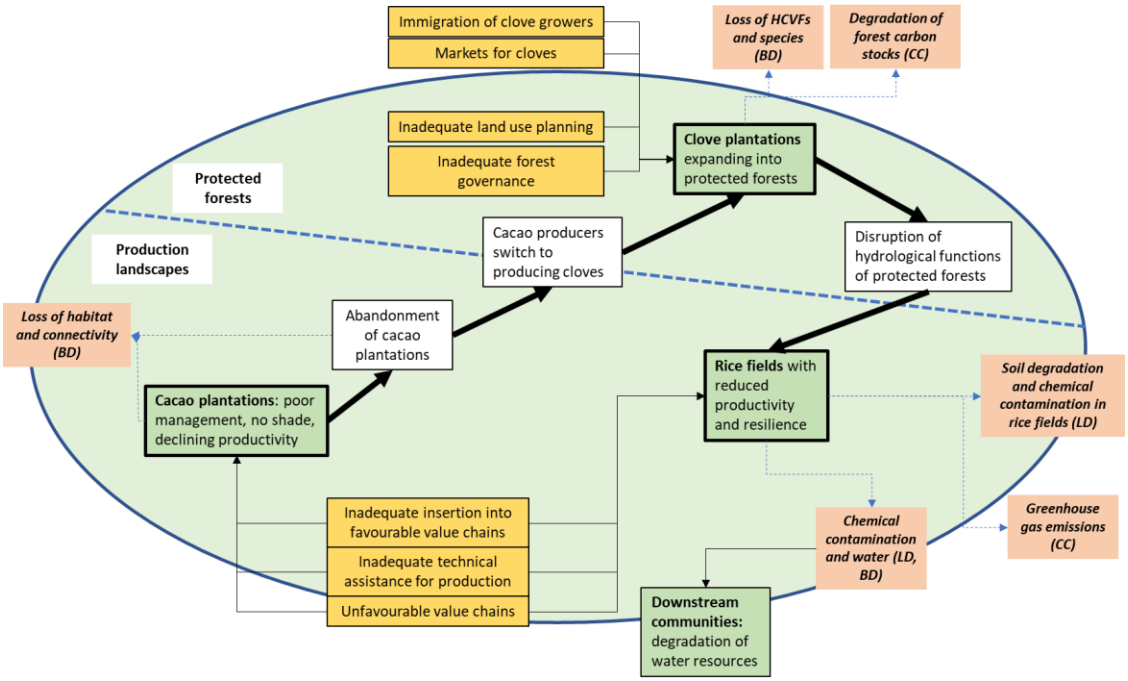


Figure 37: Causal relations and spatial dynamics of environmental degradation in South Sulawesi

184. The provincial government has provided some initiatives for reforestation. The Forest Management Unit VIII Latimojong has developed a reforestation program through social forestry. However, the initiatives were not successful due to some factors, including community's knowledge, perception, and expectation on social forestry management licenses.

Productivity and sustainability issues with cacao production in South Sulawesi

185. The low productivity of old-aged cacao trees and limited capacity in processing the product, have caused low market value of cacao products. Farmers also lack capacities and technical/financial support systems to adopt GAP practices and to produce cacao sustainably.

186. Key sustainability issues and challenges for cacao production in South Sulawesi include the following:

- Low productivity due to the old age of the plantations, and limited availability of superior cocoa seedlings to replace old cocoa plants
- Limited and poor management, further limiting productivity, including inadequate management of pests and nutrients
- Inadequate capacities for post-harvest management and processing
- Limited organizational capacities.

Sustainability issues with rice production in South Sulawesi

187. Paddy farmers in Luwu District do not in general apply appropriate technology that sustains the environment and enhances productivity in the long run. Farmers use excessive amounts of chemical fertilizer, pesticides and water, on the assumption that this will correlate directly with increased yields: this in reality has negative effects on food safety, soil degradation, water quality and ecological integrity (which in turn leads to further increases in pest problems).

188. Water availability is a limiting factor for sustainable rice production, in South Sulawesi Province in general and Luwu District in particular. Forest lost and degradation of water catchment areas at the upstream areas have caused disruption of the hydrological functions of the forest area, causing high surface run-off during the rainy season and low water infiltration into the ground. As a result, frequent floods that damage agricultural areas and other infrastructure occurs in the rainy season, while on the other hand there is a lack of water in the

dry season so that it is unable to provide sufficient water supply for rice fields, especially those located at the downstream.

189. Cropping pattern and poor irrigation water management are other factors threating sustainable rice production. The farmers are mostly applying rice-rice-rice pattern in their rice fields: there is almost no crop rotation with other cereal crops (i.e. maize), leguminous, or vegetable crops mainly when the irrigation water insufficient. This cropping pattern has led high demand of irrigation water and no termination of pests and diseases life cycle. As a result, farmers have experienced mice and plant hopper attacks leading to crop failures.

190. Rice production is also affected by issues of water governance: planting rice over large area without time limits means that paddy fields downstream do not get enough irrigation water, causing crop and harvesting failures. In fact, the average cropping index in Luwu District for example during the period of 2013 to 2018 is only 1.93/year[66] which is still far from the cropping index of 5 times in 2 years (2.5/year) as targeted by South Sulawesi Provincial Agriculture Office and Luwu District Agriculture and Plantation Services.[67]

Additional information is provided in **Annex 16** (*Jurisdictional Profile: South Sulawesi Province*).

West Papua Province (landscape: Sorong District):

191. West Papua largely constitutes a "frontier landscape" where there are major threats of environmental degradation related to unsustainable production systems and landscape management, but to date these have yet to materialize in practice.

192. At present, the most prominent environmental issue is the unsustainable planning of road development, leading to encroachment on forests. Although the rate of deforestation had been low (0.10% between 2006-2017), the development plan does not provide clear mitigation action to ensure forest is being protected and will pose a great deforestation threat in the near future. Furthermore, the central government, as well as the previous provincial governments, had granted concession licenses (forest and oil palm) totalling to almost 50% of the province's area (based on West Papua's spatial plan). Additionally, around 2 million ha of forest have been allocated for conversion (HPK, HTI & APL) according to the provincial spatial plan. However, most of the licenses and conversion plans are still not operational because of the lack of infrastructure, security, and most importantly, customary law and West Papua's commitment as a conservation province declared by the current Governor. A detailed jurisdictional plan to save remaining forests from being converted while increasing the value of forest for community's livelihood is necessary. At the same time, the province is granted "special autonomy" to manage its resources (production and protection functions), making it even more necessary to strengthen the capacity of the current government to pursue conservation goals.

<u>Sustainability issues with oil palm production in West Papua</u>

193. With abundantly rich and biodiverse forests covering around 90% of the province, monocultural palm-oil plantations potentially threaten forest ecosystems in West Papua. Considering that the establishment of West Papua Province is relatively new and the fact that there are only a few established oil palm companies in the province, the palm oil supply chain is less complex in comparison to other provinces and the contribution of West Papua to the national CPO production is low (only around 0.15%). However, the threats associated with potential expansion of oil palm production are similar to the situation in West Kalimantan Province, where the oil palm sector is more mature (see problem tree in **Figure 36**).

194. In 2018, through the *Perdasus Pembangunan Berkelanjutan* (Special Provincial Regulation on Sustainable Development), West Papua Province pledged to allocated 70% of its land area for conservation. This has proven a challenging commitment, considering the socioeconomic development priorities of the provincial and local government units. Moreover, there are a number of oil palm companies having location permits, but not yet developing the lands into plantations. Establishing and maintaining oil palm plantations in West Papua

[66] The data are collected and analyses from the "Luwu District in Figures" 2013 to 2019. Central Bureau of Statistic of Luwu District.

[67] Agriculture Strategic Plan of Luwu District 2019 – 2024.

Province have been met with complexities unique to this part of Indonesia. In a study[68] published in 2014, there were limited benefits generated for smallholder farmers participating in Nucleus Estate Smallholder Schemes (*Perkebunan Inti Rakyat* – PIR). Local residents surveyed as part of the study reported a number of negative environmental impacts, including reduction of forest cover, deterioration of water quality, increased erosion, etc., as shown below in **Figure 38**.

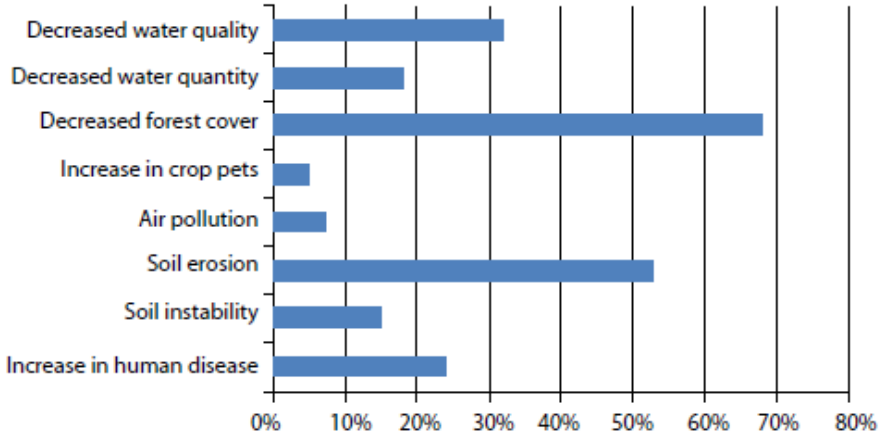


Figure 38: Respondents' perceptions of negative impacts of oil palm development, Prafi Plain[69]

195. Local indigenous peoples were particularly unable to benefit from the palm oil estates, as conflicts arose with immigrant workers who migrated to the province under the PIR schemes. These conflicts resulted in local customary landowners demanding to reclaim land and demand compensation. And there have been legal uncertainties associated the status of land after business-use rights have expired.

Additional information is provided in **Annex 16** (*Jurisdictional Profile: West Papua Province*).

BASELINE ACTIVITIES:

196. **Medium Term Development Plan 2020-2024 (RPJMN 2020-2024)**. The RPJMN is an important planning instrument that provides strategic direction to central and subnational level ministries, agencies, and other bodies. Some of the key targets in the RPJMN 2020-2024 that are directly relevant to the FOLUR project objects are listed below.

- 1.93 million ha avoided forest loss between 2020-2024.
- 65 million ha covered under Essential Ecosystem Area (KEE) scheme by 2024.
- Restoration of 330,000 ha of degraded land by 2024.
- Restoration of 30,000 ha of degraded peatland within community land by 2024.
- Improved oil palm, coffee, cocoa and rice productivity.
- Improving smallholders' capacities to implement good agricultural practices (GAP).
- Increase in ISPO and RSPO certification and promoting "Green Refinery Standalone".
- Improvement of agriculture-based downstream industries.
- Increasing the number of extension officers.

197. **The Palm Oil Plantation Fund,** also known as the CPO Fund: the CPO Fund is managed by the Indonesian Palm Oil Plantation Fund Management Agency (BPDPKS). The agency was formed by the government to support the country's efforts in realising sustainable palm oil production. The fund is regulated through Presidential Regulation No. 61/2015 jo., Presidential Regulation No. 24/2016 jo., and Presidential Regulation No. 66/2018. Up to 2018, through collection of CPO expert levies, the fund amassed more than one billion US dollars. The fund is predominantly used to subsidise the biodiesel industry and oil palm replanting for smallholders. The expectation is that the replanting programme using quality planting materials will improve smallholder

[68] Kesaulija FF, Sadsoeitoebeon BMG, Peday HFZ, Tokede MJ, Komarudin H, Andriani R and Obidzinski K. 2014. *Oil palm estate development and its impact on forests and local communities in West Papua: A case study on the Prafi Plain.* Working Paper 156. Bogor, Indonesia: CIFOR

[69] Ibid.

productivity, thus disincentivising smallholders from opening new land and encroaching into high conservation value forests. Between 2016-2019, a total of IDR 1.45 trillion of the CPO-Fund was utilized for smallholder replanting programme, covering plantation area of 58,098 ha.[70] The FOLUR project offers opportunities to work with the BPDPKS in further strengthening their smallholder programmes.

198. **Peatland Restoration:** in 2016, the government established the Peatland Restoration Agency (BRG) through Presidential Regulation No. 1/2016. The BRG, mandated to coordinate and facilitate peatland restoration, reports directly to the President. In BRG's workplan for 2016 – 2020, as decreed in SK.16/BRG/KPTS/2018, the target of peatland restoration is 12.9 million ha, covering seven provinces: Riau, Jambi, South Sumatera, West Kalimantan, Central Kalimantan, South Kalimantan, and Papua. The following table describes the strategic peat criteria for restoration in the seven provinces[71]:

BRG Criteria for Peatland Restoration in Seven Provinces	**Area (ha)**
Forest, Land, and Plantation Fire-Impacted Peatlands in 2015	877,394
Restoration of peat dome or deep peat already used for cultivation area	2,796,492
Protection of unopened and intact peat area	6,174,493
Repair of water management and improvement of control infrastructure	3,094,520

199. The restoration target for West Kalimantan is 149,901 ha, covering the following districts: Kubu Raya, Mempawah, Sambas, Ketapang, Kayong Utara, Melawi, and Sintang. Through the end of 2019, BRG had facilitated the restoration of 778,181 ha of peatland across the target provinces. In Papua Province, the realization of the restoration target as of 2019 is around 95%, predominantly through training provision for the local communities on alternative livelihoods and peatland protection. To further strengthen the efficiency of the programme, the Minister of Environment and Forestry issued a regulation (Minister Regulation No. P.6/MENLHK/SETJEN/KUM.1/2/2019) as a guidance for sub-national governments to assist the restoration implementation in the seven priority provinces. During formulation of the ILM plans in the FOLUR target jurisdictions, the project will coordinate with the BRG and their subnational counterpart agencies, in promoting improved management of critical peatland ecosystems.

200. **PRONA Program:** to support the implementation of the agrarian reform, the Ministry of Agrarian Affairs and Spatial Planning/Land National Agency leads the National Agrarian Operations Project (PRONA), which predominantly aims to aid community members in obtaining land tenure certificates, helping to resolve the extensive number of land conflict issues in the country.

201. **GEF-6 Good Growth Partnership (GGP) Impact Program**: Global impact program operating in four commodity producing countries, including Indonesia, Brazil, Liberia, and Paraguay. In Indonesia, the GGP project has facilitated the (1) legalization process of the National Action Plan on Sustainable Palm Oil into a Presidential Regulation, led by Coordinating Minister for Economic Affairs regulation; (2) draft Minister of Environment & Forestry Regulation on Essential Ecosystem Areas (KEE); and (3) draft Government Regulation on Life Support System as a greater umbrella for KEE protection. In Indonesia, the legalization of the National Action Plan in the form of a Presidential Instruction in 2019 has resulted in the implementation of various actions related to palm oil sustainability, such as training provision for smallholders, private sector partnership with independent smallholders, as well as protection of peat ecosystems at the landscape level in Pelalawan District (Riau), Sintang (West Kalimantan) and South Tapanuli (North Sumatera). The FOLUR will build upon the achievements of the GGP Impact Program and promote similar approaches in other provinces and for other commodities.

202. **UNDP Green Commodities Programme (GCP), Sustainable Palm Oil Initiative (SPOI)**. SPOI is an alliance between the Government of Indonesia, the UNDP, the private sector, and other non-governmental partners to address key challenges in Indonesia's palm oil sector.

203. **UNDP supported, GEF financed project: Strengthening Forest Area Planning and Management in Kalimantan (KalFOR) (2018-2025).** The project thus focuses on creating more effective land allocations and

[70] BPDPKS, 2019, "Realisasi Penyaluran Dana PSR". <https://www.bpdp.or.id/Realisasi-Penyaluran-Dana-PSR>

[71] BRG, 2016, "Rencana Strategis Badan Restorasi Gambut 2016-2020". <https://brg.go.id/rencana-strategis-badan-restorasi-gambut-2016-2020/>

management of forest areas with high biodiversity and ecosystem services in the context of potential estate crop development in Kalimantan and particularly in the Heart of Borneo (HoB) area.

204. **World Bank-GEF, Strengthening of Social Forestry in Indonesia (GEF ID 9600, GEF-6)**: the objective of the Strengthening of Social Forestry in Indonesia Project for Indonesia is to improve access to forest land use rights and strengthen community. The Project has three components: (1) Policy and institutional strengthening to support social forestry component will create an enabling environment for the successful development and strengthening of social forestry in Indonesia, and to allow for future sustainable scale-up of activities; (2) Strengthening community management within social forestry component will support the effective and efficient implementation of the SFP; (3) Project management and monitoring. The project is being implemented during the period of May 2020 until June 2025, with a total cost of USD 109.43 million. The implementing agency of the project is the Ministry of Environment and Forestry (MoEF). There are potential synergies, particularly with the proposed social forestry pilots proposed under Component 3 of the FOLUR project, but also with respect to the policy and institutional strengthening activities in Component 1.

205. **IFAD-GEF, Sustainable Management of Peatland Ecosystems in Indonesia (SMPEI)** (GEF ID 5764, GEF-5) and the **IFAD-GEF, Integrated Management of Peatland Landscapes in Indonesia (IMPLI)** (GEF ID 9239, GEF-6) have complementary objectives to the FOLUR project, i.e., promoting sustainable peatland management, securing carbon stocks, and conserving biodiversity while improving the living standards of local communities. Peatland ecosystems are prevalent in the FOLUR landscapes, and synergies will be explored with the MoEF, the Executing Agency for the IFAD-GEF projects, as well as the local teams.

206. **Green Climate Fund (GCF) Results Based Payments (RBP) project** proposed by the Government of Indonesia, to be implemented by the Ministry of Finance, with technical support of the Ministry of Environment and Forestry and the UNDP in its role as a GCF Accredited Entity, and along with multiple national and local governing institutions, civil society representatives, and private sector actors. The proposed RBP project is based on Indonesia's National REDD+ Strategy, strengthening the underlying REDD+ framework and enabling environment, supporting and operationalising of Forest Management Units, and expanding and enhancing the implementation of the Social Forestry Initiative.

207. **The Lion's Share Fund:** led by UNDP and a coalition of businesses and UN partners, the fund aims to raise USD 100 million per year within the next five years, with the money being invested in a range of wildlife conservation and animal welfare programs to be implemented by United Nations and civil society organizations. One of the landscapes for this initiative is Leuser Ecosystem covering Aceh and North Sumatera provinces.

208. **Coalition for Sustainable Landscapes (CSL)**: led by Conservation International, CSL is a group of civil society and private sector organisations with a shared interest in sustainable development, active investments in Aceh and North Sumatera, and strong desire to work collaboratively with government. The members of the coalition have agreed to work collectively to achieve common objectives for smallholder livelihoods, sustainable agricultural production and conservation in North Sumatera and Aceh. The coalition aims to create sustainable commodity value chains that create business and livelihood opportunities for the people of Aceh and North Sumatera.

209. **German technical cooperation** projects implemented by the **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)** on behalf of the **German Federal Ministry for Economic Cooperation and Development (BMZ):**

- **Sustainable Agricultural Supply Chains in Indonesia (SASCI) Project**. ThisThis technical cooperation initiative is being implemented in Kapuas Hulu district, West Kalimantan with the overall objective to reduce deforestation and loss of other HCV areas from expansion of estate crop production by smallholder farmers, predominantly in palm oil and rubber
- **Sustainability and Value Added in Agricultural Supply Chains – Country Project Indonesia**. This technical cooperation initiative is one of eight country measures under a global programme, with the objective to increase the sustainability of selected agricultural supply chains in the partner countries. The project in Indonesia shall focus on improving the supply chains of palm oil, natural rubber, cocoa, and coffee, from the smallholder farmers to the global markets, in two geographical target regions,

UNESCO biosphere Betung Kerihun Danau Sentarum (Kapuas Hulu district in W. Kalimantan) and UNESCO biosphere reserve Lore Lindu in Central Sulawesi.

- **Supporting Smallholder Coffee Growers in Southeast Asia**. GIZ is working on increasing coffee production in Indonesia, the Philippines and Thailand. The objective of this project is that smallholder coffee farmers have improved the economic situation of their farms, i.e. they produce coffee and other crops in a profitable and sustainable way and thus increase their yields and incomes. The 7000 smallholders targeted in Indonesia (Lampung/ Sumatera) have little access to new know-how and services.

210. **EU-HIVOS-NTFP-ASPPUK Promoting Sustainable and Equitable Consumption and Local Food Systems in Indonesia (2018-2022)**. Promoting fair trade agricultural products, the EU-HIVOS-NTFP-ASPPUK project aims to strengthen the position of micro, small, and medium enterprises and smallholder farmers and to help them contribute to healthy diets for consumers while preserving biodiversity.

211. **Cocoa Life Programme:** In Indonesia, Mondelez collaborates with Olam and Cargill to implement training, replanting and yield improvement programs for cocoa farmers in Sumatera and Sulawesi. By 2022, Cocoa Life plans to connect more than 50,000 farmers to Mondelez's supply chain. Currently, around 42,000 farmers are currently participating in Cocoa Life in Indonesia. In additional to GAP training, Cocoa Life Program also focuses on cocoa community empowerment efforts related to: (i) enhanced household financial and business management, (ii) literacy, (iii) education on issues of child labour and forced labour, and (iv) child protection. The program also implements activities related to forest conservation and restoration, predominantly through agroforestry practice.

212. As the largest exporter of Robusta coffee, a leading exporter of Arabicas coffee, and the leading exporter of cocoa products in Indonesia[72], **Olam** has made extensive sustainable sourcing investments in the country, aimed at strengthening sustainable cocoa and coffee production chains and food systems through farm diversification programs and integrated landscape approaches, including activities on enhancing farmer capacities, establishing seedling nurseries, developing demonstration farms, and carrying out mapping, surveys, and verifications.

213. The **Unilever Sustainable Living Plan**[73], a blueprint for achieving the company's vision to grow their business, whilst decoupling their environmental footprint from their growth and increasing their positive social impact. Committed investments include support for jurisdictional approaches and landscape partnerships with governments and nongovernmental organizations aimed to enhance not only sustainable and deforestation-free supply chains, but also conservation of critical ecosystems more broadly in Indonesia, particularly in the provinces of Aceh, North Sumatera, Riau, Central Kalimantan. Some of Unilever's successful sustainability programmes include[74]:

- In partnership with Daemeter and PT. SKIP (an independent mill) 4,000 smallholder farmers had been mapped with 1,864 farmers attended farmer field schools and 26 extension officers trained and employed in two districts in Riau Province.
- In January 2018, Unilever signed a MoU with a state-owned enterprise (PTPN) to support 25,000 smallholder farmers in priority landscapes by 2030 to produce palm oil according to NDPE standards.
- In partnership with INOBU, the firm is piloting a jurisdictional approach in Central Kalimantan with independent smallholders − addressing a geographical area and working with communities of smallholders and local government to increase yields and prevent deforestation.

214. In partnership with IDH Sustainable Trade Initiative in Aceh, Unilever is supporting the Aceh Tamiang Government in Aceh Province, along with other industry players, accelerate efforts to achieve a successful production-protection inclusion model and Verified Sourcing Area readiness pilot. As part of its collaboration with IDH, the district has committed to increasing its sustainable palm oil yield by 30%.

[72] Source: https://www.olamgroup.com/locations/asia/indonesia.html

[73] Source: https://www.unilever.co.id/en/sustainable-living/

[74] Unilever Indonesia, *Sustainability Report 2019* < https://www.unilever.co.id/id/Images/sustainability-report-2019_tcm1310-553296_1_id.pdf>

215. **Starbucks Coffee and Farmer Equity (C.A.F.E.) Practices**, is the cornerstone of the company's ethical sourcing approach to buying coffee. Launched in 2004, C.A.F.E. Practices is a verification programme that measures farms against economic, social, and environmental criteria, designed to promote transparent, profitable, and sustainable coffee growing practices while protecting the well-being of coffee farmers, their families, and their communities. Under this programme, Starbucks established a Farmer Support Centre in Berastagi in North Sumatera Province. The centre works closely with farmer communities and Starbucks partners to enhance farmers' knowledge in efficient coffee farming and agriculture to enable a better production outcome and sustainable farming practices. Farmers participating in the C.A.F.E Practices have been able to increase their productivity as well as obtain premium coffee price from Starbucks.

216. **USAID Sustainable Landscape Partnership (SLP).** Two of the four regions that the SLP in Indonesia focused on were aligned with the FOLUR landscapes, namely Mandailing Natal District in North Sumatera Province and West Papua Province. The SLP worked with the MoEF, local governments, private sector and local communities on implementing business models that foster green development, specifically through economic alternatives to deforestation. The FOLUR project will build upon the experiences and lessons from the SLP, and also explore co-financing opportunities for any follow-up investments by the USAID under the SLP or similar initiative.

217. **OXFAM Novib Fair Company-Community Partnerships project (2017-2021)**; a multiple country project operating in Indonesia, Nigeria, and the Democratic Republic of Congo, with the long-term objective of "FAIR" company-community partnerships creating exploitation-free and deforestation commodity supply chains, with economic benefits for smallholder families and protection of community land rights. FAIR is an acronym that stands for 1) Freedom of choice; 2) Accountability; 3) Improvement of benefits; and 4) Respect for rights. In Indonesia, PepsiCO is partnering with OXFAM Novib on enhancing the participation of women and smallholder farmers in sustainable oil palm value chains.

218. The investments above provide solid foundations on which this project will build: in particular, the Government of Indonesia is committed to improving agricultural productivity and sustainability, and the protection and restoration of priority ecosystems; there are major investments by the Government and donors to enhancing farmers' capacities for sustainable production and management; and there is strong commitment and increasing levels of investment and experience by private sector actors (including multinational corporations) in relation to sustainable sourcing of globally important crops and commodities produced in Indonesia.

219. Through the focused investment of GEF resources, together with strong cofinancing, this project will bring together and build on these baseline investments, resulting in a transformational change to a situation which addresses the relations between food systems, environmental sustainability, social considerations and economic development in an integrated rather than a compartmentalized manner; integrates and reconciles multiple dimensions and dynamics of food systems and ecosystems at the levels of landscapes, jurisdictions, farming systems and livelihoods, in addition to solely field-level considerations of productivity; moves the baseline situation towards one where landscape management is based on consensus among multiple stakeholders; and brings together the multiple major value chain actors in order to foment transformational change in how value chains function in favour of sustainability.

LONG-TERM VISION:

220. The long-term situation that the project will help the Government of Indonesia to bring about in the target landscapes and food systems, in collaboration with, and with the participation of multiple stakeholders at district, provincial and national levels, is one where the selected agricultural commodities (palm oil, coffee and cocoa) are produced in the target landscapes and beyond in ways that:

- Generate benefits for the economy at local and national levels.
- Minimize impacts on global environmental values (biodiversity, carbon stocks and the productive potential of natural and anthropic ecosystems).
- Are sustainable in productive and social terms.

- Are integrated with the livelihood support and food production systems of local populations, and do not undermine the resilience of their livelihoods or their access to safe and nutritious food.

221. While economic development policies at national and province levels provide for the continued conversion of certain designated areas of forest to agricultural use, the vision of the project is that, through the implementation of informed, inclusive and effective processes of land use planning and natural resource governance, this will be done in such a way as to minimize negative impacts on environmental values or on the generation of ecosystem services.

222. At landscape level, the vision of the project will be that in the medium term landscapes will reach conditions of sustainable yet dynamic equilibrium, responding and adapting to evolving conditions; and that the benefits and costs resulting from natural resource management and production in the landscapes will be distributed in the most equitable way possible among different stakeholder groups both within and beyond the landscapes themselves, particularly with regard to considerations of gender, ethnicity and inter-generational equity.

223. In accordance with the aims of the FOLUR Impact Program, in its interactions with value chains (which are understood in this context to extend from sustainable production and input systems through to the end customer), the project will pursue the following interrelated objectives: a) to help ensure the sustainability of food supply along the value chains of globally important commodities and food crops, through the integrated landscape management approach and the application of principles of agroecology; b) to reduce the negative impacts of value chains on environmental values; and c) to realize the potential of value chains to exercise leverage of sustainable management at farm and landscape levels and thereby generate positive environmental impacts.

Barriers towards achieving the long-term vision:

224. The durable resolution of these threats is hindered by a number of barriers, which the project will aim to address.

Barrier 1: Compartmentalized visions in policy, planning and landscape management frameworks

- **Sector-specific divisions** continue to dominate policy, institutional and planning frameworks: policy-makers and planners lack the means adequately to balance and integrate sector directions in ways that optimize net social benefits and realize the potential for synergies between sustainable production and the protection of natural resources.
- **Narrow jurisdictional and sector-specific visions** typically prevail in land planning, meaning that inadequate provision is made for the maintenance of flows of ecosystem services, across landscapes within and among jurisdictions (provinces, districts and sub-districts), on which sustainable production and development depend.
- The exposure of farmers' livelihoods to the effects of climate change and global market volatility on cash crops, and the associated implications of this for landscape stability, are exacerbated by **narrow cash-crop focused development models**. These also potentially undermine farmers' food security if the cash crops displace food crops.
- Improvements to governance conditions are hindered by **limitations in the capacities and effectiveness of the institutions responsible for enforcement**, due to a combination of inadequate prioritisation in policy decisions on budget allocations, inadequately developed relations with social structures in local communities, and entrenched weaknesses in social governance conditions**.**
- Effective and sustainable governance, and the negotiated definition of socially-sustainable options for production and landscape management, are further hindered by the **inadequacy of mechanisms for effective representation** of the interests of the different stakeholder groups in the landscape: for example, those who depend on access to reliable water resources for irrigation or consumption may be unable to bring influence to bear on how upstream watersheds, from which water supplies come, are managed; while those potentially affected by limitations on their productive or extractive activities aimed at protecting environmental values may miss the opportunity to be compensated for the impacts of this on their livelihoods.

Barrier 2: Inadequate capacities and incentives for sustainable production and restoration

- **Currently there is limited long term commitment, support, and investment by commodity buyers into encouraging more sustainable production practices**. Buyers seeking sources of sustainable production currently focus on their own supply chains and the product they source and not on practices more widely in the sector or on how they can support the enabling conditions for sustainable production. This is beginning to change with more companies looking to take a landscape or jurisdictional approach, but these approaches have yet to scale up.
- **In respect specifically of smallholder farmers, there has been limited inclusion into sustainable value chains** means that they are unable to take advantage of market opportunities that actively reward sustainable production. Despite some promising exceptions, where major international value chain actors are interacting directly with farmers and local communities, sourcing from and supporting producers carrying out sustainable production practices, large numbers of farmers remain in convoluted value chains over which they have little control, and which fail to provide them with any significant reward for any investments in sustainability. This is due to a combination of limited opportunities to interact with alternative sustainable value chain actors, and limited capacities to meet their requirements in terms of reliability and quality of supply, such as those set out in the standards of industry-based or third-party environmental certification schemes.
- **Limitations in the reach and approaches of extension services** constrain farmers' abilities to identify and apply sustainable alternative options for production and resource management. Extension services tend to be sector- and crop-specific, with a strong focus on agronomic and productive issues at the expense of considerations of environmental sustainability or landscape dynamics, or of how cash crops relate to other components of farm families' overall livelihood strategies.
- **The inadequacy of mechanisms for internalizing the economic benefits of ecosystem services** limits the ability and motivation of communities and other resource managers to invest in ecosystem protection and restoration. Healthy ecosystems (both natural and agricultural) are capable of yielding a wide range of economic benefits for stakeholders at local, national and global levels, such as the regulation of hydrological regimes on which production and domestic water supply systems downstream depend, and the storage of carbon as a contribution to the mitigation of global climate change and its negative economic impacts. At present, however, the scale and nature of incentives for ecosystem protection and restoration are not commensurate with these potential economic benefits.

Barrier 3: Limitations in the flow of knowledge and information

- **Limitations in the flow of knowledge and information** further constrain the abilities of policymakers, planners, farmers and value chain actors to identify innovative and sustainable options for production and resource management, and respond adaptively to successes, failures and trends on external conditions.

Summary of problem analysis:

225. The unsustainable management of globally traded commodity crops (cacao, coffee and oil palm), and their expansion into forest areas, are leading to major impacts on globally important biodiversity, the degradation of soil and water resources, the loss of carbon stocks, and the degradation of watersheds that are vital for maintaining water flows to rice production areas. Rice production is itself a source of globally significant environmental impacts, in the form of the contamination of soil and globally- important aquatic ecosystems due to excessive and inappropriate use of agricultural chemicals, and the generation of methane (a potent greenhouse gas) from flooded paddy systems.

226. A narrow focus on the production of globally-traded cash crops by farmers is environmentally and socially unsustainable – even in the case of perennial crops such as coffee and cacao that have the potential to yield environmental benefits if appropriately managed – because of the volatility of global markets for these crops and their vulnerability to the effects of global climate change.

227. A large number of major global value chain actors have committed to sustainable sourcing of the products that they trade, in order to comply with corporate social and environmental responsibility goals and to

satisfy consumer requirements for sustainable production. This presents farmers with a major potential source of market-based incentives for sustainable production, but at present their ability to take advantage of this opportunity is constrained by their disconnection from these "green" value chains and their limited technical capacities to satisfy their requirements in terms of environmental standards, product quality and reliability of supply.

228. Despite significant policy commitments to sustainability by the Government of Indonesia, capacities, knowledge, tools, regulatory instruments and incentives for putting these into practice are still inadequately developed, and the agricultural and environmental sectors continue to be highly compartmentalized, lacking the integrated vision that is required if social and economic development and landscape management are to be sustainable.

- In the policy and planning sphere, for example, there are policy gaps on incentives for sustainable agriculture and public-private-partnership, including the lack of derivative legislation or of consolidated action plans for sustainability in coffee, cocoa, or rice; multi-stakeholder collaborative initiatives to date have largely been commodity-centric, with uneven sector participation; there is inadequate integration of regulatory frameworks between national or local levels, or between sectors and jurisdictions.
- There is limited cross-sectoral coordination on reaching a common understanding on achieving conservation and sustainable use development objectives, and land use planning and management remain largely compartmentalized among sectors, with inadequate consideration in the plans or analytical instruments of environmental factors or ILM.
- There are still sustainability shortfalls across supply/value chains, with short-term planning horizons and limited investment in sustainable production. Traceability standards and systems and poorly developed, with the risk of smallholders being excluded from supply chains as a result; farmers also have limited capacities for grading and accessing market information.
- The provision of technical support to smallholders is generalized across landscapes, has limited coverage, and the technical content typically has a narrow and static focus on productive aspects.
- Comprehensive management plans for conservation and restoration of critical and degraded land are often not available, and the results of their implementation are not sufficiently monitored; what limited investment there is in conservation and restoration does not respond effectively to landscape dynamics or ecological needs at local level, with limited inclusion of local communities, who also are largely unfamiliar with local laws and regulations, monitoring and surveillance methods etc.
- There has been limited knowledge and information shared on success stories of how systemic change has been achieved through jurisdictional approaches and integrated landscape management, or on specific barriers that are hindering widespread change. Meaningful upscaling and replication are being constrained as a result of the limited flow of knowledge and information.

229. This situation has major implications for a number of stakeholder groups:

- Unsustainable management practices will ultimately undermine the sustainability of production systems and thereby the livelihoods of the families that depend on them (cacao, coffee, oil palm and rice farmers and their families).
- A narrow focus on cash crops that are vulnerable to climate change and price volatility will also undermine livelihood sustainability, as well as narrowing the diversity of goods and services that farming systems are able to provide – these include food for home consumption if cash crops displace local (typically diverse and nutritious) food production and cash crop failure limits families' abilities to purchase food. A focus on cash crops at the expense of food and minor products tends, especially to contribute to the marginalization of women: shortages of nutritious food have particularly significant impacts on children and the sick.
- The expansion of cash crops into natural ecosystems, and the resulting degradation of these ecosystems and their capacities to generate goods and services, has the potential to increase the marginalization of the poorer members of society: these may lack the capital and means of production to participate in such cash crop production, and at the same time tend to be more dependent on ecosystem goods such as non-timber forest products, the supply of which may be affected by forest conversion.

- The loss and degradation of forests and other ecosystems due to cash crop expansion and unsustainable management also has implications for stakeholders downstream, such as rice producers who depend on reliable water supply from watersheds for irrigation. Watershed degradation also has implications for downstream populations in general, as it increases their exposure to risks of flooding associated with storm events – which may become increasingly frequent under conditions of climate change.

National policy alignment:

230. The project is aligned with the following national policies.

- Medium Term Development Plan, 2020-2024 (RPJMN 2020-2024). The GoI significantly emphasises mainstreaming the landscape-based sustainable development planning. For instance, the plan includes, among others, a target of 1.93 million ha avoided forest loss between 2020-2024, restoration of 330,000 ha of degraded areas including 30,000 ha of degraded peatlands. The plan also mentions strengthening smallholders' capacity to implement GAP and obtain ISPO and RSPO certification.
- Indonesia Biodiversity Strategy and Action Plan (IBSAP) under UNCBD, 2015-2020. In particular, i) the national targets to reduce non-climatic pressure on tropical forests, including land and forest clearing, ii) corridor development for endangered species through restoration, rehabilitation and reconstruction of key ecosystems, and iii) afforestation.
- Nationally Determined Contributions (NDC) under UNFCCC, 2016. The NDC describes the country's plans to reduce GHG emissions from BAU by 29% unconditionally and 41% with international aid, by 2030.
- Land Degradation Neutrality (LDN) Country Report, 2015. In particular, the peat restoration target of 2.67 million ha across 7 provinces: Riau, Jambi, South Sumatera, West Kalimantan, Central Kalimantan, South Kalimantan, and Papua.
- Agrarian Reform Programme (TORA). This programme aims to promote equal access to land by local communities covering at least 12.5 million ha of lands.
- Social Forestry schemes. Launched in 2014, the schemes are enabling forest-dependent communities access to manage 12.7 million ha of state forest area through social forestry modalities. The underlying objective of the programme is to improve the livelihoods of local communities through incentivising sustainable practices.

Relevance to Sustainable Development Goals (SDGs) and Post-2020 Global Biodiversity Framework:

231. The project is relevant to a number of SDGs, including SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 5 (Gender Equality), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 15 (Life on Land), SDG 17 (Partnerships for the Goals).

232. The project will also contribute to achievement of the targets outlined in the Post-2020 Global Biodiversity Framework[75], which was under development at the time of developing the Project Document. The project is aligned with the following draft 2030 Action Targets of the zero draft of the post-2020 Global Biodiversity Framework:

- **Target 1.** By 2030, [50%] of land and sea areas globally are under spatial planning addressing land/sea use change, retaining most of the existing intact and wilderness areas, and allow to restore [X%] of degraded freshwater, marine and terrestrial natural ecosystems and connectivity among them.
- **Target 7.** By 2030, increase contributions to climate change mitigation adaption and disaster risk reduction from nature-based solutions and ecosystems-based approaches, ensuring resilience and minimizing any negative impacts on biodiversity.

[75] CBD, 17 August 2020. Update of the Zero Draft of the Post-2020 Global Biodiversity Framework. Convention on Biological Diversity, CBD/POST2020/PREP/2/1. The term "post-2020 global biodiversity framework" is used as a placeholder pending decision on the final name at the fifteenth meeting of the Conference of the Parties.

- **Target 9.** By 2030, support the productivity, sustainability and resilience of biodiversity in agricultural and other managed ecosystems through conservation and sustainable use of such ecosystems, reducing productivity gaps by at least [50%].
- **Target 13.** By 2030, integrate biodiversity values into policies, regulations, planning, development processes, poverty reduction strategies and accounts at all levels, ensuring that biodiversity values are mainstreamed across all sectors and integrated into assessments of environmental impacts.
- **Target 14.** By 2030, achieve reduction of at least [50%] in negative impacts on biodiversity by ensuring production practices and supply chains are sustainable.
- **Target 17.** By 2030, redirect, repurpose, reform or eliminate incentives harmful for biodiversity, including [X] reduction in the most harmful subsidies, ensuring that incentives, including public and private economic and regulatory incentives, are either positive or neutral for biodiversity.
- **Target 19.** By 2030, ensure that quality information, including traditional knowledge, is available to decision makers and public for the effective management of biodiversity through promoting awareness, education and research.
- **Target 20.** By 2030, ensure equitable participation in decision-making related to biodiversity and ensure rights over relevant resources of indigenous peoples and local communities, women and girls as well as youth, in accordance with national circumstances

III. STRATEGY

SUMMARY OF PROJECT APPROACHES:

Integrated jurisdictional/landscape management approach

233. It is vital to address the problems described in the previous section from a perspective that combines integrated landscape management (ILM) with a jurisdictional approach. ILM recognizes the landscape-wide nature of ecosystem flows and social and productive dynamics, while the jurisdictional approach recognizes the realities of the institutional frameworks within which planning is carried out and decisions are made. The integrated jurisdictional/landscape management approach of the project will be applied in accordance with the LDN conceptual framework and GEF STAP guidelines for LDN, considering land potential and land stratification, current land degradation status, resilience of current and proposed land uses, socioeconomic context, including assessment of gender equality and barriers to participation of women and youth, and cost-benefit analysis of proposed interventions.

234. The application of a landscape approach will maximize the environmental and social benefits and sustainability of the project, by considering and responding to:

- Spatial variations in environmental values, vulnerability, and productive potential, in order to ensure that land uses optimize net benefits across the landscape as a whole.
- Spatial flows of environmental services across the landscape (in particular, the potential downstream impacts of production and management practices in watersheds).
- Landscape-wide biological relations, such as connectivity and the need for wildlife refugia.
- The potential indirect implications of land use dynamics (for example the risk of the expansion of cash crops/commodities into agricultural areas displacing food crop production pressures into forest areas).

235. The project design is predicated on protection and restoration of natural systems and their ecological functionality. Facilitated by multi-stakeholder collaborative processes, the project strategy promotes an integrated landscape management planning approach for achieving sustainable and resilient commodity/crop production and conservation of high conservation value (HCVF) and high carbon stock forest (HCSF) ecosystems. Bringing together cross-sectoral and multiple stakeholders into collaborative planning processes will help enhance the knowledge of the risks associated with zoonotic diseases like COVID-19 and how integrated landscape management approaches can help mitigate the risks and build social and ecological resilience of local

communities. This is consistent with the "One Health" principle, which promotes multi-stakeholder communication and collaboration in achieving better health outcomes – this includes public health threats at the human-animal ecosystem interface.

Combining management and governance improvements

236. Improving the management of the target crops/commodities has the potential to generate environmental benefits on farm (see Global Environmental Benefits description below) and also to reduce the rates of conversion of forest to agriculture, if productive intensification reduces the area of land that needs to be used to satisfy demand for the crop and to meet economic development targets. The project will however recognize that if promoted on its own, without adequate safeguards, productive intensification has the potential to stimulate *increased* levels of productive activity – thereby leading overall to increases in area coverage and forest conversion – by making the crop/commodity in question more economically attractive[76]. In order to address this risk, the integrated approach of the project will ensure that actions to support improvements in productivity are always accompanied, and where possible preceded, by investments in strengthening land use planning, governance and market-based leverage to limit expansion into forest areas or other vulnerable ecosystems. Through strengthened governance structures, local governments, communities, companies, and NGOs will collaborate on ensuring sustainable production at scale, including prevention of manmade fires, which are significant sources of greenhouse gas emissions.

Building strengthened, resilient and food secure livelihoods

237. Although the project will focus principally on the target crops and commodities, three of which (oil palm, coffee and cocoa) are exclusively cash crops, it will also consider how their production relates to the overall livelihood and food security strategies of the people living in the areas where they are produced. Emphasis will be placed on an agroecological diversified farming systems approach that integrates and balances the production of cash crops and food crops, non-agricultural economic activity, and off-farm income generation, with the aim of maximizing livelihood resilience, intra-family equity and social and environmental sustainability.

238. Consistent with the objectives of the FOLUR IP, the project focuses on production landscapes and land uses within them to reduce loss of high conservation value and high carbon stock forests through sustainable intensification and diversification of farming systems. The project strategy has a particular emphasis on strengthening capacities of smallholder farmers and increasing their participation in sustainable value chains, which will lead to reduced pressures of forest resources, leading to a decrease of risk of human-nature conflicts. On-farm diversification and improved farming practices will contribute to increased food and income security of local communities, helping them coping capacities in response to the COVID-19 pandemic and other socioeconomic disruptions.

Building on existing collaborative efforts

239. With the complexity and scale of the landscapes and jurisdictions, this project will build on existing efforts and structures that support collaboration between ministries, sub-national government units, private sector, and non-governmental organisations. Examples include, but are not limited to, the Sustainable Palm Oil Forum (FoKSBI), the Cocoa Sustainability Partnership (CSP), Sustainable Coffee Platform of Indonesia (SCOPI), Sustainable Rice Platform (SRP), and the Coalition of Sustainable Landscapes (CSL).

Leverage of systemic change through value chains

240. Over the past two decades much of the private sector focus on sustainable palm oil has been focused on supply chain management and certification approaches. There have been limited cross-sector coalitions of companies looking to work pre-competitively – and in partnership with the government – on the wider enabling conditions. Increasingly companies are now recognising that a sustainable commodity sector requires (a) more effective public private collaboration to strengthen the enabling conditions for sustainable production and level

[76] The **Jevons paradox,** when technological progress or government policy increases the efficiency with which a resource is used, but the rate of consumption of that resource rises due to increasing demand.

the playing field for all producers and (b) a more systemic approach to change, particularly through more landscape and jurisdictional approaches, rather than focusing on individual supply chains. Therefore, a key focus for the project is on improving public private and cross-sector, pre-competitive collaboration, particularly focused on improving the sustainability of commodity production at the landscape and jurisdictional level – and, beyond that, to learn from the experience of this project and work on the question of how landscape and jurisdictional approaches can be scaled.

241. For a systemic approach to be effective, the project will aim to convene all of the most important private sector producers across the landscapes, along with the key buyers, to facilitate dialogue and collaboration between them. The broad areas around which greater collaboration is needed are identified in this document, but we believe that pre-defining the specific activities in too much detail is counter-productive because the companies themselves need to identify where they want to collaborate during the implementation phase so that there is shared ownership and genuine commitment to the initiatives that are generated. The process for planning and coordination will also be developed jointly with the partners during implementation once there is greater clarity on the specific activities and roles.

242. In this regard, the companies providing project co-financing have been some of the key leaders in sustainability work in the region (including Mondelez, Unilever, Olam). Their current co-financing commitments to the project represent investments they are making in activities aligned with the project objectives. During project implementation that focus will not be on bilateral partnerships with the co-financing partners, but rather to work together with the co-financing partners to co-convene companies more widely across the sector and through the value chain to develop multi-stakeholder partnerships that can deliver systemic solutions at landscape and jurisdictional scale. The project will engage with the major producing companies (e.g. Musim Mas, Asian Agri, Astro Agri Lestari, GAR, Sime Darby, and so on) and the medium and small producers, particularly through the industry association GAPKI. We will also engage large domestic buyers, manufacturers and retailers – and the large international traders and buyers, particularly through existing coalitions such as the Consumer Goods Forum Forest Positive Coalition (which includes Asia Pulp & Paper, Unilever, Tesco, Danone, Carrefour, Danone, Mars, Mondelez, PepsiCo, General Mills, P&G, Colgate Palmolive, Walmart, Metro, Bimbo, and others) and the Soft Commodities Forum (ADM, Bunge, Cargill, COFCO, Glencore, Louis Dreyfus) as well as sustainable palm oil initiatives that exist in a number of demand countries. Finally, the project will engage with domestic and international financiers of palm oil, particularly through existing international collaborations on finance for sustainable palm oil.

Inclusive business models

243. As part of this, an important issue will be to develop more inclusive business models, smallholders can provide a stable supply of higher quality and more sustainably cultivated products. Companies have an interest to invest in long lasting relationships that secure their sourcing, not only now, but also in the future by contributing to reduce the environmental impact of commodity/crop cultivation and to preserve the natural resource base. As such, inclusive business relations for sustainable products can be a pull factor for smallholder farmers to engage more in sustainable and climate smart agriculture, and for private companies to make their supply chain future-proof and sustainable.

244. The purpose is to link chain actors more effectively and to improve their relationship step by step, using a toolkit as a process to move forward. The focus is not only on contract farming, but also on building trust and transparency throughout the chain, based on mutually accepted inclusive business principles (e.g. the 6 principles of the LINK[77] methodology from CIAT) related to chain-wide collaboration, effective market linkages, fair and transparent governance, equitable access to services, inclusive innovation and jointly measuring of outcomes of the business relation.

245. The facilitation process will co-identify critical areas for improving and accompanying the design and implementation of inclusive business strategies and the evaluation of the effects of these changes on the business of smallholders and buyers.

[77] Link: https://cgspace.cgiar.org/handle/10568/49606

246. It is common practice for a company to formulate a value proposition to its clients. However, a strong value proposition by the buyer to its suppliers, i.e. the smallholder farmers, is a key element for success. This value proposition can take various shapes but it shows how the buyer supports the smallholders it is sourcing from in their business: attractive price, payment modes, quality standards info, long term perspective, and a range of embedded services which may be required by the farmers to produce in quantity, quality, continuity and sustainably: technical advice, inputs supply, mechanisation services, data collection, link to credit, market information, farmers' organisation capacity, linking farmers to markets, fair trade, etc. Negotiations between the parties can focus on this value proposition. Key elements can be taken up in a farming contract.

Inclusiveness and participation

247. Given the magnitude and social complexity of the problems described, it is also necessary for Government institutions (especially at provincial and district levels) to work hand in hand with local communities, and for natural resource governance and management to be fully inclusive of all community-level stakeholders involved in the production systems in question, affected by their impacts, and potentially participating in the identification and implementation of sustainable alternatives.

248. The situation also calls for full, appropriate, and inclusive participation of the different ethnic groups present in the target localities. Unsustainable management may affect these groups differentially, as may the proposed sustainable alternatives for production and ILM. At the same time, these different groups may knowledge and experiences of traditional, sustainable, management models, with potential to be supported and scaled-out through the project: examples include the Gayo coffee polyculture system in central Aceh, and the customary tenure and governance systems in West Papua.

Participatory action learning

249. At farming system level, the project will work with farmers in a participatory "action learning" approach (using the model of farmer field schools) to define management options that are compatible with farmers' livelihood sustainability. Rather than being a one-off activity, this "action learning" approach will also aim to develop farm families' capacities to monitor and respond to evolving circumstances in an ongoing, adaptive manner: for example, by recognizing the volatility and vulnerability of global cash crops and developing a robust and flexible portfolio of alternatives to protect their livelihoods against their failure; and by continually experimenting with strategies for adapting the crop management to the effects of climate change.

250. In addition to participatory action learning, to build mutual understanding among the stakeholders about natural resource management models and encourage accelerated project implementation and its achievements, the project will facilitate peer-to-peer learning exchanges to successful areas. Peer-to-peer learning exchange is not only directed to exchange learning about technical and governance matters, but also about regional development policies and integrated landscape management, both at the provincial and district levels.

251. The upstream-downstream communication/dialogues and relationship in each jurisdiction will be encouraged by involving various stakeholders in a landscape in order to develop a mutual understanding of the landscape condition and the affecting factors. The establishment of multi-stakeholder forums at the landscape level will be encouraged, facilitated, and developed during the project implementation period in order to develop more integrated joint at the landscape level, spatial planning and more responsible land use by considering carrying capacity, suitability, productivity, and sustainability of the ecosystem.

Systems leadership

252. Achieving progress on the sustainable development agenda requires a departure from traditional top-down, hierarchical, and linear approaches to implementing change. Instead, it requires innovative and adaptive approaches that engage broad networks of diverse stakeholders to advance progress toward a shared vision for systemic change.

253. This approach is often called Systems Leadership. Researchers at Harvard University recently defined Systems Leadership[78] as a set of skills and capacities that any individual or organization can use to catalyse, enable and support the process of systems-level change, comprised of three interconnected elements:

i. **The Individual**: The skills of collaborative leadership to enable learning, trust-building and empowered action among stakeholders who share a common goal.

ii. **The Community**: The tactics of coalition building and advocacy to develop alignment and mobilize action among stakeholders in the system, both within and between organizations.

iii. **The System**: An understanding of the complex systems shaping the challenge to be addressed.

254. As the GEF FOLUR programme strategically seeks system transformation, it is essential that all of these three factors are enabled in the programme. Development approaches previously have often ignored the individual leadership capacity and not invested appropriate in the community building around a shared vision for systemic change. In this case changing the systems around how we use land in favour of a more sustainable future for generations to come.

255. The project will invest in building the systems leadership capacity of landscape champions, and work to connect these with cross-border learning through the FOLUR global learning platform and the UNDP Green Commodities Community, a systems leadership regional cohort for Indonesia, Malaysia, and Papua New Guinea in Year 1, and rotational hosting of these systems leadership modules, to support learning journeys in situ.

Decent Rural Employment

256. The project will contribute to FAO Organizational Outcome 2 (Under FAO Strategic Objective 3 "Reduce rural poverty") that “The rural poor have greater opportunities to access decent farm and non-farm employment" by:

- Supporting the application of diversified agroecological farming systems with low levels of chemical inputs, thereby contributing to reducing farmers’ exposure to harmful agricultural chemicals in the workplace.
- Where feasible and appropriate (subject to the results of participatory processes of situation analysis and technology formulation/validation in Farmer Field Schools), supporting the introduction of alternatives for sustainable mechanization in accordance with principles of appropriate technology, in order to reduce drudgery in agricultural work.
- Supporting the diversification of farming and livelihood systems: in addition to delivering improved GEBs, this will increase the diversity and the resilience of the employment opportunities open to farmers (women and men).
- Assisting farmers in achieving compliance with the environmental sustainability standards (such as the SRP Standard in the case of rice), which combine the delivery of environmental benefits and increase opportunities for income with compliance with standards on decent working conditions.
- Overall, the contribution by the project to the sustainability and resilience of production systems in its target landscapes will contribute to sustaining the rural economy (including opportunities for decent rural employment)”.

Targeting to maximize global environmental benefits:

257. The project will promote an objectively targeted, evidence-based approach to landscape management in order to maximize the delivery of global environmental benefits. The multi-stakeholder formulation of jurisdictional integrated landscape management plans under Component 1 will be informed by maps and inventories of HCV/HCS areas, and other priority or essential ecosystems including Key Biodiversity Areas (KBAs) and wildlife corridors in the five target jurisdictions. These maps and inventories will be based on desktop analyses on land cover and land use change: the secondary data will include the results of the provincial Strategic Environment Assessments, which include information on environment carrying capacity, climate change,

[78] Dreier, L. et al. 2019. Systems Leadership for Sustainable Development: Strategies for Achieving Systemic Change. CR Initiative, Harvard Kennedy School.

biodiversity loss risk, and natural disaster. Ground checks will also be carried out through sampling method to verify the presence of HCV/HCS areas and other priority/essential ecosystems in the five provinces.

PROJECT THEORY OF CHANGE:

258. The proposed GEF alternative to overcoming the barriers hindering sustainable commodity/crop management and governance of forest ecosystems is predicated on a participatory and integrated landscape management approach, as outlined in the project theory of change in **Figure 39**. As shown in this diagram, the theory of change for the project is broken down into the following three causal pathways.

Causal Pathway 1: Mainstreaming the landscape approach

259. The outputs and interventions under Component 1 are designed to strengthen the requisite cross-sectoral and multi-stakeholder enabling environment, including policy reform at the central government level and integrated landscape management planning (ILM) at provincial and district jurisdictional levels. Multi-stakeholder dialogue will be facilitated through systems leadership process, involving training key sustainability champions who will facilitate buy-in for mainstreaming ILM among the relevant partners. Multi-stakeholder commitment to policy advocacy and genuine multi-stakeholder collaboration are critical impact drivers for advancing the ILM approach, as is the Government of Indonesia's continued commitment to environmental sustainability.

260. One of the key assumptions outlined in the project theory of change for advancing from project level outcomes to longer-term outcomes (intermediate states) and ultimately to durable impacts is that key stakeholders recognise the benefits in collaborating on integrated approaches on landscape management. It is also assumed that this high-level commitment is reflected among key institutions and that governance conditions in local jurisdictions are sufficiently flexible to adopt change. The longer-term outcome linked to these assumptions is to achieve enabling policies and ILM frameworks allowing land uses, ecosystem values and services and stakeholder interests to be reconciled. Mainstreaming these policies and ILM frameworks in the target jurisdictions and scaling up to other areas in the target provinces and in other jurisdictions in Indonesia will help ensure landscapes are sustainably managed, leading to improved conservation of globally significant biodiversity, zero net land degradation, and substantial avoidance of GHG emissions.

Causal Pathway 2: Incentivising sustainable production and restoration

261. Achievement of longer-term outcomes also requires increasing levels of investment by private sector actors in responsible commodity value chains and adoption of sustainable agricultural practices by the producers in the landscapes, including independent smallholder farmers. Facilitating improved public private and cross-sector collaboration in order to mobilise increased investment into sustainable production is an important part of the project – particularly focusing on multi-stakeholder partnerships that can catalyse systemic change.

262. The improved landscape management approaches and good agricultural practices are assumed to reduce threats to critical ecosystems, whereby smallholders recognise the return on investment in making on-farm improvements such as soil conservation, leading them to maintain sustainable intensification and diversification practices rather than expanding commodity production into high value forests. This scenario is dependent on the following assumptions:

- Incentive mechanisms and support services are maintained and further operationalised across the project jurisdictions and ultimately throughout other parts of Indonesia. Local champions trained on the project will be crucial change agents in upscaling best practices in the two states.
- Actions in support of productive intensification form part of integrated packages that also make provision for the strengthening of natural resource governance and market-based safeguards, to ensure that they do not in practice motivate expansions in the area under production, as a result of the increased economic attractiveness of the production systems in question.

263. Achieving transformative change will depend on the availability and accessibility of public and private resources for incentives. This assumes that private sector partners share the vision of sustainable food systems and ILM, markets reliably reward sustainable production, and sustainable options remain attractive for farmers.

An important factor driving this change is consumer demand and their willingness to pay for sustainable production.

264. Participatory models of conservation and restoration-rehabilitation of critical forest resources under the project will feed into the government's commitment and regulatory framework for social forestry, assuming that governance conditions in the target landscapes permit restoration and conservation and local stakeholders are motivated and committed to participate. Over the longer term, ecosystem functions and environmental services will be ensured through conservation and restoration, with co-benefits generated for participating local communities. The effectiveness of these models will depend on enabling policies and incentives that are assumed will adapt to changing circumstances over time. There need to be clear linkages between conservation goals and social outcomes, e.g., diversification of livelihoods through sustainable use of forest resources, genuine collaborative management regimes involve local communities into decision-making and benefit-sharing schemes – including women and other marginalised groups, and traditional knowledge is respected and protected.

265. Achieving the longer-term outcome of sustainable landscapes and food systems is interdependent on the enabling policies and frameworks in Causal Pathway No. 1, leading to food systems linking sustainable production, diversified and resilient livelihoods and green value chains in landscapes where ecosystem functions and environmental services are ensured through conservation and restoration.

Causal Pathway 3: Enabling adaptive management

266. Ensuring durable long-term impacts will depend on the system's ability to adopt best practices and emerging knowledge regarding sustainable and resilient production, as well as adapt to changing socio-political and environmental conditions. The project will implement an inclusive knowledge management strategy that is also linked with the FOLUR Global Platform, facilitating collaborative interactions across local, national, regional, and global levels. The receptiveness of stakeholders to knowledge inputs is an important impact driver in this regard, and it is assumed that human resources and institutional frameworks remain stable. Another important assumption that is imperative to ensure the causal linkage on this pathway is achieved is a macro-policy context that remains stable, i.e., committed to sustainably managing the globally important natural resources in Indonesia. The coordination, collaboration, and knowledge management strengthened on the project will foster systemic change and replication, thus maximising the effectiveness, durability, and scale of the envisaged transformative impact.

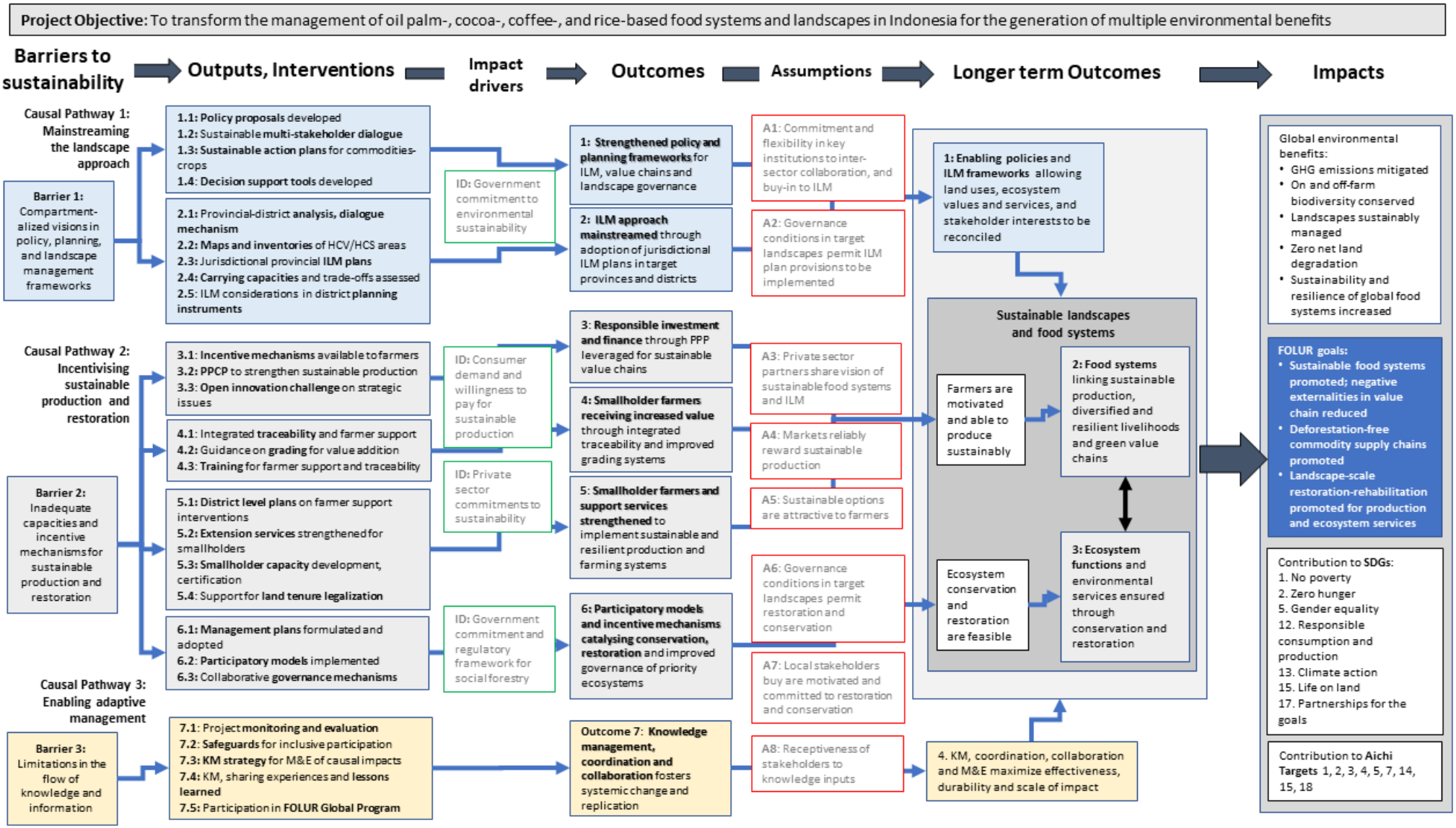


Figure 39: Project theory of change

267. In line with the objectives of the FOLUR Impact Program, the components and outcomes of the project will focus on:

Promoting sustainable food systems to meet growing global demand:

268. Indonesia is one of the world's biggest producers of oil palm, cocoa, rice, and coffee. The project will help Indonesia to maintain its contribution to global supply of these crops in such a way as to maintain the natural capital on which the sustainability of their production depends, and minimize impacts on natural habitats, genetic diversity, and greenhouse gas stocks.

269. This will be achieved by an approach that:

- Provides farmers with the means, knowledge, and capacities to modify their production practices in favour of sustainability, with a minimum of impact on their productivity or profitability, within the context of their overall livelihood support and farming system strategies.
- Recognises that crop/commodity production systems are components of broader farming systems and landscapes: the viability/suitability and the social, environmental, and productive sustainability of the production systems will ultimately depend on their wise management being complemented by the sustainable management of the farming systems and landscapes as a whole. Integrated farming system management is necessary to ensure the resilience of farm families and their ability to meet their diverse livelihood and nutritional needs; while integrated landscape management is necessary to ensure that the ecosystem goods and services on which livelihoods and farming/production systems depend continue to be maintained, and to address the landscape-level dimensions of the threats associated with crop production.

Promoting deforestation-free agricultural commodity supply chains to slow loss of tropical forests

270. Market demand is one of the principal determinants of farmer behaviour, and market-driven crop expansion is one of the major threats that the project will seek to address. The project will help realize the potential for national and global value chains to provide leverage for sustainable production and management, thereby opening favourable market opportunities for farmers and providing them with market-based and financial incentives; while at the same time helping value chain actors meet their corporate social and environmental responsibility commitments and satisfying consumer demands for evidence of environmental sustainability.

271. The project will connect to global level commodity and food supply chain initiatives and networks, primarily through UNDPs Green Commodities Programme and Good Growth Partnership and FAO's food systems approach, as well as through other means offered by FOLUR global platform. These connections will facilitate the project linking to global buyers interested in sourcing from jurisdictions advancing towards having deforestation free commodity production and also to learn latest best practice and policy of the global markets. The project will ensure that the national commodity platform supported within the project is connected to the global commodity initiatives (RSPO, WCF, ICO, GRSB, etc.) and serves as a principal forum for convening the global and national supply chain stakeholders in the country. The Sustainable Rice Platform (SRP) will be promoted based on FAO's global lessons learned and experiences.

272. Market-based leverage of environmental sustainability will be complemented by the strengthening of capacities for land use planning, governance, and enforcement. This will also help to ensure that efforts to promote productive intensification, as a strategy for reducing crop expansion, do not backfire and result in further investments by farmers in crop expansion and deforestation.

Promoting restoration of degraded landscapes for sustainable production and to maintain ecosystem services

273. In line with this FOLUR IP objective, the landscape approach of the project will also involve the restoration of the capacities of landscape elements to sustain production, and to generate landscape-wide flows of ecosystem goods and services on which sustainable production and livelihoods depend. Restoration will be defined broadly: specific strategies will be identified case-by-case on the basis of local consultations and technical studies but may include the sustainable management and assisted regeneration of degraded forest

areas, the active reforestation (using locally appropriate practices and genetic material) of deforested areas, and the use of agroforestry to restore nutrient and water cycles and resilience in farming systems that have suffered from degradation.

274. In line with FOLUR IP guidance, the project will also seek to be systems-based and transformative.

275. The *systems focus* is primarily centred on food systems. The project approach recognises that these are multi-dimensional: they consist of the value chains, stretching from input provision (technical support, finance and other means of production) through to consumers (passing through distributors, collectors, purchasers, processors, exporters and retailers); and also farming and livelihood systems, where farmer balance and integrate the production of cash crops with the satisfaction of food needs, non-agricultural on-farm income and off-farm income (e.g. paid work and remittances).

276. The systems focus of the project also recognises that farming systems and value chain systems operate within broader frameworks of landscape and social systems. The project will support capacities for jurisdictional land use planning, and inter-jurisdictional coordination of planning and management, in order to address the interactions between the different spatial elements that constitute landscape systems, such as upstream/downstream flows of water and impacts and the leakage of impacts across landscapes between production systems and natural ecosystems. The project will support the effective and equitable functioning of the social systems whereby different landscape stakeholders interact by, for example, supporting multi-stakeholder dialogue platforms and other mechanisms for representation, participation, and community-based governance.

277. The ***transformational impact*** of the programme will be achieved by involving national actors in the project at a range of levels: generating lessons on options for the transformation of production, landscape management and governance at district and provincial levels, and at the same time working with actors responsible for national policy and planning frameworks, and national and global private sector actors, to use these as channels for scaling out of these transformation impacts across the target sectors and value chains as a whole.

278. The strategic approach for realising transformational change is consistent with UNDP's Food & Agricultural Commodity Systems (FACS) Strategy 2020-2030[79], which aims to achieve the following three key results by 2030:

i. Sustainable production landscapes and jurisdictions upscaled.
ii. Food and agricultural commodity supply chains transformed to become sustainable.
iii. All members of vulnerable households and smallholder producers empowered to become more resilient, attain food security and pursue healthy, sustainable livelihoods.

279. UNDP's FACS Strategy addresses the underlying drivers of pressures on forest resources from global food systems, which have been compounded during the COVID-19 pandemic, with further stresses in food availability due to disruptions to local and global supply chains but also to loss of livelihoods of local communities, resulting in increasing levels of food insecurity among poor and vulnerable groups.

280. The project will also be aligned with GEF-7 programming guidance in relation to each of the focal areas to which it will contribute:

- **Biodiversity**:
  - BD 1-1: Mainstream biodiversity across sectors as well as landscapes and seascapes through biodiversity mainstreaming in priority sectors
  - BD 2-7: Address direct drivers to protect habitats and species and improve financial sustainability, effective management, and ecosystem coverage of the global protected area estate
- **Climate Change**:
  - CCM 2-7: Demonstrate mitigation options with systemic impacts for sustainable forest management impact program
- **Land Degradation**:

[79] UNDP's FACS Strategy 2020-2030, Working Document, June 2020.

- LD 2-3: Maintain or improve flows of ecosystem services, including sustaining livelihoods of forest-dependent people through Forest Landscape Restoration (FLR)
- LD 3-4: Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape

PROJECT CONTRIBUTIONS TO THE FOLUR IMPACT PROGRAM:

281. This project is one of 27 country projects under the GEF-7 FOLUR Impact Program (GEF Program ID 10201). The project's integrated approach contributes to the FOLUR program's theory of change, advancing the global agenda of fostering transformational change and greater environmental sustainability in food systems and land management. Simultaneously addressing commodity supply chains, land use planning systems, landscape-level restoration and working to shift the mindsets and relationships of people in the system, enables systemic barriers to conservation of globally valuable forests and peatlands to be addressed. The project components will contribute towards the FOLUR programmatic outcomes as shown below in **Table 13.**

Table 13: Project contributions towards FOLUR Impact Program results

FOLUR Impact Program		**Indonesia Country Project**	
Program objective: To promote sustainable, integrated landscapes and efficient food value & supply chains at scale		**Project objective**: To transform the management of oil palm-, cocoa-, coffee-, and rice-based food systems and landscapes in Indonesia for the generation of multiple environmental benefits	
GEF Core Indicators:		**GEF Core Indicators:**	
Core Indicator 3: Area of land restored	2,387,402 ha	Core Indicator 3: Area of land restored	20,000 ha
Core Indicator 4: Area of landscapes under improved practices	42,954,864 ha	Core Indicator 4: Area of landscapes under improved practices	1.474 million ha, leading to 46,900 ha of HCV forest loss avoided
Core Indicator 6: GHG emissions mitigated	304,701,753 tCO2e (direct)	Core Indicator 6: GHG emissions mitigated	41,495,405 metric tCO2e (lifetime direct)
Core Indicator 11: Direct beneficiaries	7,277,223 (3,609,733 women)	Core Indicator 11: Direct beneficiaries	103,000 (of whom 53,800 are women)
Program Component 1: Development of integrated landscape management systems		**Project Component 1**: Enabling environment for sustainable value chains and integrated landscape management.	
Outcomes: • Participatory planning and mapping for improved land use & management at landscape level promoted. • National land use plans and policies on land use planning and management influenced. • Governance systems strengthened and capacity built across landscape and land use management institutions and at national level. • Policies and incentives promoted for innovation & scale up of sustainable practices at national scale. **Indicators:** • Number of landscapes or jurisdictions with improved planning & management practices to foster sustainable food systems. • Number of countries with improved enabling conditions, institutional mandates, and incentives for ILM. • Number of landscapes or jurisdictions with environmental / sustainability standards in place, enforced. • Number of national multi-stakeholder dialogue mechanisms/platforms effectively operated for integrated landscape management.		**Outcome 1**: Strengthened policy and planning framework for integrated landscape management, commodity and/or crop value chains and landscape governance at national and sub-national levels, informed by multi-stakeholder engagement. **Indicators and end of project targets:** • **Improved consistency and relevance of policies in the project jurisdictions**, as indicated by at least 30% of policies assessed in the project jurisdictions, on issues of relevance to ILM and sustainable food systems, lead to higher score of using the policy assessment scorecard. • **Improved multi-stakeholder collaboration in integrated landscape management and value chains**, as measured by verifiable improvement along the ladder of systemic change scorecard (to be defined when baseline assessments are completed at project inception). **Outcome 2**: Integrated landscape management approach mainstreamed in the target provinces and districts through adoption of jurisdictional integrated landscape management plans. **Indicators and end of project targets:** • **Mainstreamed landscape management approach,** as indicated by 46,900 ha of priority areas under improved management (1.474 million ha) is set aside for conservation as defined by provincial or district planning frameworks, or conservation decrees, regulations, programmes. • **Strengthened landscape management at the district level**, as indicated five (5) regulatory decisions that respond to the provisions of the land use plans.	
Program Component 2: Promotion of sustainable food production practices & responsible commodity value chains.		**Project Component 2**: Promotion of sustainable crop production practices and responsible value chains.	

FOLUR Impact Program	Indonesia Country Project
Outcomes: • Improved land use practices and restoration activities in major production landscapes adopted and scaled up. • Governance structures & tools improved to reorient stakeholder practices toward sustainable productive use and restoration. • Policies & incentives improved for scale up of climate-smart, sustainable production practices and value chains at national level. • Partners, value chain actors, financiers and investors regularly convened, motivated and influenced to promote innovation, replication & scale up. **Indicators:** • Area of degraded land restored for production. • Area on which producers apply improved agricultural practices as measured by SDG 2.4.1 (area under sustainable agriculture). • Production area with investment in sustainable, responsible practices in target commodity & food production systems increased. • Number of Companies / Value chain organizations committed to sustainable, responsible sourcing of commodities increased. • Number of national enabling environments promoting sustainable food production and deforestation free commodity supply chains. • Number of national multi-stakeholder dialogue mechanisms/platforms effectively operated for sustainable commodity supply chains and across commodities. • Landscape area with reduced conversion and degradation of forests & natural habitats. • Public and private investments leveraged in support of sustainable commodity value chains through PPP or adoption of sustainability standards and practices.	**Outcome 3**: Sustainable and responsible investment and finance through public-private-community partnerships leveraged for implementation of sustainable value chains. **Indicators and end of project targets:** • **Strengthened implementation of sustainable value chains**, as indicated by USD 1 million disbursed for smallholder farmer households (at least 10% of each crop) in the project jurisdictions, of which at least 10% are women-led households. • **Expanded private sector involvement**, as indicated by 18,000 ha and 14,000 farmer households involved in PPPs and/or PPCPs to strengthen sustainable production and value chains (8,000 palm oil households (100%), 12,000 ha; 3,000 coffee households (50%), 3,000 ha; 1,000 cocoa (50%), 1,000 ha; 1,000 rice (25%), 2,000 ha). **Outcome 4**: Smallholder farmers receiving increased value for their products through integrated value-chain traceability systems and improved grading for selected commodities and jurisdictions. **Indicators and end of project targets:** • **Enhanced traceability of sustainably produced palm oil, cocoa, coffee, and rice**, with 18,000 ha under verified traceability systems (12,000 ha oil palm; 3,000 ha coffee; 1,000 ha cocoa; 2,000 ha rice). • **Improved capacities of farmers to add value to palm oil, cocoa, coffee, and rice**, as indicated by (a) 10% palm oil, (b) 10% coffee, (c) 10% cocoa, and (d) 10% rice of production by smallholder farmers in project districts subject to effective grading by quality. **Outcome 5**: Smallholder farmers and support services strengthened in target districts to implement sustainable and resilient production and farming systems. **Indicators and end of project targets:** • **Increased capacities for farmer support for sustainable and resilient production and farming systems**, as indicated by the increase in the numbers of farmers the following services have capacity to provide support on sustainable and resilient production and farming systems: (a) % increase for extension services, (b) % increase for private sector technical support schemes, and (c) % increase for farmer field schools. • **Improved access to technical support by smallholder farmers**, as indicated by the following percentage increase in the numbers of farmers receiving regular technical support in relation to sustainable production and management: (a) % increase for oil palm farmers (of whom 15% are women), (b) % for coffee farmers (of whom 50% are women), (c) % for cocoa farmers (of whom 50% are women), and (d) % rice farmers (of whom 50% are women). • **Expanded application of best management practices**, as indicated by 10,000 smallholder farmer households implementing best management practices (4,000 oil palm; 3,000 coffee; 1,000 cocoa; 2,000 rice).
Program Component 3: Restoration of natural habitats.	**Project Component 3**: Conservation and restoration of natural habitats.
Outcomes: • Sustainable land use practices and restoration activities scaled up in target landscapes and beyond. • Governance strengthened and institutional capacity built for landscape restoration. • Policies and incentives improved at national level to contain expansion, increase productivity, promote & scale up restoration actions. • Partners, value chain actors, financiers and investors regularly convened, motivated and influenced to encourage responsible & sustainable production, sourcing & marketing. **Indicators:** • Area or number of jurisdictions with improved and participatory approaches for restoration adopted.	**Outcome 6**: Participatory models of management and incentive mechanisms catalysing biodiversity conservation, land/habitat restoration and improved governance of priority ecosystems enabled in target districts. **Indicators and end of project targets:** • **Extent of participatory governance of priority ecosystems**, as indicated by 50,000 ha and 5,000 households (including 500 women-led households) covered by management plans with incentive mechanisms that are under implementation. • **Livelihood diversification through gender-sensitive social forestry interventions that are shown to reduce pressures on natural resources**, as indicated by 3,000 individuals (of whom 60% are women) engaged in alternative livelihood activities

FOLUR Impact Program	Indonesia Country Project
• Area of landscapes with clarified boundaries and allowable land uses in protected and production systems. • Area of land where degradation is avoided in degraded landscapes / habitats. • Area of degraded land restored for conservation and environmental services. • Tons of GHG avoided/sequestered.	(e.g., sustainable utilization of NTFPs, eco-tourism, processing of local foods, etc.).
Program Component 4: Program coordination, collaboration, and capacity building.	**Project Component 4**: Knowledge Management, Coordination, Collaboration, and Monitoring and Evaluation.
Outcomes: • Management, coordination & M&E effectively implemented. • Program Capacity Strengthening effectively delivered. • Policy & Value Chain actors effectively and regularly engaged • Strategic Knowledge Management & Communications effectively implemented. • Program level mechanisms established to efficiently coordinate country projects with global multi-nationals and industry associations for efficient linkages to supply chains and production systems. **Indicators:** • Integrated, efficient and effective child projects working toward common global FOLUR goals. • Number of global, regional, national commodity platforms strengthened through adoption of sustainability standards, traceability mechanisms, or increased stakeholder representation. • Strengthened policies of buyers (retail, consumer, traders) for deforestation free commodities and connections and benefits to FOLUR landscapes. • Number of events & documents disseminated to share knowledge beyond FOLUR countries through S-S exchanges, conferences, and global events, including community of practice.	**Outcome 7:** Integrated knowledge management, coordination, and collaboration to enhance knowledge of factors to foster lessons learned for replication in other areas. **Indicators and end of project targets:** • **Documentation of sustainable production and sustainable landscape management associated knowledge**, as indicated by (a) 20 knowledge products (at least 5 highlighting gender mainstreaming), (b) 20 communication pieces/stories (c) 5 traditional knowledge databases, and (d) 2 research papers developed or strengthened. • **Expanded FOLUR Community of Practice**, as indicated by (a) 10 country documents, (b) 20 events, and (c) 20 press reports promoting FOLUR.

IV. RESULTS AND PARTNERSHIPS

EXPECTED RESULTS:

282. There has been significant investment to date in Indonesia on controlling the production of oil palm, including commodity certification (Indonesia Sustainable Palm Oil/ISPO, Roundtable Sustainable Palm Oil/RSPO and *Sistem Verifikasi Legalitas Kayu*/SVLK/Timber Legality Assurance System), issuing a moratorium on new concessions and strengthening the enabling environment for social forestry. These are, however, not sufficient to shift towards a complete sustainable, reduced deforestation values chains. This project intends to build upon these initiatives, as well as the interventions and partnerships with private sector under GEF-6's Good Growth Partnership, to transform the value chains of the four commodities, which have driven deforestation, unsustainable land use change and associated emissions over the last decade in Indonesia. Given the integrated nature of the project across national, provincial and district boundaries, the project's interventions will **promote sustainable, integrated landscapes and efficient food value chains at scale.**

283. To advance the FOLUR IP global agenda, the project aims for a transformational change in commodity and crop value chains as well as land governance by significantly reducing deforestation led by expansion of oil palm, coffee, cocoa and rice nationally, and in target jurisdictions by strengthening sustainability in the value chains of these commodities and crop.

284. The GEF funds will support scale-up of reduced-deforestation, sustainable and resilient agriculture commodity supply chains for palm oil, coffee, cocoa and rice to reduce loss of HCV forests as far as possible and make sure that when it does happen it has the least possible impact in five geographies (Aceh, North Sumatera, West Kalimantan, South Sulawesi, and West Papua) by improving key policies on sustainable production, combined with integrated land use planning outlined in sustainable growth plans and incentive mechanisms. Moreover, this funding will enable scale-up of restoration of at least 20,000 ha of degraded landscapes and

increased protection of nearly 1.5 million hectares of priority ecosystems in these target jurisdictions, which will create habitat connectivity with/between conservation areas to conserve critically endangered species, as well as contribute to climate mitigation through an estimated 41,495,405 tons of CO_2-equivalent (tCO2e) lifetime direct emissions avoided over a period of 20-year. The funds will also allow the application of an integrated approach focusing on the entire value chains of palm oil, coffee, cocoa, and rice where coalition of actions between government, private sector and CSO actors, as well as local community will be fostered. It is expected to bring large-scale change in the target jurisdiction and to replicate successful models from the project at a national scale. The project will also leverage environmental benefits through enormous public sector investments in agriculture and infrastructure with ADB, IFAD, and World Bank, as well as the Indonesian Oil Palm Estate Fund (BPDPKS). Furthermore, the project will bring investment contribution from numerous private sector companies, donor agencies, CSOs, as well as governments into the process. The project will leverage green investment and finance through innovative public-private-partnerships for implementation of sustainable value chains, the mechanism for which will be explored further during the implementation. The project approach can generate lessons learned and be widely replicated in other countries.

GLOBAL ENVIRONMENTAL BENEFITS:

285. The project will generate global environmental benefits in the biodiversity, climate change mitigation and land degradation focal areas as follows:

Biodiversity:

- Reduction in the rates of loss of High Conversation Value Forests, resulting from improved landscape governance, market-based standards requiring deforestation-free production, and improvements to the sustainability of agricultural production in order to reduce motivations for expansion.
- Reduction in the biodiversity impacts of agricultural expansion in areas of convertible forest, by tailoring expansion and subsequent land use and management practices there to spatial variations in biodiversity values.
- Reduction in the degradation of the biodiversity values of protection forests through improved forest governance, and support to livelihood sustainability in forest-dependent communities in order to reduce their motivations for unsustainable extraction of forest products.
- Reduction in the degradation of the biodiversity values of managed forests, through support to low-impact social forestry practices tailored to local conditions.
- Optimization of biodiversity values (connectivity and habitat value) in production landscapes through the promotion of biodiversity-friendly production systems (such as tree crops with diversified composition and structure), diversified farming systems and the establishment and/or maintenance of corridors and set-asides.
- Reduction in the negative impacts of production practices on aquatic ecosystems (pesticide contamination and eutrophication from fertilizer run-off) through the promotion of sustainable low input management options.
- Restoration of ecosystems in areas of importance for biological connectivity or habitat, using appropriate species and management regimes tailored to the ecological needs of priority species.
- Reduction in the impacts of irrigation systems on globally important aquatic fauna (such as eels in North Sumatera).

Climate change:

- Reductions in the rates of loss and degradation of forests, as described above, will also translate directly into reductions in the rates of loss of carbon sinks and consequent greenhouse gas emissions.
- Emissions avoided from manmade fires.
- The restoration of forest areas, and the promotion of structurally and compositionally diverse tree-based production and farming systems, will result in net increases in carbon capture.
- The application of improved water management practices in rice production will result in reductions in methane emissions.

- Reductions in the use of artificial fertilizers, due to the increased use of agroecological practices, will result in reduced GHG emissions.

Land degradation

286. Project interventions under the FOLUR country project in Indonesia will support the LDN National Voluntary Targets, particularly associated with the negative trend of conversion of forests into cropland. The project will support achievement of the LDN National Voluntary Targets [80] through (i) formulation and legalization of the integrated landscape management (ILM) plans in the target jurisdictions, which will designate production landscape areas for protection, restoration, limited cultivation and production to limit deforestation and forest/land degradation, (ii) promoting multi-strata agroforestry through social forestry schemes, and (iii) empowerment of local communities and institutions to implement ILM and restoration plans, as well as good agricultural practices (GAP). It is also important to note that one of the three LDN hotspots, North Sumatera, is included in the project strategy as one of the five target provinces.

287. The promotion of sustainable management practices in the target crop production systems will also contribute to maintaining and promoting long term productive potential of the land, by:

- Reducing the decline of soil fertility ("nutrient mining"), through the application of integrated nutrient management practices.
- Reducing the build-up of salts and chemical pollutants in the soil from excessive or inappropriate fertilizer and pesticide application.
- Reducing soil erosion by providing for adequate soil cover and other runoff control measures.
- Maintaining and promoting the functioning of beneficial biological processes in production systems and maintaining soil health (e.g. pest and disease control by beneficial insects, nutrient cycling), through the application of integrated pest management and conservation agricultural practices.

288. These global environmental benefits are reflected quantitatively in the GEF-7 Core Indicator Worksheet (see **Annex 18**) and summarized below in **Table 14**.

Table 14: Project contributions towards GEF-7 core indicators and targets

Focal area	GEF-7 core indicators and targets	
Biodiversity	4.1. Area of landscapes under improved management to benefit biodiversity	1,474,000 ha
	4.4. Area of High Conservation Value Forest (HCVF) loss avoided	46,900 ha
Climate change	6.1. Carbon sequestered or emissions avoided in the AFOLU sector	41,495,405 metric tCO2e (lifetime direct)
Land degradation	3.2. Area of forest and forest land restored	20,000 ha
Cross-cutting	11. Number of direct beneficiaries disaggregated by gender as a co-benefit of GEF investment	103,000 (of whom 53,800 are women)

PROJECT OBJECTIVE:

289. To transform the management of oil palm-, cocoa-, coffee-, and rice-based food systems and landscapes in Indonesia for the generation of multiple environmental benefits.

Component 1: Enabling environment for sustainable value chains and integrated landscape management

Total Cost: USD 50,732,300 GEF project grant requested: USD 5,532,300 (UNDP 5,493,900: USD; FAO: USD 38,400) Co-financing: USD 45,200,000

290. This component focuses on strengthening the enabling environment in the target jurisdictions on developing and implementing integrated landscape management systems. The project will review existing regulations and policies related to land use and allocation, long-term and medium-term development plans, as

[80] Indonesia – Land Degradation Neutrality National Report, Republic of Indonesia, Jakarta, 2015.

well as regional spatial plans of the target provinces and districts. Mapping and inventories of HCV/HCS areas and other priority ecosystems of the five target jurisdictions will be assessed and upgraded to identify appropriate land allocations for production, protection, and restoration-rehabilitation. These results will be used to develop jurisdictional integrated landscape management (ILM) plans in the target provinces, which will delineate production, protection, and restoration-rehabilitation areas. Utilizing various land use assessment tools including Targeted Scenario Analysis (TSA), the project will work with provincial and district stakeholders in enhancing informed decision-making processes. The implementation of the jurisdictional ILM plans will be monitored through a policy assessment and monitoring tool to ensure not only the adoption, but also vertical regulatory harmonization of the plans across national and sub-national levels. This tool will also be advocated for use by governments in other parts of the country for upscaling of integrated land use management.

291. Successful implementation of integrated landscape management approaches requires genuine multi-stakeholder collaboration. The project will introduce systems leadership techniques, which will entail developing capacities of sustainability champions in the target jurisdictions who will help facilitate collaboration across sectors and among government, private sector, and civil society stakeholders. Building on the work under the GEF-6 Good Growth Partnership (GGP), the project will strengthen existing multi-stakeholder forum including the Indonesian Sustainable Palm Oil Forum (or FoKSBI), Sustainable Coffee Platform of Indonesia (SCOPI), *Asosiasi Kakao Indonesia* (ASKINDO/Indonesia Cacao Association) and Sustainable Rice Platform (SRP), and drawing upon sustainability-oriented standards developed under the Indonesian Sustainable Palm Oil (ISPO) system, the Roundtable on Sustainable Palm Oil (RSPO) and the Indonesia Timber Legality Information System (*Sistem Verifikasi Legalitas Kayu* – SVLK), the project will help develop a national sustainable agriculture platform, which will address issues across the value chains of palm oil, cocoa, coffee and rice. Based on experiences and lessons learned from development of the National Action Plan for Sustainable Palm Oil (NAP SPO)[81], the project will facilitate a participatory, multi-stakeholder process in formulating national level action plans on sustainable production of cocoa, coffee and rice that also include strategies on strengthening farmer support systems.

292. Additionally, the project will establish and/or strengthen five provincial and five district level platforms on sustainable agriculture and landscape governance involving government, private sector, CSOs and local communities. The project will also review and strengthen at least five national and sub-national level policies, regulations, or government programs to ensure the implementation of conservation agriculture and/or protection of essential ecosystems. These multi-stakeholder platforms will also become an important channel to engage and involve women and other vulnerable groups to address the issues across the commodity and crop supply chains.

Outcome 1: Strengthened policy and planning framework for integrated landscape management, commodity and/or crop value chains and landscape governance at national and sub-national levels, informed by multi-stakeholder engagement
Key Government Partner: CMEA

293. Outcome 1 predominantly focuses on strengthening the enabling environment for integrated landscape management and sustainable and resilient production, both at the national and sub-national levels. Through participatory multi-stakeholder approaches, the project will review, formulate, and/or strengthen key priority policies or regulations related sustainable value chains. An innovative systems leadership process will be rolled out to enhance the durability of multi-stakeholder participation and promote cross-sectoral and regional collaboration. Aligning with government level and private sector roadmaps towards achieving sustainable commodity/crop production in Indonesia, the project will develop sustainable action plans for coffee, cocoa, and rice, building upon experiences and lessons learned in the development of the national sustainable palm oil action plan, and addressing climate change and other environmental and socioeconomic risks. Furthermore, the project will work on ensuring policy harmonization by developing a policy integration assessment tool, which will feed into the One Map policy currently implemented by the Government of Indonesia.

294. The baseline situation and incremental reasoning for Outcome 1 are summarized below in **Table 15**.

[81] See: Presidential Instruction No. 6/2019 on National Action Plan for Sustainable Palm Oil 2019-2024.

***Table 15**: Summary of baseline and incremental reasoning for Outcome 1*

Summary of Baseline Situation	Incremental Reasoning
Output 1.1: Policy analyses and proposals developed for national and/or sub-national level policies, regulations, or government programs to improve commodity/crop value chain and to ensure the implementation of conservation agriculture and/or protection of essential ecosystems.	
Indonesia's economic growth relies largely on natural resources, and policy frameworks have progressively balanced economic performance with protection of the country's natural capital. The National Medium-Term Development Plan (RPJMN) 2020-2024 reinforces this commitment, outlining a series of efforts to mainstream green growth and low carbon development. With respect to sustainable and resilient commodity production, there are certain policy gaps especially on incentives for sustainable agriculture and public-private-partnership. For instance, Government Regulation No. 46/2017 on Environmental Economic Instruments provides a regulatory framework for collecting, managing, and disbursing incentives for environmental related programs, but the requisite derivative legislation for implementation is not in place. Additionally, when it comes to farmer support systems, the Law No. 39/2014 on Plantation, in particular Article 88 on smallholder support, does not specifically mandate plantation companies to support smallholders; hence, there is a needs for the national government to reaffirm the responsibility of companies to appropriately contribute to strengthen the capacity of extension officers (private and public) and smallholders, by formulating a derivative regulation on private sector partnerships for extension service. The legalization on a tax incentive mechanism for these companies will also encourage them to contribute to strengthening farmer support systems. More information is provided in **Annex 14** (*Baseline report on governance, policy, and land use planning*) and in **Annex 15** (*Baseline report on commodity value chains and farmer support systems*).	The GEF alternative provides targeted support in advancing enabling policy frameworks, particularly related to sustainable and resilient production of commodities/crops. Legal frameworks for incentive instruments are necessary to encourage the implementation of environment programs, as well as private sector contributions to support farmers to pursue sustainability. Here, a derivative regulation for environmental economic instrument will provide enabling condition for green investments in environmental programs and interventions. Similarly, formulation of a Minister regulation on private sector partnerships will reaffirm company's contribution to strengthen farmer support systems, in this case, extension service for smallholder capacity building. This regulation will become a legal umbrella for PPP in commodity/crop sector. And to further accommodate the implementation of this minister regulation, developing a technical regulation on tax incentives for companies who provide extension services for farmers or governmental extension offices will help encourage and integrate the disparate number of activities of private enterprises, civil society, and governmental sectors.
Output 1.2: Strengthened multi-stakeholder dialogue mechanisms on landscape management and sustainable commodity/crop production.	
Multi-stakeholder dialogue mechanisms have been instituted, for example, the Indonesian Sustainable Palm Oil Forum (FoKSBI) launched in 2014 by the Ministry of Agriculture is a collaborative space involving government, private sector and civil society partners for guiding the implementation of the national action plan for sustainable palm oil production, which was legalized in 2019 through presidential decree. The Cocoa Sustainability Partnership (CSP) has been in place for a number of years, led by private sector and the civil society with strategic involvement by governmental partners.	The GEF alternative involves strengthening the enabling environment for multi-stakeholder collaboration through rolling out a systems leadership approach to build durable capacities among government departments and agencies, private sector and civil society. Moreover, the project will build upon existing multi-stakeholder mechanisms by applying an integrated landscape management approach, that recognizes the fact that many different commodities and crops are produced in the same landscape, where local stakeholders are balancing socioeconomic

Summary of Baseline Situation	Incremental Reasoning
Similarly, the Sustainable Coffee Platform of Indonesia (SCOPI) was established in 2015 to promote public private partnerships. The multi-stakeholder collaborative initiatives, however, are largely commodity-centric and there is generally uneven participation by one or more sector, which has led to compartmentalized visions and approaches towards land use. There is also a lack of qualified facilitators or change agents to help foster genuine collaboration among multiple stakeholders. More information is provided in **Annex 8** (*Multi-stakeholder collaboration and stakeholder engagement plan*).	development objectives with conservation priorities.
Output 1.3: Sustainable action plans on cocoa, coffee and rice that also include strategies for strengthening farmer support systems formulated, adopted, and initial implementation monitored.	
The National Action Plan on Sustainable Palm Oil (NAP SPO) was developed in line with government regulations and sustainability challenges facing the sector, provides a practicable framework for advancing the uptake of sustainable and resilient production across Indonesia. The NAP SPO addresses data sharing and coordination, smallholders' capacities, environmental management and monitoring, governance and conflict resolution, and improved market access including through ISPO certification. There are a number of governmental policies and programmes, as well as initiatives led by the private sector and civil society, but there are no consolidated action plans for coffee, cocoa, and rice. More information is provided in **Annex 15** (*Baseline report on commodity value chains and farmer support systems*).	Utilizing the experiences and lessons learned from development and implementation of the NAP SPO and applying the Green Commodity Programme (GCP) methodologies, the GEF alternative facilitates multi-stakeholder coordination in the formulation of sustainable action plans for coffee, cocoa, and rice.
Output 1.4: Decision support tools for informing policy formulation and planning developed and/or strengthened	
As the fourth most populous country in the world, with extensive natural resource based economic output across 34 provinces with responsibility of some production and conservation functions devolved to subnational governments, there is a complex policy framework in Indonesia. The One Map policy introduced the government in 2018 is a significant achievement towards resolving overlapping land use issues. Achieving this goal will take time and with new policies introduced by different sectors, there remain inconsistencies on some fronts. Often, regulations implemented at the sub-national levels barely refer to the national law/regulations. At the same time, many of the national law/regulations	The GEF alternative feeds into the One Map policy approach, through development of a policy integration assessment tool that will help enable consistency and coherency across sectors and jurisdictions.

Summary of Baseline Situation	Incremental Reasoning
are not being implemented at the sub-national levels. Unfortunately, there is currently no tool to assess policy/regulatory integration across sector and jurisdictions in Indonesia. More information is provided in **Annex 14** (*Baseline report on governance, policy and land use planning*).	

295. Results expected through achievement of Outcome 1 include:

- **Improved consistency and relevance of policies in the project jurisdictions,** as indicated by at least 30% of policies assessed in the project jurisdictions, on issues of relevance to ILM and sustainable food systems, lead to higher score of using the policy assessment scorecard
- **Improved multi-stakeholder collaboration in integrated landscape management and value chains,** as measured by verifiable improvement along the ladder of systemic change scorecard (to be defined when baseline assessments are completed at project inception)

Output 1.1: Policy analyses and proposals developed for national and/or sub-national level policies, regulations, or government programs to improve commodity/crop value chain and to ensure the implementation of conservation agriculture and/or protection of essential ecosystems.

Key deliverables/results:

- At least 5 analyses for the development/strengthening of national and/or sub-national policies or regulations, including: regulating harmful subsidies for the environment and biodiversity.
- At least 5 draft policies or regulations finalized and submitted to the Legal Bureau for legalization.
- Advocacy for the legalization of the policies or regulations.

296. Under this output, the project will support the refinement of governmental priority policies and regulations at the national and/or sub-national levels related to sustainable commodity/crop value chains as well as integrated landscape management. The policy/regulatory facilitation will be convened in multi-stakeholder participatory manner and meet the existing government's priorities to promote sustainable development.

297. In full coordination and collaboration with national ministries (in particular Coordinating Ministry for Economic Affairs (CMEA) because relevant laws formulated need to be consulted with CMEA) and local government agencies, the project will provide technical supports only to strengthen the policies or regulations. The project will closely consult with the governmental stakeholders regarding appropriate regulations, laws, and policies to be formulated and/or strengthened through the project. Legal advisory and expert assistance will be delivered, as well as organization of multi-stakeholder dialogues and meetings, as the process will require buy-in and leadership from the relevant government authorities.

298. Currently, the draft Omnibus Law on Job Creation is being reviewed by the House of Representatives. The objective of proposed law is to enable consolidation and harmonization of sub-national regulations with national regulations. The bill instructs that all sub-national regulations must refer to the national regulations. There are eight laws related to the agriculture, forestry, fishery sectors, which have been assessed for harmonization within the draft Omnibus Law.

299. When selecting the specific regulations to be formulated under this output, the project will refer to the draft Omnibus Law. Regulatory needs and gaps will be reassessed at project inception according to the circumstances at that time. A few regulations to be **considered** (but **not necessarily selected and not limited to**) further by the project include:

- The formulation of a derivative regulation for the **Government Regulation No. 46/2017 on Environmental Economic Instrument**, which regulates how governments can collect, manage, and distribute incentives for environment-related programs or activities. This regulation has not been fully implemented due to the absence of derivative regulations.

- The formulation of a new technical regulation (i.e. a Minister Regulation) to regulate tax incentives for companies who provide extension support for farmers or government's extension services. There are two regulatory references for the formulation of this regulation: **Government Regulation No. 45/2019** and **Minister of Finance Regulation No. 128 /PMK.010/2019.**
- The formulation of a new Minister regulation on private sector partnership with commodity smallholders. There are two regulatory references for the formulation of this regulation: **Law 39/2014** and **Government Regulation No. 44/1997**, with particular attention to **Presidential Instruction No. 8/2018** concerning the Moratorium and Evaluation of Licensing for Oil Palm Plantations and Increasing Productivity of Oil Palm Plantations.

300. Indicative activities under Output 1.1 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
1.1.1.	Deliver advisory and facilitation support to CMEA and/or relevant technical ministry, other relevant national ministries and agencies, and provincial governments in the establishment and functioning of policy task force(s).	✓	✓	✓	✓	✓	✓
1.1.2.	Facilitate national and/or sub-national governments, and other actors as appropriate, in reviewing and generating recommendations of adjustments to, and/or drafting, policy briefs or legal academic paper and regulatory instruments.	✓	✓	✓	✓	✓	✓
1.1.3.	Through the participatory task force(s), prepare draft versions of policy briefs and regulatory instruments.	✓	✓	✓	✓	✓	✓
1.1.4.	Conduct stakeholder consultations on the draft white papers, policy briefs and regulatory instruments, and prepare final draft versions.	✓	✓	✓	✓	✓	✓
1.1.5.	Liaise with government officials and advocate for the regulation legalization.	✓	✓	✓	✓	✓	✓

Output 1.2: Strengthened multi-stakeholder dialogue mechanisms on landscape management and sustainable commodity/crop production

Key deliverables/results:

- Systems leadership and collaborative leadership capacity cocreated with national level champions for rollout in project jurisdictions with local champions (including those from the House of Representatives such as the Budgetary Chamber).
- Expert facilitation capacities created to deliver a high-level learning forum for sustainable commodities generating cross-initiative knowledge, efficiencies and relationships
- Innovation from learning forum and shifts in relationships create national level system changes for sustainable production.
- Indonesian Sustainable Palm Oil Forum (FoKSBI) is institutionalized with long-term financing mechanisms in place at national, provincial and district level and publicly reporting progress on the National Action plan for Sustainable Palm Oil.

301. For government officials, the project will consult with national and sub-national governmental stakeholders regarding the selection of the champions for the system change training. At the national level, the capacity building efforts focus on learning exchanges, innovation for systems change, awareness on short-term and long-term climate and disaster risks, and capacity development of systems leadership and dialogue facilitation at national level for roll out at landscape level. Learning from the FoKSBI is integrated and focuses on strategies for institutionalization and financing for long-term multi-stakeholder collaboration in cocoa, rice, coffee and palm oil commodities.

302. Indicative activities under Output 1.2 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
1.2.1.	Selection and participation of national champions (in particular government officials) in systems leadership cohort.	✓					
1.2.2.	Co-creation of systems leadership development programme for provincial and district level champions.	✓	✓	✓	✓	✓	✓
1.2.3.	Development of multi-stakeholder dialogue facilitation capacity.	✓	✓	✓	✓	TBD	✓
1.2.4.	Annual innovation and learning space organized and facilitated for nationwide work on sustainable commodities.	✓	✓	✓	✓	✓	✓
1.2.5.	Strategy and business model for embedding the palm oil platform developed, rolled out and applied to other commodities.	✓	✓	✓	✓	TBD	✓
1.2.6.	National Action Plan for sustainable palm oil is monitored and updated with multi-stakeholder buy in.	✓		✓	✓	✓	

Output 1.3: Sustainable action plans on cocoa, coffee and rice that also include strategies for strengthening farmer support systems formulated, adopted, and initial implementation monitored

Key deliverables/results:

- Commodity sustainable action plans are aligned with ILM, TSA and spatial plans, as part of a holistic collaborative approach with similar stakeholders.
- Stakeholders are accountable for collective actions and reports on commodity sustainable action plans are published and proactively disseminated.
- Provincial and district level government budgets include actions from the action plans.
- Private sector enterprises and/or coalitions align relevant components of their sustainability initiatives with the sustainable action plans on cocoa, coffee, and rice.
- Action plans fully incorporate gender and customary people issues.
- Joint diagnosis, investigation and agreement on systemic solutions for strengthening existing farmer support systems.
- Collective vision, strategies and implementation plans sub-national farmer support systems.

303. Following the Green Commodities Programme (GCP) methodologies on developing commodity sustainable action plans and farmers support systems with multi-stakeholder collaboration for systemic change at the heart, national level sustainable action plans will be developed for coffee, cocoa and rice, and each province and district will work in coordination to adapt the action plans and strengthen their farmers support systems, involving particularly the private sector and civil society already providing farmer support within the landscape. Lessons and experiences gained through the completion and roll-out of the National Action Plan for Sustainable Palm Oil will feed into the development of the sustainable action plans for the other commodities, e.g. the need for broad stakeholder involvement and proactive communications.

304. Indicative activities under Output 1.3 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
1.3.1.	Develop specific stakeholder engagement strategies for private sector and farmer support organizations.		✓	✓	✓	TBD	✓
1.3.2.	Secure a skilled facilitator to support the dialogue process.	✓	✓	✓	✓	TBD	✓
1.3.3.	Carry out root cause and opportunity analyses for each commodity.		✓	✓	✓	TBD	✓
1.3.4.	Assess of the existing farmer support systems performance as it relates to a specific commodity.		✓	✓	✓	TBD	✓
1.3.5.	Create sustainable action plans and budgets including farmer support implementation plan.		✓	✓	✓	TBD	✓
1.3.6.	Facilitate joint implementation and monitoring of the action plans.		✓	✓	✓	TBD	✓

Output 1.4: Decision support tool for informing policy formulation and planning developed and/or strengthened

Key deliverables/results:

- A policy assessment tool developed and tested to enable assessment on policy integration and harmonisation among government jurisdictions and across government sectors.
- Scorecard system and annual monitoring reporting mechanism developed to assess integration.
- Based on the scorecard results, technical recommendations for actions/interventions developed, identifying areas/parts of regulations to be strengthened and/or revised.

305. In conjunction with the policy analyses under Output 1.1, under this output the project will support the development of policy assessment tools for analysis of policy/regulatory integration between (i) national and sub-national level policies/regulations and (ii) government ministries, agencies, and sectors. In terms of coordination, the leading agency will be the Coordinating Ministry for Economic Affairs (CMEA), with full access for the BAPPENAS, Coordinating Ministry for Maritime Affairs and Investments, MoEF, MoA and the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency (ATR/BPN) and their derivative agencies at the sub-national level.

306. The precise nature and functionalities of the policy assessment tool will be co-defined during project implementation. The tools will need to be cost-efficient and fulfil the needs of the governments at national and sub-national levels as it will be utilized by government entities. The tool needs to be consistent with the One-Data (https://data.go.id/) and One-Map systems. The tool will not only cover the target landscapes but will eventually be used for other sub-national areas across the country. To ensure that the tool works, some policies within the target landscapes will be used for testing.

307. Based on preliminary analysis and consultation during the PPG phase, the policy assessment tool is envisaged to have at least three functions: (1) policy screening, (2) scorecard system and (3) reporting mechanism. In general, the screening categories will comprise of the policy/regulation's general requirements (including definition, foundation, incentives, and purposes), subject matter(s), criminal provisions (if applicable), transitional provisions (if applicable), and closing. As for the scorecard, the project may consider the *Scorecard Matrix*[82] *adopted from SDGs interaction assessment* below in **Table 16.** General annual monitoring reports on the integration assessment will be shared to the public, but the main users are the governments. Lastly, sectors or thematic issues to be assessed will need to cover:

1. Land use: land cover, permits, licenses, land use designation, etc.

[82] Scoring the influence of one SDG or target on another; see: Nilsson, Måns; Dave Griggs and Martin Visbeck. (2016b) Map the Interactions between Sustainable Development Goals. Nature (534) 320-322.

2. Forestry/environment: forest designation and management, essential ecosystems (which includes KBA, wildlife habitat), biodiversity, peat moratorium, permits, licenses, chemical/waste management, water treatment, etc.
3. Spatial plans: national, provincial and district spatial plans.
4. Development plans: national, provincial and district level development plans.

Table 16: Indicative description of scorecard system for the policy assessment tool

Classification	Explanation	Score
Indivisible	Inextricably linked to the achievement of one or more other policies/regulations	+3
Reinforcing	Supports the achievement of one or more other policies/regulations	+2
Enabling	Creates the conditions that further the implementation of one or more other policies/regulations	+1
Consistent	No significant positive or negative interactions	0
Constraining	Limits options on the implementation of one or more other policies/regulations	-1
Counteracting	Clashes with another policy/regulation	-2
Cancelling	Makes it impossible to implement another policy/regulation	-3

308. Indicative activities under Output 1.4 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
1.4.1.	Carry out a needs-assessment and exploration options for policy/regulation integration and for developing capacities in national or regional institutions.	✓	✓	✓	✓	✓	✓
1.4.2.	Conduct desktop study on existing policy integration tools/systems, including cost-efficient online platforms for data integration service.	✓					
1.4.3.	Co-development of policy assessment tool and standard operating procedure, with BAPPENAS or CMEA.	✓					
1.4.4.	Training of BAPPENAS or CMEA on operationalization of the assessment tool.	✓					
1.4.5.	Training of key Government agencies at national and sub-national levels on applying the tool	✓	✓	✓	✓	✓	✓
1.4.6.	Considering the results of an initial screening made by national governmental stakeholders, analyse the data and formulate a set of recommendations on specific gaps to fill and policies requiring strengthening.	✓					

Outcome 2: Integrated landscape management approach mainstreamed in the target provinces through adoption of jurisdictional integrated landscape management plans
Key Government Partner: BAPPENAS

309. Under Outcome 2, at the district level, the project will conduct detail analyses on economic and environmental carrying capacity as well as land suitability for oil palm, coffee, cocoa and rice. The results of the analyses will be translated into a number of land use scenarios for the target districts, which will inform the trade-offs across economic and environmental indicators. The district-level platforms will be utilized by stakeholders in the district to review and decide the most appropriate yet sustainable land use scenario for the district to pursue. The selected land use scenario will be incorporated into a detail spatial plans in the target districts.

310. The baseline situation and incremental reasoning for Outcome 2 are summarized below in **Table 17**.

***Table 17**: Summary of baseline and incremental reasoning for Outcome 2*

Summary of Baseline Situation	Incremental Reasoning
Output 2.1. Provincial and district level situation analysis and dialogue mechanisms established and/or strengthened for integrated landscape management involving government, private sector, CSOs and local communities.	
There are several intra-governmental committees at the national and sub-national level, as well as commodity specific platforms and coalitions involving private sector, civil society, and governmental partners. There are limited mechanisms in place for enabling genuine integrated landscape management and, importantly, the facilitation skills required to guide such processes are not easy to come by. More information is provided in **Annex 8** (*Multi-stakeholder collaboration and stakeholder engagement plan*).	The GEF alternative involves strengthening existing collaborative mechanisms by promoting an integrated landscape approach and through building systems leadership skills and capacities for ensuring durability of the results achieved during the project's lifespan. The multi-stakeholder collaboration and coordination between different levels of government will be co-created by the stakeholders themselves in Year 1 in each jurisdiction, with the support of expert collaborative facilitation.
Output 2.2. Maps and inventories of HCV/HCS areas and other priority or essential ecosystems[83] generated for five target jurisdictions, with categories for protection and sustainable production defined with accompanying management guidelines.	
Identification of potential essential ecosystem areas (KEE), key biodiversity areas, HCV/HCS forests and lands, critical or degraded land, areas having valuable cultural and natural heritage, etc. has been made across the project jurisdictions to varying degrees, and in some cases assessed through strategic environmental assessments (SEA) at the provincial levels. There are also land use and spatial plans in place at provincial and district levels. There is limited cross-sectoral coordination on reaching a common understanding on achieving conservation and sustainable use development objectives. More information is provided in **Annex 16** (*Jurisdictional profiles*).	The GEF alternative introduces a systematic approach regarding land use prioritization, based on available scientific information and through participatory consultations with multiple stakeholders in the landscapes.
Output 2.3. Jurisdictional provincial-level integrated landscape management plans delineating production, protection and restoration priorities formulated, legalized and monitored.	
Land use designations are laid out in provincial spatial plans over 20-year period, and provincial long-term and medium-term development plans contain priorities over 20-year and 5-year time periods, respectively. While Indonesian government policies have emphasized landscape management approaches, actual land use remains largely compartmentalized among the various sectors, with limited integration of sector plans. In the past few years, the BAPPENAS has been advocating for the spatial-based, formulation of long-term and medium-term development plans. This means that development plans will have to refer to the spatial plan as well as the detail spatial plan.	Facilitated through participatory and multi-stakeholder collaborative processes, the GEF alternative strengthens existing land use and development planning in the target provinces by formulating integrated landscape management plans that provide sustainable development frameworks. These ILM plans will not only consider the existing regulations in the country, but also the environmental, socio-economic and climate change dynamics.

[83] Including Key Biodiversity Areas (KBAs) and wildlife corridors.

Summary of Baseline Situation	Incremental Reasoning
However, the traditional way of spatial plan formulation has not fully taken into consideration of newer environmental regulations such as the Government Regulation No. 71/2014 on the Protection and Management of Peat Ecosystem junto Government Regulation No. 57/2016, and the Presidential Instruction No. 5/2019 on Moratorium for New Concession License on Primary Forest and Peatland. It has now become more crucial that the land use plans adopt ILM approach to ensure environment sustainability, as they will become one of the main refences for the development plans at the sub-national level. More information is provided in **Annex 14** (*Baseline report on governance, policy, and land use planning*) and **Annex 16** (*Jurisdictional profiles*).	
Output 2.4. Environmental carrying capacity for key commodities and crop assessed and trade-offs analysed for five target districts.	
Many Indonesian provinces and districts have evaluated environmental carrying capacity analyses as part of strategic environmental assessment (SEA) processes, and the results of these analyses are being increasingly incorporated development planning. However, the SEA process currently does not consider the biophysical suitability of priority commodities/crops of the district. As a result, the detail land use plans, as well as the development plans, which direct the use of land, do not consider the most appropriate areas suitable for the commodities/crops when deciding the land allocation for these commodities/crops. Meanwhile, climate change has significantly affected the biophysical suitability of key commodities/crops. This has led to lower productivity and shifting of land use into forested areas, especially at higher altitude. More information is provided in **Annex 16** (*Jurisdictional profiles*).	The GEF alternative builds upon provincial level environmental carrying capacity analyses by introducing forecasting tools and approaches for facilitating more informed decisions regarding land use planning. Targeted scenario analysis (TSA) will be used to support cost-benefit analyses, taking into consideration the biophysical attributes of the land, potential climate change impacts and other variables over a 50-year time horizon.
Output 2.5. Environmental sustainability and integrated landscape management considerations (e.g. protection of ecosystem service provision areas, biological corridors, fragile soils) incorporated into planning instruments of target districts.	
Referencing to the provincial spatial plans, the district detail spatial plans and district zoning regulations are legal instruments that are part of the land use regulatory framework at the district level. More information is provided in **Annex 14** (*Baseline report on governance, policy and land use planning*).	The ILM plans are developed at the provincial level and adopted into provincial legal land use planning frameworks. As the district land use plans (such as spatial plans) refer to provincial plans, mainstreaming ILM considerations will be done through overlaying onto district detail spatial plans or through district zoning regulations, which would provide a legal foundation and, hence, ensure the durability of the project results.

311. Results expected through achievement of Outcome 2 include:

- **Mainstreamed landscape management approach**, as indicated by 46,900 ha of priority areas under improved management (1.474 million ha) is set aside for conservation as defined by provincial or district planning frameworks, or conservation decrees, regulations, programmes.
- **Strengthened landscape management at the district level**, as indicated five (5) regulatory decisions that respond to the provisions of the land use plans.

Output 2.1: Provincial and district level situation analysis and dialogue mechanisms established and/or strengthened for integrated landscape management involving government, private sector, CSOs and local communities

Key deliverables/results:

- Robust attendance from a cross-cutting selection of stakeholders represented by empowered and/or legitimate individuals.
- Dialogue is characterised by increased trust and compassion for the specific perspectives and needs of others.
- Narratives used in meetings by stakeholders are aligned and reflect shared understanding and objectives.

312. District level fora and provincial level platforms are the primary space for multi-stakeholder participatory dialogue and collaboration, to support the delivery of other outputs in component 1, 2 and 3. Where there is no existing space, new ones will be established. Where they already exist, the programme will build on their capacity to widen their remit and deepen their work to landscape level and cross-commodity. Essential activities underpinning is developing the systems leadership capacity of local champions.

313. Indicative activities under Output 2.1 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
2.1.1.	Roll out of systems leadership and collaborative dialogue capacity development for local sustainability champions.	✓	✓	✓	✓	✓	✓
2.1.2.	Establish and/or strengthen provincial level and district level fora for multi-stakeholder collaboration on integrated land use management, and specific commodities of relevance (coffee, cocoa, palm, rice), where they do not already exist.		✓	✓	✓	✓	✓
2.1.3.	Run well-facilitated multi-stakeholder collaborative dialogue workshops, communications, awareness raising at provincial and district levels on ILM, TSA, spatial mapping, farmer support systems and other needs for sustainable land use management and restoration in the area.		✓	✓	✓	tbc	✓
2.1.5.	Create facilitation capacity in provinces and districts to support ongoing collaboration for systems change.	✓	✓	✓	✓	✓	✓

Output 2.2: Maps and inventories of HCV/HCS areas and other priority or essential ecosystems[84] generated for five target jurisdictions, with categories for protection and sustainable production defined with accompanying management guidelines.

Key deliverables/results:

- Five sets of maps (1 : 50,000) produced, identifying critical land areas (i.e. KBAs, HCV/HCS and other priority conservation areas or essential ecosystems) while considering the existing environmental laws and regulations in place.

[84] Including Key Biodiversity Areas (KBAs) and wildlife corridors.

314. The project will conduct desktop analyses on land cover and land use change as well as trends over time and associated drivers, including gathering secondary data and information related to HCV/HCS and key biodiversity areas in the target jurisdictions. The secondary data will need to include the results of the provincial Strategic Environment Assessments (KLHS – *Kajian Lingkungan Hidup Strategis*), which include information on environment carrying capacity, climate change, biodiversity loss risk, and natural disaster. Ground checks will also be carried out through sampling method to verify the presence of HCV/HCS areas and other priority/essential ecosystems in the five provinces. The desktop analyses and ground check results will then be consulted with local stakeholders. Based on stakeholder inputs and in line with the existing laws and regulations, the project will generate critical area maps to show the following three categories of land use prioritization, accompanied by management guidelines:

1. **Priority I**, defined as areas for complete protection and/or conservation of key biodiversity areas that are locally and globally important for life support systems.
2. **Priority II,** defined as areas with limited human activities are permittable through the application of good land management practices.
3. **Priority III,** where the land can be utilized for production, infrastructure, etc. (considering environment carrying capacities).

315. Following Indonesia's Forestry Law, set-aside areas are envisaged to be mainly designated within the State Forest areas (i.e., Production Forest, Limited Production Forest, Convertible Production Forest), as the state forest areas cover more than 90% of the total terrestrial areas in Indonesia. Other Land Use (APL) areas, which are the only areas managed by the district government, are limited and most have already been allocated for commodity and food cultivation, housing, building etc. It must also be noted that State Forest areas are under the authorization of the MoEF with some delegation of authority to the provincial government. Therefore, set-aside areas will be mainstreamed predominantly into the jurisdictional ILM plans.

316. Indicative activities under Output 2.2 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
2.2.1.	Gather and assess spatial data, policies, and regulations such as: provincial and district spatial plans, SEA/KLHS, time-series land cover change data (10 years period), land systems, forest designation, concession, and secondary data related to HCV/HCS.		✓	✓	✓	✓	✓
2.2.2.	Conduct desktop study to identify potential or indicative locations of the critical/key biodiversity areas (HCV/HCS and other priority or essential ecosystems or conservation priority area).		✓	✓	✓	✓	✓
2.2.3.	Conduct field verification to validate the presence of critical/key biodiversity areas that have been identified through the desktop study.		✓	✓	✓	✓	✓
2.2.4.	Convene multi-stakeholder consultations in at district levels to validate the preliminary results, and if necessary, confirm through ground-truthing.		✓	✓	✓	✓	✓
2.2.5.	In West Papua, carry out separate customary peoples consultations.					✓	
2.2.6.	Finalise the maps of critical/key biodiversity areas to show 3 categories of land use prioritisation.		✓	✓	✓	✓	✓

Output 2.3: Jurisdictional integrated landscape management plans delineating production, protection and restoration activities formulated, legalised, and monitored

Key deliverables/results:

- Land use/sustainable development scenarios (for 50-year period of time) formulated for the five target jurisdictions/provinces based on the identified priorities.
- Targeted Scenario Analysis (TSA) conducted for each land use/sustainable development scenario.
- One land use scenario preferred by stakeholders for sustainable development in the target provinces.
- Based on the preferred land use/sustainable development scenario, a jurisdictional sustainable landscape management plan for each target province developed, adopted, and disseminated.

317. Through a multi-stakeholder participatory process, the project will facilitate provincial planning units in analysing land use scenarios that will consider environmental dynamics over a period of up to 50 years. The scenario development will be based on the identified priorities under Output 2.2, and take into account the following factors: (i) existing provincial spatial plan, medium and long-term development plans, (ii) existing spatial plans, land use and medium and long term development plans in all districts within the target provinces, (iii) climate change, e.g., using the FAO Agro-Ecological Zone (AEZ) tool, (iv) ecosystem resilience and carrying capacities, (v) biodiversity strategies and action plans, (vi) watershed management plans, (vii) agricultural and forestry sectoral plans, (viii) renewable energy development plans, (ix) economic priorities, and (x) socio-cultural dynamics in the landscapes. The land use scenarios will comprise of:

1. BAU or **business as usual scenario**, which will be based and will continue to base on the current spatial plans where the protection of critical ecosystems is limited to the conservation and protection forest.
2. Scenario 1 – **limited sustainable development path**, which will consider existing land use activities and will only propose the protection of the remaining critical ecosystems. Here, the scenario will not consider restoration and/or rehabilitation of the degraded areas.
3. Scenario 2 – **feasible sustainable development path**, which will consider existing land use activities; however, not only that it will propose the protection of existing critical ecosystems; the scenario will also include restoration and/or rehabilitation of degraded ecosystems.
4. Scenario 3 – **optimal sustainable development path**, which will describe the ideal situation where land uses comply with the existing environmental regulations and eco-biophysical attributes of land. This scenario will likely propose massive transformation of existing land use patterns.

318. Next, the project will conduct a Targeted Scenario Analysis (TSA) for each scenario and assess the projected costs and benefits over time of following a particular development path. Trade-offs for macro-economic, environment and social indicators will be estimated, and through multi-stakeholder dialogues, consultations, and agreement, one sustainable development scenario/path is selected for each FOLUR province. The project will then formulate the jurisdictional integrated landscape management (ILM) plan for the preferred development scenario, with zoning, management, monitoring and costed action plans included.

319. Additionally, the project will advocate for the legalization and adoption of this jurisdictional ILM plans, where initial implementation will be disseminated and monitored during the project life. The ILM plans will capture the biodiversity profile and biodiversity management plan as referred to in Minister of Environment & Forestry Regulation No. 29/2009. There are several options that the project may pursue for the legal umbrella of the ILM plans:

- Integration into the provincial spatial plan: this can be done by integrating new areas for protection into “protection forest” designation.
- Integration into the provincial detail spatial plan: this can be done by integrating new areas for protection into detail zoning without changing the forest designation. For instance, areas with HCVs that are located within “production forest” may be proposed for either “complete protection” or “limited cultivation” for management. This process will not require the changing of the forest designation.
- Integration into or development of: (i) “peatland protection and management plan”, (ii) Essential Ecosystem Area / KEE designation, Master Plan for Biodiversity Management (RIP-KEHATI of *Rencana*

Induk Pengelolaan Keanekaragaman Hayati[85]) in the form of a Governor Regulation, with Minister of Environment & Forestry Regulation No. 29/2009 as legal reference.

320. Indicative activities under Output 2.3 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
2.3.1.	Through a multi-stakeholder collaborative process at provincial level, develop land use scenarios based on the maps generated in Output 2.2.		✓	✓	✓	✓	✓
2.3.2.	Conduct TSAs for the development scenarios to project the costs and benefits shall the scenarios are implemented		✓	✓	✓	✓	✓
2.3.3.	Conduct public consultations on the draft scenarios with TSA results; and then finalise the scenarios integrating the feedback from stakeholders.		✓	✓	✓	✓	✓
2.3.4.	Convene public consultations on the finalized scenarios to select a preferred development scenario that will be pursued by the province.		✓	✓	✓	✓	✓
2.3.5.	Formulate the jurisdictional integrated landscape management plans for the preferred scenario/target, with zoning, management, monitoring and costed action plans included.		✓	✓	✓	✓	✓
2.3.6.	In coordination with the provincial governments, disseminate and advocate for the adoption, implementation and monitoring of the plan. Advocation will include series of consultations to technical ministries for ministers' endorsement.		✓	✓	✓	✓	✓
2.3.7.	Deliver advisory support and provide technical inputs to provincial BAPPEDA for developing, amending and updating planning instruments incorporating ILM considerations.		✓	✓	✓	✓	✓
2.3.8.	Develop capacities and procedures in provincial BAPPEDA for adaptively amending and updating plans incorporating ILM considerations in the future.		✓	✓	✓	✓	✓

Output 2.4: Environmental carrying capacity for key commodities and crop assessed and trade-offs analysed for five target districts

Key deliverables/results:

- Maps of biophysical and climate suitability of key commodities and crops including but not limited to oil palm, coffee, cocoa, and rice, developed for the FOLUR target districts.
- Estimated economic costs and benefits (trade-offs) of: (i) land use activities based on the biophysical suitability and climate maps and zoning derived from the jurisdictional ILM plans; and (ii) maintaining one cycle of commodity plantation (including maintaining biotic pollinators and waste handling).
- Zoning frameworks/master plans.

321. The project will support FOLUR districts to align their land use planning with the provincial or **jurisdictional integrated landscape management (ILM) plans**, developed under Output 1.2. Here, the project will conduct assessment on the biophysical and climate suitability for the district's key commodities or crops. In doing so, secondary, and primary data collection will be done to ensure that the analysis captures the existing land use dynamics in the landscape. The secondary data will include, but not limited to, land system attributes,

[85] See the legal umbrella under the Minister of Environment Regulation No. 29/2019 for details.

district development plans, sector development plans and spatial plan. Where appropriate, the project will conduct consultations with local stakeholders to gather inputs in the field.

322. Based on the biophysical suitability and referencing to the agreed jurisdictional sustainable landscape management plan, the project will develop the framework/master plan for the land use zoning of the district in consultations with the local governments and other stakeholders. The land use framework / master plan will be equipped with technical guidelines for the spatial-based development of the district, as well as estimated economic and environmental gains and losses for the period of 50 years.

323. Indicative activities under Output 2.4 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
2.4.1.	Collect existing biophysical and climate attribute maps such as elevation, soil type, precipitation, climate change (50-year period), etc.		✓	✓	✓	✓	✓
2.4.2.	Conduct a suitability and climate analysis of the commodities/crops per the relevant suitability criteria.		✓	✓	✓	✓	✓
2.4.3.	Overlay biophysical attributes against the suitability criteria.		✓	✓	✓	✓	✓
2.4.4.	Project the land suitability of the commodities/crops against climate change estimates for the next 50 years.		✓	✓	✓	✓	✓
2.4.5.	Identify areas vulnerable to climate change for each key commodity/crop of the district.		✓	✓	✓	✓	✓
2.4.6.	Referencing to the jurisdictional ILM plan, develop land use zoning frameworks/master plans appropriate for the commodity/crop production that consider biophysical and climate suitability for the next 50 years.		✓	✓	✓	✓	✓
2.4.7.	Estimate the economic and environmental losses and benefits of the zoning plan for the period of 50 years.		✓	✓	✓	✓	✓

Output 2.5. Environmental sustainability and integrated landscape management considerations (e.g. protection of ecosystem service provision areas, biological corridors, fragile soils) incorporated into planning instruments of target districts

Key deliverables/results:

- Detailed spatial zoning plans/maps incorporating the jurisdictional ILM plans and commodity/crop suitability.
- Advocacy to obtain governments' endorsement on the detail spatial zoning plans/maps.

324. Using the land use zoning framework / master plan developed under Output 2.3 above, the project will support the district governments in developing detail spatial plans or zoning. Following the Minister of Agrarian and Spatial Planning Regulation No. 16/2018 there are two options the project could pursue to incorporate the jurisdictional ILM plans and land suitability perspectives into the district spatial plans:

- Through the District Detail Spatial Plan (RDTRK), the project could support the district governments in elaborating the utilization of land (i.e. permits, development planning, preparing the Building Management and Environmental Plan (*Rencana Tata Bangunan dan Lingkungan* - RTBL)). The zoning itself will comprise of district detail spatial plan, spatial plan for urban areas and spatial plan for district strategic areas.
- Through the general provision of the district zoning regulations (*Ketentuan Umum Aturan Zonasi*, or KUPZ): this document also directs the utilization of space or land within the district's spatial plan. When developing the RDTRK, the district refers to KUPZ; however, the KUPZ is less detailed compared with the RDTRK. Here, the project could do the following: (i) detailing the terms related to space or land utilization

in the explanatory article of the KUPZ regulation to avoid misinterpretation, (ii) developing the "Fact and Analysis" document, and (iii) generating relevant comparison maps where requested.

325. Indicative activities under Output 2.5 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
2.5.1.	Conduct technical data analyses to generate zonation maps based on the typology of land administration, social and economic context of the district.		✓	✓	✓	✓	✓
2.5.2.	Overlay the maps of the jurisdictional ILM plans and commodity/suitability maps with the land use typology of the district.		✓	✓	✓	✓	✓
2.5.3.	Analyse the overlaps and reconcile the maps with the existing land management / planning units (including concession and permit).		✓	✓	✓	✓	✓
2.5.4.	Generate draft detail spatial zoning integrating ILM considerations.		✓	✓	✓	✓	✓
2.5.5.	Conduct public consultations and facilitations to establish consensus among stakeholders on the proposed zoning that integrates ILM considerations.		✓	✓	✓	✓	✓
2.5.6.	Incorporate feedback from stakeholders and finalise the spatial zoning maps.		✓	✓	✓	✓	✓
2.5.7.	In coordination with the local governments, disseminate and advocate for the adoption, implementation and monitoring of the ILM considerations.		✓	✓	✓	✓	✓
2.5.8.	Deliver advisory support and provide technical inputs to district BAPPEDA for developing, amending, and updating planning instruments incorporating ILM considerations.		✓	✓	✓	✓	✓
2.5.9.	Develop capacities and procedures in district BAPPEDA for adaptively amending and updating plans incorporating ILM considerations in the future.		✓	✓	✓	✓	✓

Component 2: Promotion of sustainable crop production practices and responsible value chains.

Total Cost: USD 47,589,412 GEF project grant requested: USD 5,189,412 (UNDP: USD 3,140,000; FAO: USD 2,049,412) Co-financing: USD 42,400,000

326. Project activities under this component will focus on developing capacities and conditions required for farmers in the target jurisdictions and landscapes to be able to manage their farms and crops in ways that optimize environmental outcomes, while at the same time being economically attractive compared to alternatives, and compatible with their overall livelihood sustainability, food security and resilience.

327. The outcomes and outputs under this component reflect the range of different aspects that need to be addressed in order for production systems to be feasible and sustainable in the long term:

- Activities under **Outcome 3** address the need for farmers and other land managers to have access to financial resources to be able to cover the short-term investment costs involved in transitioning to more sustainable management practices, and where necessary to compensate them for any reductions in profitability that may result from this transition.
- Activities under **Outcome 4** reflect the significance of value chains in determining farmer behaviour and the potential for them to provide leverage for environmental sustainability: they focus in particular on strengthening the mechanisms required to enable purchasers and retailers to have the confidence that their support to supplying farmers (in the form of secure market access, technical and organizational

support and/or stable and preferential prices) is reliably and consistently reciprocated by improved environmental performance in the field and along the value chain.

- Activities under **Outcome 4** will also contribute to ensuring that the application of sound environmental management practices by farmer is accompanied by improved and consistent product quality, in order to satisfy the multiple requirements for accessing favourable "green" markets.
- Activities under **Outcome 5** focus on the need for farmers to have access to knowledge and capacities to enable them to produce and manage their farms sustainably; and, for this to be sustainable, for them also to have capacities to innovate and adapt in response to evolving circumstances, and for mechanisms and institutional capacities to exist to ensure that they have continue to have access to support in the long term.

Additionally, the project will facilitate national, regional and global corporate engagements on strategic issues beyond supply chains to foster greater impacts to ensure sustainable supply chains.

328. For the piloting of five PPPs in target districts, the project will work together with the identified private sector companies and local government to implement the "sustainable production for protection and restoration" models. the project will refer to the agreed sustainable land use plans (formulated under Component 1) to ensure that the target beneficiaries are not located on non-legal areas (i.e. PA/CA), protected peatlands or other critical ecosystems. Once locations are determined, the project will conduct mapping of smallholder commodity and crop producers (cocoa, coffee, oil palm and rice) to support land legalization and implement gender-sensitive sustainable intensification approaches, comprising of: farmer group/union formation, trainings on GAP and environment protection, as well as sustainable certifications such as ISPO and RSPO, SCOPI, and SRP utilizing the participatory structure of participatory guarantee systems (PGS). Moreover, agricultural extension systems, which include capacity building for extension providers, for target commodities will be strengthened to support smallholder farmers in target districts beyond the direct beneficiaries of the project. Lastly, the project will also support the smallholder producers (including women producers) in target districts to undertake replanting of ageing or unproductive cocoa, coffee, and oil palm to increase yields and restoration of land for food production. This promotion of productive intensification will be subject to the strengthening, in parallel, of planning and governance conditions and the establishment of market-based safeguards to ensure that it does not unintentionally result in the expansion of production area, and possible encroachment into forest areas, due to the increased economic attractiveness of the production systems.

Outcome 3: Sustainable and responsible investment and finance through public-private-community partnerships leveraged for implementation of sustainable value chains.
Key Government Partner: CMEA

329. The baseline situation and incremental reasoning for Outcome 3 are summarized below in **Table 18**.

***Table 18**: Summary of baseline and incremental reasoning for Outcome 3*

Summary of Baseline Situation	Incremental Reasoning
Output 3.1. Mechanisms available to farmers to provide finance/credit for sustainable production incorporating eligibility criteria based on sustainability.	
To promote sustainable palm oil, the GoI established CPO Fund to assist smallholder farmers to replant their plantations with high quality planting materials. The government also provides mechanism for Community Business Credit (known as KUR/*Kredit Usaha Rakyat*), which a credit or financing service provided by the government through national banks for un-bankable small-scale community businesses and cooperatives. The interest rate is low, and requirements for loan are reduced to enable greater access for communities to access finance for their business. KUR can be obtained by smallholders (mainly through cooperatives) to purchase their	The GEF alternative strengthens the enabling environment of smallholder farmers for accessing financing/credit for sustainable production, including implementation of good agricultural practices (GAP), acquiring suitable inputs, obtaining land certification, and achieving sustainability certification. One new finance mechanism or amendment of an existing one focusing on smallholder farmers is envisaged, and adjustments to the regulatory framework will be advocated, e.g., aimed at increasing participation of private sector actors in smallholder finance/credit.

Summary of Baseline Situation	Incremental Reasoning
agriculture inputs, or to pursue sustainability certification. Additionally, the Ministry of State-Owned Enterprises is currently leading the "Partnership & Environment Development Program" or *Program Kemitraan dan Bina Lingkungan/PKBL*. The program is targeting small businesses owned by smallholder farmer groups (predominantly husbandry related businesses). The funding comes from the CSR from SoEs. Ministry of Village, Rural Development & Transmigration (KEMENDES) with collaborating with PT. TANIHUB to provide funding (Tani Fund) for farmers in Indonesia to develop their businesses. More information is provided in **Annex 15** (*Baseline report on commodity supply/value chains and farmer support systems*).	
Output 3.2. Facilitating improved public-private-community collaboration and partnerships to strengthen sustainable production and sustainable value chains.	
The Indonesian government has made significant strides towards enhancing sustainability of the palm oil sector, including introduction of the Indonesian Sustainable Palm Oil (ISPO) system in 2011. A significant number of producers in Indonesia have also obtained RSPO certification, in fact 51% of RSPO-certified palm oil comes from Indonesia.[86] Although important gains have been made in recent years, there are still sustainability shortfalls across the supply/value chains. For example, companies often engage in sustainability commitments with short-term objectives in mind; focusing on needs to meet legal requirements and secure land to develop plantations, and significantly downsize the intensity of their engagement activities thereafter. Among commodity/crop producers there is a feeling that buyers could provide more investment and support for projects that strengthen sustainable production. Ministry of Agriculture is currently leading the development of Farmer Corporation Program to enable farmers to form associations/cooperatives to engage in farmer related businesses. The framework of this Corporation is under-development. The pilot implementation will be implemented in West Java on rice, coffee and other horticulture commodities. Note that the program is targeting food crops predominantly. More information is provided in **Annex 15** (*Baseline report on commodity supply/value chains and farmer support systems*).	The GEF alternative accelerates the processes of improving connection and coordination between producers to increase cross-sector collaboration between peer companies (horizontally across the same stage of the value chain) as well as between producers and buyers (vertically through the value chain) to increase investment and support from buyers into cross-sector coalitions as well as public private partnerships in production landscapes and between finance providers and companies working towards the sustainability of the sector. The project will facilitate cross-sector collaboration between producers for more systemic solutions and will work with producer groups to help get projects to be "investment ready" or "partnership ready" and facilitate connections with buyer groups. The focus will be on working with existing initiatives at the national level and in the project jurisdictions – and potentially also other sustainable production projects in Indonesia. In the demand markets the project will focus on working via industry groups. In relation to finance, the focus will be on connecting to existing initiatives working on finance for sustainable palm oil value chains.

[86] Source: RSPO website May 2020: https://rspo.org/about

Summary of Baseline Situation	Incremental Reasoning
Output 3.3. Open innovation challenge introduced to identify solutions that can be scaled to address strategic issues.	
Upstream and downstream actors in the palm oil sector have made extensive sustainability commitments and have invested into processes and systems that help fulfil these goals. Transforming food systems is become more and more challenging, with increasing populations and the associated demand for agricultural land, disruptions associated with climate change, as well as from natural and public health disasters, such as the COVID-19 pandemic. There is a growing need for innovations, both in terms of new technologies and traditional approaches, for transforming and securing food systems at scale. There are a number of innovation-focused initiatives in place, such as the Palm Oil Innovation Group and the MIT SOLVE sustainable food systems challenge. There is a need to introduce such approaches that deal with specific sustainability challenges in the project jurisdictions.	The project will facilitate an Open Innovation Challenge that addresses specific sustainability challenges. The Open Innovation Challenge will build upon an existing programme or introduce new process through engaging with private sector, governmental agencies, civil society, and scientific institutes. The cash prizes are envisaged to be funded through private sector financing, and the GEF funds will support low-value accelerator grants that would enable implementation of the innovations in the project jurisdictions.

330. Results expected through achievement of Outcome 3 include:

- **Strengthened implementation of sustainable value chains**, as indicated by USD 1 million disbursed for smallholder farmer households (at least 10% of each crop) in the project jurisdictions, of which at least 10% are women-led households
- **Expanded private sector involvement**, as indicated by 18,000 ha and 14,000 farmer households involved in PPPs and/or PPCPs to strengthen sustainable production and value chains (8,000 palm oil households (100%), 12,000 ha; 3,000 coffee households (50%), 3,000 ha; 1,000 cocoa (50%), 1,000 ha; 1,000 rice (25%), 2,000 ha)

Output 3.1: Mechanism available to farmers strengthened or newly established to provide finance/credit for sustainable production incorporating eligibility criteria based on sustainability.

Key deliverables/results:

- Assessment and consultations conducted to determine an appropriate smallholder financial mechanism.
- One mechanism established and operationalised to provide finance/credit to smallholder farmers for: capacity building, agricultural inputs, land certification, sustainability certifications (ISPO, RSPO, ISCC, Fair Trade, RA, etc.).

331. Law No. 19/2013 on the Smallholder Protection and Empowerment provides the legal umbrella for smallholder finance and credit. This law outlines how the government is responsible to facilitate financial access to smallholders. The project may use this legal reference for the establishment and/or strengthening of smallholder finance. Up to this date, there is only one credit mechanism in the country accessible to smallholders, namely KUR/Community Business Credit (regulated under the Minister of Agriculture Regulation No. 32/Permentan/SR.230/6/2016) where the credit is provided by banks. This mechanism has presented many challenges for smallholders to apply for the credit as the requirements are often too high for smallholders to fulfil.

332. The project will assess various regulations and other financial mechanisms appropriate for smallholders, as well as consult to relevant government institutions such as Ministry of Finance, Ministry of Agriculture and the Financial Service Authority (*Otoritas Jasa Keuangan* / OJK) to identify one new smallholder

financial/credit mechanism, which: (i) will grant easier access to smallholders to obtain the credit, and (ii) will allow investment/contribution from not only governments, but also the private sector and other non-government institutions. The assessment will also focus on identifying appropriate modality such as using the idea of ecological fiscal transfer (an alternative use of the national budget by the sub-national governments in the form of conservation related efforts), special allocation fund, and incentive funds for the sub-national administrative. In collaboration with the key government agencies, the Project will work on establishing this mechanism and mobilize seed-funding for its operations. Additionally, where necessary, the project will identify legal requirements and agreements surrounding the credit mechanism, especially between lenders and borrowers, with close supervision and consultation with relevant ministries or government institutions.

333. Government Regulation No. 45/2019 and Minister of Finance Regulation No. 128 /PMK.010/2019 state that there is tax reduction incentive for companies who are willing to support smallholder capacity building. Companies are eligible to receive a tax-cut for a maximum of 200% times the total costs for smallholder programs. Ideally, if the mechanism for smallholder finance has been established, the companies who are willing to set-aside their funding for the smallholder finance, are eligible to receive the tax-cut.

334. The financial mechanism under this output targets the smallholders, in particular independent smallholders who continue to face challenges to access credit to finance, e.g., application of best management practices (BMP) or good agricultural practices (GAP), or to obtain sustainability certification. There is currently no such mechanism in Indonesia that specifically targets the smallholders. However, this mechanism should have the principles of a blended-finance mechanism. For example, the IFC's Global Agriculture and Food Security Program, which uses blended finance solutions and concessional funding to support projects designed to improve the livelihoods of smallholder farmers. However, for Indonesia's (project's) case, the mechanism's fund will be channelled through farmers' cooperatives and/or unions to finance smallholders for sustainable production. The project, in particular through CMEA and MoA, will liaise to see if CPO-Fund can be leveraged, to top up with non-public investments.

335. Indicative activities under Output 3.1 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
3.1.1.	Advise MoA and BPDPKS on definition of environmental sustainability criteria for farmer credit/incentive programmes.	✓					
3.1.2.	Carry out comparative analysis of existing regulatory framework for finance/credit mechanisms.	✓					
3.1.3.	Consult with key government agencies especially the MoA, MoF and FSA to determine appropriate mechanisms for smallholder finance/credit.	✓					
3.1.4.	Strengthen farmer organisations as channels for accessing finance and for communicating information on financing opportunities to farmers.	✓					
3.1.5.	Advocate expanded support to farmers from private sector partners.	✓	✓	✓	✓	✓	✓

Output 3.2: ***Facilitating improved public-private-community collaboration and partnerships to strengthen sustainable production and value chains.***

Key deliverables/results:

- Process put in place for brokering and facilitation of collaboration and partnerships that address shared sectoral issues and challenges (e.g. traceability, farmer support and access to finance, labour practices, gender equality, financing sustainable value chains, environmental monitoring, conservation finance) through cross-sectoral and systemic solutions via:

- ✓ Greater cross-sector collaboration between upstream producers.
- ✓ Increased collaboration between downstream buyers and upstream producers.
- ✓ Increased collaboration with governments and sustainable development funders in key downstream demand markets.
- ✓ Collaboration with finance providers to align and mobilise funding towards sustainable value chains.

- Increased investment and support from downstream buyers and from demand market governments and sustainable development funders into sustainable production initiatives in the project jurisdictions, as well as more broadly at the province and national levels.
- Innovating new PPP and PPCP business models and disseminating the learning.
- Improved facilitation of inward investment from downstream buyers into jurisdictional and landscape initiatives across the region (Indonesia, Malaysia, PNG).

336. The main objective of Output 3.2 is to strengthen cross-sector collaboration and public private partnerships to deliver more systemic, sector-wider solutions for sustainability challenges, including traceability, farmer training and support, labour practices, gender equality, environmental monitoring, forest protection and conservation initiatives. Activities under this output will also aim to improve collaboration within the target landscapes but also more broadly at state level and, where appropriate, national level and regionally.

337. The project will focus on facilitating approaches that improve coordination and increase collaboration (a) within the private sector, (b) between private and public sectors, and (c) with sustainable development funders, including demand market governments and development agencies. The focus will be on partnerships that can deliver solutions at landscape, district, province, country, and regional (transnational) levels – rather than just in individual supply chains.

338. Private sector action on sustainable production and sustainable sourcing often focuses on individual supply chains, focusing on actions within company operations and working with smallholders– in other words, the lower left-hand corner of Corporate Action Matrix below in **Table 19**.

Table 19: Corporate action matrix[87]

	Type of action		Geographic scope of action				
			Farms	Landscapes	Subnational	National	Global
Collaborative	Collective action	Institution building					
		Building coalitions & partnerships					
		Multi-stakeholder forums					
Coordinated	Individual or collective action	Technical assistance					
		Funding & finance					
		Advocacy					
Uncoordinated	Individual company and supply chain actions	Purchasing contracts / off-take agreements					
		Supply chain policies / purchasing agreements					
		Commitments					

339. The project will aim to strengthen coordination between companies (the central band of the matrix) and to facilitate more collective action (the upper band of the matrix) – and to do so across entire landscapes, as well as at the provincial, national, and transnational (regional) level. Efforts under this output will also be linked to the development of the sustainable action plans under Output 1.3.

340. The project will focus on public-private partnerships (PPPs) and public-private-community partnership (PPCPs) that have a systemic impact, involving multiple players addressing issues at the level of a landscape, district, province or nationally (as opposed to more limited bilateral PPPs with individual companies where the

[87] Adapted from the following publication: Value beyond value chains report, UNDP, 2019.

impact is more limited in scope). The objective is to work with and mobilize coalitions of companies to collaborate (a) "vertically" through value chains from producers through to traders, manufacturers, and retailers and (b) "horizontally" between producers / companies who are working in the same landscape or region.

341. Implementation of Output 3.2 will be supported by the UNDP Green Commodities Programme, building on existing relationships particularly with international palm oil buyers as well as large producers, and making linkages with other FOLUR country projects in the region that are addressing palm oil (Malaysia and PNG) and globally (Colombia, Guatemala, Liberia, Nigeria, Peru). Interactions with private sector partners regionally and globally will also be facilitated through the FOLUR Global Platform. In addition, the project will look to collaborate with other organisations working with the private sector and finance sector on sustainable production and supply chain issues in palm oil, cocoa, coffee, and rice, particularly organisations with experience of working with groups of companies through coalitions, who have a presence in Indonesia and also the ability to work in key demand markets. Examples include: Aidenvironment, Conservation International, Daemeter, Earthworm Foundation, The Sustainable Trade Initiative (IDH), Proforest, Rikolto, Solidaridad and WWF. Additional opportunities to link the project to blended finance will be developed through leverage of engagement with multi-lateral finance institutions such as the International Finance Corporation (IFC), which will be a core partner of the World Bank-led Global Platform.

342. In collaboration with these partners, the aim will be to develop and implement a process for the brokering and facilitation of collaboration partnerships.

343. The project will support existing public-private-partnerships (PPPs) and public-private-community partnerships (PPCPs) and, where necessary, create new PPPs and PPCPs to mobilize additional investment into sustainable production and sustainable value chain development; conservation agriculture; forest protection and conservation; and land restoration projects in the target districts and provinces.

344. The project will identify the needs and opportunities for PPPs and PPCPs at district, provincial and national level. The emphasis will be on working with existing initiatives wherever possible, such as:

- At the production level: working with existing initiatives nationally and/or within the project jurisdictions. This may include helping producer groups to get project to be "investment ready" or "partnership ready": Subnational initiatives including: the Coalition for Sustainable Livelihoods (currently in Aceh and North Sumatera).
- National initiatives including: the Indonesia Platform on Sustainable Palm Oil (or FoKSBI), Sustainable Coffee Platform of Indonesia (SCOPI), *Asosiasi Kakao Indonesia* (ASKINDO/Indonesia Cacao Association), the Indonesian Business Council for Sustainable Development (IBCSD).
- In relation to finance for sustainable value chains: connecting with existing initiatives such as the Value Based Investment Community of Practitioners (and the VBIAF Sectoral Guidance on Palm Oil), and work internationally on sustainable finance for palm oil from RSPO, UNPRI (PRI Investor Working Group on Sustainable Palm Oil) and others.
- In addition, the project will explore opportunities to partner with extractive companies involved in investing in smallholder farmer and community development initiatives. This will be explored through discussions with industry associations, such as the Association of Exploration and Mining Development (EMD-Indonesia) and the Indonesian Coal Mining Association (APBI-ICMA).

345. In the demand markets: connecting company producer groups to groups of buyers via existing sector initiatives:

- Connecting company producer groups to groups of buyers via existing sector initiatives:
    - Country and regional demand market initiatives including: China Sustainable Palm Oil Alliance, European Palm Oil Alliance, Amsterdam Declaration Partnership, India Sustainable Palm Oil Coalition, Southeast Asia Alliance for Sustainable Palm Oil
    - Global initiatives including: the Roundtable on Sustainable Palm Oil (RSPO), World Cocoa Foundation (WCF), the International Coffee Organization (ICO), Sustainable Coffee Challenge, the Global Coffee Platform, the Sustainable Rice Platform (SRP), the Tropical Forest Alliance (TFA), the Consumer Goods Forum (CGF), the World Business Council for Sustainable Development (WBCSD), the Global Agribusiness Alliance.

- Facilitate engagement with government and inter-governmental initiatives and international sustainable development funders that are working to promote and support sustainable sourcing of the target commodities in the project (particularly in Europe, China and India).

346. Where sustainable production projects do not exist in the project target landscapes, or where there are gaps that need to be addressed, the project will also need identify how existing projects can be extended or where new multi-stakeholder forums should be created by the project.

347. Indicative activities under Output 3.2 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
3.2.1.	Develop partnerships and alliances with aligned organisations to broker, facilitate and strengthen cross-sector collaboration and public private partnerships for sustainable production and sustainable supply chains looking across the target landscapes, but also across the palm oil sector in the region (Indonesia, Malaysia, and PNG).	✓	✓	✓	✓	✓	✓
3.2.2.	Engaging with existing sustainable production initiatives in the project jurisdictions to identify specific projects and activities that would benefit from increased support and investment from buyers.	✓	✓	✓	✓	✓	✓
3.2.3.	Use co-design processes in order to develop new PPPs and PPCPs to address gaps and unmet needs.	✓	✓	✓	✓	✓	✓
3.2.4.	Supporting sustainable production and supply chain projects (as per 3.2.2) to prepare presentation and communication materials for attracting increased support and investment from buyers.	✓	✓	✓	✓	✓	✓
3.2.5.	Engage with major industry groups in key demand markets to mobilize increased buyer investment and support in sustainable production and supply chain projects through existing coalitions and partnerships in the FOLUR target jurisdictions, as well as more broadly across Indonesia.	✓	✓	✓	✓	✓	✓
3.2.6.	Disburse low-value accelerator grants to fill gaps and provide incremental value to existing or new PPPs and PPCPs.	✓	✓	✓	✓	✓	✓
3.2.7.	Facilitate engagement with government and inter-governmental initiatives and sustainable development funders in key demand markets to identify opportunities for collaboration and inward investment and support for sustainable production and supply chain projects in the FOLUR target jurisdictions, as well as more broadly across Indonesia.	✓	✓	✓	✓	✓	✓
3.2.8.	Engage with existing sustainable finance initiatives for collaboration with producer and buyer groups to identify and address gaps relating to funding of sustainable commodities.	✓	✓	✓	✓	✓	✓
3.2.9.	Provide on-going capacity building, technical assistance, brokering and facilitation support to ensure the further development and strengthening of coalitions and partnerships for sustainable production and supply chain projects.	✓	✓	✓	✓	✓	✓
3.2.10.	Document and disseminate learning from any innovation in PPP and PPCP models.	✓	✓	✓	✓	✓	✓

Output 3.3: Open innovation challenge introduced to identify solutions that can be scaled to address strategic issues.

Key deliverables/results:

- An Open Innovation Challenge launched to address food systems, land use and restoration challenges
- Business plan for sustaining the process after GEF funding ceases

348. The aim of the Open Innovation Challenge is to identify and support innovative solutions to food systems, land use and restoration challenges in Indonesia. The role of the project will be to develop the concept and to find partners and funders to ensure that the concept is financially self-sustaining from the outset. The exact design of the Open Innovation Challenge will be determined during concept development, but the intention is to find proven solutions to food systems, land use and restoration challenges and to provide support to accelerate the scale up of these solutions. (The Open Innovation Challenge will not be looking for new / unproven ideas to incubate or seed.) The Open Innovation Challenge will most likely provide support through awarding financial prizes or grants; access to investment; provision of advice; access to strategic contacts / networks / partnerships; publicity and communications support.

349. The innovation challenges will be developed through the process and with partners. The challenges could relate to any priority area for the project. On an indicative basis, this could include: challenges related to smallholder production, increase smallholder access to financial and technical support, methods to accelerate smallholder mapping / traceability and NDPE implementation (e.g. ensuring no deforestation via use of satellite monitoring tools, community raised grievance platforms and forest monitoring); local community forest protection ideas, use of digital tools – in data collection, to monitor and enhance smallholder productivity, traceability / transparency (e.g. Trase), detect deforestation and provide alerts, development of models or platforms and innovative financing structures to deliver service and smallholder support, business models and partnerships for new crop varieties, digital platforms to connect smallholders to markets, innovative solutions to rural waste management, and so on.

350. Specific challenge themes are likely to be set each call, which will focus on particular selected challenges. Examples of such challenges include the following:

- UNDP Ocean Innovation Challenge (http://www.oceaninnovationchallenge.org/)
- GEF Challenge Program for Adaptation Innovation (https://www.thegef.org/documents/call-proposals-challenge-program-adaptation-innovation)
- MIT SOLVE Sustainable Food Systems Challenge (https://solve.mit.edu/challenges/sustainable-food-systems)

351. The Open Innovation Challenge may be run only as a stand-alone Indonesian initiative or may connect into a regional or global challenge as well if other FOLUR countries / the FOLUR Global Platform also launch Open Innovation Challenges. In this case, there could be national level challenges and the winners go on to compete at the regional and/or global level. Under this scenario, strategic partnerships could be explored on a multi-country basis (e.g., IBM, OpenIDEO, PwC, etc.). Based upon the experiences and lessons learned gained, a business plan will be developed for sustaining the Open Innovation Challenge after project closure. Concerted advocacy for a long-term sponsor of the process will be supported through networking, dissemination of knowledge products, and convening of a stakeholder workshop.

352. Indicative activities under Output 3.3 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
3.3.1.	Develop the concept for the Open Innovation Challenge and set up or link to an online platform.	✓					

3.3.2.	Establish a grant administration function and support the administration of the Open Innovation Challenge for the duration of the project.	✓					
3.3.3.	Engage strategic partners and raise financing for the financial prizes/grants.	✓					
3.3.4.	Launch up to Open Innovation Challenge invitations, evaluate proposals, announce grantees.	✓	✓	✓	✓	✓	✓
3.3.5.	Disburse low-value accelerator grants for strengthening enabling initiatives that are complementary to the Open Innovation Challenge topics.		✓	✓	✓	✓	✓
3.3.6.	Regularly evaluate results and lessons and develop a business plan for sustaining the Open Innovation Challenge after project closure.	✓	✓	✓	✓	✓	✓
3.3.7.	Produce communication materials, advocate for a long-term sponsor of the process, convene a workshop to showcase results and strengthen partnerships.	✓					

Outcome 4: Smallholder farmers receiving increased value for their products through traceability systems and improved grading for selected commodities and jurisdictions.
Key Government Partner: MoA

353. The outputs and interventions under Outcome 4 are focused on establishing and improving on systems within the supply chain that will help smallholder farmers receive increased value for their products. Whilst many private sector companies are implementing traceability systems, many smallholder farmers are not engaged, and it is therefore difficult in many cases to trace production down to the farm level. Utilising the multi-stakeholder processes and dialogues within the project jurisdictions, best practice traceability systems will be developed and demonstrated, with involvement of smallholder farmers, local governments, private sector, and NGOs. Through incentivising smallholder farmers and the increased level of transparency gained through multi-stakeholder collaboration, farmers will have increased opportunities to participate in sustainable supply chains and expansion into high conservation value forest areas will, in turn, reduce. Improvements to commodity/crop grading guidance and systems will further strengthen smallholder farmers' bargaining power and value for their production. Linkages with the Open Innovation Challenge in Output 3.3 will be explored, e.g., through promoting the use of mobile applications in traceability and grading systems.

354. The baseline situation and incremental reasoning for Outcome 4 are summarized below in **Table 20**.

***Table 20**: Summary of baseline and incremental reasoning for Outcome 4*

Summary of Baseline Situation	Incremental Reasoning
Output 4.1. Best practice traceability approaches demonstrated, involving supply chain actors at a jurisdictional level and incentivises participation of independent smallholders, e.g., through access to finance, credit scoring, training, etc.	
In response to consumer demand, companies are under increasing pressure to ensure palm oil supply is legally sourced and not from plantations planted in unauthorised locations, particularly forested areas. Many large buyers have identified their supply to the refinery and mill levels. And there has been some progress in mapping supply from refineries to estates, but tracing to the smallholder farmer level is limited and poses substantive challenges. These difficulties are compounded by the unwillingness of some intermediaries to divulge information regarding sources and business relations. Presidential Regulation No. 44/2020 on the Indonesian Sustainable Palm Oil (ISPO) certification	The GEF alternative advances the dialogue regarding the need for moving towards a common approach for traceability and collaboration across tiers in the supply chain. Working with governmental stakeholders, private sector actors, farmer associations, and NGOs, existing traceability tools and systems will be assessed, and a standard practice guidance will be developed for incentivising broader participation and enhancing consistency and credibility. Capitalising on the strengthened multi-stakeholder collaborative processes, the project will support collection of data and information on oil palm footprints in one of the target jurisdictions.

Summary of Baseline Situation	Incremental Reasoning
system, enacted in March 2020, calls for smallholder farmers to be certified by 2025. Traceability is mandatory under ISPO, as is land title; however, there is no standard in place. There is a risk of smallholders being excluded from supply chains due to the complexities and costs associated with tracing individual supply lines. Smallholders, however, have a substantial footprint in the palm oil sector in the country, with 40% of the total planted area. They also area responsible for a portion of deforestation so using traceability technology to track FFB sources and at the same time help farmers improve yield on existing land is key. There are similar traceability challenges for the other commodities.	Implementation of the standard practice guidance in the selected jurisdiction will be run for an agreed timeframe, enabling evaluation of the effectiveness and viability of incentive mechanisms for sustaining participation of independent smallholders. Lessons learned will be shared and advocated for upscaling of the demonstrated traceability approaches.
Output 4.2. Guidance on grading for value additions developed for oil palm, cocoa, coffee, and rice.	
Most smallholder farmers, especially those who have not received training, are unfamiliar with the grading system of their commodity/crop. Grading systems are fairly dated, and extension officers, where posted, are not commonly providing information to smallholder farmers. Moreover, intermediaries often purchase commodities from smallholder farmers without informing them how their products are being graded, leading to price differences for the same commodity in an area. Farmers' inability to understand the grading of their products contributes to below market prices paid to smallholders.	The alternative scenario proposed through the GEF project focuses on wider application of commodity/crop grading systems, leading to increased transparency among supply chains and enabling fair prices to smallholder farmers for their production.

355. Results expected through achievement of Outcome 4 include:

- **Enhanced traceability of sustainably produced palm oil, cocoa, coffee, and rice**, with 18,000 ha under verified traceability systems (12,000 ha oil palm; 3,000 ha coffee; 1,000 ha cocoa; 2,000 ha rice).
- **Improved capacities of farmers to add value to palm oil, cocoa, coffee, and rice**, as indicated by (a) 10% palm oil, (b) 10% coffee, (c) 10% cocoa, and (d) 10% rice of production by smallholder farmers in project districts subject to effective grading by quality.

Output 4.1: Best practice traceability approaches demonstrated, involving supply chain actors at a jurisdictional level and incentivises participation of independent smallholders, e.g., through access to finance, credit scoring, training, etc.

Key deliverables/results:

- Standard practice traceability guidance incentivising broad participation and enhancing sector and brand credibility.

356. Based on analyses of current traceability systems and stakeholder consultations, the project will demonstrate best practice traceability approaches, including mechanisms for incentivising smallholder farmer participation. Three project jurisdictions (tentatively including Aceh, West Kalimantan, and South Sulawesi) will be selected for implementing best practice traceability approaches, starting with socialising the concepts with relevant stakeholders, including local government, smallholder farmer groups, producers, downstream buyers, and local NGOs. Applying an agreed methodology among the jurisdiction level stakeholders, information will be collected on the commodity footprint in the selected jurisdictions. Findings and lessons from the implementation of the demonstrations will be shared through stakeholder workshops. A draft standard practice

traceability guidance will then be formulated, providing clear governance recommendations for incentivising participation of each tier in the supply chain.

357. Indicative activities under Output 4.1 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
4.1.1.	Assess needs, gaps, and current traceability approaches through desktop reviews and stakeholder consultations.	✓					
4.1.2.	Develop draft standard practice traceability guidance for incentivising smallholder farmers and is scale-able, cost-efficient, and interoperable across tiers in the supply chain.	✓					
4.1.3.	Select project jurisdictions for implementation of the standard practice guidance and socialise the concepts and reach agreement among the relevant stakeholders, including local government departments, smallholder groups, mills/producers, downstream buyers, and local NGOs, for collaborating on a landscape or jurisdictional scale.		✓		✓		✓
4.1.4.	Develop methodology and support collection of data and information on the commodity footprint in the selected FOLUR jurisdictions.		✓		✓		✓
4.1.5.	Implement the standard practice guidance in the selected jurisdictions and/or landscapes for an agreed timeframe.		✓		✓		✓
4.1.6.	Analyse the results of the demonstration, assess the effectiveness of the approach and incentive mechanisms, and prepare a detailed case study.	✓					
4.1.7.	Share findings and lessons learned of the demonstrations through stakeholder workshop(s).	✓	✓	✓	✓	✓	✓
4.1.8.	Based on the findings and lessons learned, formulate recommendations for incentivising smallholder participation.	✓					
4.1.9.	Advocate for upscaling the traceability approaches demonstrated through application of the standard practice guidance.	✓					

Output 4.2. Guidance on grading for value additions developed for oil palm, cocoa, coffee and rice.

Key deliverables/results:

- Guidance on grading for value additions developed for oil palm, cocoa, coffee and rice.
- Training and socialization of the grading guidance.

358. In practice, most smallholder farmers are not aware of how their products are being graded by the intermediaries and mills. Farmers often cannot tell why the price of their products has significantly been decreased by the intermediaries or mills. The grading guidance will serve to inform farmers: (i) how their products are being priced, (ii) factors contributing to the reduction in product price, (iii) factors contributing to the increase in product prices. This way, farmers will become familiar of post-harvest treatments to improve the grading of their products. Additionally, the guidance will outline the benefits of their products being certified under widely acknowledged sustainability standards.

359. Indicative activities under Output 4.2 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
4.2.1.	Advisory support to MoA and CMEA in development of a guidance on grading for value additions for oil palm, cocoa, coffee, and rice.	✓					
4.2.2.	Convene public consultations, especially with private sector companies, to obtain inputs from stakeholders on the draft grading guidance.	✓	✓	✓	✓	✓	✓
4.2.3.	Advocate for the endorsement of the grading guidance by the national and sub-national governments through socialization process and publications materials.	✓	✓	✓	✓	✓	✓
4.2.4.	Produce communications materials for socialisation and conduct training on implementation of the guidance for agency staff and select smallholders.	✓	✓	✓	✓	✓	✓

Outcome 5: Smallholder farmers and support services strengthened in target districts to implement sustainable and resilient production and farming systems.
Key Government Partner: MoA

360. The project will adopt a stepwise approach to supporting farmers, recognizing that there are differences among them in terms of their baseline capacities, conditions, and opportunities, following the approach outlined in the UNDP GCP guidance on "Multi-Stakeholder Collaboration for Systemic Change: A New Approach to Strengthening Farmer Support Systems"[88].

361. For farmers who currently or potentially have access to markets that are likely to reward good environmental performance, the project will focus on ensuring that they receive the technical support needed for them to be able to meet the sustainability requirements of the market actors in question. For the four target crops/commodities, these requirements are set out in standards including the following (more detail on these standards is provided in **Annex 15** (*Baseline report on commodity supply/value chains and farmer support systems*):

- Oil palm: ISPO/RSPO
- Coffee: Rainforest Alliance, Starbucks
- Cocoa: Mondelez CocoaLife, Rainforest Alliance, Utz[89]
- Rice: the Sustainable Rice Platform (SRP) Standard.

362. The project will also support local refinements of these standards as appropriate, in order to maximize their relevance to local conditions and their potential to generate environmental and social benefits.

363. Studies carried out during project formulation (see **Annex 15**: *Baseline report on commodity supply/value chains and farmer support systems*) revealed that a significant proportion of the volume traded enters into markets that do not currently favour or reward environmental sustainability, and that this situation is unlikely to change significantly in the short or medium term. This is the case, for example, with most of the palm oil destined for the Indonesian market, and for low value rice; refer to **Annex 15** (*Baseline report on commodity supply/value chains and farmer support systems*) for more information. For farmers supplying these markets, there is therefore unlikely to be significant return, in the form of preferential market access or prices, on investments that they might make in bringing their performance up to market standards such as those set

[88] https://www.greencommodities.org/content/gcp/en/home/tools/farmer-support-systems.html

[89] Dagmar Mithöfer, James M. Roshetko, Jason A. Donovan, Ewane Nathalie, Valentina Robiglio, Duman Wau, Denis J. Sonwa & Trent Blare (2017) Unpacking 'sustainable' cocoa: do sustainability standards, development projects and policies address producer concerns in Indonesia, Cameroon and Peru?, International Journal of Biodiversity Science, Ecosystem Services & Management, 13:1, 444-469, DOI: 10.1080/21513732.2018.1432691

out above. The project approach with these farmers will instead be to support their abilities to apply a less exacting suite of good agricultural practices (GAPs), focusing on the other kinds of benefits which these practices have the potential to confer to the farmers themselves, for example in terms of improved resilience to climate change, productive sustainability and efficiency. Examples of such GAPs are presented below in **Table 21**.

Table 21: Proposed Good Agricultural Practices (GAPs) to be supported in oil palm, rice, coffee, and cocoa

Oil Palm
– **Planting material and density** a. Palm trees can produce yields for 25-30 years. b. Use certified seeds to produce large yields. c. Buy seeds from a certified, reliable breeding company. d. Work together in cooperatives or farmer groups when buying seeds. e. Poor quality seeds, unreliable certificates or no certificates at all, will give a poor yield for 25 years. f. Do not plant fruits from plantation! It will get about 50% Tenera, 25% Dura and 25% Pisifera. Less yield obtained. g. Planting spacing between 8.5 and 9.5 m. If trees 9 m apart, the density is 142 trees/ha. h. Need to remove some trees if it is too dense (>150 trees/ha). i. How to manage dura and or pisifera trees in a plantation? – **Harvesting, grading and transport** a. Ensure the ripeness and quality of the bunches. Lower price will be paid for unripe, overripe, damaged, very small and long stalk bunches. b. Ensuring that the FFB are harvested at the right time and arrive at the mill in optimal condition. i. Harvesting only ripe bunches and using correct procedures (frond cutting, bunch cutting). ii. Good and fast transport of the bunches to the mill to minimize FFA (FFA < 5%). iii. Limited loss of loose fruit in the field or during transport (loose fruits have an oil content of more than 40%). c. FFB should be delivered to the mill within 24 hours of harvesting. – **Plantation maintenance**: managing the plantation effectively, efficiently, and sustainably a. The importance of good maintenance: i. More efficient harvesting, ii. Prevention of manmade fires, iii. Easier access into the plantation and better safety, iv. Maintaining optimum soil moisture and temperature, v. Optimum interception of radiation (canopy maintenance), vi. Better use of fertilisers (less competition with weeds), vii. Conserving the topsoil (preventing erosion), viii. Attracting natural enemies of pests, ix. Easier monitoring of pest and disease presence. b. Weed Control: i. Understand types of weeding 1. Manual, mechanical and chemical ii. Herbicides 1. Type: Contact & systemic 2. Spraying safety, handled and applied carefully iii. Chemical spraying safety 1. Prepare solution accurately & read all instructions carefully. 2. Use gloves while adding the herbicide. 3. Follow instruction guidance on the herbicide bottle. 4. Use right type and concentration of herbicide. 5. Wear protective clothing i.e. rubber gloves, boots, mouth cover, safety goggle etc. 6. Spray downwind, smooth even strokes, spray early morning when least wind. 7. Cleaning and storing chemicals and equipment. a. Away from any rivers or water sources such as wells, lock chemical store and keep away from children, do not store in food containers, follow instructions for the disposal of chemical containers e.g. bury. iv. Inter row, harvesting path and circle weeding. c. General Plantation Maintenance i. Pruning. ii. Soil conservation: maintain good soil fertility, prevent topsoil erosion, stop fertilizers from being washed away, optimal use of water. iii. Measures to conserve soil:

1. Frond stack: U-shaped frond stacking, along the contour line, on the edge of platforms or terraces, on slopes of 1-15% and on flat land.
2. Silt pit: on slopes of 16-25%.
3. Platform: on slopes of 16-25%.
4. Terrace/contour bund: on slopes of 26-40%.
5. No oil palm is cultivated on slope >40% according to government regulation.
6. Leguminous cover crops help to conserve soil moisture and soil organic matter, prevent soil erosion, and fix nitrogen from the air.

- **Plantation Assessment:** Condition of plantation on various land types
  - **a.** Introduce to soil types and how to handle: mineral and organic.
  - **b.** Handling soil acidity.
  - **c.** Flooding and drainage.
    Need to drain if:
    i. There is water for more than 2 weeks at a time
    ii. The plantation is in a swamp and palm tree look sick
    How to drain?
    iii. Pump for temporary flood
    iv. Digging drainage channels
  - **d.** Slope management
    i. >40% = prohibited by law (set aside for conservation)
    ii. 26-40% = usable with terraces
    iii. 16-25% = usable with platforms
    iv. 9-15% = usable with conservation
    v. 0-8% = ideal
- **Fertiliser application**
  - a. Applying the right type and amount of fertiliser to ensure optimal yields with minimal damage to the environment.
  - b. Many smallholder farmers only apply minimum required fertilisers, yield only 12 tons/ha.
  - c. GAP requires good investment on proper and sufficient fertilisers. It does need more money to be invested in fertilisers and labour. It does have higher total costs yet generates more income.
  - d. Different phases need different types of nutrition:
    i. For developing leaves, much N is needed.
    ii. For developing roots, much P is needed.
    iii. For good bunch production, much K is needed.
  - e. Fertiliser application in mineral and organic soils.
  - f. Identifying soil acidity and how to fix it.
  - g. Role of Nitrogen, Phosphate, Kalium (Potassium), Magnesium, Boron, Zinc, and Copper.
  - h. Nutrient deficiencies.
  - i. Fertiliser application => right type, right amount, right time, right place.
  - j. Fertilizer application for mature and immature palm in mineral and organic soil:
    i. Mature palm (>3 years after planting/YAP) in mineral soil.
    ii. Mature palm in peat soil.
    iii. Immature palm (1-3 YAP) in mineral soil.
    iv. Immature palm (1-3 YAP) in peat soil.
  - k. Rounds, timing, and placement when applying fertilizer.
  - l. Organic fertilisers & environment:
    i. Empty fruit bunches (EFB) application (if available).
    ii. Fertiliser application with minimal impact to environment.
    iii. Consequences of using fertilizer carelessly: damage to trees, increased susceptibility to pests, waste of money, loss of soil organic matter, soil acidification and aluminium toxicity, contamination of rivers and lakes (algal bloom), contamination of ground water, emit more greenhouse gas.
- **Pest and diseases**
  - a. How to identify pest and diseases in the plantation such as rats, rhinoceros beetle, leaf eating pests etc.
  - b. Handling and controlling a sick tree including biological control, chemical control and mechanical control.
  - c. Environmental impact of pesticides.
  - d. Integrated Pest Management such as plant beneficial plants, introduce barn owls, natural predator for the pest etc.

Coffee and Cocoa

- Unsuitable land (slope >40%) is set aside for conservation/rehabilitation, slope above 20% is terraced, planting along contour lines, soil traps, water capturing bio pores, hedgerows.
- Vegetative soil cover, mulching, shade trees, intercropping.
- Reducing or eliminating tillage.
- Responsible use of pesticides and fertilizers.

– Composting fresh manure before using it. – Origin of water used is known and not contaminated. – Intercropping, crop rotation and other practices that are minimizing the outbreak of pests and diseases (decreasing use of pesticides). – Rainwater harvesting techniques (such as contour planting, bio-pores, hoeing to allow water infiltration, small dams). – Water evapotranspiration practices (such as cover crops, shade trees, residue covers e.g. crop residues, leaves and branches lopped from trees growing within the cropping area, mulches of grasses, shrubs, weeds, litter, husks, and other organic waste materials). – Construction of terraces on sloping land, merged with the manufacture of small-blocked ditches to reduce the speed of water runoff. – Crop pruning, rejuvenation, and replanting (for old-aged and unproductive crops).
Rice
– Water management: timely and appropriate crop establishment according to local climate. – Water management: use of varieties suitable for local climate: short/medium duration varieties, drought, or flood tolerant varieties. – Water management: establishment of strong bunds. – Provision of on-site rainwater harvesting and storage for supplementary irrigation. – Seed quality: promoting community-based superior quality seed production for seed certification in cooperation with the Provincial Seed Control and Certification Agency (*Balai Pengawasan dan Sertifikasi Benih*/BPSB). – Direct seeding or effective puddling. – Promoting System of Rice Intensification (SRI) method. – Promoting organic rice farming for premium markets. – Shortening the period under irrigation based on the crop growth phase and its water requirements. – Groundwater extraction is legal and sustainable. It avoids depletion of water resources beyond the watershed recharge capacity and balances the competition for its use. – Timing of fertilizer (inorganic and/or organic; N, P, and/or K) application is according to plant needs, locally adapted recommendations, and product label instructions (if available). – Amount of fertilizer (inorganic and/or organic; N, P, and/or K) applied is based on knowledge of soil fertility and expected yield, local recommendations, and label instructions (if available). – Natural systems of soil fertility enhancement (e.g., crop rotation, intercropping, and/or non-invasive cover cropping) are used. – Organic material (e.g., animal manure, green manure, mulch, rice straw) is used as fertilizer in non-flooded fields or there is sufficient time for its decomposition prior to flooding. – Integrated pest management (IPM) through farmers field school approach. – Rice stubble and rice straw is not burned and is managed in a sustainable way to mitigate greenhouse gas emissions, minimize environmental impacts, and retain or improve soil quality.

364. The baseline situation and incremental reasoning for Outcome 5 are summarized below in **Table 22**.

Table 22*: Summary of baseline and incremental reasoning for Outcome 5*

Summary of Baseline Situation	Incremental Reasoning
Output 5.1. District-level plans of smallholder support interventions, reflecting stakeholder priorities, zoning and land classification.	
The provision of technical support to smallholders is generalized across landscapes.	- Technical support is prioritized and tailored in response to landscape-wide variations in conditions (e.g. environmental values, ecosystem service flows and productive potential), in accordance with district-level spatial plans and on the basis of stakeholder consultation and dialogue.
Output 5.2. Agricultural extension service systems including capacity building for extension officers strengthened in target districts to support smallholder farmers on the promotion of and increased uptake of sustainable production practices and farming systems.	
Agricultural extension services have limited coverage, and their technical content has a narrow and static focus on productive aspects.	- Public and private sources of technical support complement each other effectively in order to maximize coverage and durability. - Extension messages mainstream considerations of environmental sustainability integrated with livelihood, food security and resilience issues.

Summary of Baseline Situation	Incremental Reasoning
	- Extension agents have increased capacity to provide support on sustainability issues.
Output 5.3. Support to smallholder capacity development and sustainability certification delivered for selected smallholder farmers within target districts.	
Farmers have limited understanding or capacity to apply sustainable approaches to production or to meet market sustainability standards.	- Farmers have increased understanding and capacity to apply sustainable approaches to production and farm management, integrated with considerations of livelihood sustainability, food security and resilience. - Farmers have increased and durable capacities to analyse, anticipate and respond adaptively to changes in biophysical and socioeconomic conditions.
Output 5.4. Support delivered to smallholder farmers for land tenure/legalization, enabling achievement of sustainable and resilient production and farming systems.	
The Indonesian Biodiversity Foundation (KEHATI) is developing an online digital application for land legality certification to obtain palm oil Cultivation Business Permit (STDB). The pilot implementation is in Berau, East Kalimantan.	Through capacity building and catalytic demonstration, the GEF funds will help enable smallholder farmers obtain land certification. Utilising the multi-stakeholder collaborative processes and working with farmer organisations (farmer unions, associations, cooperatives, etc.), the process is expected to be scaled up across the project jurisdictions.

365. Results expected through achievement of Outcome 5 include:

- **Increased capacities for farmer support for sustainable and resilient production and farming systems**, as indicated by the increase in the numbers of farmers the following services have capacity to provide support on sustainable and resilient production and farming systems: (a) % increase for extension services, (b) % increase for private sector technical support schemes, and (c) % increase for farmer field schools.
- **Improved access to technical support by smallholder farmers**, as indicated by the following percentage increase in the numbers of farmers receiving regular technical support in relation to sustainable production and management: (a) % increase for oil palm farmers (of whom 15% are women), (b) % for coffee farmers (of whom 50% are women), (c) % for cocoa farmers (of whom 50% are women), and (d) % rice farmers (of whom 50% are women).
- **Expanded application of best management practices**, as indicated by 10,000 smallholder farmer households implementing best management practices (4,000 oil palm; 3,000 coffee; 1,000cocoa; 2,000 rice).

Output 5.1: District-level plans of farmer support interventions, reflecting stakeholder priorities, zoning, and land classification.

Key deliverables/results:

- Maps on priority locations in the district for smallholder intervention, based on the land use zoning maps generated under Output 2.5.
- Participatory problem and solution analyses at district and community levels, to identify appropriate management options and interventions promoting sustainability at farm and landscape levels, to be included in extension programmes.
- Smallholder households in the priority locations are determined for intensification and land legalization.

366. This initial planning process will help ensure that project interventions in support of farmer capacity development are well focused, relevant, cost-efficient and compliant with the zoning that will be supported under Component 1 and with national policies and regulations (legally, technical assistance can only be provided to farmers or farmer groups with legalized tenure on agricultural vocation land, or those operating under social forestry schemes on forest land).

367. Indicative activities under Output 5.1 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
5.1.1.	In coordination and collaboration with the district's Plantation and/or Agriculture Office, identify priority locations for intervention based on the land use zoning maps.		✓	✓	✓	✓	✓
5.1.2.	Collect information on the number and locations of smallholder plantations in these priority locations and determine the households that the project will target for intensification and land legalization interventions.		✓	✓	✓	✓	✓
5.1.3.	Collect polygon maps of their plantations to ensure that they are located on "other use areas" (APL) or areas eligible for social forestry.		✓	✓	✓	✓	✓
5.1.4.	Supported by participatory FPIC processes, finalise the maps of target smallholder households and their plantations to ensure full buy-in from smallholders to take part in the interventions.		✓	✓	✓	✓	✓

Output 5.2: Agricultural extension service systems strengthened in target districts to support smallholder farmers on the promotion of and increased uptake of sustainable production practices and farming systems

Key deliverables/results:

- Potential trainers (extension officers) identified to receive the Training of Trainers (ToT) program
- ToT for the selected trainers with the potential to engage some of them in sustainable intensification activities for the target smallholders.

368. The project will work closely with provincial and district level Plantation and/or Agricultural Offices, in identifying gaps in existing extension services systems, forming the basis of a training programme. Training ofTrainers capacity building will be provided to extension officers in the project jurisdictions; these individuals will in turn deliver training to local smallholder farmers on good agricultural practices, environmental protection, land legality, gender equality and women's empowerment, financial management, diversified farming systems, sustainability certification, and other topics identified in the gap analyses. Through the multi-stakeholder collaboration platforms, the project will also engage with NGOs and private sector enterprises that are providing technical support to extension services and/or local farmers.

369. Indicative activities under Output 5.2 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
5.2.1.	In coordination and collaboration with the provincial and district Plantation and/or Agriculture Office, identify the existing extension officers within the provincial, district and sub-district governments, as well as key people among communities suitable to become the champion for extension service provision in the target districts. Where applicable, such as at the district level, identify the trainers that the Project can engage as the extension officers to provide training for FOLUR target smallholders.		✓	✓	✓	✓	✓

5.2.2.	Conduct pre-training test on their knowledge related to (but not limited to): GAP, environment protection, land legality, gender empowerment, household financial management, income diversification, sustainability certification.		✓	✓	✓	✓	✓
5.2.3.	Provide Training of Trainers (ToT) to these selected people on (but not limited to): GAP, environment protection, land legality, gender empowerment, household financial management, ICS (Internal Control System), income diversification, sustainability certification (e.g. ISPO & RSPO).		✓	✓	✓	✓	✓
5.2.4.	Conduct post-training assessment to measure training retention, and provide ToT certificates to successful trainers.		✓	✓	✓	✓	✓
5.2.5.	Mainstream of options for environmental sustainability into extension modules of District extension offices, NGOs and private sector.		✓	✓	✓	✓	✓

Output 5.3: Support to smallholder capacity development and sustainability certification delivered for selected smallholder producers within target districts.

Key deliverables/results:

- Baseline and smallholder-needs assessments are conducted on the selected smallholder households to measure their baseline conditions and training needs. The baseline will need to include among others: name, plantation area and age, land tenure documentation, income and source, current agricultural practices related to plantation maintenance, planting material, access to market, productivity and farmer organization/group, gender roles.
- Establishment and/or strengthening of the farmer groups/union/cooperative of the selected, assessed, and mapped smallholders. This will include the assignment of unique identification number/card for traceability.
- Smallholder households trained on sustainable intensification, organization, income diversification and environmental protection. Project support to the development of capacities among farmers to apply sustainable management options will participatory and demand-led, in order to ensure relevance and the durability of uptake.

370. Capacity needs-assessments will be carried out among selected smallholder farmer households in the project jurisdictions to identify knowledge gaps and training needs. The project will work with existing farmer groups, unions, or cooperatives, or encourage establishment of new collaborations. Low-value grants will be available for on-farm improvements and possibly for establishment of demonstration plots where good agricultural practices can be demonstrated in the field. The project will carry out regular post-training monitoring, to assess the uptake of new or improved practices and to provide guidance to the smallholder farmers.

371. For palm oil, cocoa and coffee, sustainability certification is conducted for farmer union or association or cooperative, not individual farmer. And to prepare the farmer organizations to obtain certification, the project will support the establishment their Internal Control System (ICS) to ensure that the GAP training is implemented and required documents are available. Additionally, the project will support the mapping of HCV/HCS and formulate HCV/HCS management plan for the plantations to be certified. Lastly, the project will help mobilize funding for farmer organizations to pursue certification (i.e. RSPO's Smallholder Support Fund).

372. Indicative activities under Output 5.3 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi

5.3.1.	Conduct a capacity needs-assessments on selected smallholder farmers.		✓	✓	✓	✓	✓
5.3.2.	Establish and/or strengthen farmer groups, unions and/or cooperatives to pursue the formation of cooperatives for all of these farmers.		✓	✓	✓	✓	✓
5.3.3.	Through a low-value grant modality, establish demonstration plot at the sub-district or village level in smallholder plantations agreed by them.		✓	✓	✓	✓	✓
5.3.4.	Conduct training on the selected smallholder households comprising of, but not limited to: GAP, environment protection, household finance, gender empowerment, grading, land legality and sustainability certifications.		✓	✓	✓	✓	✓
5.3.5.	Conduct regular monitoring of the training implementation of smallholders (e.g., through logbooks).		✓	✓	✓	✓	✓
5.3.6.	Support farmer organisations to access certification funding from certification body (i.e. RSPO Smallholder Support Fund) to undertake audit.		✓	✓	✓	✓	✓
5.3.7.	In collaboration with partner company, support and/or mobilize support (especially from private sector) for farmers and farmer organisations to prepare for certification audits.		✓	✓	✓	✓	✓

Output 5.4. Support delivered to smallholder farmers for land tenure/legalization, enabling achievement of sustainable and resilient production and farming systems.

Key deliverables/results:

- In collaboration with the partner companies and district governments, support provided for farmers and farmer organizations for legality and sustainability certification readiness.

373. In order to obtain sustainability certification, it is mandatory for individual farmer to have cultivation permit (STDB). The issuance of STDB requires clean and clean land legality of the farmers. Land legality can be reflected in the form of: Land Ownership Letter (SKT) and Deed of Sale & Purchase (AJB) at a minimum. Obtaining the SKT and AJB will require that land/plantation be demarcated in detail (polygon) to ensure that the land is clear and clean (i.e. on APL, not in state forest, no overlapping ownership with other individual or company). In this case, the project will support farmers and farmer organizations (union, association, cooperatives) to obtain their land legality and STDB. In particular, the project will assist farmers to produce polygon map, advise farmers on requirements and lease/support with district government to issue land legality and STDB. The project will also help analyse the land location to ensure it is clean and clear and advise the district government to issue the legality and permit. The project will particularly focus on supporting women, youth, and customary people farmers.

374. Indicative activities under Output 5.4 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
5.4.1.	Support farmers to produce polygon map of their lands as well as conduct land verification by the district's Land Agency.		✓	✓	✓	✓	✓
5.4.2.	Advisory support to farmers and farmer organizations (union/association/cooperative) on procedures for obtaining tenure security.		✓	✓	✓	✓	✓
5.4.3.	In collaboration with district government, support the target smallholder households to obtain land legalization (SKT, AJB) and STDB.		✓	✓	✓	✓	✓

Component 3: Conservation and restoration-rehabilitation of natural habitats

Total Cost: USD 18,460,900 GEF project grant requested: USD 2,010,900 (UNDP: USD 244,900; FAO: USD 1,766,000) Co-financing: USD 16,450,000

375. Component 3 focuses on developing detailed management (protection, sustainable utilisation, and restoration-rehabilitation) plans for specific areas of forest and/or peatland in risk of commodity/crop expansion for five target districts through participatory involvement of multi-stakeholders in the target districts. The plans will be based on the agreed ILM plans developed under Outcome 2, and once finalized, they will be pursued for legalization and adoption for implementation. For pilot conservation and restoration efforts, the project will enable at least three (3) management models / incentive mechanisms (such as social forestry) to catalyse biodiversity conservation, land/habitat restoration as well as to improve governance of priority ecosystems in the selected districts.

376. Project support, under Component 1, to the process of formulation of ILM plans will help to ensure that restoration and conservation activities are targeted and tailored in order to maximize their contribution to recovering landscape-level dynamics that are crucial for productive sustainability and the maintenance of global environmental values. They will be focused for example on areas of importance for the maintenance of ecosystem service flows (e.g. watershed recharge areas and natural areas that are hosts to pollinators of importance for agricultural sustainability), or for providing refuge and connectivity for wildlife, that have suffered degradation. The project will also provide technical inputs in order to ensure that the species selection and management regimes applied in conservation and restoration activities are compatible with site-specific conditions – for example, through the preferential use of native species (in all cases avoiding exotic species with invasive potential) and the promotion of diverse of structure and species composition.

377. According to locally identified needs, restoration and conservation activities will be carried out in both non-forest and (under social forestry models) forest areas.

Outcome 6: Participatory models of management and incentive mechanisms catalysing biodiversity conservation, land/habitat restoration and improved governance of priority ecosystems enabled in target districts.
Key Government Partner: MoEF

378. The baseline situation and incremental reasoning for Outcome 6 are summarized below in **Table 23**.

***Table 23**: Summary of baseline and incremental reasoning for Outcome 6*

Summary of Baseline Situation	Incremental Reasoning
Output 6.1. Detailed plans for conservation, restoration and sustainable management of priority degraded ecosystems formulated and adopted in target districts.	
In most cases, formulation of conservation and restoration plans is done for short term period time and is limited at scale (i.e. by project). District governments have also faced multiple challenges in formulating biodiversity profiles in its jurisdiction. As a result, comprehensive management plans for conservation and restoration of critical and degraded land are often not available. Results of the implementation are not sufficiently monitored.	The GEF alternative will support district governments to develop detailed and comprehensive management plans for conservation and restoration of critical and degraded lands. The plans will capture both the environmental as well as socioeconomic components to ensure resilience of the implementation.
Output 6.2. Participatory models for conservation, restoration and sustainable management (e.g., social forestry's Customary Forest and Village Forest) for critical ecosystems implemented in target districts, taking advantage of available incentive mechanisms.	

Summary of Baseline Situation	Incremental Reasoning
The limited investment in conservation and restoration does not respond effectively to landscape dynamics or ecological needs. Management models are also not currently tailored adequately to local conditions. Additionally, restoration and conservation efforts are mainly led the national governments, with limited inclusion of local communities. Social forestry, through Customary Forest and Village Forest schemes are crucial to ensure participation of local communities in conservation and restoration efforts.	The GEF alternative will provide support to the establishment of the Customary Forest and Village Forest in three FOLUR districts: Aceh, West Kalimantan and South Sulawesi. The Customary and Village Forest schemes will enable: (i) optimum engagement with community as the ownership of the scheme will be communities, (ii) traditional wisdom and local conditions are maintained, (iii) local genetic biodiversity is maintained if not improved, and (iv) equal benefit sharing for all community members, preventing social inequality in terms of benefit obtain from the schemes.
Output 6.3. Strengthened collaborative governance mechanisms and capacities supporting effective conservation and restoration-rehabilitation.	
Social forestry schemes have become increasingly popular throughout Indonesia, including prominent mention in the current Medium-Term Development Plan 2020-2024. Local people often have rich traditional ecological knowledge, but are largely unfamiliar with local laws and regulations, monitoring and surveillance methods, sanction systems, etc.	The alternative proposed under the GEF-financed project promotes collaborative governance approaches, involving local communities, local government units, forest management units, NGOs, private sector, and other relevant stakeholders. The durability of the participatory conservation and restoration interventions depends on the capacities of the local communities to manage the activities and effectively collaborate with enabling stakeholders.

379. Results expected through achievement of Outcome 6 include:

- **Extent of participatory governance of priority ecosystems**, as indicated by 50,000 ha and 5,000 households (including 500 women-led households) covered by management plans with incentive mechanisms that are under implementation.
- **Livelihood diversification through gender-sensitive social forestry interventions that are shown to reduce pressures on natural resources**, as indicated by 3,000 individuals (of whom 60% are women) engaged in alternative livelihood activities (e.g., sustainable utilization of NTFPs, eco-tourism, processing of local foods, etc.).

Output 6.1: Detailed plans for conservation, restoration and sustainable management of priority degraded ecosystems formulated and adopted in target districts.

Key deliverables/results:

- Five detail management and costed action plans developed and adopted in FOLUR districts, outlining protection, restoration-rehabilitation, and where necessary sustainable use, as well as actions to maintain/improve genetic biodiversity in and outside production landscapes.
- Liaison with the local governments and other relevant stakeholders to ensure the adoption and implementation of the management plans.

380. By referencing to the detailed spatial plans, the project will support the district governments to develop detail management and costed action plans for priority ecosystems in risk of commodity/crop expansion in the target districts. The management plans will need to consist of the following: (1) Management characteristics describing general requirement of the zone management; (2) Management type where the stakeholders are mapped, based on the management characteristics; (3) Permitted actions, listing detail management activities allowed under each management type, (4) Restricted actions, listing detail management activities restricted or limited under each management type, (5) Actions to maintain genetic biodiversity in and outside production landscapes, and (6) Costed management activities, describing the required actions to establish and implement

the zoning regulations for the period of 20-year period. Meanwhile, the costed action plans for the management activities comprising of, but not limited to:

1. Initial evaluation and re-zonation (Planning).
2. Zoning socialization (Socialization).
3. Implementation of restoration and zoning (Restoration-rehabilitation).
4. Establishment of Fire Alert Villages (*Desa Siaga Api*).
5. Management supervision.
6. Zonation border enforcement (Protection).
7. Monitoring, evaluation, and reporting.

381. Finally, the project will coordinate and collaborate with key stakeholders in the district, as well as at the provincial and national level where necessary, to advocate for the endorsement and adoption of these plans for implementation in the districts.

382. Indicative activities under Output 6.1 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
6.1.1.	Based on the jurisdictional and detail zonation maps, identify priority ecosystems for the management plans, conduct field/ground checks to assess conditions, and carry out stakeholder mapping.		✓	✓	✓	✓	✓
6.1.2.	Conduct public consultation and facilitation to achieve consensus on "priority ecosystems" for the management plans.		✓	✓	✓	✓	✓
6.1.3.	Develop management plans for the agreed priority ecosystems, which will cover: (i) land utilization policy, (ii) restoration and rehabilitation policy, and (iii) incentive and disincentive mechanism policy.		✓	✓	✓	✓	✓
6.1.4.	Develop detail costed action plans for the management.		✓	✓	✓	✓	✓
6.1.5.	Administer a low-value grant mechanism to facilitate involvement by local communities.		✓	✓	✓	✓	✓
6.1.6.	Liaise with local governments and other relevant stakeholders to ensure the adoption and implementation of the management plans.		✓	✓	✓	✓	✓
6.1.7.	Develop communication and knowledge products to disseminate the plans to a wider group of stakeholders within the districts.		✓	✓	✓	✓	✓

Output 6.2: Management models (e.g., social forestry) for critical ecosystems implemented in target districts, taking advantage of available incentive mechanisms.

Key deliverables/results:

- Referring to the priority areas (Output 6.1) pilot sites for community-based ecosystem management (protection and restoration) identified and agreed.
- Appropriate incentive mechanism(s) established for pilot sites, including resource mobilization.

383. Under this output, the project will work with local governments, communities, NGOs, and companies to pilot the implementation of community-based environment or ecosystem management models in the target districts. The pilot sites will be identified and agreed based upon the zoning done under Output 3.2 and the management plans generated under Output 7.1. Once the sites have been identified, the project will assess the

most appropriate incentive or reward-based mechanisms to pilot the management plans. The selected mechanism must be agreed by all parties involved, especially the local communities as the direct beneficiaries of this intervention. Free, prior and informed consent (FPIC) will be completed before the establishment of the social forestry models. The pilot social forestry will be implemented in three of the five target landscapes: Central Aceh (Aceh), Sanggau (W. Kalimantan) and Luwu (S. Sulawesi) districts.

384. The project will support the establishment of three social forestry schemes in the form of **Customary Forest and Village Forest**, in close consultation with local governments, provincial forestry offices and the MoEF, including with World Bank-GEF Strengthening of Social Forestry in Indonesia project (GEF 9600). The project will also coordinate and collaborate with governments to identify suitable legal umbrella for pilot schemes to ensure sustainability of the schemes. This could be in the form of a minister decree, governor decree or even a regent decree. Where legal umbrella is not possible, project resources will be used to support the district government in advocating for a conservation agreement between the parties involved to implement the schemes. Lastly, the project will support the initial resource mobilization process to implement the agreed incentive or reward-based mechanisms for the selected sites.

385. Indicative activities under Output 6.2 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
6.2.1.	Assess potential locations and consult with local governments, provincial forestry office and MoEF regarding intervention sites for implementing community-based ecosystem management and restoration (i.e., social forestry schemes: Customary Forest and Village Forest).		✓		✓		✓
6.2.2.	Carry out FPIC to ensure buy-in from local communities to take part in the interventions.		✓		✓		✓
6.2.3.	Develop management and restoration plans for the selected interventions, and identity appropriate incentive mechanism(s).		✓		✓		✓
6.2.4.	As needed, liaise with national, provincial and/or district governments to obtain legal authorisations for the community-based ecosystem management and restoration interventions.		✓		✓		✓
6.2.5.	Initiate implementation of the interventions, including mobilising resources for the incentive mechanisms.		✓		✓		✓
6.2.6.	Monitor the implementation of the interventions on a regular basis.		✓		✓		✓

Output 6.3. Strengthened collaborative governance mechanisms and capacities supporting effective conservation and restoration.

Key deliverables/results:

- Number trainings held on collaborative governance, including local communities, district government units, and forest management units (FMUs).

386. Activities under this output are focused on strengthening the capacities of the local communities where the participatory restoration and conservation interventions are implemented, in collaborative governance with local government units, forest management units, NGOs, private sector, and other relevant stakeholders. Trainings will include basic knowledge on biodiversity and forest management, local laws and regulations, monitoring and surveillance methodologies, record keeping, communication, protection of traditional knowledge, and environmental education.

387. Indicative activities under Output 6.3 include:

No.	Activity description	National level	Aceh	N. Sumatera	W. Kalimantan	W. Papua	S. Sulawesi
6.3.1.	Strengthen capacities of local communities to contribute to enforcement and sanctioning, e.g. under social forestry arrangements.		✓	✓	✓	✓	✓
6.3.2.	Strengthen capacities of District Governments and FMUs to collaborate with local communities on enforcement and sanctioning.		✓	✓	✓	✓	✓
6.3.3.	Lobbying, awareness raising and budget planning support to provincial Governments on resourcing of enforcement capacities.		✓	✓	✓	✓	✓

Component 4: Knowledge management, coordination, collaboration, and monitoring & evaluation.

Total Cost: USD 24,859,066 GEF project grant requested: USD 2,709,066 (UNDP: USD 2,696,266; FAO: USD 12,800) Co-financing: USD 22,150,000

388. The last component of the project focuses on: (1) monitoring and assessing causal impacts of project's interventions on reduced-deforestation value chains, sustainable land use management and land restoration, (2) capturing lessons learned and knowledge dissemination globally, nationally and across jurisdictions, and (3) enabling knowledge exchange platform through convening of conferences, production of knowledge products and national and international learning exchanges.

389. The project will engage through the FOLUR global platform and the UNDP Green Commodities programme with countries and platforms outside of the country as a means to scale results and impact the broader food system. The project will become one of the members of the Green Commodities Community administered by UNDP. The project will also connect with the Global Soils Partnership (GSP), along with other global platforms, e.g., the Global Landscapes Forum, the UNCCD Global Mechanism and knowledge hub, the World Overview of Conservation Approaches and Technologies (WOCAT), and the Agroecology Knowledge Hub.

390. The project will connect with similar country projects within FOLUR based on similar commodities and approaches to share resources for combined and collective knowledge management products, e.g., a collective guidance on sustainable palm oil or jurisdictional approaches. These products can then contribute to FOLUR wide knowledge products.

391. The lessons learned and experience from Indonesia will be shared through South-South and triangular cooperation with other countries participating in the FOLUR impact program. Regionally, exchanges can be fostered between Indonesia, Malaysia, and Papua New Guinea on enhancing sustainable value chains of palm oil and cocoa. And for rice, through measures to link smallholder producers and value chain actors to the SRP sustainability standards, the project will also engage a consortium of private sector commodity buyers and traders, NGOs, international development organizations and governments working to promote more sustainable rice products that can be integrated into other FOLUR commodity projects incorporating SRP standards in China, Thailand and Vietnam as well as countries outside of the FOLUR. Lessons learned across this portfolio of programmes will strengthen global-level IP outcomes on leveraging global coalitions to pursue FOLUR objectives and outcomes and promoting public and private investments in ILM, as well as sustainable commodities influenced by FOLUR, in FOLUR countries and globally.

392. The project will support team members, government counterparts to participate in and speak at global conferences of relevance e.g., RSPO and represent FOLUR at these events.

Outcome 7: Integrated knowledge management, coordination, and collaboration to enhance knowledge of factors to foster lessons learned for replication in other areas.
Key Government Partner: CMEA

393. Outcome 7 focuses on putting in place effective management procedures for ensuring efficient use of resources, inclusive participation, and improved knowledge management. Effective communication and knowledge management are central aspects of the project strategy, in order to facilitate the envisaged transformational change in land use, food systems, and restoration. The project communications and knowledge management strategies will include specific methods and messaging for raising awareness and disseminating information on COVID-19 risks. Considering that there will likely be increased use of virtual platforms for engaging with stakeholders, the project will work closely with governmental and non-governmental partners on developing and strengthening remote working arrangements. When field work is carried out, the project will integrate public health related training into capacity building activities, e.g., demonstrating the use of personal protective equipment, promoting physical distancing, and communicating risks and symptoms of COVID-19. The regional and global dimensions of FOLUR also provide learning opportunities, e.g., sharing COVID-19 recovery and response approaches in other countries and by different organisations.

394. The baseline situation and incremental reasoning for Outcome 7 are summarized below in **Table 24**.

***Table 24**: Summary of baseline and incremental reasoning for Outcome 7*

Summary of Baseline Situation	Incremental Reasoning
Output 7.1. Project implementation overseen through proactive steering committee functions and inclusive monitoring and evaluation.	
Indonesian government ministries and agencies have experience implementing GEF-financed and other donor projects. There is good capacity and understanding of UNDP and GEF requirements for procurement and financial reporting. Government co-financing has been allocated to support project implementation.	The project management unit (PMU) will be embedded into the implementing partner's operations, and the provincial and district coordinators will be stationed with BAPPEDA or other counterpart departments. The project will contribute to FOLUR programme level M&E through its harmonized results framework and coordinated implementation and reporting procedures.
Output 7.2. Inclusive participation of local communities, including women and traditional peoples, facilitated through effective implementation of environmental and social management plan.	
Local communities are widely socialized to sustainable development principles. Rural communities in the project jurisdictions are heavily reliant on natural resources for their livelihoods, and there are multiple protected areas among the project landscapes. The awareness and collaborative participation of local communities in development projects have been enhanced through government, donor, private sector and civil society projects and programmes. Gender mainstreaming and inclusion of traditional peoples are well established in legal frameworks and on the ground in the project jurisdictions. More information is provided in **Annex 5** (*Social and environmental screening procedure*), **Annex 8** (*Multi-stakeholder collaboration and stakeholder engagement plan*), **Annex 10** (*Environmental and social management framework*) and **Annex 11** (*Gender analysis and action plan*).	Inclusive involvement of women, traditional peoples and local communities is critical in the success of the project. Gender and social inclusion priorities have been integrated into the design of the project interventions; specific activities will be further reviewed as part of the environmental and social management planning process at project inception. The full-time Gender-Safeguards Officer will work with the district level coordinators and contracted specialists to ensure targets associated with inclusion of women and traditional peoples are fulfilled.

Summary of Baseline Situation	Incremental Reasoning
Output 7.3. Adaptive management methodology developed to monitor, evaluate, and respond to causal impacts and systemic change.	
Project level monitoring and evaluation are often restricted to project outputs, outcomes, and objectives, and seldom capture the causal impacts of project interventions in the landscapes, or measure the systemic change delivered through the project.	Under the GEF alternative, impacts and systemic change (both intended and unintended) of project interventions will be assessed to determine if project interventions should be continued, adjusted, halted, or upscaled. The results of impact assessments will inform decision makers, both at the project and program levels, of appropriate actions (e.g., adaptive management) moving forward. And in assessing the causal impacts and systemic change, the project will take into account not only the current projects interventions but also previous GEF-projects as well as other relevant projects implemented by other institutions as lessons learned to capture best practices that can improve the implementation modalities and strategic approaches.
Output 7.4. Knowledge management and outreach system developed for supporting scaling out across jurisdictions/provinces and nationally, regionally, and globally.	
There has been limited knowledge and information shared on success stories of how systemic change has been achieved through jurisdictional approaches and integrated landscape management, or on specific barriers that are hindering widespread change. Meaningful upscaling and replication are being constrained as a result of the limited flow of knowledge and information.	The GEF investment will support collection and dissemination of knowledge and information generated through the approaches implemented on the project. Knowledge generated and lessons learned will help inform future project designs and approaches for ensuring sustainable food systems, land use, and restoration, as well as enhancing the impact of other or future GEF-funded initiatives. Knowledge products will also be disseminated across FOLUR landscapes and nationally, as well as with FOLUR regional and global level stakeholders.
Output 7.5. Participation in Global FOLUR CoP and other relevant platforms on knowledge and lessons exchanges.	
There are a number of national, regional, and global platforms that Indonesian palm oil stakeholders are participating in. For example, Indonesia and Malaysia were the founding members of the Council of Palm Oil Producing Countries (CPOPC). More than half of Certified Sustainable Palm Oil (CSPO) production under the RSPO is in Indonesia. Other regional and international cooperative alliances and coalitions include the Amsterdam Declaration Partnership, China Sustainable Palm Oil Alliance, and the Southeast Asia Alliance for Sustainable Palm Oil. More information is provided in **Annex 15** (*Baseline report on commodity supply/value chains and farmer support systems*).	The GEF alternative provides access to the FOLUR Global Platform, led by the World Bank and developed to leverage policies, practices and investments that help to transform commitments into action and improvement on the ground, engaging with both the public and the private sectors, at global, regional and country levels.

395. Results expected through achievement of Outcome 7 include:

- **Documentation of sustainable production and sustainable landscape management associated knowledge**, as indicated by (a) 20 knowledge products (at least 5 highlighting gender

mainstreaming), (b) 20 communication pieces/stories (c) 5 traditional knowledge databases, and (d) 2 research papers developed or strengthened.

- **Expanded FOLUR Community of Practice**, as indicated by (a) 10 country documents, (b) 20 events, and (c) 20 press reports promoting FOLUR.

Output 7.1: Project implementation overseen through proactive steering committee functions and inclusive monitoring and evaluation.

396. The activities under this output are designed to put in place enabling procedures and protocols to facilitate effective project management. The project inception workshop is a critical milestone on the implementation timeline, providing an opportunity to validate the project document, including the environmental and social management framework; confirming governance implementation arrangements, including agreements with responsible parties; assessing changes in relevant circumstances and making adjustments to the project and program results framework accordingly; verifying stakeholder roles and responsibilities; updating the project risks and agreeing to mitigation measures and responsibilities; and agreeing to the multi-year work plan. An inception workshop report will be prepared and disseminated among the project stakeholders.

397. The Project Board will be the main platform for high-level and strategic decisions, and the proposed compositions of the committee provides for efficient and representative feedback (*see Section VIII: Governance and Management Arrangements*).

398. The M&E system of the project will also be coordinated with that of the FOLUR IP as a whole and supported by the FOLUR Global Platform. The Global Platform will support the project by providing harmonized technical guidance and oversight on M&E (including the application of indicators and the management, reporting and use of results) to all Implementing Agencies and country projects, and by aggregating relevant indicators (especially GEF-7 core indicators and LDN national voluntary targets). The project will in turn support programmatic M&E by reporting to the Global Platform in a timely and consistent manner on the values of GEF-7 core indicators.

399. Indicative activities under Output 7.1 include:

No.	Activity description
7.1.1.	Organise the project inception workshop, including review of multi-year work plan, project results framework, tracking tools, stakeholder engagement plan, environmental and social management framework (ESMF), etc.; a record of the inception workshop will be documented in a project inception report.
7.1.2.	Organise annual project stakeholder workshops, supported by the Technical Advisory Group, as part of the annual work plan preparation and adaptive management.
7.1.3.	Organise project board meetings annually at a minimum.
7.1.4.	Carry out regular monitoring and evaluation of project implementation.
7.1.5.	Carry out a midterm assessment of the GEF core indicators for the project and other results.
7.1.6.	Procure and support an independent midterm review of the project, according to UNDP and GEF guidelines.
7.1.7.	Carry out an end-of-project assessment of the GEF core indicators for the project and other results.
7.1.8.	Procure and support an independent terminal evaluation of the project, according to UNDP and GEF guidelines.
7.1.9.	Prepare the final report for the project; including the PIR for the last year of implementation, the terminal evaluation report, and the management response to the terminal evaluation report.
7.1.10.	Develop and initiate the implementation of a project sustainability plan.

Output 7.2: Inclusive participation of local communities, including women and traditional peoples, facilitated through effective implementation of environmental and social management plan.

400. As part of social and environmental screening procedure (see **Annex 5**), the project has been assigned an overall risk categorization of High. In accordance with UNDP policy for High-risk projects, an environmental and social management framework (ESMF – see **Annex 10**) has been developed during the project preparation phase to provide a practical guideline for installing the required safeguards for ensuring social and environmental risks and impacts of the project's activities are fully assessed and management measures in place prior to implementation.

401. Resources have been allocated under this output for carrying out an environmental and social impact assessments (ESIA) and social and environmental strategic assessment (SESA) at project inception that will evaluate in more detail the potential environmental and social impacts associated with the planned project interventions. The results of the ESIA/SESA will be used to develop specific management measures that will be incorporated into an environmental and social management plan (ESMP) for the project, which will be implemented by the project team under the stewardship of the project Gender-Safeguards Officer.

402. A prolonged or recurrent COVID-19 pandemic (or similar crisis) would create challenges for the implementation of the project, i.e., associated with activities involving physical stakeholder workshops, delivering training in the field, convening community meetings, etc. The project will institute adaptive management as needed to reduce the risks of community spread. For example, meetings will be held remotely using virtual platforms as much as possible, health hazard assessments will be required for gatherings of multiple people, and mitigation measures will be implemented, e.g., ensuring physical distancing, providing personal protective equipment, avoiding non-essential travel, delivering trainings on risks and recognition of symptoms, etc. The ESIA will include COVID-19 related risks, and specific mitigation measures will be integrated into the ESMP.

403. The project will implement the ESMP and monitor potential environmental and social impacts and the co-benefits generated through the mitigation measures put in place. The project will also implement the gender action plan which is outlined in **Annex 11** to the project document, with appropriate linkages drawn to the ESMP after it has been developed.

404. Indicative activities under Output 7.2 include:

No.	Activity description
7.2.1.	Carry out an Environmental and Social Impact Assessments (ESIA) and Social and Environmental Strategic Assessments (SESA) for the project.
7.2.2.	Based upon the results of the ESIA/SESA, develop and implement an Environmental and Social Management Plan (ESMP) and other management plans for the project.
7.2.3.	Actively monitor the implementation of the ESMP and the gender action plan and applying adaptive management measures to adjust to changing circumstances.

Output 7.3: Adaptive management methodology developed to monitor, evaluate, and respond to causal impacts and systemic change.

Key deliverables/results:

- An Impact Evaluation Framework developed for FOLUR Project to monitor and evaluate causal impacts and systemic change.
- Monitoring and evaluation of project implementation, including additional report on causal impacts and systemic change brought by the project at the national and sub-national levels.

405. The causal impact evaluation is necessary to assess how FOLUR interventions lead to the expected outcomes and objectives as outline in the project's theory of change (ToC) or impact pathway. The results will be important to inform decisions if the interventions should (or should not) be continued, expanded, or replicated. In general, the impact evaluation design consists of the following elements:[90]

- The evaluation questions.

[90] For more details, see United Nations Evaluation Group's Guidance Document on "Impact Evaluation in UN Agency Evaluation Systems: Guidance on Selection, Planning and Management"

- The theory of cause and effect, which will be accepted as providing sufficient answers to the questions.
- Definition of necessary data to examine the theory.
- Framework to analyse the data to provide sufficient explanation of performance against the theory.

406. The project may use combined two or more methods when conducting the impact evaluations of the ToC. These methods may include (i) quantitative (i.e. quasi-experimental quantitative method), (ii) qualitative (i.e. General Elimination Methodology, Process Tracing, Contribution Analysis), (iii) participatory method to obtain stakeholder perceptions, or other appropriate methods. In fact, since the project covers multiple sectors and stakeholders, it is recommended that the evaluation uses combined methods. It is important to note that this impact evaluation will differ from the normal project M&E where the deliverables are being measured against their indicators. The impact evaluation will be complementary to the M&E where the results provide recommendations for not only adaptive management but the potential of project replication in other landscapes. The baseline of the M&E may provide some information to the baseline of the impact valuation framework, which is subject to the evaluation questions, theory of cause and effect and the valuation framework. Once the three have been developed, the project will then identify the baseline for the impact evaluation. Existing tools, such as the Landscape Analysis Tool (LAT) developed under the Good Growth Partnership (GGP), will be considered and adapted to the project circumstances. It may be useful to consider a joint-evaluation framework when there are more than one implementing agencies involved in the project.

407. Indicative activities under Output 7.3 include:

No.	Activity description
7.3.1.	Develop an appropriate impact evaluation design for FOLUR project based on the established theory of change (ToC).
7.3.2.	Referring to the ToC, conduct an evaluability assessment, which main output is a report detailing the analytical and methodological approach of the impact evaluation, and finalise the impact evaluation framework for the project.
7.3.3.	Conduct regular monitoring and evaluation, as well as impact evaluation of the project, documenting results in mandatory quarterly M&E reports and separate reports on progress towards impact and systemic change.

Output 7.4: Knowledge management and outreach system developed for supporting scaling out across jurisdictions/provinces and nationally, regionally, and globally.

Key deliverables/results:

- Knowledge management and outreach strategy and action plan.
- Data-collection drive for FOLUR Indonesia in operationalized and maintained.
- Lessons-learned captured across FOLUR interventions and landscapes.
- Knowledge products for public dissemination including through FOLUR Indonesia annual workshops.

408. The project will collect data and trends in the project landscapes, which in turns will feed into the project M&E and impact evaluation processes. And to complement the knowledge management, the project will also develop thematic lessons related to its interventions on what have and have not worked in the landscapes. These lessons learned will help inform future project designs and approaches for ensuring sustainable food systems, land use and restoration, as well as to enhance the impact of other or future GEF-funded projects and programs.

409. The lessons-learned reports and knowledge products will be disseminated publicly to stakeholders in Indonesia as well as outside the country. Within Indonesia, lessons will be presented to the national and sub-national stakeholders through the annual FOLUR-Indonesia's community of practice (CoP). And at the regional and global levels, these lessons will be disseminated through FOLUR regional and global communities of practice and exchanges. Specifically for the regional-level knowledge exchanges, the CoP will focus on lessons and knowledge dissemination between Indonesia, Malaysia and PNG.

410. Indicative activities under Output 7.4 include:

No.	Activity description
7.4.1.	Develop a knowledge management and outreach strategy and action plan.
7.4.2.	Design and facilitate the establishment, management and use of knowledge exchange systems, including social media platforms.
7.4.3.	Develop and disseminate knowledge products.
7.4.4.	Strengthening of role of CMEA in learning exchange through establishment national exchange.
7.4.5.	Multi-stakeholder platforms on lessons learned on ILM at province and district level.
7.4.6.	Strengthening of role of BAPPEDA in learning exchange through sub-national learning platform.
7.4.7.	Convene annual FOLUR lessons learned workshops.

Output 7.5: Participation in Global FOLUR CoP and other relevant platforms on knowledge and lessons exchanges.

Key deliverables/results:

- Participation of relevant FOLUR Indonesia's representatives in the annual Regional and Global FOLUR platforms.
- Participation of relevant FOLUR Indonesia's representatives in Green Commodity Programme (GCP)'s Community of Practice.
- Participation of relevant FOLUR Indonesia's representatives in commodity-based regional-level knowledge exchanges, especially with Malaysia and Papua New Guinea.
- Contribution to the development of the Global FOLUR annual progress reports and M&E reports.
- Contribution to the development of the Global FOLUR knowledge, technical and policy products.

411. As one of FOLUR's 27 child/country projects, the FOLUR-Indonesia Project will link to **the FOLUR Global Platform**, led by the World Bank. The Global Platform and its partners will support individual country project with knowledge, technical assistance, and capacity building in promoting sustainable value chains. This platform is organized into 3 pillars:

A. Program Capacity Strengthening: focusing on providing technical assistance and innovative approaches for country projects to effectively implement the project.
B. Policy and Value Chain Engagement: focusing on engagements with private and public sector actors to achieve sustainable value chains in FOLUR countries.
C. Strategic Knowledge Management and Communications: focusing on knowledge management and exchanges across FOLUR countries and partners.

412. The Indonesia project will actively participate and contribute to the Global Platform as part of its effort to achieving FOLUR objective in at the country-level. In this case, the project will participate in relevant FOLUR global events, as well as in regional engagements and platforms, including the Sustainable Rice Landscapes Initiative (SRLI[91]). The project will also contribute to the development of FOLUR annual progress reports, quarterly monitoring and evaluation as well as lessons learned management and dissemination.

413. Indicative activities under Output 7.5 include:

No.	Activity description
7.5.1.	Actively participate in Global FOLUR's communities of practice, including GCP.
7.5.2.	Participate in regional (esp. including Malaysia and Papua New Guinea) commodity platform gatherings / discussions with private and public sector representatives.
7.5.3.	Participate in training workshops, regional communities of practice (sharing knowledge, successes, lessons learned).
7.5.4.	Host two FOLUR regional workshops/events.
7.5.5.	Contribute to the development of FOLUR annual progress reports and quarterly M&E reports.

[91] See Box 1 in the Innovativeness, Sustainability and Potential for Scaling Up section for a description of the SRLI.

7.5.6.	Contribute to the development of FOLUR knowledge, technical and policy products.
7.5.7.	Contribute towards annual M&E results reporting to the Global Flagship Project for consolidation and reporting to GEF.

PARTNERSHIPS:

414. The project strategy has a strong emphasis on building upon baseline activities implemented by project partners, as well as on establishing new and strengthening existing partnerships to ensure the sustainability of the results achieved. The project will collaborate with and build on the lessons of a range of related initiatives. The project will connect to global level commodity and food supply chain initiatives and networks, primarily through UNDPs Green Commodities Programme and Good Growth Partnership, as well as through other means offered by FOLUR global platform. These connections will facilitate the project linking to global buyers interested in sourcing from jurisdictions advancing towards having deforestation free commodity production and also to learn latest best practice and policy of the global markets.

415. Some of the key related initiatives where partnerships will be fostered are listed below in **Table 25**.

Table 25: Intersection of related initiatives with project outputs

Other Initiatives	Main Partner(s)	Intersections with project outputs
GEF-7 FOLUR IP Global Platform	CMEA	Outputs 3.3,7.1, 7.3, 7.4, 7.5
GEF-7 FOLUR IP country projects in Malaysia and PNG	CMEA, MoA, MoEF	Outputs 3.2, 3.3, 7.4, 7.5
GEF-6 Good Growth Partnership (GGP)	CMEA, sub-national governments	All outputs
UNDP Green Commodities Programme	CMEA, MoA, MoEF	Outputs 1.3, 3.2, 3.3, 7.4, 7.5
UNDP-GEF CONSERVE Project (GEF-7)	MoEF	Outputs 2.1, 2.2, 2.3, 2.4, 2.5
UNDP-GEF KalFOR project	MoEF	Outputs 2.1, 2.2, 2.3, 2.4, 2.5, 6.1, 6.2, 6.3
GCF Results based payments (RBP) project	MoF, MoEF, UNDP	Outputs 1.1, 2.1, 3.2, 7.4, 7.5
German technical cooperation projects	MoEF, MoA	Outputs 1.1, 1.2, 1.3, 2.1, 4.1, 5.1, 5.2, 5.3, 7.4
Cocoa Life Programme	Mondelez	Outputs 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 3.3, 4.1, 4.2, 5.1, 5.2, 5.3, 7.5
Unilever Sustainable Living Plan	Unilever	Outputs 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 3.3, 4.1, 4.2, 5.1, 5.2, 5.3, 7.5
Olam sustainable sourcing investments	Olam	Outputs 1.2, 1.3, 2.1, 2.3, 3.1, 3.2, 3.3, 4.1, 4.2, 5.1, 5.2, 5.3, 7.5

RISKS:

416. The identified risks that could affect the implementation and results of the project are described in the *Risk register* in **Annex 6**, along with proposed mitigation measures and recommended risk owners who would be responsible to manage the risks during the project implementation phase.

417. The identified operational, financial, organisational, political, and strategic risks include possible resistance of local farmers in adopting the approaches promoted by the project, conflicting policy directions among national and sub-national governments, legislative approval flows do not match the project implementation timeframe, uneven achievement of project outcomes in the five jurisdictions due to disparate approaches and procedures, inadequate participation and buy-in at local levels, private sector involvement not materialising as planned, impacts of ongoing COVID-19 pandemic or similar public health crisis on the continuity and delivery of the project, and impacts of a possible global economic recession on project delivery.

418. Social and environmental risks were assessed as part of the UNDP social and environmental screening procedure (SESP – see **Annex 5**) are also consolidated into the risk register (see **Annex 6**). The SESP was finalised during project preparation, as required by UNDP's Social and Environmental Standards (SES). The SESP identified twenty-one risks for this project that could have potential negative impacts in the absence of safeguards, two (2) of these risks were rated as low, eleven (11) as moderate and nine (9) as high. The overall SESP risk categorization for the project is **High**.

419. The COVID-19 pandemic has disrupted social and economic circumstances across the globe. The FOLUR project in Indonesia has been classified as a High-risk project and, hence, a comprehensive set of safeguards have been developed and integrated into the project design. COVID-19 does pose unique risks and, hence, the overall risk assessment for the project has been updated accordingly. Active participation of smallholder farmers is an important part of the project design, and COVID-19 could affect their ability and willingness to take part. Working with multiple stakeholders, increased efforts will be placed on demonstrating the added value to farmers, e.g., improved productivity, more secure supply chains, diversified livelihoods, etc. There are also risks that national and local governments will be preoccupied with tending to the COVID-19 pandemic and recovery efforts and placed a reduced level of importance to the project. Governmental partners have issued substantial co-financing letters for the project, and proactive stakeholder engagement will be facilitated through the Project Steering Committee and multi-stakeholder level platforms.

420. In accordance with UNDP's SES guidelines, an Environmental and Social Management Framework (ESMF) has been developed for this high-risk project during the project preparation phase (see **Annex 10**). The ESMF has been publicly disclosed via the UNDP Indonesia website in accordance with UNDP's SES guidelines for 120 days. The ESMF sets out the additional safeguards measures that apply to the project during the inception phase, including but not limited to: (i) the completion of an environmental and social impact assessment (ESIA) and a social and environmental strategic assessment (SESA) to further assess potential risks and impacts associated with the project; and (ii) the development of an Environmental and Social Management Plan (ESMP) including identified management measures as required based on the results of ESIA/SESA. The development of the ESIA/SESA and ESMP will involve public consultation and public disclosure. Free and Prior Informed Consent (FPIC) will be applied for all activities involving customary people. The implementation of the ESMP will be overseen by the project Gender-Safeguards Officer and monitored throughout the duration of the project.

421. The project will adhere to UNDP SES Guidance Note Standard 6 on Indigenous Peoples. The SESP has identified potential impacts to the rights, lands, territories and traditional livelihoods of indigenous peoples. The ESIA will identify the presence of these peoples for each of the specific sites, and further establish the nature of the risk(s), including any gender-related issues specific to indigenous groups. An appropriate plan will be developed if the potential for such impacts is confirmed. Where required under Standard 6 of the SES, this will include a plan for culturally appropriate consultation with the objective of achieving agreement and Free Prior and Informed Consent (FPIC). Activities that may adversely affect the existence, value, use or enjoyment of customary/traditional lands, resources or territories will be avoided where possible. Where FPIC is determined to be a requirement, consultations will be carried out with the objective of achieving initial consent from the specific rights-holders, as appropriate and in line with Standard 6 requirements. Culturally appropriate consultation will be carried out with the objective of achieving agreement and FPIC will be ensured on any matters that may affect the rights and interests, lands, resources, territories (whether titled or untitled to the people in question) and traditional livelihoods of customary people.

422. As outlined in the climate and disaster risk screening (see **Annex 12**), hazard levels associated with flooding, water scarcity, extreme weather conditions are high in some of the project jurisdictions and potential short-term incidents and long-term consequences would affect local beneficiaries. The analyses carried out in Annex 12 suggest that climate change will have strongly differentiated impacts among the target crops, with the viability of cocoa and coffee being particularly severely affected. In order to take this into account, the production and landscape management strategies promoted by the project will not hinge exclusively on these crops as vehicles for delivering sustainable agriculture, landscape management and environmental benefits: instead, the project will support farmers in implementing diverse and therefore resilient farming systems featuring a range of cash and subsistence crops, and in adapting the make-up and management of these on a continuous basis in response to evolving climatic conditions. The preliminary crop-commodity suitability analyses presented in this screening report will be further elaborated as part of the integrated landscape management (ILM) planning processes in the project jurisdictions. Future projected changes with respect to climate risks will be incorporated into the set of management measures included in the ILM plans. Moreover, increased protection of high conservation value (HCV) and high carbon stock (HCS) will help safeguard important ecosystem services, such as soil and water conservation, thus securing livelihoods for local farmers. Proposed project activities also include delivering technical assistance for on-farm improvements and facilitating conservation and restoration of degraded lands and forest areas. Apart from crop-commodity plantations, there are other associated physical assets to consider, such as farm structures and equipment, storage and processing

structures and equipment, etc. The management plans developed for these activities will include considerations on climate-proofing physical assets and implementing good agricultural practices to protect against climate and disaster hazards, e.g., constructing vegetative strips to help minimize erosion.

423. The full-time technical positions on the project, including the Chief Technical Advisor, Subnational Coordinator-ILM Specialist, and Farming Systems-Livelihoods-NRM Specialist will provide oversight and ensure appropriate safeguards are implemented that account for current and future-projected climate and disaster hazards.

424. Per the ESMF, a project-level Grievance Redress Mechanism (GRM) will be established during the first year of project implementation and detailed within the ESMP.

STAKEHOLDER ENGAGEMENT AND SOUTH-SOUTH COOPERATION:

425. A stakeholder analysis was undertaken during project preparation to identify key stakeholders and multi-stakeholder initiatives, consult with them regarding their interests in the project and define their roles and responsibilities during project implementation. Based on these analyses, a *Multi-stakeholder collaboration and stakeholder engagement plan* (**Annex 8**) has been developed to guide the implementation team.

426. Achieving progress on the sustainable development agenda requires a departure from traditional top-down, hierarchical, and linear approaches to implementing change. Instead, it requires innovative and adaptive approaches that engage broad networks of diverse stakeholders to advance progress toward a shared vision for systemic change. This approach is often called Systems Leadership. Researchers at Harvard University recently defined Systems Leadership as a set of skills and capacities that any individual or organization can use to catalyse, enable, and support the process of systems-level change. Comprised of three interconnected elements:

- The Individual: The skills of collaborative leadership to enable learning, trust-building and empowered action among stakeholders who share a common goal.
- The Community: The tactics of coalition building and advocacy to develop alignment and mobilize action among stakeholders in the system, both within and between organizations.
- The System: An understanding of the complex systems shaping the challenge to be addressed.

427. As the GEF FOLUR programme strategically seeks system transformation, it is essential that all of these three factors are enabled in the programme. Development approaches previously have often ignored the individual leadership capacity and not invested appropriate in the community building around a shared vision for systemic change. In this case changing the systems around how we use land in favour of a more sustainable future for generations to come.

428. Therefore, the multi-stakeholder collaboration strategy of this programme involves creating capacity for leaders in government at all levels, as well as local champions in the landscape, to lead collaborative processes that transform systems and serve catalysts and enablers of systems transformation.

429. The approach will begin with a regional FOLUR systems leadership cohort with selected individuals from Indonesia, Malaysia, and Papua New Guinea, providing a deep and strong base for regional collaboration and leadership in the FOLUR landscapes. This will then lead to a train the trainer approach for local and cultural adaptation to develop the capacity of sustainability champions and systems leadership in the project jurisdictions. At least 50% of spaces from each country / area will be reserved from women. More than 50% of participants may be women, but not more than 50% may be men.

430. Stakeholder collaboration across project levels, including, district, provincial, national, regional and global is illustrated below in **Figure 40**.

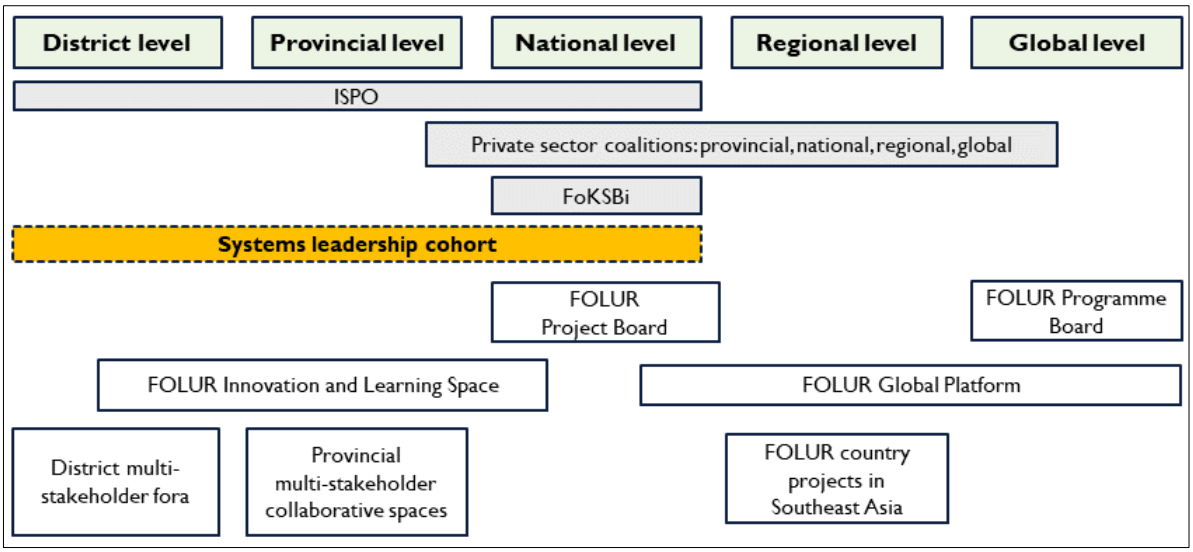


Figure 40: Stakeholder collaboration schematic

431. At the district level, multi-stakeholder fora will be established, linking up with existing cross-sectoral planning mechanisms, to facilitate mainstreaming information from the provincial ILM plans. The collaborative spaces at the provincials level will coordinate interests from government departments, NGOs, farmer groups, and the private sector and guide the work at the district levels.

432. The Project Board will be an important multi-stakeholder collaboration platform, convening national level officials in providing oversight and strategic guidance to the project. The FOLUR Innovation and Learning Space will provide regular opportunities for multi-stakeholder interaction on key sustainability issues.

433. Interacting with other FOLUR country projects, particularly the ones in Southeast Asia and the FOLUR Global Platform will facilitate improved stakeholder collaboration at the regional and global levels.

434. The multi-stakeholder collaboration and stakeholder engagement plan aims to generate the following benefits:

a. Engaged and motivated stakeholders who share an inspiring vision for the future.
b. Raise collective awareness of the challenges to raise the overall level of intelligence in the system.
c. Facilitate collaboration problem solving and implementation.
d. Promotion of equitable gender representation and leadership.
e. Build capacity to keep on doing collaborative work – for problem solving, innovation, resolving conflict.
f. Empower local champion stakeholders to lead collaborative processes so solutions have local ownership and are sustainable beyond the life of the project.
g. Build and strengthen relationships and trust that will last.
h. Blend with existing collaborative initiatives / mechanisms, and government processes.
i. Follow international good practice.

435. **South-south cooperation** (SSTrC): Experiences from the landscape on transformational change in land use planning, food and commodity systems will also be shared through South-South cooperation with other countries participating in the FOLUR program. In particular, opportunities will be built into the project for international exchanges with FOLUR country projects in Malaysia and Papua New Guinea (PNG). The project will connect with similar country projects based on similar commodities and approaches to share resources combined and collective knowledge management products for example, a collective guidance on sustainable palm oil or jurisdictional approaches. These products can then contribute to FOLUR Knowledge-to-Action Global

Platform, and to facilitate dissemination through global ongoing South-South and global platforms, the UN South-South Galaxy knowledge sharing platform and PANORAMA[92].

436. In addition, to bring the voice of Indonesia to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with the global development discourse on sustainable and resilient commodity production systems. The project will furthermore provide opportunities for regional cooperation with countries that are implementing initiatives on integrated landscape management in geopolitical, social, and environmental contexts relevant to the proposed project in Indonesia.

GENDER EQUALITY AND WOMEN'S EMPOWERMENT:

437. Indonesia has made significant strides towards closing the gender inequality gap and contributing to development. In 2018, Indonesia's Human Development (HDI) Index value was 0.727, with the ranking of 111 out of 188 countries and territories.[93] The 2018 HDI value for Indonesia illustrates a more than 38.4 percent increase from the 1990 HDI value. The improved HDI is evidence of the progress the country has made towards increasing life expectancy at birth, mean years of schooling, and gross national income (GNI) per capita over that period. The Gender Development Index (GDI) for Indonesia in 2018 was 0.937, an increase from 0.8942 in 2010. The Government of Indonesia has taken numerous steps in the last decade to further gender equality through legislation, resulting in Indonesia receiving a gender inequality index (GII) value of 0.451 and a ranking of 103 out of 162 countries in 2018, up from 110 in 2016.

438. There remain considerable gaps in Indonesia with respect to gender quality and women's empowerment. The overwhelming majority of households (85%) are headed by men. As women's work is normally associated with the domestic realm, the interests of women are often not discussed or addressed directly and/or not considered a priority. Although women are shown to be responsible for both productive and reproductive work, they usually lack access to and control over vital resources, such as land, services and extensions, technology, and markets. Indonesian women also often have limited agency at village and community level, due partly to their long working hours for productive and reproductive work, which prevents them from fully participating in social activities and have been shown to have insufficient skills and expertise, and lack of experience, in sharing their ideas, aspirations and needs. In rural and urban communities, almost all agricultural organizations in Indonesia include only male members. At the village and community level, agricultural organizations serve a pivotal role in agricultural decision-making processes, being in charge of determining various activities such as selecting seed varieties, arranging planting dates and irrigation schedules. The limited presence of women in farmer organizations means that women's voices are not necessarily heard in community decision-making. In seeking to address the issue, the Government of Indonesia has established and supported many women only farmer groups and fish processing groups in the agricultural sector, which now amount to total 17%of the total.[94]

439. The FOLUR project's gender mainstreaming strategy is cognizant of differences between men and women in terms of needs, priorities, the division of labour and access to knowledge and resources, and includes the following aspects, among others:

a. Ensuring equitable representation of women and men in project activities and related groups which are established and/or strengthened under the project.
b. Allocating targeted budgets and other relevant resources for activities that promote the active and meaningful involvement of women, including in the monitoring and evaluating of these activities.
c. Ensuring that opportunities for active participation, training, skills- and capacity- building for women are identified and budgeted for in the relevant project outcomes.
d. Ensuring consultation with women, and where possible, key women's groups on needs and priorities related to project activities and/or interventions.

[92] https://panorama.solutions/en

[93] Human Development Report 2019, UNDP.

[94] Food and Agriculture Organization (FAO). (2019). *Country Gender Assessment of Agriculture and the Rural Sector in Indonesia*. Available at: http://www.fao.org/3/ca6110en/ca6110en.pdf

e. Ensuring that any and/or all strategic and planning documents are developed in consultation with women and/or key women's groups.

f. Providing equal opportunities for women in the recruitment of project implementation staff, including any relevant third-party service providers (e.g., consultancies).

g. Promoting, and whenever possible ensuring, equal pay for women and men.

440. Gender issues will be also addressed within the context of strengthening "sustainable production" practices, which include the social as well as environmental dimensions. Opportunities will be explored and/or initiated to work with private sector entities on gender outcomes that would take the engagement to a higher level (e.g., women's empowerment certification, such as the W+ Standard).[95]

441. More information on gender mainstreaming is included in **Annex 11** (*Gender Analysis and Action Plan*) to the project document. Specific gender equality and women's empowerment targets have been set, including ensuring equitable representation of women in project decision-making bodies; ensuring equitable proportion of benefits realized from the project will be delivered to women; ensuring gender considerations are integrated landscape management plans; promoting gender awareness throughout the project implementation phase, and promoting equal opportunity for employment for positions within the project management office, consultancies and other service providers. Moreover, resources for a full-time Gender-Safeguards Officer to oversee the implementation of the gender action plan.

INNOVATIVENESS, SUSTAINABILITY AND POTENTIAL FOR SCALING UP:

442. The project has the potential for impacts well beyond the target jurisdictions, as landscape-level planning and systems change leadership are relevant across Indonesia. Through engagement with global supply chains, including building responsible demand in Asian markets, the project will have an impact on the global supply chains for sustainable production, contributing to transformation of global commodity production to become more socially, economically and environmentally sustainable, and to reduce loss of HCV/HCS forests. In order to achieve this, the project will engage through the FOLUR global platform, the UNDP Green Commodities Programme, and with countries and platforms outside of the country as a means to scale results and impact the broader food system.

443. An Open Innovation Challenge is included in the project as a separate output, with the aim of facilitating innovative solutions to food systems, land use, and restoration challenges in Indonesia. Recognizing the need for applying innovations, both in terms of new technologies and traditional approaches, for transforming and securing food systems, the Open Innovation Challenge will provide a mechanism for reaching out to the wider stakeholder community.

444. The project is also introducing an innovative systems leadership approach that aims to effectively engage a broad network of diverse stakeholders to advance the goal of achieving transformational systemic change. Key individuals will be identified among project stakeholder groups as systems leaders or sustainability champions, who will be trained and help catalyse systems-level change. The systems leadership approach will help bring together individuals from key governmental line ministries, including CMEA, Bappenas, MoA, and MoEF, as well as private sector enterprises and associations, other donor agencies, and NGOs to work collaboratively developing and implementing innovative plans and actions on integrated landscape management, conservation of HCV/HSC ecosystems, and sustainable and resilient production. Facilitating improved multi-stakeholder collaboration will help link policy decisions with practical realities on the ground, e.g., imposing increased demands on smallholder farmers to obtain sustainable production certification without addressing the elongated value chains many farmers are faced with that often result in low farm-gate prices, thus discouraging genuine participation. The project will make innovation contributions through strengthening financing mechanisms for farmers, enhancing traceability systems, demonstrating improved marketing through e-platforms, and fostering durable partnerships with enabling stakeholders.

445. A further aspect of the project that will constitute a major innovation at national and regional levels, and that results from its inclusion in the FOLUR Impact Programme, will be its linkages to regional and global

[95] The W+ Standard was developed in 2014 by Women Organizing for Change in Agriculture and Natural Resource Management (WOCAN).

dynamics and opportunities. Its links to the Sustainable Rice Platform, and its inclusion in the Sustainable Rice Landscapes Initiative (SRLI) will in particular have the potential to catalyse systemic transformation (see **Box 1**). **Table 26** shows the scale of the reach of the SRLI throughout the region, and therefore the extent of its potential impact as a regional catalyst for identifying and channelling resources and opportunities, and for managing and exchanging knowledge.

Box 1: The potential for transformation and scaling out through the SRLI

The Sustainable Rice Landscapes Initiative (SRLI) is a partnership of FAO, SRP, the WBCSD (World Business Council for Sustainable Development), GIZ, IRRI and UN Environment. Launched in 2018, during the 6th GEF Assembly meeting in Danang, Viet Nam, the SRLI has created a unique consortium of public, private and civil society partners, bringing together technological, ecological, policy and market-led approaches to the challenges of rice sustainability.

The main objective of the SRLI partners in this initiative is to harness multiple opportunities to meet the growing global demand for sustainable rice and associated benefits, using a public-private partnership approach towards achieving the UN Sustainable Development Goals (SDGs).

Insertion of the project in the regional framework offered by the SRLI will significantly increase its potential to contribute to achieving transformative impact both nationally and across the SE Asia region as a whole, for example as follows:

- The establishment of an action group with SRLI and other partners will facilitate engagement with finance providers regarding the development of blended finance products with potential for application across the region, linked to the provision of technical assistance on sustainable rice production (see paragraph 240).
- Links to the SRLI will increase access by producers in the target area to regional and global value chains, including "green" value chains that reward environmental sustainability: inter-country collaboration will also allow countries to achieve a critical mass of influence on markets.
- SRLI members have the potential to act as catalysts and conduits for knowledge management spanning the region on the integrated management of rice-based landscapes, allowing to lessons learned through this project and others in the region to be communicated widely and effectively and thereby to guide good practice.

Regional coordination on M&E, for example through the SRLI, will allow the impacts of the GEF-7 FOLUR IP to be monitored at sub-programmatic (regional) level, thereby allowing synergies among FOLUR/SRLI countries in SE Asia to be captured and collaborative responses to be agreed among participating countries.

Table 26: GEF-7 rice oriented FOLUR and LDCF projects under development

Country	Funding Source	Project Name	IA	GEF grant (USD)	Indicative co-finance (USD)
Vietnam	FOLUR	Food System, Land Use and Restoration Impact Program in Vietnam.	FAO	5,354,587	83,000,000
China	FOLUR	Innovative transformation of China's food production systems and agroecological landscapes.	FAO / World Bank	7,179,450	155,000,000
India	FOLUR	Transforming Rice-Wheat Food Systems in India.	FAO	20,366,972	230,900,000
Thailand	FOLUR	Inclusive Sustainable Rice Landscapes in Thailand.	UNEP	5,535,963	87,000,000
Indonesia	FOLUR	Strengthening sustainability in commodity and food systems, land restoration and land use governance through integrated landscape management for multiple benefits in Indonesia.	UNDP / FAO	16,163,762	132,510,462*
Cambodia	LDCF	Promoting Climate-Resilient Livelihoods in Rice-Based Communities in the Tonle Sap Region.	FAO	8,932,420	62,263,553
Myanmar	LDCF	RICE-Adapt: Promoting Climate-Resilient Livelihoods in Rice-Farming Communities in the lower Ayeyarwady and Sittaung River Basins.	FAO	8,932,420	40,000,000
			Totals	**72,465,574**	**790,674,015**

***For the FOLUR country project in Indonesia, confirmed co-financing is shown.

446. A sustainability plan will be developed by the project that will outline the arrangements for facilitating the mainstreaming and upscaling of the innovative approaches and multi-stakeholder structures. To increase the likelihood that project results will be sustained and scaled up, the implementation of the sustainability plan will be initiated during the lifetime of the project.

447. Apart from limited execution support at the start of the project, in accordance with GEF policies the project will be fully owned and executed by relevant national institutions. Initial execution support will include a strong focus on ensuring that the limited gaps in the capacities of national institutions are addressed, enabling

them to fully assume this execution role during the remainder of the project, and to allow their roles during the project period to transition seamlessly into enhanced performance in their designated roles post-project.

448. The project has a strong market-based approach, featuring the facilitation of the functioning of green value chains and close participation of major private sector actors. This will be a key factor in determining the durability of the uptake of environmentally sustainable production options, as it will motivate farmers to adopt and maintain them in the long term without reliance on unsustainable incentive support.

449. The multi-stakeholder ILM approach of the project will help to ensure the social sustainability of project results, by providing mechanisms that will allow possible underlying conflicts and social barriers to sustainability to be addressed in a participatory manner; strengthening governance mechanisms in a durable manner; and supporting the development of planning instruments for landscape management that include provisions for adaptation to evolving conditions.

450. The project will also support the development of durable mechanisms to provide finance/credit for sustainable production.

451. Lessons from engagement in sustainable production and farming systems will be shared with other export sectors, leveraging systems level change in Indonesia's approach to agricultural development planning. Pathways to scale are built into the project design, such that lessons learned can be shared across Indonesia, with multi-stakeholder dialogues facilitated on palm oil and other commodities. Best practice models of smallholder engagement and support can also be replicated across the country's vast number of smallholder farmers.

V. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): SDG 1 (No Poverty), SDG 2 (Zero Hunger), SDG 5 (Gender Equality), SDG 12 (Responsible Consumption and Production), SDG 13 (Climate Action), SDG 15 (Life on Land), SDG 17 (Partnerships for Goals)				
This project will contribute to the following country outcome: UNSDCF Indonesia 2021-2025, Outcome 3/ UNDP OUTCOME 3: Institutions, communities and people actively apply and implement low carbon development, sustainable natural resources management, and disaster resilience approaches that are all gender sensitive; **Output 3.2**: Strengthened and expanded protection, governance and management of terrestrial and aquatic ecosystems, habitats, and species; **Output 3.4**: Conservation and resilience strategies with local priorities (income and food security) contribute to global environment benefits; **UNDP Strategic Plan 2022-2025: Signature Solution 4**: Environment; **Output 4.1** Natural resources protected and managed to enhance sustainable productivity and livelihoods; **FAO Country Outcomes (2021-2025)**: 2.1: Government and farming communities adopt innovative technologies introduced by FAO and scale up at national level; 3.2: Inclusive, efficient and sustainable agri-food value chains to support food diversification are promoted; 4.1: Capacities of government and stakeholders to support evidence-based policy making, planning and coordination for sustainable natural resource management in agriculture, fisheries and forestry improved.			
	Objective and Outcome Indicators	**Baseline**	**Mid-term Target**	**End of Project Target**
Project Objective: To transform the management of oil palm-, cocoa-, coffee-, and rice-based food systems and landscapes in Indonesia for the generation of multiple environmental benefits.	**Mandatory Indicator 1,** *GEF-7 Core Indicator 11*: **# direct project beneficiaries** disaggregated by gender as a co-benefit of GEF investment (individual people) **SDG 1.4; SDG 1.b; SDG 5.a;**	Baseline to be established in year 1	Estimated 103,000 beneficiaries (of whom 53,800 are women) confirmed by mid-term.	103,000 (of whom 53,800 are women).
	Mandatory Indicator 2, *GEF-7 Core Indicator 3*: **Area of land restored** (hectares); Sub-Indicator 3.2: Area of forest and forest land restored **SDG 15.3;**	Baseline to be determined in year 3 (after ILM plans endorsed).	In full consultation with relevant stakeholders 20,000 ha of degraded production forest areas (i.e. permanent, limited, and convertible production forest) delineated and designated for restoration - rehabilitation identified in High Conservation Value Areas such as KEE scheme (Essential Ecosystem Area), social forestry plans, public-private-community MOUs, or other means.	20,000 ha of degraded production forest areas restored-rehabilitated.
	Mandatory Indicator 3, *GEF-7 Core Indicator 4*: **Area of landscapes under improved practices** (excluding protected areas); Sub-Indicator 4.1: Area of landscapes under improved management to benefit biodiversity (qualitative assessment, non-certified); and Sub-Indicator 4.4: Area of High Conservation Value forest loss avoided (hectares) **SDG 2.4; SDG 12.2; SDG 15.2; SDG 15.9; SDG 15.b;**	Baseline to be established in year 2 (after HCV/HCS assessment completed and potential area for improved management & set-asides identified).	Jurisdictional ILM plans, designating 1,520,900 ha for improved management, are finalised, and endorsed by provinces.	1,520,900 ha, including 1.474 million ha under improved management (4.1), leading to 46,900 ha of HCV forest loss avoided (4.4).
	Mandatory Indicator 4, *GEF-7 Core Indicator 6*: **Greenhouse Gas Emissions Mitigated** (million metric tons of CO2e); Sub-Indicator 6.1: Carbon sequestered, or emissions avoided in the sector of Agriculture, Forestry, and Other Land Use **SDG 13.2; SDG 13.3;**	Baseline to be determined in year 2 (after HCV/HCS assessment completed and potential area for improved management & set-asides identified)	Estimation of 41,495,405 metric tons CO2e (direct) confirmed through ILM plans.	41,495,405 metric tons (lifetime direct) of CO2e mitigation contributed to the AFOLU sector.
Component 1: Enabling environment for sustainable value chains and integrated landscape management.				

Outcome 1: Strengthened policy and planning frameworks for integrated landscape management, commodity and/or crop value chains and landscape governance at national and sub-national levels, informed by multi-stakeholder engagement.	**Indicator 5**: % i**mprovement in the consistency and relevance of policies in the project jurisdictions**, as measured by the policy assessment scorecard.	Baseline to be determined once the policy assessment tool and supporting scorecard have been developed under Output 1.4 and the baseline value defined retrospectively.	Target TBD (the Policy assessment tool will have been completed, and application initiated in project jurisdictions).	At least 30% of policies assessed in the project jurisdictions, on issues of relevance to ILM and sustainable food systems, lead to higher score using the policy assessment scorecard.
	Indicator 6: Improved multi-stakeholder collaboration in integrated landscape management and value chains, as indicated by progress made along the multi-stakeholder collaboration ladder of systemic change scorecard.	Baseline scorecard assessments to be made at project inception through focus group discussion approach: national, provincial (5) and district (5) levels.	No midterm target (assessments made in the first year of project implementation (baseline) and at the end of project).	Verifiable improvement along the ladder of systemic change scorecard (to be defined when baseline assessments are completed at the first PIR).
Outputs to achieve Outcome 1	**Output 1.1.** Policy analyses and proposals developed for national and/or sub-national level policies, regulations, or government programs to improve commodity/crop value chain and to ensure the implementation of conservation agriculture and/or protection of essential ecosystems by promoting equitable representation and participation of women and men in landscape governance and management. **Output 1.2.** Strengthened multi-stakeholder dialogue mechanisms on landscape management and sustainable commodity/crop production with equitable participation, opportunities and benefits for both women and men. **Output 1.3.** Sustainable action plans on cocoa, coffee and rice that also include strategies for strengthening farmer support systems formulated, adopted, and initial implementation monitored. **Output 1.4.** Decision support tools for informing policy formulation and planning developed and/or strengthened.			
Outcome 2: Integrated landscape management approach mainstreamed in the target provinces and districts through adoption of jurisdictional integrated landscape management plans.	**Indicator 7: Mainstreamed landscape management approach**, as indicated by area of priority areas under improved management (1.474 million ha) that is set aside for conservation as defined by provincial or district planning frameworks, or conservation decrees, regulations, programmes.	No areas within potential high conservation value areas) are currently set aside for conservation.	Jurisdictional ILM plans mainstreamed into provincial and/or district land planning and/or conservation decrees, regulations, or programmes.	46,900 ha, after ILM plans are approved.
	Indicator 8: Number of regulatory decisions that strengthen landscape management at the district level, as indicated by number of regulatory decisions that respond to the provisions of the land use plans.	0	ILM considerations mainstreamed into 5 district spatial plans.	5 regulatory decisions.
Outputs to achieve Outcome 2	**Output 2.1.** Provincial and district level situation analysis and dialogue mechanisms established and/or strengthened for integrated landscape management involving government, private sector, CSOs and local communities. **Output 2.2.** Maps and inventories of HCV/HCS areas and other priority or essential ecosystems generated for five target jurisdictions, with categories for protection and sustainable production defined with accompanying management guidelines. **Output 2.3.** Jurisdictional provincial-level integrated landscape management plans delineating production, protection and restoration priorities formulated, legalised, and monitored. **Output 2.4**. Environmental carrying capacity for key commodities and crop assessed and trade-offs analysed for five target districts. **Output 2.5**. Environmental sustainability and integrated landscape management considerations (e.g. protection of ecosystem service provision areas, biological corridors, fragile soils) incorporated into planning instruments of target districts.			
Component 2: Promotion of sustainable crop production practices and responsible value chains.				

Outcome 3: Sustainable and responsible investment and finance through public-private-community partnerships leveraged for implementation of sustainable value chains.	**Indicator 9: Strengthened implementation of sustainable value chains**, as indicated by the volume of investments/finance leveraged (USD) for operationalisation of smallholder financing mechanisms by type and gender of beneficiaries.	0	USD 1 million available in smallholder financing mechanisms.	USD 1 million disbursed for smallholder farmer households (at least 10% for each crop) in the project jurisdictions, of which at least 10% are women-led households.
	Indicator 10: Expanded private sector involvement, as indicated by the area (ha) covered by and number of farmers involved in PPPs and/or PPCPs to strengthen sustainable production and value chains, by type and objective.	Baseline to be determined by year 2.	PPPs and/or PPCPs drafted, covering 18,000 ha and 14,000 farmer households.	18,000 ha, 14,000 farmer households (8,000 palm oil households (100%), 12,000 ha; 3,000 coffee households (50%), 3,000 ha; 1,000 cocoa (50%), 1,000 ha; 1,000 rice (25%), 2,000 ha).
Outputs to achieve Outcome 3	**Output 3.1.** Mechanisms available to farmers to provide finance/credit for sustainable production incorporating eligibility criteria based on sustainability. **Output 3.2.** Facilitating improved public-private-community collaboration and partnerships to strengthen sustainable production and value chains. **Output 3.3.** Open innovation challenge introduced to identify solutions that can be scaled to address strategic issues.			
Outcome 4: Smallholder farmers receiving increased value for their products through traceability systems and improved grading for selected commodities and jurisdictions.	**Indicator 11: Enhanced traceability of sustainably produced palm oil, cocoa, coffee, and rice**, as measured by the planted area (ha) under verified traceability systems.	Baseline to be determined by year 2	Testing of traceability systems underway for 18,000 ha planted area (12,000 ha oil palm; 3,000 ha coffee; 1,000 ha cocoa; 2,000 ha rice)	Verified traceability systems applied over 18,000 ha (12,000 ha oil palm; 3,000 ha coffee; 1,000 ha cocoa; 2,000 ha rice)
	Indicator 12: Improved capacities of farmers to add value to palm oil, cocoa, coffee and rice, as measured by the percentage of product volume by smallholder farmers in project districts, by crop, subject to effective grading by quality.	Grading systems are not in place	Training of grading guidance initiated with farmers representing the following percentage of smallholder production in project district jurisdictions: (a) 10% palm oil, (b) 10% coffee, (c) 10% cocoa, and (d) 10% rice.	During last full year of project implementation: (a) 10% palm oil, (b) 10% coffee, (c) 10% cocoa, and (d) 10% rice.
Outputs to achieve Outcome 4	**Output 4.1.** Best practice traceability approaches demonstrated, involving supply chain actors at a jurisdictional level and incentivises participation of independent smallholders, e.g., through access to finance, credit scoring, training, etc. **Output 4.2**. Guidance on grading for value additions developed for oil palm, cocoa, coffee and rice.			
Outcome 5: Smallholder farmers and support services strengthened in target districts to implement sustainable and resilient production and farming systems.	**Indicator 13: % increase in capacities for farmer support for sustainable and resilient production and farming systems**, as indicated by the percentage increase in the numbers of farmers to whom public extension services, private sector technical support schemes and farmer field schools have the capacity to provide support on sustainable and resilient production and farming systems.	Baseline to be determined by year 1	Capacity building plans for technical support services developed to achieve the following percentage increases: (a) % increase for extension services, (b) % for private sector technical support schemes, and (c) % for farmer field schools.	By the last full year of project implementation: (a) % increase for extension services, (b) % increase for private sector technical support schemes, and (c) % increase for farmer field schools.
	Indicator 14: access to technical support by smallholder farmers, as indicated by the percentage increase in the numbers of farmers (by gender, ethnicity, socioeconomic level and crop type) receiving regular technical support in relation to sustainable production and management.	Baseline to be determined in year 1	Capacity building plans for smallholder farmers developed to achieve the following percentage increases: (a) % increase for oil palm farmers (15% women), (b) % for coffee farmers (50% women), (c) % for cocoa farmers (50% women), and (d) % rice farmers (50% women).	By the last full year of project implementation: (a) % increase for oil palm farmers (of whom 15% are women), (b) % for coffee farmers (of whom 50% are women), (c) % for cocoa farmers (of whom 50% are women), and (d) % rice farmers (of whom 50% are women).

	Indicator 15: application of best management practices, as indicated by the number of smallholder farmer households implementing best management practices as a result of a combination of direct support by the project and through the public and private extension services with which the project will work.	Baseline to be determined in year 1	Training on best management practices delivered to 10,000 of the total number (20,000) of farmers to be trained by the end of the project.	10,000 farmer households (4,000 oil palm; 3,000 coffee; 1,000 cocoa; 2,000 rice) implementing best management practices by the last year of project implementation.
Outputs to achieve Outcome 5	**Output 5.1.** District-level plans of farmer support interventions, reflecting stakeholder priorities, zoning, and land classification. **Output 5.2.** Agricultural extension service systems including capacity building for extension officers strengthened in target districts to support smallholder farmers on the promotion of and increased uptake of sustainable production practices and farming systems. **Output 5.3.** Support to smallholder capacity development and sustainability certification delivered for selected smallholder farmers within target districts. **Output 5.4**. Support delivered to smallholder farmers for land tenure/legalization, enabling achievement of sustainable and resilient production and farming systems.			
Project component 3: Conservation and restoration-rehabilitation of natural habitats.				
Outcome 6: Participatory models of management and incentive mechanisms catalysing biodiversity conservation, land/habitat restoration and improved governance of priority ecosystems enabled in target districts.	**Indicator 16: Extent of participatory governance of priority ecosystems**, as indicated by the area and numbers of people covered by management plans with incentive mechanisms that are under implementation for inclusive conservation-restoration (such as social forestry, KEE scheme).	0 ha and 0 household. There is no incentive mechanism in place.	Management plans developed for participatory models covering at least 50,000 ha and benefitting 5,000 households (including 500 women-led households).	50,000 ha and 5,000 households (including 500 women-led households) covered by management plans with incentive mechanisms that are under implementation.
	Indicator 17: Livelihood diversification through gender-sensitive social forestry interventions that are shown to reduce pressures on natural resources (e.g., sustainable utilisation of NTFPs, eco-tourism, processing of local foods, etc.)**,** as indicated by the number of individuals involved.	0 individual. There is no intervention plan in the targeted areas.	Intervention plans developed for livelihood diversification benefitting 3,000 individuals (of whom 60% are women).	3,000 individuals (of whom 60% are women).
Outputs to achieve Outcome 6	**Output 6.1.** Detailed plans for conservation, restoration and sustainable management of priority degraded ecosystems formulated and adopted in target districts. **Output 6.2.** Participatory models for conservation, restoration and sustainable management (e.g., social forestry's Customary Forest and Village Forest) for critical ecosystems implemented in target districts, taking advantage of available incentive mechanisms. **Output 6.3**. Strengthened collaborative governance mechanisms and capacities supporting effective conservation and restoration-rehabilitation.			
Project component 4: Knowledge Management, Coordination, Collaboration, and Monitoring and Evaluation.				
Outcome 7: Integrated knowledge management, coordination and collaboration to enhance knowledge of factors to foster lessons learned for replication in other areas.	**Indicator 18: Documentation of sustainable production and sustainable landscape management associated knowledge**, as indicated by the number of systems developed or strengthened including: (a) knowledge products, (b) communication pieces/stories (c) traditional knowledge databases, (d) research papers	0	(a) 5 knowledge products (at least 2 highlighting gender mainstreaming), (b) 10 communication pieces/stories, (c) 2 traditional knowledge databases, (d) 0 research papers.	(a) 20 knowledge products (at least 5 highlighting gender mainstreaming), (b) 20 communication pieces/stories (c) 5 traditional knowledge databases, (d) 2 research papers.
	Indicator 19: **Expanded FOLUR Community of Practice**, as indicated by the number of country documents, events, press promoting FOLUR.	0	(a) 5 country documents, (b) 5 events, (c) 5 press reports.	(a) 10 country documents, (b) 20 events, (c) 20 press reports.
Outputs to achieve Outcome 7	**Output 7.1.** Project implementation overseen through proactive steering committee functions and inclusive monitoring and evaluation. **Output 7.2.** Inclusive participation of local communities, including women and traditional peoples, facilitated through effective implementation of environmental and social management plan. **Output 7.3.** Adaptive management methodology developed to monitor, evaluate and respond to causal impacts and systemic change. **Output 7.4.** Knowledge management and outreach system developed for supporting scaling out across jurisdictions/provinces and nationally, regionally and globally. **Output 7.5.** Participation in Global FOLUR community of practice and other relevant platforms on knowledge and lessons exchanges.			

VI. MONITORING AND EVALUATION (M&E) PLAN

452. The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored annually and evaluated periodically during project implementation. If baseline data for some of the results indicators is not yet available, it will be collected during the first year of project implementation. The Monitoring Plan included in **Annex 4** details the roles, responsibilities, and frequency of monitoring project results.

453. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. The UNDP and FAO Country Offices are responsible for ensuring full compliance with all UNDP and FAO project monitoring, quality assurance, risk management, and evaluation requirements.

454. Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[96]. The costed M&E plan included below, and the Monitoring plan in **Annex 4**, will guide the GEF-specific M&E activities to be undertaken by this project.

455. In addition to these mandatory UNDP, FAO and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report.

456. Project Assurance Report (PAR): The Country Office Indonesia has developed the PAR template as one of the standardize project assurance tools for the Programme Manager/Officer to monitor the project implementation progress twice a year for the period of January to June and January to December.

Additional GEF monitoring and reporting requirements:

457. Inception Workshop and Report: A project inception workshop will be held within 60 days of project CEO endorsement, with the aim to:

a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
c. Review the results framework and monitoring plan.
d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
g. Plan and schedule Project Board meetings and finalize the first-year annual work plan.
h. Formally launch the Project.

GEF Project Implementation Report (PIR):

458. The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR. The PIR submitted to

[96] See https://www.thegef.org/gef/policies_guidelines

the GEF will be shared with the Project Board. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

GEF Core Indicators:

459. The GEF Core indicators included as **Annex 18** will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the indicator status. The updated monitoring data should be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent ground-truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF website.

Independent Mid-term Review (MTR):

460. The terms of reference, the review process and the final MTR report will follow the standard templates and guidance for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC). The terms of reference will be agreed by UNDP, FAO, and the lead Implementing Partner (CMEA).

461. The evaluation will be 'independent, impartial and rigorous'. The evaluators that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project under review.

462. The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the evaluation process. Additional quality assurance support is available from the BPPS/GEF Directorate.

463. The final MTR report and MTR TOR will be publicly available in English and will be posted on the UNDP ERC by 31 December 2023. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report's completion.

Terminal Evaluation (TE):

464. An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance for GEF-financed projects available on the UNDP Evaluation Resource Center. The terms of reference will be agreed by UNDP, FAO, and the lead Implementing Partner (CMEA).

465. The evaluation will be 'independent, impartial and rigorous'. The evaluators that will be hired to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

466. The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the BPPS/GEF Directorate.

467. The final TE report and TE TOR will be publicly available in English and posted on the UNDP ERC by 28 February 2027. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report's completion.

Final Report:

468. The project's terminal GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

469. Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information**:** To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will

appear together with the UNDP and FAO logos on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy and the GEF policy on public involvement.

Monitoring and Evaluation Plan and Budget:

470. The project monitoring and evaluation plan and budget are outlined below in **Table 27**.

Table 27: Monitoring and Evaluation Plan and Budget

GEF M&E requirements	Indicative costs (USD)	Time frame
Inception Workshop	40,000	Within 60 days of CEO endorsement of this project.
Inception Report	None	Within 90 days of CEO endorsement of this project.
Project Assurance Report (PAR)	None	Bi-annual
M&E of GEF core indicators and project results framework	20,000	Annually and at mid-point and closure.
GEF Project Implementation Report (PIR)	31,550	Annually typically between June-August
Monitoring of ESMP, gender action plan	90,000	Annually, mid-term, and terminal evaluation.
Supervision missions	None	Annually
Independent Mid-term Review (MTR)	71,000	30 September 2024
Independent Terminal Evaluation (TE)	71,725	16 August 2027
TOTAL indicative COST	**324,275**	

VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project's governance mechanism:

471. The project will be implemented following UNDP's National Implementation modality (NIM) with CO support or Operational Partners Implementation Modality (OPIM) in FAO terminology. Management of the funds allocated by GEF to FAO in relation to the implementation shall be managed by FAO in accordance with the terms and conditions set out in the grant agreement signed by FAO and the Government of Indonesia.

472. Implementing Partner: The Implementing Partner for this project is the **Coordinating Ministry for Economic Affairs (CMEA)**.

473. The Implementing Partner is the entity to which the UNDP Administrators and FAO have entrusted the implementation of UNDP and FAO assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP and FAO resources and the delivery of outputs, as set forth in this document.

474. The Implementing Partner is responsible for executing this project. Specific tasks include:

- Project planning, coordination, management, monitoring, evaluation, and reporting. This includes providing all required information and data necessary for timely, comprehensive, and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Risk management as outlined in this Project Document.
- Procurement of goods and services, including human resources.
- Financial management, including overseeing financial expenditures against project budgets.
- Approving and signing the multiyear workplan.
- Approving and signing the combined delivery report at the end of the year.
- Signing the financial report or the funding authorization and certificate of expenditures.

475. Key Partners: BAPPENAS, the Ministry of Agriculture (MoA), and the Ministry of Environment and Forestry (MoEF) are key partners on the project providing coordination and strategic direction, e.g., chairing multi-stakeholder dialogues at the central government level, delivering inputs to policy frameworks, ensuring sustainable action plans are aligned with sectoral plans and strategies, providing technical assistance, facilitating authorisations, and linking institutional resources with project activities. These partners are likely to be responsible parties, implementing some of the project outputs, to be confirmed at project inception.

476. Project stakeholders and target groups: The project will work with existing multi-stakeholder partnership mechanisms and establish new partnerships where necessary to ensure project target groups are involved in the design, implementation, and monitoring & evaluation of the activities in their communities. Local government units having jurisdiction over the project landscapes will designate project-level focal points. The focal points will be seconded through part-time arrangements and provide support for project activities at the local levels.

477. UNDP and FAO: As the GEF Agencies, UNDP (lead agency) and FAO are accountable to the GEF for the implementation of this project. This includes oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and provisions. UNDP and FAO are responsible for delivering GEF project cycle management services comprising project approval and start-up, project supervision and oversight, and project completion and evaluation. UNDP and FAO are also responsible for the Project Assurance role of the Project Board.

Project organisation structure (see **Figure 41**):

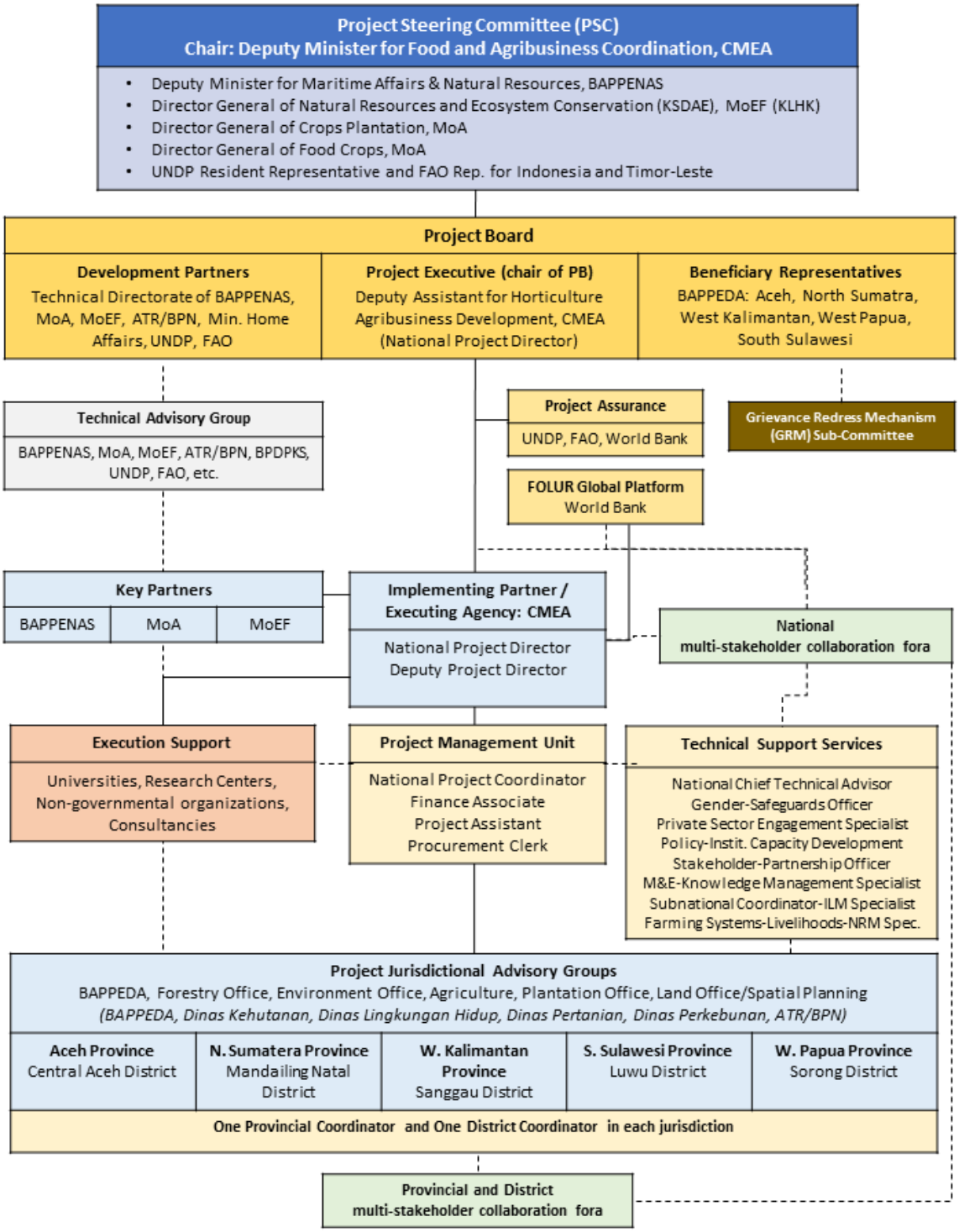


Figure 41: Project organizational structure

478. Project Board: The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results. In order to ensure UNDP's and FAO's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.

479. In case consensus cannot be reached within the Board, the UNDP Resident Representative (or their designate) will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

480. Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints.
- Address project issues as raised by the National Project Manager.
- Provide guidance on new project risks and agree on possible mitigation and management actions to address specific risks.
- Agree on National Project Manager's tolerances as required, within the parameters set by UNDP-GEF, and provide direction and advice for exceptional situations when the National Project Manager's tolerances are exceeded.
- Advise on major and minor amendments to the project within the parameters set by UNDP-GEF.
- Ensure coordination between various donor and government-funded projects and programmes.
- Ensure coordination with various government agencies and their participation in project activities.
- Track and monitor co-financing for this project.
- Review the project progress, assess performance, and appraise the Annual Work Plan for the following year.
- Appraise the annual project implementation report, including the quality assessment rating report.
- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.
- Review combined delivery reports prior to certification by the implementing partner.
- Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans.
- Address project-level grievances.
- Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses.
- Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.
- Ensure highest levels of transparency and take all measures to avoid any real or perceived conflicts of interest.

481. The composition of the Project Board must include the following roles:

a. **Project Executive**: Is an individual who represents ownership of the project and chairs the Project Board. The Project Executive, the National Project Director, is the Deputy Assistant for Horticulture Agribusiness Development, CMEA. The National Project Director and the Deputy Project Director, the Deputy Assistant for Food and Agribusiness Facilities and Infrastructure, CMEA, will be co-financed seconded positions.

b. **Beneficiary Representatives**: Individuals or groups representing the interests of those who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. The Beneficiary representatives are heads of the Provincial Development Planning Agencies (BAPPEDA) in the five project jurisdictions (Aceh Province, North Sumatera Province, West Kalimantan Province, South Sulawesi Province and West Papua Province).

c. **Development Partners**: Individuals or groups representing the interests of the parties concerned that provide funding and/or technical expertise to the project. The Development Partners are:

a. UNDP, Deputy Resident Representative (DRR).

b. FAO, Assistant FAO Representative (Programme).

c. Ministry of National Development Planning (BAPPENAS).

d. Ministry of Agriculture (MoA).

e. Ministry of Environment and Forestry (MoEF).

f. Ministry of Agrarian Affairs and Spatial Planning (ATR/BPN).

g. Ministry of Home Affairs.

d. **Project Assurance**: UNDP and FAO perform the quality assurance role and supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed and conflict of interest issues are monitored and addressed. The Project Board cannot delegate any of its quality assurance responsibilities to the National Project Manager. UNDP and FAO provide a three – tier oversight services involving the UNDP and FAO Country Offices and UNDP at regional and headquarters levels. Project assurance is totally independent of project execution.

e. **Project Steering Committee**: A Project Steering Committee (PSC) will be established to provide a supervisory function over the Project Board (see **Figure 41**). Chaired by the Deputy Minister for Food and Agribusiness Coordination of CMEA, the PSC will include Echelon 1 officials, including the Deputy Minister for Maritime Affairs & Natural Resources of BAPPENAS, the Director General of Natural Resources and Ecosystem Conservation of the MoEF, the Director General of Crops Plantation of MoA, and the Direct General of Food Crops of MoA. The UNDP Resident Representative Indonesia and the FAO Representative for Indonesia and Timor-Leste will also be members of the PSC.

482. **Project extensions:** The UNDP Resident Representative and the UNDP-Global Environmental Finance Executive Coordinator must approve all project extension requests. Note that all extensions incur costs and the GEF project budget cannot be increased. A single extension may be granted on an exceptional basis and only if the following conditions are met: one extension only for a project for a maximum of six months; the project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs will be covered by non-GEF resources; the UNDP Country Office oversight costs in excess of the CO's Agency fee specified in the DOA during the extension period must be covered by non-GEF resources.

483. GRM Sub-Committee: The Project Board will serve as the secretariat for the project-level grievance redress mechanism (GRM). A GRM Sub-Committee will be established and convened on an *ad hoc* basis, to attempt to resolve the grievance, request further information to clarify the issue, refer the grievance to independent mediation or determine the request is outside the scope and mandate of the Project Board and refer it elsewhere (e.g., the judicial system). The GRM Sub-Committee is described in the terms of reference for the GRM that is included in **Annex 10** (*Environmental and social management framework*).

484. Technical Advisory Group: A Technical Advisory Group will provide advisory support to the Project Board through delivering technical inputs to the project on an ad hoc basis. The Technical Advisor Committee will be chaired by the National Project Director, with support from the National Project Manager and the Chief Technical Advisor and will include Echelon 3 officials from key line ministries and agencies, academic/research institutions, private sector associations, and civil society.

485. Project Management Unit: Project management services will be delivered by the Project Management Unit, staffed as follows:

- National Project Manager
- Financed Associate
- Project Assistant
- Procurement Clerk

486. National Project Manager: The National Project Manager has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Project Board. The Project Assistant and Finance-Procurement Officer positions will be funded through governmental co-financing Specific duties and responsibilities of the National Project Manager, Finance Associate, Project Assistants and Procurement Clerk positions are outlined in **Annex 7** (*Overview of technical consultancies/subcontracts*).

487. Technical Support: The following full-time positions will provide technical support to the Project Management Unit:

- National Chief Technical Advisor
- Gender-Safeguards Officer
- Private Sector Engagement Specialist

- Policy-Institutional Capacity Development Specialist
- Stakeholder-Partnership Officer
- M&E-Knowledge Management Specialist
- Subnational Coordinator-ILM Specialist
- Farming Systems-Livelihoods-NRM Specialist

488. Execution Support: Per the request from the Implementing Partner / Executing Agency (Coordinating Ministry for Economic Affairs), apart from project assurance, UNDP and FAO will be separately providing limited project execution support services in accordance with respective Agency's rules and regulations, as described in the letter from CMEA to the GEF OFP in Indonesia (**Annex 22a**), the letter from the OFP to the GEF Secretariat (**Annex 22b**), and the signed Letter of Agreement (LOA) between the UNDP and CMEA requesting UNDP support services (**Annex 22c**). For execution support rendered by UNDP and FAO, a strict firewall will be maintained between the delivery of project oversight and execution.

VIII. FINANCIAL PLANNING AND MANAGEMENT

489. The total cost of the project is USD 148,724,224. This is financed through a GEF grant of USD 16,213,762 grant, and USD 132,510,462 of co-financing. UNDP and FAO, as the GEF Implementing Agencies, are responsible for the oversight of the GEF resources. UNDP, as the GEF Implementing Agency, will be responsible for the oversight of portion of the GEF resources (USD 12,154,129) and the cash co-financing transferred to the UNDP bank account only. The responsibilities of UNDP, FAO and national entities in relation to financial planning and management are set out in Error! Reference source not found..

Table 28: Responsibilities for management and administration of GEF funds (UNDP and FAO)

Outcome	Execution support		Execution by national agencies				Total	
	UNDP	FAO	Administered by UNDP		Administered by FAO		UNDP	FAO
	Amount	Amount	Executing agency	Amount	Executing agency	Amount	Amount	Amount
Outcome 1	363,000	640	CMEA	1,896,700	CMEA	5,760	2,259,700	6,400
Outcome 2	70,800	3,200	BAPPENAS	3,163,400	BAPPENAS	28,800	3,234,200	32,000
Outcome 3	115,900	2,560	CMEA	1,793,800	CMEA	23,040	1,909,700	25,600
Outcome 4	62,900	5,440	MoA	769,900	MoA	48,960	832,800	54,400
Outcome 5	114,000	431,488	MoA	283,500	MoA	1,506,624	397,500	1,938,112
Outcome 6	49,400	251,600	CMEA	195,500	MoEF	1,538,856	244,900	1,790,456
Outcome 7	185,000	1,280	CMEA	2,193,835	CMEA	11,520	2,378,835	12,800
M&E	195,000	6,550	CMEA	122,725	-	-	317,725	6,550
PMC	578,769	46,255	CMEA	0	CMEA	147,060	578,769	193,315
Totals	**1,734,76**	**749,013**		**10,419,360**		**3,310,620**	**12,154,129**	**4,059,633**

Note: *For FAO - It should be noted that the identified Operational Partner(s) or OP, results to be implemented by the OP and budgets to be transferred to the OP are non-binding and may change due to FAO internal partnership and agreement procedures which have not yet been concluded at the time of submission.*

490. Confirmed Co-financing: The actual realization of project co-financing will be monitored during the mid-term review and terminal evaluation process and will be reported to the GEF. **For UNDP**: Note that all project activities included in the project results framework under UNDP's responsibilities that will be delivered by co-financing partners (even if the funds do not pass through UNDP accounts) must comply with UNDP social and environmental standards. Co-financing will be used for the following project activities/outputs listed below in **Table 29**.

Table 29: Planned co-financing activities/outputs

Co-financing source	Co-financing type	Co-financing amount USD	Planned Co-financing Activities/Outputs	Risks	Risk Mitigation Measures
Coordinating Ministry for Economic Affairs	Grant, recurrent expenditures	517,241	Recurrent expenditures of the ministry, e.g., staff salaries, logistical support, hosting costs, etc.	Possible changes in officers at the ministry, leads to inconsistent involvement. Lack of	The DG of Agribusiness at CMEA will be the National Project Director and chair of the Project Board. Deputy

Co-financing source	Co-financing type	Co-financing amount USD	Planned Co-financing Activities/Outputs	Risks	Risk Mitigation Measures
			Complementary synergies of CMEA programmes and schemes.	coordination with other project partners.	DG will be the Deputy Project Director. The PMU and full-time positions will be embedded with the Agribusiness team at the ministry.
Ministry of National Development Planning (BAPPENAS)	Grant, recurrent expenditures	3,000,000	Recurrent expenditures of the ministry, e.g., staff salaries, logistical support, hosting costs, etc. Complementary synergies of BAPPENAS programmes and schemes.	Possible changes in officers at the ministry, leads to inconsistent involvement. Ineffective coordination with other programmes and schemes.	BAPPENAS is a key partner on the project and will be responsible to oversee implementation of relevant outputs on the project. BAPPENAS will be represented on the Project Board and Steering Committee, as well as multi-stakeholder dialogues.
Ministry of Agriculture (MoA)	Public investment, investment mobilized	27,590,000	Recurrent expenditures of the ministry, e.g., staff salaries, logistical support, hosting costs, etc. Complementary synergies of MoA programmes and schemes.	Possible changes in officers at the ministry, leads to inconsistent involvement. Ineffective coordination with other programmes and schemes.	MoA is a key partner on the project and will be responsible to oversee implementation of relevant outputs on the project. MoA will be represented on the Project Board and Steering Committee, as well as multi-stakeholder dialogues.
Ministry of Environment & Forestry (MoEF)	Public investment, investment mobilized	14,950,000	Recurrent expenditures of the ministry, e.g., staff salaries, logistical support, hosting costs, etc. Complementary synergies of MoEF programmes and schemes.	Possible changes in officers at the ministry, leads to inconsistent involvement. Ineffective coordination with other programmes and schemes.	MoEF is a key partner on the project and will be responsible to oversee implementation of relevant outputs on the project. MoEF will be represented on the Project Board and Steering Committee, as well as multi-stakeholder dialogues.
BPDPKS (CPO-Fund)	Grant, investment mobilized	50,000,000	Investment mobilised linked to the contributions the agency makes to foster development and sustainability of the palm oil sector.	Possible changes in officers agency, leads to inconsistent involvement. Ineffective coordination with the project.	BPDPKS will be represented on the Project Board, as well as multi-stakeholder platforms. Specific collaboration will be fostered through sustained engagement.
UNDP	Grant, recurrent expenditures	5,000,000	Complementary programmes related to pilot interventions on sustainable palm oil production, land use planning, landscape management, rehabilitation and protection of forests and biodiversity through participatory approaches. Also quality assurance and project execution support.	Inconsistent engagement with the project team, possibly leading to low delivery and other efficiency shortcomings. Lack of coordination with other UNDP projects.	A dedicated programme officer will be responsible to provide quality assurance and strategic guidance. UNDP will be a member of the Project Board and Steering Committee, enabling them to stay closely involved. The UNDP RTA will provide regular strategic guidance.
FAO	Grant, recurrent expenditures	3,222,073	Synergies on projects and programmes, including initiatives on strengthening forest and land monitoring or climate actions, resilient and sustainable food systems, and family farming. It includes quality assurance and project execution support.	Inconsistent engagement with the project team, possibly leading to low delivery and other efficiency shortcomings. Lack of coordination with other FAO projects.	A dedicated programme officer will be responsible to provide quality assurance and strategic guidance. FAO will be a member of the Project Board and Steering Committee, enabling them to stay closely involved. The FAO RTA will provide regular strategic guidance.
	In-kind, recurrent expenditures	131,148			

Co-financing source	Co-financing type	Co-financing amount USD	Planned Co-financing Activities/Outputs	Risks	Risk Mitigation Measures
Unilever	Grant, investment mobilised	6,000,000	Investments mobilised on complementary programmes on jurisdictional approaches and landscape partnerships.	Planned investments do not materialise or are delayed. Ineffective coordination.	Unilever representatives and companies in their supply chain will be invited to participate on multi-stakeholder platforms and FOLUR learning dialogues Collaboration will be fostered through sustained engagement.
Mondelez	Grant, investment mobilised	10,000,000	Investments mobilised on complementary activities associated with the Cocoa Life Programme.	Planned investments do not materialise or are delayed. Ineffective coordination.	Mondelez representatives and companies in their supply chain will be invited to participate on multi-stakeholder platforms and FOLUR learning dialogues Collaboration will be fostered through sustained engagement.
Olam	Grant, investment mobilised	1,100,000	Investments mobilised on complementary programmes on farm diversification and integrated landscape approaches.	Planned investments do not materialise or are delayed. Ineffective coordination.	Olam representatives and companies in their supply chain will be invited to participate on multi-stakeholder platforms and FOLUR learning dialogues Collaboration will be fostered through sustained engagement.
GIZ	Grant, investment mobilised	11,000,000	Investments mobilised on complementary programmes on sustainability and value added in agricultural supply chains.	Ineffective coordination, possible delays in implementation resulting in offset timelines.	GIZ project representatives will be invited to participate on multi-stakeholder platforms and FOLUR learning dialogues.

491. Implementing Partner (IP) request for UNDP and FAO to provide country support services: The Implementing Partner and GEF OFP have requested UNDP to provide support services in the amount of **USD 64,440** for the full duration of the project. The **request letter** (signed by the GEF OFP and the IP) detailing these support services are included in **Annex 22b**. To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services (i.e. not done by same person to avoid conflict of interest).

492. UNDP and FAO will provide limited execution support services in the first year of project implementation for a selected procurement of services. The limited execution support services will include - setting up PMU team by recruiting project staff, hiring international and local consultants, contracting third parties that will deliver 1st year targets, facilitating project inception meeting, procuring IT equipment for the PMU as well as travel and meeting/workshops arrangement in year 1. The contracts for PMU staff and technical positions will be with UNDP and FAO for the first year of implementation and then transition to IP from the 2nd year onwards (Y2-6). The Implementing Partner (EA) will be fully involved in the procurement of above-mentioned services which will be reflected in the signed Annual Work Plan by the National Project Director and UNDP Deputy Resident Representative for UNDP managed fund. The request for every execution service will be accompanied by a letter from the Implementing Partner. Further, the payment to vendor will also be made upon approval/satisfactory confirmation from the Implementing Partner. The Implementing Partner and key partners will start to manage the project budget following UNDP Direct Cash Transfer (DCT) mechanism and comply with the Government of Indonesia's policies and regulations on foreign grant management. Similar mechanism will also be applied for FAO's administered fund with reference to the separate grant agreement that will be signed by FAO and the Implementing Partner, and/or relevant key partners.

493. In order to initiate project implementation after the Project Document is signed, UNDP and FAO will facilitate recruitment of PMU staff, including technical support positions, with full ownership of the EA. The contracts for these positions will be with UNDP and FAO for the first year of implementation and then transition

to CMEA for the remaining duration of project implementation (Y2-6). PMU staff, including the technical support positions, will be under direction supervision of the National Project Director at the CMEA (Executing Agency) from the start. The terms of reference and deliverables for these positions will be based on the requirements of the CMEA, and payment terms upon certification by CMEA. In other words, the CMEA will have full authority over the PMU staff and technical support team. These conditions apply in the first year of implementation as well, when the contracts will be with UNDP and FAO. Moreover, the PMU staff will operate from CMEA's office.

494. In accordance with GEF policy on Minimum Fiduciary Standards, UNDP will ensure that appropriate institutional separation will be in place between staff members engaged to provide execution support services and those staff members fulfilling and implementation (oversight) role. For this purpose, the management of contract of project staff and procurement of specialised services will be exclusively handled by – Human Resources Unit, Procurement Unit, Finance & Resource Management Unit under the overall supervision of Operations Manager. Implementation (Oversight) will be ensured by the Environment Unit, and Quality Assurance and Results Unit under the overall supervision of a Deputy Resident Representative. No staff member involved in execution will perform an oversight role in relation to this project. A second-tier oversight will be ensured through the Regional Bureau (to ensure compliance with UNDP policies and procedures) and through the UNDP Nature, Climate and Energy Unit - to provide technical oversight and ensure compliance with GEF policies.

495. Budget Revision and Tolerance (for the UNDP administered part of the GEF grant): As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the National Project Manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board.

496. Should the following deviations occur, the National Project Manager and UNDP Country Office will seek the approval of the BPPS/GEF team to ensure accurate reporting to the GEF: a) Budget re-allocations among components in the project budget with amounts involving 10% of the total project grant or more; b) Introduction of new budget items that exceed 5% of original GEF allocation.

497. Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).

498. Audit: The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process must be discussed during the Inception workshop. If the Implementing Partner is an UN Agency, the project will be audited according to that Agencies applicable audit policies.

499. Project Closure (for the UNDP administered part of the GEF grant): Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. All costs incurred to close the project must be included in the project closure budget and reported as final project commitments presented to the Project Board during the final project review. The only costs a project may incur following the final project review are those included in the project closure budget.

500. Operational completion (for the UNDP administered part of the GEF grant): The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. **Operational closure must happen with 3 months of posting the TE report to the UNDP ERC**. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.

501. Transfer or disposal of assets: For the UNDP administered part of the GEF grant, in consultation with the Implementing Partner and other parties of the project, UNDP is responsible for deciding on the transfer or other disposal of assets[97]. Transfer or disposal of assets is recommended to be reviewed and endorsed by the

[97] With respect to the Government of Indonesia's reporting procedures for the funds managed by Implementing Agencies to procure good

project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file. The transfer should be done before Project Management Unit complete their assignments.

502. In the case of FAO, the transfer of assets will be stated in the *Berita Acara Serah Terima* (BAST) (Minutes of Handover) document that will be signed by FAO Representative and the National/Sub-national Government

503. Financial completion (closure) (for the UNDP administered part of the GEF grant): The project will be financially closed when the following conditions have been met: a) the project is operationally completed or has been cancelled; b) the Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

504. The project will be financially completed **within 6 months of operational closure or after the date of cancellation**. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the BPPS/GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

505. Refund to GEF (for the UNDP administered part of the GEF grant): Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the BPPS/GEF Directorate in New York. No action is required by the UNDP Country Office on the actual refund from UNDP project to the GEF Trustee.

For the FAO-administered part of the GEF grant:

506. **Financial management.** Financial management in relation to the GEF resources directly managed by FAO will be carried out in accordance with FAO's rules and procedures as outlined below, and in close coordination with UNDP as lead Implementing Agency.

507. **Financial Records.** FAO shall maintain a separate account in United States dollars for the project's GEF resources showing all income and expenditures. FAO shall administer the project in accordance with its regulations, rules and directives.

508. **Financial Reports.** The BH shall prepare quarterly project expenditure accounts and final accounts for the project, showing amount budgeted for the year, amount expended since the beginning of the year, and separately, the un-liquidated obligations as follows: i) Details of project expenditures on outcome-by-outcome basis, reported in line with Project Budget as at 30 June and 31 December each year; ii) Final accounts on completion of the Project on a component-by-component and outcome-by-outcome basis, reported in line with the Project Budget; iii) A final statement of account in line with FAO Oracle Project budget codes, reflecting actual final expenditures under the Project, when all obligations have been liquidated.

509. Financial reports for submission to the donor (GEF) will be prepared in accordance with the provisions in the GEF Financial Procedures Agreement and submitted by the FAO Finance Division.

510. **Responsibility for Cost Overruns.** As regards resources directly managed by FAO, the BH shall utilize the GEF project funds in strict compliance with the Project Budget and the approved AWP/Bs, developed in close coordination with UNDP as lead IA. The BH can make variations (in coordination with UNDP) provided that the total allocated for each budgeted project component is not exceeded and the reallocation of funds does not impact the achievement of any project output as per the project Results Framework. At least once a year, the BH will submit a budget revision for approval of the LTO and the FAO/GEF Coordination Unit through FPMIS. Cost overruns shall be the sole responsibility of the BH.

and services – in the case of UNDP, it will prepare the Minutes of handover (Berita Acara Serah Terima – BAST) of goods and services with a joint signature of UNDP and the Implementing Partner's Authorized Budget Owner (Kuasa Pengguna Anggaran - KPA). This will be submitted by the Implementing Partner to the State Treasury Service Office (Kantor Pelayanan Pembendaharaan Negara – KPPN) under the Directorate General of Treasury (Direktorat Jenderal Perbendaharaan) of the Ministry of Finance.

511. Under no circumstances can expenditures exceed the approved total project budget or be approved beyond the NTE date of the project. Any over-expenditure is the responsibility of the BH.

512. Audit. The project shall be subject to the internal and external auditing procedures provided for in FAO financial regulations, rules and directives and in keeping with the Financial Procedures Agreement between the GEF Trustee and FAO.

513. **The audit regime at FAO** consists of an external audit provided by the Auditor-General (or persons exercising an equivalent function) of a member nation appointed by the Governing Bodies of the Organization and reporting directly to them, and an internal audit function headed by the FAO Inspector-General who reports directly to the Director-General. This function operates as an integral part of the Organization under policies established by senior management, and furthermore has a reporting line to the governing bodies. Both functions are required under the Basic Texts of FAO which establish a framework for the terms of reference of each. Internal audits of imprest accounts, records, bank reconciliation and asset verification take place at FAO field and liaison offices on a cyclical basis. During implementation, assurance activities are organized by FAO to determine whether the progress has been made and whether funds were used for their intended purpose, in accordance with the work plan and relevant rules and regulations. This may include, but is not limited to, monitoring missions, spot checks, quarterly progress and annual implementation reviews, and audits on the resources received from FAO.

514. **Procurement**. Careful procurement planning is necessary for securing goods, services and works in a timely manner, on a "Best Value for Money" basis. It requires analysis of needs and constraints, including forecast of the reasonable timeframe required to execute the procurement process.

515. Procurement and delivery of inputs by FAO in technical cooperation projects will follow FAO's rules and regulations for the procurement of supplies, equipment and services (i.e. Manual Sections 502 and 507). Manual Section 502: "Procurement of Goods, Works and Services" establishes the principles and procedures that apply to procurement of all goods, works and services on behalf of the Organization, in all offices and in all locations, with the exception of the procurement actions described in Procurement Not Governed by Manual Section 502. Manual Section 507 establishes the principles and rules that govern the use of Letters of Agreement (LoA) by FAO for the timely acquisition of services from eligible entities in a transparent and impartial manner, taking into consideration economy and efficiency to achieve an optimum combination of expected whole life costs and benefits. As per the guidance in FAO's Project Cycle Guide, the BH will draw up an annual procurement plan for major items, which will be the basis of requests for procurement actions during implementation. The first procurement plan will be prepared at the time of project start-up, if not sooner, in close consultation with the NPC and LTO. The plan will include a description of the goods, works, or services to be procured, estimated budget and source of funding, schedule of procurement activities and proposed method of procurement. In situations where exact information is not yet available, the procurement plan should at least contain reasonable projections that will be corrected as information becomes available.

516. The procurement plan shall be updated every quarter, in coordination with UNDP, and submitted to FAO BH and LTO for clearance.

IX. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Atlas Award ID (for UNDP managed fund):	000 00127927	Atlas Output Project ID (for UNDP managed fund: 00121876	00121876
Atlas Proposal or Award Title:	PIMS 6393 FOLUR Indonesia FSP		
Atlas Business Unit	IDN10		
Atlas Primary Output Project Title	Strengthening sustainability in commodity and food systems, land restoration and land use governance through integrated landscape management for multiple benefits in Indonesia		
UNDP-GEF PIMS No.	6393		
Implementing Partner	Coordinating Ministry for Economic Affairs		

TBWP for total GEF grant from both UNDP managed and FAO managed fund – Components 1, 2, 3, 4 and PMC:

GEF Output/Atlas Activity	Responsible Party / (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Total (USD)	See Budget Note:
Component 1: Enabling environment for sustainable value chains and integrated landscape management	**CMEA, UNDP, FAO**	**62000**	**GEF**	71200	International Consultants	34,500	105,000	111,000	111,000	87,000	16,500	**465,000**	1
				71300	Local Consultants	132,010	226,920	228,230	290,810	291,020	130,810	**1,299,800**	2
				71400	Contractual Services - Individuals	21,000	44,000	44,000	44,000	44,000	23,000	**220,000**	3
				71600	Travel	64,400	104,000	93,200	90,700	84,100	69,100	**505,500**	4
				72100	Contractual Services - Companies	321,600	602,000	416,600	616,600	176,600	76,600	**2,210,000**	5
				75700	Training, workshops and Confer	94,600	185,720	197,920	187,920	117,920	47,920	**832,000**	6
					sub-total GEF Component 1	**668,110**	**1,267,640**	**1,090,950**	**1,341,030**	**800,640**	**363,930**	**5,532,300**	
					Total Component 1	**668,110**	**1,267,640**	**1,090,950**	**1,341,030**	**800,640**	**363,930**	**5,532,300**	
Component 2: Promotion of sustainable crop production practices and responsible value chains	**CMEA, UNDP, FAO**	**62000**	**GEF**	71200	International Consultants	18,000	136,500	160,500	115,500	67,500	27,000	**525,000**	7
				71300	Local Consultants	94,330	231,525	224,645	215,545	200,145	136,310	**1,102,500**	8
				71400	Contractual Services - Individuals	27,000	54,000	54,000	54,000	54,000	27,000	**270,000**	9
				71600	Travel	5,112	23,900	31,100	42,000	51,000	16,800	**169,912**	10
				72100	Contractual Services - Companies	33,000	405,640	440,640	355,140	244,140	217,140	**1,695,700**	11
				72600	Grants	0	159,000	346,500	346,500	159,000	159,000	**1,170,000**	12
				72800	Information Technology Equipmt	0	22,000	0	0	0	0	**22,000**	13
				75700	Training, workshops and Confer	0	25,300	52,900	52,800	57,600	14,400	**203,000**	14
					sub-total GEF Component 2	**177,442**	**1,057,865**	**1,310,285**	**1,181,485**	**833,385**	**597,650**	**5,158,112**	
					Total Component 2	**177,442**	**1,057,865**	**1,310,285**	**1,181,485**	**833,385**	**597,650**	**5,158,112**	
Component 3: Conservation and restoration-rehabilitation of natural habitats	**CMEA, UNDP, FAO**	**62000**	**GEF**	71300	Local Consultants	7,800	15,300	50,660	59,060	43,580	13,500	**189,900**	15
				71400	Contractual Services - Individuals	12,000	24,000	24,000	24,000	24,000	12,000	**120,000**	16
				71600	Travel	0	0	11,600	16,100	12,100	1,200	**41,000**	17
				72100	Contractual Services - Companies	0	0	599,456	345,000	292,500	112,500	**1,349,456**	18
				72600	Grants	0	0	62,500	62,500	62,500	62,500	**250,000**	19
				72800	Information Technology Equipmt	0	50,000	0	0	0	0	**50,000**	20

GEF Output/Atlas Activity	Responsible Party / (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Total (USD)	See Budget Note:
				75700	Training, workshops and Confer	0	0	10,000	15,000	10,000	0	**35,000**	21
					sub-total GEF Component 3	**19,800**	**89,300**	**758,216**	**521,660**	**444,680**	**201,700**	**2,035,356**	
					Total Component 3	**19,800**	**89,300**	**758,216**	**521,660**	**444,680**	**201,700**	**2,035,356**	
Component 4: Knowledge Management, Coordination, Collaboration, and Monitoring and Evaluation	**CMEA, UNDP, FAO**	**62000**	**GEF**	71200	International Consultants	48,000	63,000	93,000	45,000	45,000	63,000	**357,000**	22
				71300	Local Consultants	73,370	118,830	148,780	110,780	110,780	125,310	**687,850**	23
				71400	Contractual Services - Individuals	5,000	10,000	10,000	10,000	10,000	5,000	**50,000**	24
				71600	Travel	48,900	94,835	111,335	93,935	63,335	139,660	**552,000**	25
				72100	Contractual Services - Companies	104,250	78,150	63,150	33,150	33,150	39,700	**351,550**	26
				72800	Information Technology Equipmt	31,510	0	0	0	0	0	**31,510**	27
				74200	Audio Visual&Print Prod Costs	23,400	30,520	30,520	28,520	26,520	26,520	**166,000**	28
				75700	Training, workshops and Confer	50,500	125,100	52,100	120,100	52,100	120,100	**520,000**	29
					sub-total GEF Component 4	**384,930**	**520,435**	**508,885**	**441,485**	**340,885**	**519,290**	**2,715,910**	
					Total Component 4	**384,930**	**520,435**	**508,885**	**441,485**	**340,885**	**519,290**	**2,715,910**	
Project Management	**CMEA, UNDP, FAO**	**62000**	**GEF**	71400	Contractual Services - Individuals	59,328	118,656	118,656	118,656	118,656	59,328	**593,280**	30
				71600	Travel	1,500	3,000	3,000	3,000	3,000	1,500	**15,000**	31
				72100	Contractual Services - companies	0	4,950	4,950	4,950	4,950	4,950	**24,750**	32
				72400	Communic & Audio Visual Equip	750	850	850	850	850	850	**5,000**	33
				72800	Information Technology Equipmt	21,614	0	0	0	0	0	**21,614**	34
				74100	Professional Services	8,000	8,000	8,000	8,000	8,000	8,000	**48,000**	35
				74596	Services to projects -GOE	24,033	8,760	9,555	6,725	5,992	9,375	**64,440**	36
					sub-total GEF PMC	**115,225**	**144,216**	**145,011**	**142,181**	**141,448**	**84,003**	**772,084**	
					Total Project Management	**115,225**	**144,216**	**145,011**	**142,181**	**141,448**	**84,003**	**772,084**	
PROJECT TOTAL						**1,365,507**	**3,079,456**	**3,813,347**	**3,627,841**	**2,561,038**	**1,766,573**	**16,213,762**	

Summary of Funds (Total):

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	Amount Year 6	Total
GEF	$1,365,507	$3,079,456	$3,813,347	$3,627,841	$2,561,038	$1,766,573	**$16,213,762**
Coordinating Ministry for Economic Affairs (CMEA)	$67,241	$90,000	$90,000	$90,000	$90,000	$90,000	**$517,241**
Ministry of National Development Planning (BAPPENAS)	$300,000	$540,000	$540,000	$540,000	$540,000	$540,000	**$3,000,000**
Ministry of Agriculture (MoA)	$3,590,000	$4,800,000	$4,800,000	$4,800,000	$4,800,000	$4,800,000	**$27,590,000**
Ministry of Environment and Forestry (MoEF)	$1,750,000	$2,640,000	$2,640,000	$2,640,000	$2,640,000	$2,640,000	**$14,950,000**
Indonesia's Palm Oil Fund Management Agency	$7,500,000	$8,500,000	$8,500,000	$8,500,000	$8,500,000	$8,500,000	**$50,000,000**
UNDP	$500,000	$900,000	$900,000	$900,000	$900,000	$900,000	**$5,000,000**
FAO	$653,221	$540,000	$540,000	$540,000	$540,000	$540,000	**$3,353,221**
Unilever	$600,000	$1,080,000	$1,080,000	$1,080,000	$1,080,000	$1,080,000	**$6,000,000**
Mondelez	$1,000,000	$1,800,000	$1,800,000	$1,800,000	$1,800,000	$1,800,000	**$10,000,000**
Olam	$110,000	$198,000	$198,000	$198,000	$198,000	$198,000	**$1,100,000**
GIZ	$1,400,000	$1,920,000	$1,920,000	$1,920,000	$1,920,000	$1,920,000	**$11,000,000**
Total:	**$18,851,295**	**$26,087,827**	**$26,576,262**	**$26,786,212**	**$25,644,409**	**$24,778,219**	**$148,724,224**

TBWP for UNDP managed fund – Components 1, 2, 3, 4 and PMC:

GEF Output/Atlas Activity	Responsible Party / (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Total (USD)	See Budget Note:
Component 1: Enabling environment for sustainable value chains and integrated landscape management	**CMEA, UNDP (Year 1)**	**62000**	**GEF**	71200	International Consultants	34,500	105,000	111,000	111,000	87,000	16,500	**465,000**	1
				71300	Local Consultants	128,170	219,240	220,550	283,130	283,340	126,970	**1,261,400**	2
				71400	Contractual Services - Individuals	21,000	44,000	44,000	44,000	44,000	23,000	**220,000**	3
				71600	Travel	64,400	104,000	93,200	90,700	84,100	69,100	**505,500**	4
				72100	Contractual Services - Companies	321,600	602,000	416,600	616,600	176,600	76,600	**2,210,000**	5
				75700	Training, workshops and Confer	94,600	185,720	197,920	187,920	117,920	47,920	**832,000**	6
					sub-total GEF Component 1	**664,270**	**1,259,960**	**1,083,270**	**1,333,350**	**792,960**	**360,090**	**5,493,900**	
					Total Component 1	**664,270**	**1,259,960**	**1,083,270**	**1,333,350**	**792,960**	**360,090**	**5,493,900**	
Component 2: Promotion of sustainable crop production practices and responsible value chains	**CMEA UNDP (Year 1)**	**62000**	**GEF**	71200	International Consultants	18,000	67,500	67,500	67,500	67,500	27,000	**315,000**	7
				71300	Local Consultants	74,330	185,925	174,845	169,245	165,745	121,910	**892,000**	8
				71400	Contractual Services - Individuals	27,000	54,000	54,000	54,000	54,000	27,000	**270,000**	9
				71600	Travel	3,200	17,300	24,500	26,600	31,200	10,200	**113,000**	10
				72100	Contractual Services - Companies	8,000	101,500	161,500	176,000	65,000	38,000	**550,000**	11
				72600	Grants	0	159,000	159,000	159,000	159,000	159,000	**795,000**	12
				72800	Information Technology Equipmt	0	22,000	0	0	0	0	**22,000**	13
				75700	Training, workshops and Confer	0	19,800	47,400	49,800	54,600	11,400	**183,000**	14
					sub-total GEF Component 2	**130,530**	**627,025**	**688,745**	**702,145**	**597,045**	**394,510**	**3,140,000**	
					Total Component 2	**130,530**	**627,025**	**688,745**	**702,145**	**597,045**	**394,510**	**3,140,000**	

GEF Output/Atlas Activity	Responsible Party / (Atlas Implementing Agent)	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Amount Year 6 (USD)	Total (USD)	See Budget Note:
Component 3: Conservation and restoration-rehabilitation of natural habitats	**CMEA UNDP (Year 1)**	**62000**	**GEF**	71300	Local Consultants	6,200	12,100	36,260	36,260	26,380	7,700	**124,900**	15
				71400	Contractual Services - Individuals	12,000	24,000	24,000	24,000	24,000	12,000	**120,000**	16
				71600	Travel	0	0	0	0	0	0	**0**	17
				72100	Contractual Services - Companies	0	0	0	0	0	0	**0**	18
				72600	Grants	0	0	0	0	0	0	**0**	19
				72800	Information Technology Equipmt	0	0	0	0	0	0	**0**	20
				75700	Training, workshops and Confer	0	0	0	0	0	0	**0**	21
					sub-total GEF Component 3	**18,200**	**36,100**	**60,260**	**60,260**	**50,380**	**19,700**	**244,900**	
					Total Component 3	**18,200**	**36,100**	**60,260**	**60,260**	**50,380**	**19,700**	**244,900**	
Component 4: Knowledge Management, Coordination, Collaboration, and Monitoring and Evaluation	**CMEA UNDP (Year 1)**	**62000**	**GEF**	71200	International Consultants	48,000	63,000	93,000	45,000	45,000	63,000	**357,000**	22
				71300	Local Consultants	72,090	116,270	146,220	108,220	108,220	124,030	**675,050**	23
				71400	Contractual Services - Individuals	5,000	10,000	10,000	10,000	10,000	5,000	**50,000**	24
				71600	Travel	48,900	94,385	111,335	93,935	63,335	139,660	**552,000**	25
				72100	Contractual Services - Companies	104,250	78,150	63,150	33,150	33,150	33,150	**345,000**	26
				72800	Information Technology Equipmt	31,510	0	0	0	0	0	**31,510**	27
				74200	Audio Visual&Print Prod Costs	23,400	30,520	30,520	28,520	26,520	26,520	**166,000**	28
				75700	Training, workshops and Confer	50,500	125,100	52,100	120,100	52,100	120,100	**520,000**	29
					sub-total GEF Component 4	**383,650**	**517,875**	**506,325**	**438,925**	**338,325**	**511,460**	**2,696,560**	
					Total Component 4	**383,650**	**517,875**	**506,325**	**438,925**	**338,325**	**511,460**	**2,696,560**	
Project Management	**CMEA UNDP (Year 1)**	**62000**	**GEF**	71400	Contractual Services - Individuals	43,488	86,976	86,976	86,976	86,976	43,488	**434,880**	30
				71600	Travel	1,000	2,000	2,000	2,000	2,000	1,000	**10,000**	31
				72100	Contractual Services - Companies	0	0	0	0	0	0	**0**	32
				72400	Communic & Audio Visual Equip	750	850	850	850	850	850	**5,000**	33
				72800	Information Technology Equipmt	16,449	0	0	0	0	0	**16,449**	34
				74100	Professional Services	8,000	8,000	8,000	8,000	8,000	8,000	**48,000**	35
				74596	Services to projects -GOE	24,033	8,760	9,555	6,725	5,992	9,375	**64,440**	36
					sub-total GEF PMC	**93,720**	**106,586**	**107,381**	**104,551**	**103,818**	**62,713**	**578,769**	
					Total Project Management	**93,720**	**106,586**	**107,381**	**104,551**	**103,818**	**62,713**	**578,769**	
PROJECT TOTAL						**1,290,370**	**2,547,546**	**2,445,981**	**2,639,231**	**1,882,528**	**1,348,473**	**12,154,129**	

Budget Notes:

Budget note number	Comments
Component 1:	
1	**71200. International consultants.** **Total: USD 465,000** **UNDP:** **Output 1.1**: Policy Consultant for advisory support (20 weeks at USD 3,000 per week; total: USD 60,000). **Output 1.2:** Multi-stakeholder Collaboration Consultant, for advisory support (30 weeks at USD 3,000 per week; total: USD 90,000); Facilitation Consultant (25 weeks at USD 3,000 per week; total: USD 75,000). **Output 1.3:** Policy Consultant for advisory support (20 weeks at USD 3,000 per week; total USD 60,000); Facilitation Consultant for advisory support (10 weeks at USD 3,000 per week; total: USD 30,000). Private Sector Engagement Consultant, supporting sustainable action plans (10 weeks at USD 3,000 per week; USD 30,000). **Output 2.1**: Multi-stakeholder Collaboration Consultant, for advisory support (20 weeks at USD 3,000 per week; total: USD 60,000). **Output 2.4**: Resource economist advisory support on trade-off scenarios (20 weeks at USD 3,000 per week; total: USD 60,000). **FAO:** None
2	**71300. Local consultants.** **Total: USD 1,299,800** **UNDP:** **Output 1.1**: Chief Technical Advisor (2 months at USD 4,200 per month; total: USD 8,400); Policy-Institutional Capacity Development Specialist (12 months at USD 3,200 per month; total: USD 38,400); Stakeholder-Partnership Officer (12 months at USD 3,200 per month; total: USD 38,400); Policy Consultant (90 weeks at USD 1,750 per week; total: USD 157,500); NRM Consultant (40 weeks at USD 1,750 per week; total: USD 70,000); Government Liaison Consultant (20 weeks at USD 1,750 per week; total: USD 35,000); Interpretation-Translation Consultant (10 weeks at USD 1,750 per week; total: USD 17,500). **Output 1.2:** Chief Technical Advisor (1 month at USD 4,200 per month; total: USD 4,200); Private Sector Engagement Specialist (5 months at USD 3,200 per month; total: USD 15,000); Gender-Safeguards Officer (1 month at USD 2,500 per month; total: USD 2,500); Policy-Institutional Capacity Development Specialist (8 months at USD 3,200 per month; total: USD 25,600); Stakeholder-Partnership Officer (8 months at USD 3,200 per month; total: USD 25,600); M&E-Knowledge Management Specialist (2 months at USD 2,500 per month; total: USD 5,000); Interpretation-Translation Consultant (12 weeks at USD 1,750 per week; total: USD 21,000). **Output 1.3**: Chief Technical Advisor (1 month at USD 4,200 per month; total: USD 4,200); Private Sector Engagement Specialist (5 months at USD 3,200 per month; total: USD 15,000); Policy-Institutional Capacity Development Specialist (8 months at USD 3,200 per month; total: USD 25,600); Stakeholder-Partnership Officer (8 months at USD 3,200 per month; total: USD 25,600); M&E-Knowledge Management Specialist (2 months at USD 2,500 per month; total: USD 5,000); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 1.4**: Chief Technical Advisor (1 month at USD 4,200 per month; total: USD 4,200); Gender-Safeguards Officer (1 month at USD 2,500 per month; total: USD 2,500); Policy-Institutional Capacity Development Specialist (4 months at USD 3,200 per month; total: USD 12,800); Stakeholder-Partnership Officer (4 months at USD 3,200 per month; total: USD 12,800). **Output 2.1:** Private Sector Engagement Specialist (3 months at USD 3,200 per month; total: USD 9,600); Policy-Institutional Capacity Development Specialist (4 months at USD 3,200 per month; total: USD 12,800); Stakeholder-Partnership Officer (4 months at USD 3,200 per month; total: USD 12,800); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400); Facilitation Consultants (85 weeks at USD 1,750 per week; total: USD 148,750); Interpretation-Translation Consultant (12 weeks at USD 1,750 per week; total: USD 21,000). **Output 2.2:** Chief Technical Advisor (2.5 months at USD 4,200 per month; total: USD 10,500); Policy-Institutional Capacity Development Specialist (2 months at USD 3,200 per month; total: USD 6,400); Stakeholder-Partnership Officer (2 months at USD 3,200 per month; total: USD 6,400); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 2.3:** Chief Technical Advisor (3 months at USD 4,200 per month; total: USD 12,600); Policy-Institutional Capacity Development Specialist (4 months at USD 3,200 per month; total: USD 12,800); Stakeholder-Partnership Officer (4 months at USD 3,200 per month; total: USD 12,800); M&E-Knowledge Management Specialist (2 months at USD 2,500 per month; total: USD 5,000); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400); NRM Consultant (20 weeks at USD 1,750 per week; total: USD 35,000); Government Liaison Consultant (10 weeks at USD 1,750 per week; total: USD 17,500).

Budget note number	Comments
	Output 2.4: Chief Technical Advisor (3 months at USD 4,200 per month; total: USD 12,600); Policy-Institutional Capacity Development Specialist (2 months at USD 3,200 per month; total: USD 6,400); Stakeholder-Partnership Officer (2 months at USD 3,200 per month; total: USD 6,400); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400); NRM Consultant (40 weeks at USD 1,750 per week; total: USD 70,000); Government Liaison Consultant (20 weeks at USD 1,750 per week; total: USD 35,000). **Output 2.5:** Chief Technical Advisor (2.5 months at USD 4,200 per month; total: USD 10,500); Policy-Institutional Capacity Development Specialist (4 months at USD 3,200 per month; total: USD 12,800); Stakeholder-Partnership Officer (4 months at USD 3,200 per month; total: USD 12,800); M&E-Knowledge Management Specialist (2 month at USD 2,500 per month; total: USD 5,000); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400; NRM Consultant (55 weeks at USD 1,750 per week; total: USD 96,250); Government Liaison Consultant (30 weeks at USD 1,750 per week; total: USD 52,500). **FAO:** **Output 1.3**: Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 2.1:** Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 2.2:** Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 2.3:** Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 2.4:** Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 2.5:** Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400).
3	**71400. Contractual services – Individuals.** **Total: USD 220,000** **UNDP:** **Output 1.1:** Provincial Coordinator (5 provinces, 2 months each province at USD 1,000 per month per position; total: USD 10,000); District Coordinator (5 districts, 2 months each province at USD 1,000 per month per position; total: USD 10,000). **Output 1.2:** Provincial Coordinator (5 provinces, 1 month each province at USD 1,000 per month per position; total: USD 5,000); District Coordinator (5 districts, 1 month each province at USD 1,000 per month per position; total: USD 5,000). **Output 1.3**: Provincial Coordinator (5 provinces, 1 month each province at USD 1,000 per month per position; total: USD 5,000); District Coordinator (5 districts, 1 month each province at USD 1,000 per month per position; total: USD 5,000). **Output 1.4:** Provincial Coordinator (5 provinces, 1 month each province at USD 1,000 per month per position; total: USD 5,000); District Coordinator (5 districts, 1 month each province at USD 1,000 per month per position; total: USD 5,000). **Output 2.1**: Provincial Coordinator (5 provinces, 5 months each province at USD 1,000 per month per position; total: USD 25,000); District Coordinator (5 districts, 5 months each province at USD 1,000 per month per position; total: USD 25,000). **Output 2.2:** Provincial Coordinator (5 provinces, 3 months each province at USD 1,000 per month per position; total: USD 15,000); District Coordinator (5 districts, 3 months each province at USD 1,000 per month per position; total: USD 15,000). **Output 2.3:** Provincial Coordinator (5 provinces, 4 months each province at USD 1,000 per month per position; total: USD 20,000); District Coordinator (5 districts, 4 months each province at USD 1,000 per month per position; total: USD 20,000). **Output 2.4**: Provincial Coordinator (5 provinces, 2 months each province at USD 1,000 per month per position; total: USD 10,000); District Coordinator (5 districts, 2 months each province at USD 1,000 per month per position; total: USD 10,000). **Output 2.5:** Provincial Coordinator (5 provinces, 3 months each province at USD 1,000 per month per position; total: USD 15,000); District Coordinator (5 districts, 3 months each province at USD 1,000 per month per position; total: USD 15,000). **FAO:** None
4	**71600. Travel.** **Total: USD 505,500** **UNDP:**

Budget note number	Comments
	Output 1.1: Travel and DSA expenses for policy task force meetings at national and sub-national levels (USD 10,000); miscellaneous travel and DSA expenses for local and international consultants (USD 15,000). **Output 1.2:** Travel and DSA expenses for systems leadership including training in Year 1 (10 people x USD 2,000 per person; total: USD 20,000), training of trainers (10 people at USD 1,500 per person; total: USD 15,000), landscape level workshops (50 people x USD 2,000 per person; total: USD 100,000), hosting trainers workshop (USD 15,000); travel and DSA expenses for annual FOLUR learning spaces (150 people; total: USD 112,500). **Output 1.3:** Travel and DSA expenses for sustainable action plan dialogues (75 person-trips; total: USD 80,000). **Output 1.4:** Travel and DSA expenses for delivering training to sub-national stakeholders on policy decision support tools (25 person-trips; total: USD 25,000). **Output 2.1:** Travel and DSA expenses for collaborative dialogue workshops (USD 20,000); miscellaneous travel and DSA for local and international consultants (USD 20,000). **Output 2.2**: Travel and DSA expenses for team missions (15 missions; total: USD 9,000); travel and DSA for public consultations and workshops (USD 10,000). **Output 2.3:** Travel and DSA expenses for team members joining public consultations and workshops (USD 9,000); travel and DSA expenses for stakeholders participating in consultations and workshops (USD 20,000). **Output 2.5**: Travel and DSA expenses for public consultations regarding district zoning maps and incorporating ILM considerations (25 person-trips at USD 1,000 per trip; total: USD 25,000). **FAO:** None
5	**72100. Contractual services – Companies.** **Total: USD 2,210,000** **UNDP:** **Output 1.2**: Systems leadership expert organisation: deliver training (USD 75,000), support training-of-trainers (USD 50,000), support landscape level trainings (10 x USD 10,000; total: USD 100,000), provide coaching/learning (USD 75,000); Service provider for developing FPIC process (USD 40,000); Service provider for developing strategy and business model for embedding palm oil platform (USD 10,000). **Output 1.3:** Service provider for analysis and development of sustainable action plan for coffee (USD 70,000), cocoa (USD 70,000), and rice (USD 70,000). **Output 1.4:** Service provider for a needs-assessment, development of policy support decision tools (USD 50,000). **Output 2.2**: Service providers for gathering data, desktop studies, field verification, and development of maps (USD 130,000 per jurisdiction for 5 jurisdictions; total: USD 650,000). **Output 2.3:** Service providers for carrying out TSAs, facilitating consultations, developing ILM plans (USD 110,000 per jurisdiction for 5 jurisdictions; total: USD 550,000). **Output 2.4:** Service providers for carrying out suitability and climate analyses and developing zoning frameworks (USD 50,000 per jurisdiction for 5 jurisdictions; total: USD 250,000). **Output 2.5:** Service providers for developing zoning maps for target districts, facilitating consultations (USD 30,000 per jurisdictions for 5 jurisdictions; total: USD 150,000). **FAO:** None
6	**75700. Training, workshop, conference.** **Total: USD 832,000** **UNDP:** **Output 1.1:** Policy task force meetings (12 meetings at national level and 12 meetings in each of the 5 jurisdictions (total: USD 42,000). **Output 1.2:** Systems leadership venues for trainings (3 x USD 2,000; total: USD 6,000); systems leadership hosting one of the regional trainings (USD 5,000); systems leadership venue for training-of-trainers workshop (2 x USD 2,000; total: USD 4,000); systems leadership venue for landscape level workshops (50 x USD 1,500; total 75,000); systems leadership venue for trainers (1 x USD 25,000); annual FOLUR learning space (6 meetings; total: USD 45,000). **Output 1.3:** Stakeholder dialogues for sustainable action plans (12,500 for national dialogues, and 5 x USD 7,500 for jurisdictional dialogues; total: USD 50,000). **Output 1.4:** Trainings for BAPPENAS, CMEA and other ministries/agencies (USD 10,000); trainings for sub-national stakeholders (USD 20,000). **Output 2.1:** Strengthen/establish multi-stakeholder provincial palm oil platforms (3 X USD 50,000; total: USD 150,000); convene multi-stakeholder collaborative dialogue workshops (USD 50,000 per jurisdictions for 5 jurisdictions; total: USD 250,000). **Output 2.2:** Public consultations and stakeholder consultations (USD 10,000 per jurisdiction for 5 jurisdictions; total: USD 50,000). **Output 2.3:** Public consultations and stakeholder consultations (USD 10,000 per jurisdiction for 5 jurisdictions; total: USD 50,000). **Output 2.5:** Public consultations and stakeholder consultations (USD 10,000 per jurisdiction for 5 jurisdictions; total: USD 50,000).

Budget note number	Comments
	FAO: None
Component 2:	
7	**71200. International consultants.** **Total: USD 525,000** **UNDP:** **Output 3.1**: Resource Economist-Finance Expert providing advisory support on smallholder finance mechanisms (20 weeks at USD 3,000 per week; total: USD 60,000); Private Sector Engagement Consultant, providing advisory support for liaising with upstream and downstream private sector partners (15 weeks at USD 3,000 per week; total: USD 45,000). **Output 3.2**: Private Sector Engagement Consultant, providing advisory support for liaising with upstream and downstream private sector partners (30 weeks at USD 3,000 per week; total: USD 90,000). **Output 3.3**: Private Sector Engagement Consultant, providing advisory support for Open Innovation Challenge and raising financing from private sector partners (15 weeks at USD 3,000 per week; total: USD 45,000). **Output 4.1**: Resource Economist-Finance Expert, on advisory support on integrated farmer support and traceability systems (10 weeks at USD 3,000 per week; total: USD 30,000); Private Sector Engagement Consultant, providing advisory support for Open Innovation Challenge and raising financing from private sector partners (15 weeks at USD 3,000 per week; total: USD 45,000). **FAO:** **Output 5.1**: Commodities-Agricultural Consultant, providing advisory support on sustainable agriculture (30 weeks at USD 3,000 per week; total: USD 90,000). **Output 5.2**: Commodities-Agricultural Consultant, providing advisory support on extension services and good agricultural practices (20 weeks at USD 3,000 per week; total: USD 60,000). **Output 5.3**: Commodities-Agricultural Consultant, providing advisory support on smallholder capacity development (20 weeks at USD 3,000 per week; total: USD 60,000).
8	**71300. Local consultants.** **Total: USD 1,102,500** **UNDP:** **Output 3.1**: Chief Technical Advisor (4 months at USD 4,200 per month; total: USD 16,800); Private Sector Engagement Specialist (6 months at USD 3,200 per month; total: USD 19,200); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (4 months at USD 3,200 per month; total: USD 12,800); Resource Economist Consultant (60 weeks at USD 1,750 per week; total: USD 105,000); Government Liaison Consultant (12 weeks at USD 1,750 per week; total: USD 21,000); Interpretation-Translation Consultant (2 weeks at USD 1,750 per week; total: USD 3,500). **Output 3.2**: Chief Technical Advisor (1 month at USD 4,200 per month; total: USD 4,200); Private Sector Engagement Specialist (11 months at USD 3,200 per month; total: USD 35,200); Gender-Safeguards Officer (1 month at USD 2,500 per month; total: USD 2,500); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400); Business Development Consultant (70 weeks at USD 1,750 per week; total: USD 122,500); Interpretation-Translation Consultant (8 weeks at USD 1,750 per week; total: USD 14,000). **Output 3.3**: Chief Technical Advisor (1 month at USD 4,200 per month; total: USD 4,200); Private Sector Engagement Specialist (9 months at USD 3,200 per month; total: USD 28,800); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400); Business Development Consultant (24 weeks at USD 1,750 per week; total: USD 42,000); Interpretation-Translation Consultant (2 weeks at USD 1,750 per week; total: USD 3,500). **Output 4.1**: Chief Technical Advisor (6.5 months at USD 4,200 per month; total: USD 27,300); Private Sector Engagement Specialist (5.5 months at USD 3,200 per month; total: USD 17,600); M&E-Knowledge Management Specialist (2 month at USD 2,500 per month; total: USD 5,000); Subnational Coordinator-ILM Specialist (12 months at USD 3,200 per month; total: USD 38,400); Government Liaison Consultant (16 weeks at USD 1,750 per week; total: USD 28,000); Interpretation-Translation Consultant (4 weeks at USD 1,750 per week; total: USD 7,000). **Output 4.2**: Chief Technical Advisor (2.5 months at USD 4,200 per month; total: USD 10,500); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (5 months at USD 3,200 per month; total: USD 16,000); Commodities Consultant (10 weeks at USD 1,750 per week; total: USD 17,500). **Output 5.1**: Chief Technical Advisor (6 months at USD 4,200 per month; total: USD 25,200); Private Sector Engagement Specialist (3 months at USD 3,200 per month; total: USD 9,600); Gender-Safeguards Officer (5 months at USD 2,500 per month; total: USD 12,500); Policy-Institutional Capacity Development Specialist (2 months at USD 3,200 per month; total: USD 6,400); Stakeholder-

Budget note number	Comments
	Partnership Officer (2 months at USD 3,200 per month; total: USD 6,400); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (5 months at USD 3,200 per month; total: USD 16,000). **Output 5.2**: Chief Technical Advisor (4 months at USD 4,200 per month; total: USD 16,800); Private Sector Engagement Specialist (6 months at USD 3,200 per month; total: USD 19,200); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (2 months at USD 2,500 per month; total: USD 5,000); Subnational Coordinator-ILM Specialist (5 months at USD 3,200 per month; total: USD 16,000). **Output 5.3**: Chief Technical Advisor (3.5 months at USD 4,200 per month; total: USD 14,700); Private Sector Engagement Specialist (5 months at USD 3,200 per month; total: USD 16,000); Gender-Safeguards Officer (5 months at USD 2,500 per month; total: USD 12,500); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (7 months at USD 3,200 per month; total: USD 22,400). **Output 5.4:** Gender-Safeguards Officer (5 months at USD 2,500 per month; total: USD 12,500); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (3 months at USD 3,200 per month; total: USD 9,600). **FAO:** **Output 3.1**: Farming Systems-Livelihoods-NRM Specialist (4 months at USD 3,200 per month; total: USD 12,800). **Output 3.2**: Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 3.3**: Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 4.1**: Farming Systems-Livelihoods-NRM Specialist (12 months at USD 3,200 per month; total: USD 38,400). **Output 4.2**: Farming Systems-Livelihoods-NRM Specialist (5 months at USD 3,200 per month; total: USD 16,000). **Output 5.1**: Farming Systems-Livelihoods-NRM Specialist (5 months at USD 3,200 per month; total: USD 16,000); Community Development/FPIC Consultant (16 weeks at USD 1,750 per week; total: USD 28,000); Interpretation-Translation Consultant (10 weeks at USD 1,750 per week; total: USD 17,500). **Output 5.2**: Farming Systems-Livelihoods-NRM Specialist (5 months at USD 3,200 per month; total: USD 16,000); Interpretation-Translation Consultant (6 weeks at USD 1,750 per week; total: USD 10,500). **Output 5.3**: Farming Systems-Livelihoods-NRM Specialist (7 months at USD 3,200 per month; total: USD 22,400); Interpretation-Translation Consultant (6 weeks at USD 1,750 per week; total: USD 10,500). **Output 5.4:** Farming Systems-Livelihoods-NRM Specialist (3 months at USD 3,200 per month; total: USD 9,600).
9	**71400. Contractual services – Individuals.** **Total: USD 270,000** **UNDP:** **Output 3.1:** Provincial Coordinator (5 provinces, 2 months each province at USD 1,000 per month per position; total: USD 10,000); District Coordinator (5 districts, 2 months each province at USD 1,000 per month per position; total: USD 10,000). **Output 3.2:** Provincial Coordinator (5 provinces, 4 months each province at USD 1,000 per month per position; total: USD 20,000); District Coordinator (5 districts, 4 months each province at USD 1,000 per month per position; total: USD 20,000). **Output 3.3**: Provincial Coordinator (5 provinces, 1 month each province at USD 1,000 per month per position; total: USD 5,000); District Coordinator (5 districts, 1 month each province at USD 1,000 per month per position; total: USD 5,000). **Output 4.1:** Provincial Coordinator (5 provinces, 4 months each province at USD 1,000 per month per position; total: USD 20,000); District Coordinator (5 districts, 4 months each province at USD 1,000 per month per position; total: USD 20,000). **Output 4.2:** Provincial Coordinator (5 provinces, 1 month each province at USD 1,000 per month per position; total: USD 5,000); District Coordinator (5 districts, 1 month each province at USD 1,000 per month per position; total: USD 5,000). **Output 5.1:** Provincial Coordinator (5 provinces, 5 months each province at USD 1,000 per month per position; total: USD 25,000); District Coordinator (5 districts, 5 months each province at USD 1,000 per month per position; total: USD 25,000). **Output 5.2:** Provincial Coordinator (5 provinces, 4 months each province at USD 1,000 per month per position; total: USD 20,000); District Coordinator (5 districts, 4 months each province at USD 1,000 per month per position; total: USD 20,000).

Budget note number	Comments
	Output 5.3: Provincial Coordinator (5 provinces, 4 months each province at USD 1,000 per month per position; total: USD 20,000); District Coordinator (5 districts, 4 months each province at USD 1,000 per month per position; total: USD 20,000). **Output 5.4:** Provincial Coordinator (5 provinces, 2 months each province at USD 1,000 per month per position; total: USD 10,000); District Coordinator (5 districts, 2 months each province at USD 1,000 per month per position; total: USD 10,000). **FAO:** None
10	**71600. Travel.** **Total: USD 169,912** **UNDP:** **Output 3.1:** Travel and DSA expenses for team and consultants for stakeholder consultations on incentive mechanisms and finance options (USD 15,000). **Output 3.2:** Travel and DSA expenses for workshops and consultations regarding PPPs and PPCPs and private sector engagement (USD 20,000). **Output 3.3**: Travel and DSA expenses for workshops and consultations regarding the Open Innovation Challenge and private sector engagement (USD 20,000). **Output 4.1:** Travel and DSA expenses for socialisation workshops and stakeholder workshops (USD 6,000), travel and DSA for trainings on traceability systems (USD 35,000). **Output 4.2:** Travel and DSA expenses for trainings on grading guidance (12 trainings; total: USD 17,000). **FAO:** **Output 5.1:** Travel and DSA expenses for public consultations and stakeholder workshops (USD 3,500 per jurisdiction for 5 jurisdictions; total: USD 17,500); miscellaneous travel and DSA for team and consultants (USD 9,412). **Output 5.2:** Travel and DSA expenses for extension service capacity building in 5 jurisdictions (USD 11,000). **Output 5.3:** Travel and DSA expenses for farmer capacity building in 5 jurisdictions (USD 11,000). **Output 5.4:** Travel and DSA expenses for land tenure capacity building and advisory support in 5 jurisdictions (USD 8,000).
11	**72100. Contractual services – Companies.** **Total: USD 1,695,700** **UNDP:** **Output 3.1:** Service provider for delivering capacity building and awareness-raising to farmers on incentive mechanisms and finance options (USD 10,000 per jurisdictions for 5 jurisdictions; total: USD 50,000). **Output 3.2:** Service provider for administering accelerator grants for PPPs and PPCPs (USD 25,000); Service provider for developing/disseminating knowledge products regarding the PPPs and PPCPs (USD 25,000). **Output 3.3**: Service provider for administering the Open Innovation Challenge and the enabling low-value grants (USD 75,000); Service provider for developing and disseminating knowledge products on the Open Innovation Challenge (USD 25,000). **Output 4.1:** Service provider for desk review, consultations and development/strengthening of integrated farmer support and traceability system for coffee in Aceh (USD 100,000); Service provider for desk review, consultations and development/strengthening of integrated farmer support and traceability system for palm oil in West Kalimantan (USD 100,000); Service provider for desk review, consultations and development/strengthening of integrated farmer support and traceability system for cocoa and rice in South Sulawesi (USD 100,000); Service providers for delivering training on traceability systems on coffee (USD 15,000), palm oil (USD 15,000), and cocoa and rice (USD 15,000).. **Output 4.2:** Service provider for developing and disseminating knowledge products on grading systems (USD 5,000). **FAO:** **Output 5.1:** Service provider for carrying out problem analyses and developing interventions at farm/landscape level (USD 50,000 per jurisdiction for 5 jurisdictions; total: USD 250,000). **Output 5.2:** Service provider for delivering capacity building to extension services (USD 74,000 per jurisdiction for 5 jurisdictions; total: USD 370,000). **Output 5.3**: Service provider for delivering capacity building to farmers (USD 90,140 per jurisdiction for 5 jurisdictions; total: USD 450,700). **Output 5.4:** Service provider for delivering legal advisory support to farmers for land tenure (USD 15,000 per jurisdiction for 5 jurisdictions; total: USD 75,000).
12	**72600. Grants.** **Total: USD 1,170,000** **UNDP (grants will be disbursed following UNDP's Low Value Grant policy):**

Budget note number	Comments
	Output 3.2: Low-value accelerator grants for existing or new public-private-partnerships (PPPs) and public-private-community partnerships (PPCPs) (4 grants in each of the 5 jurisdictions at an estimated USD 25,000 per grant, and one grant at national level at USD 120,000; total: USD 620,000). **Output 3.3**: Low-value grants for enabling activities associated with the Open Innovation Challenge (5 grants at an estimated USD 35,000 per grant; total: USD 175,000). **FAO:** **Output 5.3**: Low-value grants for on-farm improvements and other farmer capacity building (USD 75,000 allocated per jurisdiction for 5 jurisdictions; total: USD 375,000).
13	**72800. Information Technology Equipment.** **Total: USD 22,000** **UNDP:** **Output 4.1**: IT equipment to support project implementation units in coordinating project activities (USD 5,000 per jurisdiction for 5 jurisdictions; total: 22,000). **FAO:** None
	74500. Miscellaneous Expenses. **Total: USD 90,000** **UNDP:** **FAO:** **Output 5.1**: Recurrent expenses supporting the project implementation activities (USD 3,000 per year per jurisdiction for 5 jurisdictions over 6 years; total: USD 90,000).
14	**75700. Training, Workshop, Conference.** **Total: USD 203,000** **UNDP:** **Output 3.1:** Workshops with farmers, training and raising awareness on incentive mechanisms and finance options (6 workshops at USD 3,000 per workshop; total: USD 18,000). **Output 3.2:** Convening workshops on raising awareness and funding for PPPs and PPCPs (12 workshops at USD 3,000 per workshop; total: USD 36,000). **Output 3.3:** Open Innovation Challenge launches and workshops (7 workshops at USD 3,000 per workshop: USD 21,000). **Output 4.1:** Socialisation workshops in Aceh (2), South Sulawesi (2), and West Kalimantan (2) at USD 3,000 per workshop; total: USD 24,000; Trainings on traceability systems for coffee (12), palm oil (12) and cocoa and rice (12) at USD 2,000 per training; total: USD 72,000. **Output 4.2**: Convene workshops for training farmers and other stakeholders on grading guidance (12 workshops at USD 1,000 per workshop; total: USD 12,000). **FAO:** **Output 5.1:** Public consultations and stakeholder workshops (USD 1,000 per jurisdiction for 5 jurisdictions; total: USD 5,000). **Output 5.2:** Capacity building events and consultations (USD 1,000 per jurisdiction for 5 jurisdictions; total: USD 5,000). **Output 5.3:** Capacity building events and consultations (USD 1,000 per jurisdiction for 5 jurisdictions; total: USD 5,000). **Output 5.4:** Capacity building events and consultations (USD 1,000 per jurisdiction for 5 jurisdictions; total: USD 5,000).
Component 3:	
15	**71300. Local consultants.** **Total: USD 189,900** **UNDP:** **Output 6.1:** Chief Technical Advisor (5 months at USD 4,200 per month; total: USD 21,000); Gender-Safeguards Officer (5 months at USD 2,500 per month; total: USD 12,500); Policy-Institutional Capacity Development Specialist (2 months at USD 3,200 per month; total: USD 6,400); Stakeholder-Partnership Officer (2 months at USD 3,200 per month; total: USD 6,400); M&E-Knowledge Management Specialist (1 month at USD 2,500 per month; total: USD 2,500); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400); **Output 6.2:** Chief Technical Advisor (1.5 months at USD 4,200 per month; total: USD 6,300); Private Sector Engagement Specialist (3 months at USD 3,200 per month; total: USD 9,600); Gender-Safeguards Officer (6 months at USD 2,500 per month; total: USD 15,000); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (2 months at USD 2,500 per month; total: USD 5,000); Subnational Coordinator-ILM Specialist (2 months at USD 3,200 per month; total: USD 6,400).

Budget note number	Comments
	Output 6.3: Policy-Institutional Capacity Development Specialist (2 months at USD 3,200 per month; total: USD 6,400); Stakeholder-Partnership Officer (2 months at USD 3,200 per month; total: USD 6,400); M&E-Knowledge Management Specialist (2 months at USD 2,500 per month; total: USD 5,000); Subnational Coordinator-ILM Specialist (1 month at USD 3,200 per month; total: USD 3,200); **FAO:** **Output 6.1:** Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400); Government Liaison Consultant (16 weeks at USD 1,750 per week; total: USD 28,000). **Output 6.2:** Farming Systems-Livelihoods-NRM Specialist (2 months at USD 3,200 per month; total: USD 6,400). **Output 6.3:** Farming Systems-Livelihoods-NRM Specialist (1 month at USD 3,200 per month; total: USD 3,200); Government Liaison Consultant (12 weeks at USD 1,750 per week; total: USD 21,000).
16	**71400. Contractual services – Individuals.** **Total: USD 120,000** **UNDP:** **Output 6.1:** Provincial Coordinator (5 provinces, 6 months each province at USD 1,000 per month per position; total: USD 30,000); District Coordinator (5 districts, 6 months each province at USD 1,000 per month per position; total: USD 30,000). **Output 6.2:** Provincial Coordinator (5 provinces, 5 months each province at USD 1,000 per month per position; total: USD 25,000); District Coordinator (5 districts, 5 months each province at USD 1,000 per month per position; total: USD 25,000). **Output 6.3:** Provincial Coordinator (5 provinces, 1 month each province at USD 1,000 per month per position; total: USD 5,000); District Coordinator (5 districts, 1 month each province at USD 1,000 per month per position; total: USD 5,000).
17	**71600. Travel.** **Total: USD 41,000** **UNDP:** None **FAO:** **Output 6.1:** Travel and DSA expenses as part of identifying priority locations, developing management plans, and consulting with public (USD 20,000). **Output 6.2:** Travel and DSA expenses for government liaison and M&E missions (USD 12,000). **Output 6.3:** Travel and DSA expenses for government liaison and M&E missions (USD 9,000).
18	**72100. Contractual services – Companies.** **Total: USD 1,349,456** **UNDP:** None **FAO:** **Output 6.1**: Service providers for identifying priority areas, developing management plans and action plans (USD 79,891.20 per jurisdiction for 5 jurisdictions; total: USD 399,456); Service provider for knowledge management and communication/socialisation of the management plans (USD 25,000). **Output 6.2:** Service providers for assessing intervention locations, developing conservation-restoration-rehabilitation plans, and facilitating consent (USD 30,000 per site for 5 sites; total: USD 150,000); Service provider for facilitating implementation of the plans and carrying out M&E (USD 100,000 per site for 5 sites; total: USD 500,000); Service provider for GIS mapping, drone surveys (USD 25,000 per site for 5 sites; total: USD 125,000). **Output 6.3:** Service provider for delivering capacity building to local communities, local governments, FMUS for improved governance (USD 30,000 per community for 5 communities; total: USD 150,000).
19	**72600. Grants.** **Total: USD 250,000** **UNDP:** None

Budget note number	Comments
	FAO: **Output 6.2**: Low-value grants for accelerating implementation of the conservation-restoration-rehabilitation plans (USD 50,000 per site for 5 sites; total: USD 250,000).
20	**72800. Information Technology Equipment.** **Total: USD 50,000** **UNDP:** None: **FAO:** **Output 6.2**: IT equipment (e.g., GPS units) supporting the implementation of the conservation-restoration-rehabilitation plans (USD 50,000).
21	**75700. Training, Workshop, Conference.** **Total: USD 35,000** **UNDP:** None **FAO:** **Output 6.1:** Organising public consultations for consensus on priority areas (USD 5,000 per jurisdiction for 5 jurisdictions; total: USD 25,000). **Output 6.3:** Organising trainings for collaborative governance capacity building (USD 2,000 per site/community, for 5 sites/communities; total: USD 10,000).
Component 4 / Outcome 4:	
22	**71200. International consultants.** **Total: USD 357,000** **UNDP:** **Output 7.1**: Midterm Review Consultant (12 weeks at USD 3,000 per week; total: USD 36,000); Terminal Evaluation Consultant (12 weeks at USD 3,000 per week; total: USD 36,000). **Output 7.2**: Safeguards Consultant providing advisory support on the ESIA/SESA, ESMP and other safeguard plans (20 weeks at USD 3,000 per week; total: USD 60,000). **Output 7.5:** Facilitation Consultant providing support to various FOLUR regional and global events and meetings (45 weeks at USD 3,000 per week; total: USD 135,000). **Output 7.5:** Private Sector Consultant, providing support to FOLUR regional and global interactions (15 weeks at USD 3,000 per week; total: USD 45,000). **Output 7.5:** Multi-stakeholder Collaboration Consultant providing support to various FOLUR regional and global events and meetings (15 weeks at USD 3,000 per week; total: USD 45,000). **FAO:** None
23	**71300. Local consultants.** **Total: USD 687,850** **UNDP:** **Output 7.1:** Chief Technical Advisor (10 months at USD 4,200 per month; total: USD 42,000); Gender-Safeguards Officer (10 months at USD 2,500 per month; total: USD 25,000); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (10 months at USD 2,500 per month; total: USD 25,000); Subnational Coordinator-ILM Specialist (1 month at USD 3,200 per month; total: USD 3,200); M&E Consultant for midterm assessment of core indicators (8 weeks at USD 1,750 per week; total: USD 14,000); M&E consultant for terminal assessment of core indicators (8 weeks at USD 1,750 per week; total: USD 14,000); Midterm review national consultants (16 weeks at USD 1,500 per week; total USD 24,000); Terminal evaluation national consultants (16 weeks at USD 1,500 per week; total USD 24,000); Interpretation-translation consultant (12 weeks at USD 1,750 per week; total: USD 21,000). **Output 7.2:** Chief Technical Advisor (4 months at USD 4,200 per month; total: USD 16,800); Gender-Safeguards Officer (23 months at USD 2,500 per month; total: USD 57,500); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (5 month at USD 2,500 per month; total: USD 12,500); Subnational Coordinator-ILM Specialist (1 month at USD 3,200 per month; total: USD 3,200); Gender Consultant for supporting the ESIA/SESA and implementation of the ESMP and gender action plan (20 weeks at USD 1,750 per week; total: USD 35,000); Safeguards Consultant for supporting the ESIA/SESA, development and monitoring of ESMP (22 weeks at USD 1,750 per week; total: USD 38,500).

Budget note number	Comments
	Output 7.3: Gender-Safeguards Officer (5 months at USD 2,500 per month; total: USD 12,500); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (5 months at USD 2,500 per month; total: USD 12,500). **Output 7.4:** Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (10 months at USD 2,500 per month; total: USD 25,000); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); Subnational Coordinator-ILM Specialist (1 month at USD 3,200 per month; total: USD 3,200); Government Liaison Consultant (25 weeks at USD 1,750 per week; total: USD 43,750). **Output 7.5:** Chief Technical Advisor (4 months at USD 4,200 per month; total: USD 16,800); Private Sector Engagement Specialist (4.5 months at USD 3,200 per month; total: USD 14,400); Gender-Safeguards Officer (2 months at USD 2,500 per month; total: USD 5,000); Policy-Institutional Capacity Development Specialist (1 month at USD 3,200 per month; total: USD 3,200); Stakeholder-Partnership Officer (1 month at USD 3,200 per month; total: USD 3,200); M&E-Knowledge Management Specialist (10 month at USD 2,500 per month; total: USD 25,000); Subnational Coordinator-ILM Specialist (1 month at USD 3,200 per month; total: USD 3,200); Government Liaison Consultant (50 weeks at USD 1,750 per week; total: USD 87,500); Interpretation-translation consultant (22 weeks at USD 1,750 per week; total: USD 38,500). **FAO:** **Output 7.1:** Farming Systems-Livelihoods-NRM Specialist (1 month at USD 3,200 per month; total: USD 3,200). **Output 7.2:** Farming Systems-Livelihoods-NRM Specialist (1 month at USD 3,200 per month; total: USD 3,200). **Output 7.3:** Farming Systems-Livelihoods-NRM Specialist (1 month at USD 3,200 per month; total: USD 3,200). **Output 7.5:** Farming Systems-Livelihoods-NRM Specialist (1 month at USD 3,200 per month; total: USD 3,200).
24	**71400. Contractual services - Individuals.** **Total: USD 50,000** **UNDP:** **Output 7.1**: Provincial Coordinator (5 provinces, 1 month each province at USD 1,000 per month per position; total: USD 5,000); District Coordinator (5 districts, 1 month each province at USD 1,000 per month per position; total: USD 5,000). **Output 7.2:** Provincial Coordinator (5 provinces, 2 months each province at USD 1,000 per month per position; total: USD 10,000); District Coordinator (5 districts, 2 months each province at USD 1,000 per month per position; total: USD 10,000). **Output 7.3:** Provincial Coordinator (5 provinces, 1 month each province at USD 1,000 per month per position; total: USD 5,000); District Coordinator (5 districts, 1 month each province at USD 1,000 per month per position; total: USD 5,000). **Output 7.4:** Provincial Coordinator (5 provinces, 1 month each province at USD 1,000 per month per position; total: USD 5,000); District Coordinator (5 districts, 1 month each province at USD 1,000 per month per position; total: USD 5,000). **FAO:** None
25	**71600. Travel.** **Total: USD 552,000** **UNDP:** **Output 7.1:** Travel expenses for M&E missions (USD 10,000 per year for 6 years; total: USD 60,000); travel expenses for project board meetings (USD 4,000 per year for 6 years; total USD 24,000); travel expenses for midterm assessment of core indicators (USD 10,000); travel expenses for terminal assessment of core indicators (USD 10,000); travel expenses for midterm review (USD 11,000); Travel expenses for terminal evaluation (USD 11,725). **Output 7.2:** Travel and DSA for ESIA missions (USD 15,000); travel and DSA expenses for M&E missions for the ESMP and gender action plan (USD 35,000). **Output 7.4:** Travel expenses associated with miscellaneous KM events (USD 7,275). **Output 7.5:** Travel and DSA expenses for FOLUR global events (3 events with 15 people per event, at USD 4,000 per person per event (USD 180,000); travel and DSA expenses for FOLUR regional events (3 events with 15 people per event, at USD 2,000 per person per event (USD 90,000); travel and DSA expenses for jurisdiction workshops (5 workshops, one per year, rotated annually, at USD 10,000 per workshop (USD 50,000); travel and DSA expenses for participating in other events (16 people at USD 3,000 per person; total USD 48,000). **FAO:** None
26	**72100. Contractual services – Companies.**

Budget note number	Comments
	Total: USD 351,550 **UNDP:** **Output 7.2:** Service provider for completing ESIA's/SESA's and developing an ESMP for the project (USD 30,000 per jurisdiction; total: USD 150,000). **Output 7.3:** Service provider for developing an impact evaluation design for assessing causal impacts and systemic change (USD 30,000). **Output 7.4**: Service provider for developing and implementing a knowledge management strategy and action plan, developing knowledge products, facilitating events, etc. (USD 165,000). **FAO:** **Output 7.1:** Preparation of terminal report in line with FAO reporting guidelines (USD 6,550)
27	**72800. Information Technology Equipment.** **Total: USD 31,510** **UNDP:** **Output 7.1:** IT equipment for technical support positions (USD 31,510). **FAO:** None
28	**74200. Audio visual & print production costs**. **Total: USD 166,000** **UNDP:** **Output 7.1**: Print production costs for project board meetings (USD 6,000). **Output 7.2**: Audio-visual and/or print production costs for developing products for communicating ESMP issues (USD 10,000). **Output 7.4**: Audio-visual and print production costs for knowledge products under the project (USD 150,000). **FAO:** None
29	**75700. Training, Workshop, Conference.** **Total: USD 520,000** **UNDP:** **Output 7.1**: Project inception workshop (USD 40,000); Project Board meetings, annual and rotated among jurisdictions (USD 30,000). **Output 7.2:** ESIA/SESA public consultations (USD 15,000); gender and ESMP trainings (USD 10,000). **Output 7.4:** Miscellaneous knowledge management / communication events (USD 150,000). **Output 7.5:** Organise/host regional FOLUR events (2 events over 6 years, at USD 100,000 per event; total: USD 200,000); organising cross-jurisdiction workshops (5 workshops at USD 15,000 per workshop; total: USD 75,000). **FAO:** None
Project Management:	
30	**71400. Contractual Services - Individuals** **Total: USD 593,280** **UNDP:** National Project Manager (72 months at a gross salary of USD 4,200 per month; Total: USD 302,400); Finance Associate (72 months at a gross salary of USD 1,840 per month; Total: USD 132,480). **FAO:** Project Assistant (72 months at a gross salary of USD 1,100 per month; Total: USD 79,200); Procurement Clerk (72 months at a gross salary of USD 1,100 per month; Total: USD 79,200).
31	**71600. Travel** **Total: USD 15,000** **UNDP:** Travel expenses in support of project management, including local transportation for the project management unit team (USD 10,000)

Budget note number	Comments
	FAO: Travel expenses in support of project management, including local transportation for the project management unit team (USD 5,000).
32	**72100. Contractual services – Companies.** **Total: USD 24,750** **UNDP:** None **FAO:** Spot checks of Operational Partner Agreements (USD 24,750)
33	**72400 Communication & Audio-Visual equipment** **Total: USD 5,000** **UNDP:** Communication and audio-visual equipment supporting the PMU. **FAO:** None.
34	**72800. Information technology equipment** **Total: USD 21,614** **UNDP:** Computer and communication equipment for the project management unit team and office (USD 16,449). **FAO:** Computer and communication equipment for the project management unit team and office (USD 5,165).
35	**74100. Professional services** **Total: USD 48,000** **UNDP:** Costs associated with independent financial audits carried out annually (6 x USD 8,000). **FAO:** None
36	**74596. Services to Projects - GOE (Direct project costs; the actual charges will be itemized based on Universal Price List or local price list)** **Total: USD 64,440** **UNDP**: UNDP support services to the Government (IP) for services related to HR, Procurement of international and national consultants to undertake M&E, Safeguards, ESIA/ESMP and impact evaluation; Procurement of travel services. The support services will be provided based on the request from IP and calculated on the basis of estimated actual or transaction-based cost. See Agreement in Annex 22c for details. **FAO:** None

X. LEGAL CONTEXT

517. The project document shall be the instrument envisaged and defined in the Supplemental Provisions to the Project Document, attached hereto and forming an integral part hereof, as "the Project Document".

518. This project will be implemented by Coordinating Ministry for Economic Affairs (CMEA) ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

519. The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations or UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

XI. RISK MANAGEMENT

Option a. Implementing Partner is a Government Entity (NIM)

520. Consistent with the Supplemental Provisions to the Project Document (Annex 24), the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried.
b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

521. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

522. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml.

523. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").
b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment.

524. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;

ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;

iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;

iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and

v. Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

525. The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

526. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

527. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

528. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

529. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.

530. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the

requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

531. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

532. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

533. Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

534. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

535. Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

536. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

537. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

538. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

XII. ANNEXES

Annex 1: GEF budget spreadsheet

Annex 2: Project map and geospatial coordinates of project jurisdictions

Annex 3: Multi-year work plan

Annex 4: Monitoring plan

Annex 5: UNDP Social and environmental screening procedure (SESP)

Annex 6: UNDP risk register

Annex 7: Overview of technical consultancies/subcontracts

Annex 8: Multi-stakeholder collaboration and stakeholder engagement plan

Annex 9: People consulted during project preparation

Annex 10: Environmental and Social Management Framework

Annex 11: Gender analysis and gender action plan

Annex 12: Climate and disaster risk screening

Annex 13: Procurement plan

Annex 14: Baseline report on governance, policy and land use planning

Annex 15: Baseline report on commodity supply/value chain and farmer support systems

Annex 16: Jurisdictional profiles

Annex 17: Calculations of GEF 7 Core Indicator end targets

Annex 18: GEF 7 Core Indicator Worksheet

Annex 19: GEF 7 taxonomy

Annex 20: Partners capacity assessment tool and HACT assessment

Annex 21: Additional agreements (co-financing letters)

Annex 22a: Execution support justification letter from CMEA to GEF OFP

Annex 22b: GEF OFP execution support letter

Annex 22c: Signed LOA between UNDP and IP requesting UNDP support services

Annex 23: Design & appraisal stage quality assurance report

Annex 24: FAO's explanation on budget adjustments