

GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL



PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND: GEF Trust Fund

For more information about GEF, visit TheGEF.org

PART I: PROJECT INFORMATION

Project Title: Reducing Deforestation from Commodity Production			
Country(ies):	Global	GEF Project ID: ¹	9180
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5664
Other Executing Partner(s):	CI, WWF, Government of Indonesia, Paraguay and Liberia	Submission Date:	July 31, 2016
		Resubmission Date:	October 6, 2016
GEF Focal Area (s):	IAP Set Aside	Project Duration (Months)	48
Integrated Approach Pilot	IAP-Commodities (GEF SEC Programme ID 9072)		
Name of Parent Program	[if applicable]	Agency Fee (\$)	1,312,596

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

Focal Area Objectives/Programs	Focal Area Outcomes	Trust Fund	(in \$)	
			GEF Project Financing	Co-financing
IAP - Commodity Supply Chain	<ul style="list-style-type: none"> - Strengthened enabling environment for sustainable commodities through improvement in land-use policy, planning and governance - Increased uptake of sustainable commodity production practices by producers through capacity strengthening 	GEFTF	14,584,403	164,700,268
BD-4: Mainstream biodiversity conservation and sustainable use into production landscapes and seascapes and production sectors:	Program 9: Managing the Human-Biodiversity Interface. Contributing to Outcome 9.1 by increasing the area of productive landscapes that integrate sustainability criteria into their management; and Outcome 9.2 by incorporating biodiversity and forest cover considerations in national and subnational agriculture commodity policies.		n/a	n/a
CCM-2: Demonstrate Systemic Impacts of Mitigation Options:	Program 4: Promote conservation and enhancement of carbon stocks in forests, and other land use, and support climate smart agriculture. Contributing to both Outcome A and B by accelerating the adoption of management practices that reduce GHG emission from land use change and deforestation, and supporting the development and implementation of model policy, planning and regulatory frameworks that foster low GHG development from agriculture commodities.		n/a	n/a

¹ Project ID number remains the same as the assigned PIF number.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

SFM-1: Maintained Forest Resources: Reduce the pressures on high conservation value forests by addressing the drivers of deforestation.	Program 1: Integrated land use planning. Program 2: Identification and maintenance of high conservation value forests. Program 3: Identifying and monitoring forest loss. Contributing to both Outcomes 1 and 2 on cross-sector policy and planning approaches at appropriate governance scales and innovative mechanisms to avoid the loss of high conservation value forest.		n/a	n/a
Total project costs			14,584,403	164,700,268

B. PROJECT DESCRIPTION SUMMARY

Project objective: Encourage sustainable practices for oil palm and beef production while conserving forests and safeguarding the rights of smallholder farmers and forest-dependent communities

Project Component s	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
1. Dialogue, action planning, policies and enforcement	TA	1.1 Responsible Governmental authorities, along with private sector & civil society organizations, build consensus and reduce conflict related to target commodity production and growth at national and sub-national levels in the three target countries, Indonesia, Liberia and Paraguay, through structured dialogue in national and sub-national commodity platforms and district/target landscape ⁴ commodity forums 1.2 Practical alignment of policies and measures that reduce deforestation and forest	1.1.1 Indonesia (1.1.1 IND): Establishment / strengthening of one national and three provincial palm oil platforms (North Sumatra, Riau and West Kalimantan) and three district-level forums (South Tapanuli, Pelalawan and Sintang) 1.1.1-Liberia (1.1.1 LIB): Strengthening of one national commodity platform and establishment of one landscape-level forum 1.1.1 Paraguay (1.1.1 PAR): Establishment and operations of one sub-national commodity platform for the Chaco region 1.2.1 Indonesia (1.2.1 IND): One national, three provincial palm oil action plans and three district-level strategies agreed and adopted and initial implementation guided / monitored 1.2.1 Liberia (1.2.1 LIB): National commodity action plan for sustainable palm oil production agreed, adopted and implemented 1.2.1 Paraguay (1.2.1 PAR): Sustainable beef regional action plan agreed, adopted and implemented	GEF TF	6,016,374	4,005,905

³ Financing type can be either investment or technical assistance.

⁴ There are a total of 7 target landscapes: 3 in Indonesia, 1 in Liberia, and 3 in Paraguay. Please refer to the "Target Landscapes" sub-heading under "3. Proposed GEF alternative scenario, project components & expected outcomes" for further information.

Project Component s	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
		<p>degradation, implementation of public and private investments and other actions related to target commodities production in the three target countries through finalized, adopted and implemented national and sub-national Commodity Action Plans</p> <p>1.3: Dialogue and action planning contributes to improved national and sub-national policies, regulations and programmes related to commodity production and associated environmental protection practices in the three target countries that address the drivers of deforestation, forest degradation and greenhouse gas emissions in commodity value chains</p> <p>1.4: Dialogue and action planning contributes to improved national and sub-national policies, regulations and programmes related to land use allocations for commodity production and set asides in the three target countries strengthen norms, tools, REDD+ safeguards and</p>	<p>1.3.1 Indonesia (1.3.1 IND): At least six priorities for improving policy, legal and institutional frameworks to support reducing deforestation and degradation and enhance conservation and sustainable management of forests reviewed and suggestions for improvement prepared, advocated and, where possible, implemented</p> <p>1.3.1 - Liberia (1.3.1 LIB): At least two policy and regulatory priorities for improving policy, legal and institutional frameworks to support reducing deforestation and degradation and enhance conservation and sustainable management of forests reviewed and suggestions for improvement prepared, advocated and, where possible, implemented</p> <p>1.3.1 Paraguay (1.3.1 PAR): Two regulatory priorities for improving policy, legal and institutional frameworks to support reducing deforestation and degradation and enhance conservation and sustainable management of forests reviewed and suggestions for improvement prepared, advocated and, where possible, implemented</p> <p>1.4.1 Indonesia (1.4.1 IND): Improved implementation of Kawasan Ekosistem Essensial (Essential Ecosystem Area) regulation as the most appropriate regulatory framework for broader HCV implementation in Indonesia</p> <p>1.4.1 Liberia (1.4.1 LIB): One improved national and sub-national policies, regulations and programmes, including key rules and national definitions for land use planning, zoning, set asides and conversion</p> <p>1.4.1 Paraguay (1.4.1 PAR): At least two improved national and sub-national policies, regulations and programmes, including key rules and national definitions for land use planning, zoning, set asides and conversion</p> <p>1.4.2 Indonesia (1.4.2 iND): Three district governments endorse / recognize critical ecological areas (KEE, wildlife corridors, watershed, riparian and other high priority areas) in target landscapes as no-go areas</p> <p>1.4.2 Liberia (1.4.2 LIB): A national policy that encourages the identification and conservation of High Conservation Value (HCV) and High Carbon Stock (HCS) forests through the use of REDD+ outputs, land use planning maps, cost-</p>			

Project Component s	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
		<p>incentive mechanisms, improving access to and use of degraded and existing agricultural lands</p> <p>1.5: Dialogue and action planning contributes to improved monitoring and enforcement of existing and new (ref. Outcome 1.3) policies and regulations, strengthening the rule of law in the three target countries and particularly within selected landscapes</p>	<p>benefit analysis, and other spatial and technical analytical techniques</p> <p>1.4.2 Paraguay (1.4.2 PAR): A set of national criteria relating to habitat connectivity, biodiversity, indigenous people and the identification of High Conservation Value (HCV) and High Carbon Stock (HCS) areas on privately owned lands defined, agreed and mainstreamed in the legal framework (with reference to Outputs 1.3.1 PAR and 1.4.2 PAR) with the support of REDD+ outputs, land use planning maps, cost-benefit analysis, and other spatial and technical analytical techniques</p> <p>1.5.1 Indonesia (1.5.1 IND): Cost-effective monitoring systems are adapted and implemented within target landscapes</p> <p>1.5.1 Liberia (1.5.1 LIB): A cost-effective monitoring system is adapted and implemented within target landscape</p> <p>1.5.1 Paraguay (1.5.1 PAR): Remote sensing and other cost-effective monitoring systems are adapted and implemented within target landscapes</p> <p>1.5.2 Indonesia (1.5.2 IND): Improved individual and institutional capacities to implement cost-effective tools and strategies for enforcement of forest conservation and land conversion laws and regulations</p> <p>1.5.2 Liberia (1.5.2 LIB): Improved individual and institutional capacities to implement cost-effective tools and strategies for enforcement of forest conservation and land conversion laws and regulations</p> <p>1.5.2 Paraguay (1.5.2 PAR): Improved individual and institutional capacities to implement cost-effective tools and strategies for enforcement of forest conservation and land conversion laws and regulations</p>			
2. Farmer support systems	TA	<p>2.1 Enhanced understanding of commodity farmer needs and effectively demonstrated approaches to meeting these needs through training and other support</p>	<p>2.1.1 Indonesia (2.1.1 IND): Three landscape-level palm oil smallholder needs assessments, with potential linkages to REDD+ strategy options for the development of policy, regulation, and incentive measures, prepared and disseminated</p> <p>2.1.1 Liberia (2.1.1 LIB): A landscape-level palm oil smallholder training needs assessment, with</p>	GEF TF	3,037,415	152,219,508

Project Component s	Finan- cing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
		2.2: Improved national and sub-national farmer support systems to encourage sustainable, reduced deforestation commodity production and intensification through adoption of farmer support strategies emphasizing reduced deforestation, sustainable intensification, biodiversity conservation and elimination of the gender gap in agricultural productivity	<p>potential linkages to REDD+ strategy options for the development of policy, regulation, and incentive measures, prepared and disseminated</p> <p>2.1.1 Paraguay (2.1.1 PAR): A Chaco beef commodity farmer training needs assessment, with potential linkages to REDD+ strategy options for the development of policy, regulation, and incentive measures, prepared and disseminated</p> <p>2.1.2 Indonesia (2.1.2 IND): Pilot implementation of approaches to sustainable intensification in target landscapes, including training of at least 2,500 farmers in adoption of good agricultural practices (GAP)</p> <p>2.1.2 Paraguay (2.1.2 PAR): Target implementation of approaches to sustainable intensification in target landscapes trains 3,500 farmers in adopting sustainable agricultural practices</p> <p>2.2.1 Indonesia (2.2.1 IND): A national palm oil smallholder support strategy based on best practices for reduced deforestation, sustainable intensification, biodiversity conservation and elimination of the gender gap in agricultural productivity adopted, with emphasis on the utility of public private partnerships, and guidance / monitoring of initial implementation provided</p> <p>2.2.1 Liberia (2.2.1 LIB): A national palm oil smallholder support strategy based on best practices for reduced deforestation, sustainable intensification, biodiversity conservation and elimination of the gender gap in agricultural productivity adopted, with emphasis on the utility of public private partnerships, and guidance / monitoring of initial implementation provided</p> <p>2.2.1 Paraguay (2.2.1 PAR): A sub-national beef farmer support strategy for the Chaco, based on best practices for reduced deforestation, sustainable intensification, biodiversity conservation and elimination of the gender gap in agricultural productivity adopted, with emphasis on the utility of public private partnerships, and guidance / monitoring of initial implementation provided</p>			
3. Land use planning	TA	3.1 Improved land use planning/zoning	3.1.1 Indonesia (3.1.1 IND): Maps prepared identifying critical land areas (KEE, watershed,	GEF TF	2,031,525	452,000

Project Component s	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
		<p>helps to shift targeting and conversion to commodity production from high biodiversity value, high carbon stock, ecosystem service-rich forested areas to degraded or otherwise more suitable lands</p> <p>3.2 Enhanced land use set aside and protection strategies, including gazettelement, of HCV and HCS forest areas within commodity-producing landscapes, reduces deforestation, avoids 30 million tons of CO₂e emissions and contributes to conservation of approximately 1 million ha of high value forest areas and associated biodiversity</p>	<p>riparian and other high priority areas) in target landscapes and land use scenarios developed</p> <p>3.1.1 Liberia (3.1.1 LIB): Maps of HCV, HCS and other priority areas for selected target landscape(s) prepared and land use scenarios developed</p> <p>3.1.1 Paraguay (3.1.1 PAR): Maps of HCV, HCS and other priority areas for selected target landscape(s) prepared and land use scenarios developed</p> <p>3.1.2 Indonesia (3.1.2 IND): No-go areas defined (latter covering approximately 500,000 hectares of HCV, HCS and other priority areas) in target landscapes</p> <p>3.1.2 Liberia (3.1.2 LIB): Land use plans and zoning with go and no-go areas defined (latter covering approximately 70,000 hectares of HCV, HCS and other priority areas) in Western Liberia</p> <p>3.1.2 Paraguay (3.1.2 PAR): Land use plans and zoning with go and no-go areas defined (latter covering approximately 430,000 hectares of HCV, HCS and other priority areas) in the Chaco region</p> <p>3.2.1 Indonesia (3.2.1 IND): Development and initial implementation of strategies for conserving priority areas within selected target landscape</p> <p>3.2.1 Liberia (3.2.1 LIB): Two conservation agreement implemented with communities located within palm oil concession areas</p> <p>3.2.1 Paraguay (3.2.1 PAR): Support provided to government agencies and other stakeholders to facilitate greater use of gazettelement or other strategies for conserving priority areas within selected target landscape(s)</p> <p>3.2.2 Indonesia (3.2.2 IND): Increased awareness of go and no-go areas in selected target landscapes and strengthened stakeholder engagement among communities, producers and government officials</p> <p>3.2.2 Liberia (3.2.2 LIB): Increased awareness of go and no-go areas in selected target landscapes and strengthened stakeholder engagement among communities, producers and government officials</p> <p>3.2.2 Paraguay (3.2.2 PAR): Increased awareness of go and no-go areas in selected target landscapes and strengthened stakeholder</p>			

Project Component s	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
			engagement among communities, producers and government officials			
4. Knowledge management and M&E	TA	<p>4.1 Increased knowledge of factors underpinning the readiness of landscape-level environments to adopt reduced-deforestation commodity production improves the design and future implementation of intervention and capacity building strategies and tools for improving the sustainability of commodity production</p> <p>4.2 Uptake, adaptation and replication of demonstrated lessons and knowledge in 7 other sub-national and national situations via the IAP's Global Community of Practice and through other knowledge-sharing mechanisms</p>	<p>4.1.1 Indonesia (4.1.1 IND): Data collected from three target landscapes and used to test Commodities Integrated Approach Programme (CIAP) tool for tracking: (i) landscape-level status and dynamics of change, (ii) the role of commodity production and expansion as a driver and (iii) the effectiveness of government, NGO and donor interventions in encouraging reduced deforestation commodity production</p> <p>4.1.1 Liberia (4.1.1 LIB): Data collected from the target landscape used to test Commodities Integrated Approach Programme (CIAP) tool</p> <p>4.1.1 Paraguay (4.1.1 PAR): Data collected from three target landscapes and used to test Commodities Integrated Approach Programme (CIAP) tool</p> <p>4.1.2 Indonesia (4.1.2 IND): Capture of lessons learned at landscape and country level from systemic support and other target activities</p> <p>4.1.2 Liberia (4.1.2 LIB): Capture of lessons learned at landscape and country level from systemic support and other target activities</p> <p>4.1.2 Paraguay (4.1.2 PAR): Capture of lessons learned at landscape and country level from systemic support and other target activities</p> <p>4.1.3 Global (4.1.3 GLO): Thematic studies and other knowledge, awareness and communications materials produced and available for dissemination</p> <p>4.2.1 Global (4.2.1 GLO): Implementation of training and capacity building to share knowledge and promote learning and uptake within and among target countries</p> <p>4.2.2 Global (4.2.2 GLO): Sharing and dissemination of knowledge with regional and global policy and programme development and implementation</p> <p>4.2.3 Global (4.2.3 GLO): South to South and knowledge exchange programmes among countries participating in the IAP programme to share experiences and lessons learned</p>	GEF TF	2,804,594	180,000
Subtotal					13,889,908	156,857,413

Project Component s	Finan- cing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Confirmed Co-financing
Project Management Cost (PMC) ⁵				GEFTF	694,495	7,842,855
Total project costs					14,584,403	164,700,268

C. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for co-financing for the project with this form.

Sources of Co-financing	Name of Co-financier	Type of Cofinancing	Amount (\$)
GEF Agency	UNDP Paraguay	Grants	100,000
GEF Agency	UNDP Paraguay	In-kind	300,000
GEF Agency	WWF International	Grants	2,782,150
Recipient Government	Indonesia – Ministry of Agriculture	In-kind	158,000,000
GEF Agency	Conservation International	Grants	654,000
Recipient Government	National Government – SEAM – Paraguay	Grants	176,000
		In-kind	374,000
Recipient Government	National Government –MAG – Paraguay	Grants	915,583
		In-kind	701,870
Recipient Government	National Government – INFONA – Paraguay	Grants	218,765
		In-kind	105,000
Recipient Government	Departamental Government – Boquerón – Paraguay	Grants	132,000
		In-kind	14,400
Recipient Government	Municipal Government – Filadelfia – Paraguay	Grants	141,500
		In-kind	85,000
Total Co-financing			164,700,268

D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF Agenc y	Trust Fund	Country Name/Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee ^{a)} (b) ²	Total (c)=a+b
UNDP	GEF TF	Global	Multi-focal Area	IAP-Commodities	14,584,403	1,312,596	15,897,000
Total Grant Resources					14,584,403	1,312,596	15,897,000

a) Refer to the Fee Policy for GEF Partner Agencies

⁵ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁶

Corporate Results	Replenishment Targets	Project Targets
1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society	Improved management of landscapes and seascapes covering 300 million hectares	7.95 million hectares
2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)	120 million hectares under sustainable land management	200,000 ha
4. Support to transformational shifts towards a low-emission and resilient development path	750 million tons of CO ₂ e mitigated (include both direct and indirect)	65.6 million tCO ₂ e

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF

A.1. Project Description

Summary of IAP Program

1. This project, *Reducing Deforestation from Commodity Production*, is a child project under the UNDP-GEF 6 Integrated Approach Pilot (IAP) program, *Taking Deforestation out of Commodity Supply Chains*. The IAP program is advancing an integrated “supply chain” approach to tackling the underlying root causes of deforestation from agriculture commodities, specifically beef, oil palm, and soy that together account for nearly 70% of deforestation globally. To vastly reduce or take deforestation out of these commodity supply chains, production has to come from areas that do not contribute to further clearance of natural forests.

2. The Theory of Change for the program builds on the premise that the increased adoption of agricultural commodity production practices that are less destructive of forests is contingent on several factors. Firstly, enabling conditions including policies and land use/spatial plans must be in place to make the right lands available for production and to make high biodiversity value and high carbon stock forests less accessible. Secondly, producers need enhanced capacity to adopt good agricultural practices and improve yields. Thirdly, increased financial flows and economic incentives are necessary to support these good production practices in the right locations and less incentives must be provided in inappropriate locations. Fourthly, market awareness and demand for reduced deforestation supply are critical to promote more sustainable production. If these factors are addressed, agricultural production can be increased and growth achieved with sharp reductions in deforestation compared to business-as-usual scenarios.

3. The IAP program has been developed through a multi-agency consortium that builds on the strong baseline of work by UNDP, WWF, IFC, UNEP, and CI. The overall IAP program is designed through the supply chain lens for each of the three commodities, and in close consultation with four countries associated with their production: Brazil and Paraguay for soil palm and beef; and Indonesia and Liberia for oil palm. By applying the supply chain lens to the overall design,

⁶ Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

the IAP program engages all major actors to harness best practices and sustainability principles for production, generating responsible demand and enabling financial transactions. The Program will be carried out in an integrated, coordinated and synergistic fashion in order to foster sustainability and achieve transformational impact. The ultimate goal of the program is to make the drive for sustainable products associated with significantly reduced deforestation become standard industry practice.

4. The entire Program is organized into four major components that will be delivered through separate child projects as follows (see figure below):

- a. Reduced Deforestation Production (led by UNDP): The focus is on promoting good practices and sustainability principles at the production end of the commodity supply chain. This component will enable supply and production in the right areas and location while conserving the forest and reducing deforestation in the targeted landscapes. Key geographies have been targeted for demonstration of best practices for sustainable production of oil palm (largest driver in Indonesia and Southeast Asia), and soy and beef (largest drivers in Latin America).
- b. Generating responsible demand (led by WWF): This component seeks to strengthen the enabling environment for increased demand of reduced-deforestation commodities in priority markets. The focus is on targeted engagement with key buyers and key markets that have represented the majority of recent demand, domestic demand for these commodities within the production countries, and emerging economies where demand is increasing.
- c. Enabling Transactions (led by World Bank/IFC): This component seeks to improve the resilience and competitiveness of financial institutions, enabling them to develop in a sustainable manner with improved risk management practices and innovative products to accelerate the production and supply of forest friendly commodities. The aim is to support the development of investment transactions either via banks, investors or companies that reduce deforestation in key commodity supply chains on a commercial or blended finance basis.
- d. Adaptive Management and Learning (led by UNDP): In addition to overall coordination of the Program to ensure coherence and consistency, as well as communications and partnership building, this component will foster substantial knowledge management at the global level to advance the supply chain approach for beef, soy, and oil palm. This will include a Global Community of Practice to share best practices and promote learning, and a Global Research Impacts platform to develop robust and policy-relevant evidence base on the effectiveness of different voluntary sustainability standards for deforestation-free commodities.

5. Following Council approval of the PFD, the government of Brazil requested an explicit focus on the soy supply chain, bringing together substantive aspects on Enabling Transactions, Responsible Demand and Reduced Deforestation Production into a single child project for Brazil, with UNDP as the implementing agency and Conservation International as executing partner. The government of Brazil proposed that the child project be formulated on a baseline targeted on the MATOPIBA region (abbreviation for the States of Maranhão, Tocantins, Piauí and Bahia), for which a proposal had been developed with the Brazilian government and approved by the Grupo Técnico de Avaliação de Projetos (GTAP).

6. The IAP Program is expected to generate multiple substantial global environmental benefits to the GEF replenishment targets, including reduced deforestation from agricultural commodity production, biodiversity conservation and sustainable forest management. This is shown in **Table 1** below.

Table 1: GEF Replenishment and IAP Indicative Targets

GEF Replenishment Targets	IAP Indicative Targets (estimates to be refined)
Improved management of landscapes and seascapes covering 300 million hectares	23 million ha
120 million hectares under sustainable land management	1 million ha
750 million tons of CO _{2e} mitigated (include both direct and indirect)	117 million tons CO _{2e}

1. Global environmental problems, root causes and barriers

Global environmental problems and associated root causes

7. Beef, soy and palm oil are the main agricultural commodities driving deforestation in tropical and equatorial forests today.⁷ To reduce the pace of deforestation, and to remove deforestation from commodity agriculture supply chains, production will need to come from areas that are not currently forested.

8. Many studies confirm that commercial agriculture is by far the largest proximate driver of deforestation in most tropical countries worldwide. A 2012 study concluded that 73 percent of tropical and sub-tropical deforestation during the decade leading up to 2010 was caused by agriculture; 40 percent due to commercial agriculture; and the rest to local or subsistence farming.⁸ A second study, prepared in 2013, concluded that 65 percent of deforestation in the tropics and subtropics between 2000 and 2008 was due to agricultural expansion.⁹ Another recent publication found that, due to methodological issues, it is very likely both studies significantly underestimate the recent impact of agriculture on tropical deforestation, especially that of commercial agriculture.¹⁰

9. With international trade of beef and oil palm valued at \$7 billion and \$16 billion respectively, (**Table 2**), both sectors continue to expand rapidly. Accordingly, the growth of commercial agriculture is cited as an important driver of deforestation by nearly all tropical countries in their national Reducing Emissions from Deforestation and Degradation

⁷ This project will seek to address this challenge by concentrating on the production of two of these commodities—palm oil and beef—in three target countries—Indonesia, Liberia, and Paraguay. It will also work in close co-operation with another project under the IAP, which is addressing a similar set of issues associated with expansion of soy production in Brazil's MATOPIBA region. This section thus focuses on palm oil and beef, while threats associated with expanding soy production are described in the latter project.

⁸ Hosonuma, Noriko, Martin Herold, Veronique De Sy, Ruth S. DeFries, Maria Brockhaus, Louis Verchot, Arild Angelsen, and Erika Romijn. 2012. "An Assessment of Deforestation and Forest Degradation Drivers in Developing Countries." *Environmental Research Letters* 7 (4). doi:10.1088/1748-9326/7/4/044009.

⁹ Cuyppers, Dieter, Theo Geerken, Leen Gorissen, Arnoud Lust, Glen Peters, Jonas Karstensen, Sylvia Prieler, Günther Fisher, Eva Hizsnyik, and Harrij Van Velthuizen. 2013. "The Impact of EU Consumption on Deforestation: Comprehensive Analysis of the Impact of EU Consumption on Deforestation." Technical Report 2013-063 (Final Report), European Commission, Brussels, Belgium. doi: 10.2779/822269.

¹⁰ Forest Trends Report Series: Consumer Goods and Deforestation: An Analysis of the Extent and Nature of Illegality in Forest Conversion for Agriculture and Timber Plantations. September 2014. http://www.forest-trends.org/documents/files/doc_4718.pdf

Plus, or REDD+, strategy documents, which serve as the basis for international donor programs to support ecosystem-based mitigation of climate change.¹¹

Table 2: Estimated Value of International Trade in Commodities Linked to Illegal Deforestation, 2012¹²

Commodity	Value*
Soy	\$21 billion (\$13-30 billion)
Beef and Leather	\$7 billion (\$6-\$10 billion)
Palm Oil	\$16 billion (\$10-\$21 billion)

*In total, global exports of products from illegal tropical deforestation are estimated to be worth \$51 billion per year, including plantation wood, beef/leather, and crops grown on land after conversion (Conversion = Gross Forest Loss (>51% canopy cover) in the tropics 2000 to 2012.)

10. The remainder of this section presents brief introductions to the global environmental challenges posed by expanding production of palm oil and beef.¹³

Palm oil

11. Palm oil is an important and versatile raw material for both food and non-food industries. It contributes to the economic growth of producing countries and serves as an important dietary ingredient of millions of people around the world. Vegetable oil production around the world totals about 150 million tons, of which over 40 million tons is palm oil, which makes it the world's leading vegetable oil crop. From the 1990s to the present, the global area under palm oil cultivation has increased by about 43 percent, mostly in Malaysia and Indonesia, which are the world's largest producers of palm oil. The rapid growth of palm oil production creates significant environmental pressures on ecologically sensitive areas, particularly given that palm oil can only be cultivated in the tropical areas of Asia, Africa and South America.¹⁴

12. Palm oil production has extensive impacts on biodiversity. Although contrary research also exists, most studies show that areas covered by oil palm monocultures have low biodiversity values¹⁵ and their expansion causes near total loss of habitat value, fragmentation and land degradation, heavily impacting biodiversity and ecosystem services. Oil palm monoculture contains lower biodiversity value due to the absence of the major components of forest vegetation, including forest trees, lianas, and epiphytic orchids. These less complex habitats consistently support less than half as many vertebrate species as natural forest and on average only 23% of forest species are recorded in oil

¹¹ Williams, Lauren Goers and Crystal Davis. 2012. "Getting Ready with Forest Governance: A Review of the Forest Carbon Partnership Facility Readiness Preparation Proposals and the UN-REDD National Programme Documents. WRI Working Paper. World Resources Institute, Washington, DC. http://www.wri.org/sites/default/files/getting_ready_2012-03.pdf.

¹² Forest Trends Report Series: Consumer Goods and Deforestation: An Analysis of the Extent and Nature of Illegality in Forest Conversion for Agriculture and Timber Plantations. September 2014. http://www.forest-trends.org/documents/files/doc_4718.pdf

¹³ An analogous introduction to soy may be found in Section A.1.1 of the CEO Endorsement document for the Brazil child project.

¹⁴ Miettinen, J., Hoojer, A., Tollenaar, D., Page, S., Malins, C., Vernimmen, R., Shi, C., Liew, S.C., (2012); Casson (2001)

¹⁵ There are a number of studies on this. Between 2002 and 2007, ZSL carried out research in Indonesia to determine the impacts of oil palm on biodiversity, particularly the Critically Endangered Sumatran Tiger (www.zsl.org/tiger report). This showed that oil palm plantations are a poor substitute for the forest they frequently replace, as only around 15% of forest species are able to utilise the oil palm habitat. Reduction of the total area of their primary habitat and fragmentation of what remains means coping with oil palm expansion is a challenge for these species. But seemingly worthless areas of unplanted and degraded land, which are often found within and around plantations, could provide crucial 'stepping stones' or corridors between larger areas of forest in the surrounding landscape (ZSL Conservation. 2009). See Nathan Gray (2011). Palm Plantations are endangering biodiversity. Queen Mary university, London; Fitzherbert et al. (2008)

palm plantations.¹⁶ Mammals appear to react particularly adversely to oil palm monocultures, with research conducted in Sumatera reporting that only 10% of the medium to large mammal species present in the wider landscape regularly entered the oil palm monoculture, and these were often species of least conservation concern.¹⁷ The most endangered species, such as the Critically Endangered Sumatran tiger, tended to be the most sensitive and almost never entered the oil palm monoculture,¹⁸ indicating the expansion of oil palm plantations comes at the cost of lost habitat for these endangered species. Other species that frequent the oil palm monoculture, such as sun bears and pangolins, are increasingly susceptible to being captured for food, wildlife trade or persecuted as conflict animals.

13. Palm oil production also causes extensive land degradation and soil erosion associated with deforestation, forest fires through clearing land for plantations and, in some cases, peat land drainage.¹⁹ Palm oil production expansion in forests and peatlands leads to habitat loss and increased GHG emissions, while improper fertilizer application may cause water contamination, impacting biodiversity, water supply and livelihoods derived from fishing and apiculture for downstream communities.²⁰ These impacts affect not only biodiversity and ecosystem services, but can also impose extensive economic costs on local populations due to the lost ecosystem services.²¹

14. Oil palm plantations continue to expand globally, with West and Central African countries, such as Liberia, among those beginning to face the challenge of balancing the opportunity for economic growth and employment with the threats to traditional livelihoods and ecosystem services associated with oil palm plantation development. The present project focuses on one country with a mature, yet still growing, palm oil sector—Indonesia—along with one African country—Liberia—along the palm oil expansion frontier.

Beef

15. Livestock is the world's largest user of land resources, with pasture and land dedicated to the production of feed representing almost 80% of total agricultural land use. The sector uses 3.4 billion hectares (26% of the Earth's ice-free terrestrial surface) for grazing and one-third of global arable land to grow feed crops, accounting for more than 40% of world cereal production.²² Yet, beef accounts for less than two per cent of calories consumed throughout the world. Beef makes up only 24% of the world's meat consumption, yet its production requires 30 million square kilometres of land.²³

16. Accordingly, there are billions of farm animals worldwide. In 2013, the global cattle population reached 1,494 million animals, up 54% from 1963.²⁴ Bovine meat accounted for 24% of total meat consumption and production reached almost 60 million metric tons worldwide in 2014.²⁵

17. Cattle production is the leading driver of deforestation in Latin America. For example, cattle is responsible for around 75% of deforestation in Brazil,²⁶ including 87% of deforested Amazonian land (66% is in pasture and an

¹⁶ Fitzherbert et al. (2008); Danielsen et al. (2009)

¹⁷ Maddox et al. (2007)

¹⁸ Maddox et al. (2007)

¹⁹ Carlson et al. (2007)

²⁰ Pesticide Action Network (2010)

²¹ McCarthy and Zen (2008)

²² <http://www.fao.org/docrep/019/i3440e/i3440e.pdf>

²³ http://www.ucsusa.org/sites/default/files/legacy/assets/documents/global_warming/Solutions-for-Deforestation-Free-Meat.pdf

²⁴ <http://faostat3.fao.org/browse/Q/QA/E>

²⁵ USDA, Livestock and Poultry: World Markets and Trade, October 2014, http://apps.fas.usda.gov/psdonline/circulars/livestock_poultry.pdf

²⁶ Bustamante MMC, et al. (2012) Estimating greenhouse gas emissions from cattle raising in Brazil. *Climate Change* 115, 559-577.

additional 21% is pasture reclaimed by secondary forest).²⁷ Driven by this deforestation, Brazilian beef exports have increased by a factor of three in the last decade, and 80% of the growth in production has been in the Amazon.²⁸

18. The cattle sector is also a substantial contributor to GHG emissions, contributing around 12% of global GHG emissions.²⁹ From 2003-08, CO₂ emissions from pasture in the Brazilian Amazon, for example, averaged 50% of the country's total emissions.³⁰ Beef produced in Brazil also emits far greater quantities of CO₂ than US beef – around 15 times the amount of CO₂e per kg of meat.³¹ This is due in part to poor pasture management, which supports an average of just one head of cattle per hectare and the higher slaughter age of cattle, resulting in a low yield of food per hectare. Beef production has other sustainability impacts that will become major challenges in a resource-constrained world; for example, producing one kg of beef requires 15,500 litres of water, compared with 250 litres for a kg of potatoes.³²

19. NGO campaigns have also highlighted the link between creating cattle pasture and tropical deforestation; these include Amigos da Terra Amazônia Brasileira's 'Time to Pay the Bill' and Greenpeace's '[Slaughtering the Amazon](#)' in 2009. These campaigns, combined with legal action by the Public Prosecutor's Office in the Amazon state of Pará, prompted four key meatpackers, controlling a third of Amazon slaughter (JBS, Bertin, Marfrig and Minerva), to sign the G4 Cattle Agreement with Greenpeace. The agreement established a timeline for purchasing only from ranches that can demonstrate zero deforestation.

20. The beef sector is typically characterized by a small number of meat processing giants, which are key suppliers to global fast-food retailers like McDonalds. In secondary processing of meat (packaged meats, sausages, ready meals, etc.), the landscape is dominated by private label players; only in Brazil and India are branded companies the largest secondary processors.

21. The present project focuses on Paraguay, a country that has experienced rapid growth in recent years in its beef sector.

Barriers

22. Attempts to analyze the barriers to achieving reduced-deforestation commodity production need to be based on an understanding of the issues typically underpinning a sustainable and forest-conserving production system. The salient issues and associated barriers hindering a shift towards more sustainable production are as follows:

- Dialogue, action planning, policies and enforcement: Dialogue and the development of partnerships have proven to be essential tools for increasing transparency, building consensus, enabling co-ordinated planning and regulatory oversight and encouraging sustainable forms of investment in commodity production.³³ The importance of developing national and sub-national multi-stakeholder platforms is based on the fact that commodity agriculture expansion often occurs in an

²⁷ <http://www.cbd.int/doc/world/br/br-nr-05-en.pdf>

²⁸ Walker N, et al. (In Press) From Amazon Pasture to the High Street: Deforestation and the Brazilian Cattle Product Supply Chain. Tropical Conservation Science.

²⁹ PBL (2011) [The protein puzzle: The consumption and production of meat, dairy and fish in the European Union](#)

³⁰ Bustamante MMC, et al. (2012) Estimating greenhouse gas emissions from cattle raising in Brazil. Climate Change 115, 559-577.

³¹ Ogino A, et al. (2004) Environmental impacts of the Japanese beef-fattening system with different feeding lengths as evaluated by a life-cycle assessment method. J. Anim. Sci 82, 2115-2122; Subak, S. (1999) Global environmental costs of beef production. Ecological Economics 30, 79-71.

³² Foresight. The Future of Food and Farming (2011) Final Project Report. The Government Office for Science, London.

³³ Green Commodities Program (2015)

opaque manner, and access to open and transparent information is generally lacking. This lack of transparency contributes to conflict and social tension in frontier areas. The absence of a space in which to discuss and search for more equitable and environmentally sustainable approaches to sustainable production and expansion problems limits the ability of all actors—including producers, traders and consumer goods companies alike—to embrace sustainable production, and results in inefficiencies in the supply chain, poor environmental outcomes and inequitable results.³⁴ Up to now, there have been insufficient opportunities for stakeholders within supply chains to come together, understand each other, and build a national vision to collaborate for better solutions to complex problems. Coordination and dialogue is also needed to help integrate efforts and identify synergies; for example, farmer support projects that are fragmented and not connected with government efforts cannot scale up to the necessary levels. National commodity platforms are a well-demonstrated approach to addressing all of the above issues, including through the development of commodity action plans. Dialogue and action planning can also inform action by national and sub-national governments to influence market-driven productive forces with the aim of correcting market failures, serving broader societal interests and addressing equity issues in international supply chains. Too often, however, regulatory rule making and enforcement have been either too weak or have actively undermined sustainability by enabling, rather than restraining, extractive and unsustainable forms of production and continued ill-planned agri-commodity land use expansion. Conflictual legislation and regulations can enable accelerated deforestation or otherwise jeopardize forests. Improved regulatory approaches related to production practices, easier access to information about appropriate land and the avoidance of forests can be important to ensuring that sustainable agricultural development occurs in the right ways and right areas. In other cases, enforcement of already established legislation is the main and most efficient priority area needing support.

- **Farmer support systems:** Sustainable intensification of commodity production is one useful path to increasing production without deforestation. Another path is working to maximise agri-commodity expansion onto degraded³⁵ or unforested lands. Extension services and other approaches³⁶ that are successful at encouraging farmers to adopt best practices and improved inputs and technologies offer good opportunities to increase production using existing agricultural lands. Incentivizing and regulating good production practices and sustainability principles that contribute to adjacent forest conservation, in-farm set asides, and protection of water sources, are among the ways in which forests and associated natural capital can be conserved. Farmer support systems can help to disseminate and encourage such practices while also helping to increase productivity. They do, however, need to be combined with stricter enforcement measures in order to ensure that improved productivity doesn't stimulate further expansion into forested areas.
- **Land use planning and mapping systems:** Decisions regarding the locations for intensifying or expanding production of agricultural commodities are typically driven by an intermingling of financial and political considerations, in some cases raising concerns about transparency and good governance. Land use planning, zoning and enforcement of designated land uses are necessary to guide efficient agriculture development and forest and land conservation. Yet more equitable and green growth-inspired decisions, even where politically possible, often founder on a lack of information, data and land use systems to put them to best use. Most important from a global environmental perspective is the need to gather and make use of spatially resolved data on high conservation value (HCV) and high carbon stock (HCS) forests, important biological corridors and related ecosystem areas. Such information, increasingly accessible through remote sensing and other sources, can be effectively mainstreamed into land use planning processes.
- **Knowledge and learning:** In a world where agricultural commodities are expanding into many and varied ecosystems, and multiple organizations are developing local, on-the-ground interventions, there are ample, largely untapped opportunities to capture and share experience and lessons learned and to apply these to the development of national strategies as well as to more localized, deforestation frontier situations. The present project can itself be expected to generate many such lessons.³⁷

³⁴ Gattorna (2015)

³⁵ Degraded land is land that has lost some degree of its natural productivity due to human-caused processes. However, there is no single internationally-approved definition of "degraded land". In Indonesia, Lahan kritis (literally "critical" land, often translated as "degraded") — is land designated as having reduced ecological functions by the Ministry of Forestry, based on biophysical characteristics. The international NGO WWF defines degraded land as land where the native vegetation has been altered by human activity resulting in a reduction in tree canopy cover, standing biomass, or species diversity from which the system cannot recover unaided within a defined time period (Fairhurst and McLaughlin 2009).

³⁶ The importance, and relative absence, of credit should not be underestimated here (see IAP transactions project).

³⁷ These will be further amplified through the child project on Adaptive Management and Learning.

23. Outcomes related to each of the above areas are affected by a combination of market-driven, legal/regulatory, enforcement and knowledge-related processes, as well as by issues related to weak demand, poor lending oversight and limited or dysfunctional incentives. **Table 3** breaks down the above areas into individual ‘elements’ and associated barriers, which together provide the underpinnings of a sustainable and reduced deforestation commodity production system.

Table 3: Elements and barriers

Category/type	Element	Barrier
Dialogue, action planning, policies and enforcement	Coordination of visions and strategies regarding commodity production and growth among Government ministries, private sector, and civil society	In the absence of a broader sustainable development framework, Government ministries, private sector, and civil society hold conflicting visions and pursue competing strategies related to commodity production and growth
	Alignment and implementation of public and private investments, and other actions related to target commodity	Public and private investments and activities, and other actions related to target commodity, are often chronically misaligned
	Policies, regulations and government enabling environments related to target commodity production and environmental protection practices	Policies, regulations and government enabling environments related to commodity production—particularly those regulating production practices and affecting conservation and forest management—are enabling high levels of deforestation
	Policies, regulations, and government enabling environments related to land use allocations for target commodity production	Policies, regulations and government enabling environments related to land use allocation—particularly those relating to the selection of locations for expansion of target commodity production—do not fully take into account associated environmental impacts or take advantage of potential benefits at the landscape level.
	Systems for monitoring and enforcement of policies and regulations related to target commodity production	Systems for monitoring and enforcement of existing policies and regulations have limited capacity to prevent deforestation associated with commodity production
Farmer support systems	Producers’ ability to increase production without deforestation or degradation	Up to now, producers—and buyers—often prefer to increase production through deforestation, lacking sufficient resources / support from public, private or public-private systems to sustainably intensify agricultural productivity of lands already in cultivation
	Approaches to supporting smallholder adoption of sustainable production practices	Farmer extension services operate at low capacity and relevant government agencies do not have comprehensive maps of smallholder plots
Land use plans and mapping	Land use planning/zoning systems that protect high biodiversity value, high carbon stock, ecosystem service-rich and other forest areas	Land use planning/zoning systems are designed and operate in ways that can fail to prevent the targeting and conversion to production of high biodiversity value, high carbon stock, ecosystem service-rich and other forest areas nationally and sub-nationally, while degraded or otherwise appropriate lands remain underutilized
	Knowledge and avoided conversion of priority areas for conservation	HCV and HCS areas are poorly known and inadequately protected from conversion to commodity production

Category/type	Element	Barrier
Knowledge and learning	Knowledge regarding what approaches work best and how to adapt them to various circumstances	Knowledge regarding successful approaches to removing deforestation from commodity supply chains is limited based on a combination of factors, including the frequent desire amongst producers, traders and buyers to keep their supply chains opaque, limited lesson capture and poor communication/dissemination of successful and efficient agri-commodity supply chain outcomes
	Learning, adaptation and application of demonstrated lessons and knowledge in new areas and situations	Knowledge of successful approaches, techniques, tools and strategies fail to be applied to potentially analogous situations in tropical forest areas

2. Context and Baseline Scenarios

24. A number of existing initiatives deal with the environmental implications—including forest conversion—of commodity production. Most of these, however, are limited in scope to individual commodities, individual supply chains, individual countries or specific supply chain links. Although often successful in the focus of their efforts, this fragmented approach has not managed to implement comprehensive change within entire commodity sectors and ultimately has been unable to reduce the rate of deforestation resulting from commodity expansion.³⁸

25. At the global level, various supply chain and Fair Trade initiatives, certification programmes and Commodity Roundtables (palm oil, soy, beef) have made considerable progress in implementing environmental and social standards for better management practices in commodity production, and have been increasingly adopted by many leading Western brands, traders and retailers. However, in order to bring about transformational change at scale, a structural approach is needed, to ensure that a combination of local capacity building, improved regulation and local governance, rule of law, better incentive schemes, respect for land rights and improved access to infrastructure and basic services will enable commodity sectors to produce in a sustainable manner with reduced deforestation.

26. The Tropical Forest Alliance 2020 (TFA: www.tfa.org) is a global public-private partnership that brings together governments, private sector corporations and NGOs to reduce deforestation associated with the production of palm oil, beef, soy, and pulp and paper by half by 2020, and to stop deforestation caused by these sectors by 2030. Established in 2015, TFA has created a forum for its 68 partner organizations to interact on deforestation-free commodity pledges, smallholder finance, and the role of the financial sector, among other topics.

27. The Global Roundtable for Sustainable Beef (GRSB: www.grsb.org) is a global multi-stakeholder initiative that brings together large- and small-scale producers, processors, and a broad range of other stakeholders, including over 800,000 cattle breeders, producers and feeders, to promote environmentally sustainable, socially responsible and economically viable practices throughout the beef value chain. Rather than seeking to set standards or create a certification program, the GRSB works to establish a common understanding of sustainable beef and to promote practices that contribute to its realization.

28. At a more limited scale, Conservation International (CI), as part of its Sustainable Landscapes Approach, is developing a Landscape Accounting Framework (LAF) to monitor the status and change of key indicators that

³⁸ Carlson (2010); Eyes on the Forest (2016)

collectively characterize a sustainable landscape. By tracking not only ecosystem health and loss, but also key human development and agricultural production indicators, the SLP aims to measure impact, understand the interlinked relationships between ecosystem health and human well-being, target project investments, and support local decision makers. In addition, this type of monitoring can eventually enable end-users/buyers of commodities originating from these areas to confidently meet their “zero-net deforestation” buying pledges and motivate governments and farmers to invest in cost-effective and sustainable production methods.

29. UNDP has supported the establishment of National Commodity Platforms in several countries worldwide, including two of the three CIAP target countries—Indonesia and Paraguay. In Indonesia, the national platform on palm oil is hosted by the Minister of Agriculture. A National Commodity Platform is a mechanism hosted and led by national governments for convening and coordinating the public and private sector to promote sustainable production at a country level and to define the country’s sustainability priorities and policies for the selected commodity. A Platform creates a long-term space where the public and private sectors can align, take ownership and develop joint concrete actions to mitigate the negative impacts of commodity production and maximize productivity. UNDP’s approach to National Commodity Platforms³⁹ builds on and complements national and regional-level approaches to strengthening a country’s enabling environment for sustainable commodity production through facilitating multi-stakeholder dialogue and providing the expertise and analysis, accelerating efforts to scale up action in the priority areas for the selected commodity at multiple levels. A central activity of Commodity Platforms is the development of a National Strategy for responsible production and trade of the targeted commodity, consisting of a jointly agreed set of actions to be undertaken by government, private sector, producers and buyers. These actions may cover many of the other barrier areas being addressed by the present project—including production policy and enforcement, spatial analysis and planning, etc—and therefore will have a central role to play in the project logic.

30. Solidaridad is one of several organizations providing a range of support measures benefitting farmers of agricultural commodities. Its farmer support programme aligns stakeholders from five internationally recognized commodity roundtables: Palm Oil (RSPO— Roundtable on Sustainable Palm Oil), Soybean (RTRS Roundtable on Responsible Soy Association), Sugarcane (Bonsucro), Cotton (BCI – Better Cotton Initiative) and Livestock (GRSB – Global Roundtable for Sustainable Beef) through a public private partnership that aims to reach 400,000 farmers around the world.

31. CI has been supporting the use of Conservation Agreements in the context of support to sustainable landscapes, including ones facing extensive commodity development. Conservation agreements serve dual purposes of addressing livelihood and employment needs of local communities within the landscape while also making them the stewards of key conservation areas. In a conservation agreement, incentives are offered to local communities in exchange for managing their land to provide an ecological service. Resource users commit to conservation actions in exchange for benefit packages that are defined through participatory processes. The central premise is that people will conserve forest resources if they have the option to do so, and that the benefits of conserving outweigh the costs. The benefits associated with the Conservation Agreements are defined through participatory processes but could potentially include the provision of high yielding seedlings and other inputs for smallholders, training male and female farmers in good agronomy and providing the opportunity for smallholders to forge supply agreements with commercial oil palm

³⁹ See http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/projects_and_initiatives/green-commodities-programme/what-we-do/ncp.html

companies. In return, smallholders would commit to a series of conservation actions that will include commitments to curbing deforestation.

3. Proposed GEF alternative scenario, project components & expected outcomes

RATIONALE/THEORY OF CHANGE

32. The rationale, or theory of change, underlying the production child project stems from the evidence that baseline global agricultural commodity expansion trends—while contributing to meeting food security needs in the short and medium term—are on the whole unsustainable, often inequitable and are causing widespread global environmental damage.⁴⁰ Producers, traders, consumer goods companies and consumers are, wittingly or unwittingly, driving a form of economic growth that is contributing significantly to the destruction of the natural resource base in particular tropical areas. Impacts associated with commodity-driven tropical deforestation, in particular, include loss of biodiversity, high levels of greenhouse gas emissions and reduced carbon sequestration, land degradation and loss of additional ecosystem services.

33. The problem, or challenge, is simply described: how to expand production of key agricultural commodities—which are in high demand globally due to expanding populations, rising incomes and low substitutability—without imposing the kinds of external costs described above on local, national and global populations. Success in meeting this challenge will require change that transforms commodity production (as well as demand and finance) from its current, largely extractive nature to a more inclusive form that ensures equity and internalization of environmental costs.

34. In more concrete terms, urgent changes are needed on the production side relating to how, where and with what levels of productivity and environmental impacts, agricultural commodities are produced. Starting with the baseline situation, and assuming no retreat of the agricultural frontier (i.e. abandonment of agricultural lands), the challenge of expanding production efficiently and with minimal further loss of forest areas and associated values depends on: (1) where and in what manner production is intensified, (2) which new lands are selected for expanding production, and (3) the extent, importance and location of any biodiversity and other environmental service set asides within productive lands.

35. The selected approach for this child project is therefore systemic in nature and designed to anchor the entire supply chain for oil palm, beef and soy; it seeks to catalyse the development or transformation of national and sub-national commodity production systems based on a series of key levers outlined above. At the systemic level, the child project will:

- (i) build partnerships and increase dialogue globally and nationally (in target countries) on sustainable commodity production by establishing, or extending, and connecting up national and sub-national commodity platforms for planning, consensus building and knowledge sharing; leverage dialogue and action planning to support the emergence and utilization of more effective policy enabling environments and related enforcement standards and regulations;

⁴⁰ Forest Trends Report Series: Consumer Goods and Deforestation: An Analysis of the Extent and Nature of Illegality in Forest Conversion for Agriculture and Timber Plantations. September 2014. http://www.forest-trends.org/documents/files/doc_4718.pdf

- (ii) enhance systems for farmer support, particularly of smallholders who are producing target commodities, in order to reduce unsustainable practices, and;
- (iii) support systems for mainstreaming national and global benefits associated with protecting tropical forests into land use planning in areas where forests are currently threatened by commodity expansion.

36. The project will focus on building the sustainability of the systems being strengthened, which will require it to be firmly embedded within national and sub-national institutions and ongoing initiatives and to deliver clear benefits to key national, as well as international, stakeholders.

37. While the above systemic focus is necessary, it is unlikely to be sufficient by itself to catalyse the needed change. A number of additional types of interventions and support will be needed. First, demonstrations will be implemented within identified target landscapes (see below). This work will provide an opportunity for the project to ‘road test’ innovative approaches to strengthening systemic levers, removing barriers to increasing the sustainability of business and agricultural practices and, more broadly, contribute to reducing deforestation associated with growth in commodity production. It will also create opportunities for direct, on-the-ground linking up with the IAP’s demand and transactions projects. This supply chain based approach lies at the heart of the overall IAP theory of change, and will play out both within the landscape level demonstrations as well as across the project’s system-level support efforts. Given limited time and resources, the project will not attempt to tackle the full range of issues within any target geography—including national and sub-national jurisdictions and target landscapes—for example, to deliver deforestation-free jurisdictions.

38. Second, and critical to enhancing the impact of both the project’s systemic and demonstration work, will be a substantial focus on knowledge and learning, including in relation to cross-cutting themes such as gender resilience. Thus the key to the project’s effectiveness will lie not only in the proximate site-level impacts of its demonstrations but also with its emphasis on ensuring lesson learning, knowledge building and dissemination both up and down the spatial scale from landscape to global in order to improve and accelerate broader impact. The approach will ensure both that project activities are transferring new lessons and knowledge and that awareness generated by the project is amplified and replicated broadly through provincial and national platforms. **Table 4** below describes the inter-dependencies amongst the project’s systemic, demonstration and knowledge related areas of work in order to show how change in one area feeds changes in others as part of an integrated whole.

TARGET LANDSCAPES

39. As described in the previous section, demonstrations will be implemented within identified target landscapes in order to allow the project to ‘road test’ innovative approaches to strengthening systemic levers, removing barriers to increasing the sustainability of business and agricultural practices and, more broadly, contribute to reducing deforestation associated with growth in commodity production. These landscape-level interventions will also create opportunities for direct, on-the-ground linking up with the IAP’s demand and transactions projects

40. The project has selected a number of target landscapes based on pre-defined assessment and criteria (see **Table 5** below) where innovative approaches may be tested and detailed analysis can be performed regarding the dynamics of change that occurs. This will assist with determining correlations with project interventions, which in turn will support a deeper understanding of effective interventions.

41. The selection criteria used for targeted landscape selection are shown in **Table 5** below. The ongoing presence of conservation areas and forested areas was an important criterion, especially areas with remaining high biodiversity and connectivity potential as part of supporting restoration processes. The attitude of key government and private sector stakeholders was another important factor in considering potential synergies and partnerships. Finally, the potential for optimizing multiple livelihood and socio-economic benefits also played a role in selecting target landscapes.

Table 4: Production project dependencies, by component

	→ (Is fed) Dependent				
	Components	1. Dialogue, action planning, policies and enforcement	2. Farmer support systems	3. Land use planning and mapping	4. Knowledge and awareness
I n d e p e n d e n t (f e e d s) →	1. Dialogue, action planning, policies and enforcement		Global dialogue and national and sub-national platforms help identify and build consensus on policy priorities and goals, strategies and regulations to institutionalize restructured farmer support systems and confirm sustainability-focused public and private sector support	Global dialogue and national and sub-national platforms support 1) clear definitions of HCV and/or HCS at national and target sub-national levels and 2) uptake of spatial information into national and district level land use decisions	Global dialogue and national and sub-national platforms identify knowledge gaps and priorities, build lessons learned through demonstrations into knowledge products and help share knowledge gained among different countries and districts
	2. Farmer support systems	Experience, tools, learning material, communication support and farmer books are captured and disseminated for further uptake; enforcement becomes increasingly important for preventing expansion in the context of farmer and company training		Farmers need to be educated about the need to avoid particular areas that are not compatible with farming, and to about where are the best places to plant	Analysis of lessons learned through demonstrations and smallholder training material and tools is built into knowledge products and shared widely
	3. Land use planning and mapping	Experience with land use planning and mapping, combined with policies on definition of HCV, carry capacity and protected areas, is captured and disseminated via platforms and relevant government stakeholders and departments for further uptake, especially for identifying recommended go and no go areas in target landscapes	Mapping is essential to ensuring that support systems benefit legal farmers operating in 'right' locations		Analysis of lessons learned through demonstration is built into knowledge products
	4. Knowledge and awareness	Knowledge products are assessed by platforms and global partners, conclusions are drawn, policies are fine-tuned to enable better understanding of causes and effects of agricultural expansion and replication/uptake increases	Knowledge of landscapes and impacts of changes enables fine tuning and better understanding of causes & effects; understanding farmer motivations enables better targeting of smallholder support	Knowledge of landscapes, land suitability and impacts of changes enables better land use planning to serve multiple economic, social and environmental objectives	

Table 5: Selection criteria for target landscapes

• Biodiversity values & forest cover	• Potential for replication and impact
• Watershed areas	• Potential to protect and improve local hydrological areas
• Land use change hotspot	• Local presence (partners) and capacity to leverage
• Availability of degraded land	• Information and monitoring capacity
• Stakeholder buy in	• Cofinancing potential
• Socio-economic vulnerability/indigenous groups	• Connectivity potential
• Value chain/corporate interest leverage	• Potential socio-economic benefits

42. **Table 6** below provides a summary of the project’s target landscapes, while **Annex D** provides additional information. In the case of palm oil, the project has selected targeted landscapes in Indonesia and Liberia. The challenges and structural problems facing these areas are different, and the combination of a leader in palm oil production (Indonesia) and a nascent producer (Liberia) will allow the project to generate lessons applicable to multiple geographies.

Table 6: Target landscape summary descriptions

Country	Province/District	Summary Description
Indonesia (Commodity: Oil Palm)	1) Sintang District (West Kalimantan Province) – 2.16 million ha 2) South Tapanuli (North Sumatera Province) – 1.3 million ha 3) Pelalawan District (Riau Province) – 1.32 million ha	<p>Sintang District in West Kalimantan features a mountainous tropical rain forest ecosystem, including the Bukit Baka-Bukit Raya National Park. Rubber and palm oil production are the main agricultural activity in Sintang District, both by large-scale plantations and smallholders. Oil palm has dominated the district’s development over the past decade, with over 35 plantation licences being granted by the district government over the past decade.</p> <p>North Sumatera on the island of Sumatera has the second most forest cover in Indonesia, and South Tapanuli is one of the three regencies with the biggest forest areas in North Sumatera. The latter’s climate has a wet/dry seasonal cycle strongly influenced by the Barisan Mountain Range. The district is connected to the Batang Toru Forest ecosystem, which is threatened by deforestation and degradation driven in large part by the expansion of palm oil plantations. South Tapanuli’s landscape is a mix of undulating and hilly slopes, some of which can impose considerable limitations on the land’s productivity potential and suitability for different agricultural commodities. North Sumatera’s economy is driven in approximately equal parts by agriculture, manufacturing, and trade/tourism. Palm oil, rubber, and coffee are the main crops in the province’s agricultural sector.</p> <p>Pelalawan District on the island of Sumatera contains ecosystems with high biodiversity, including the Tesso Nilo dry lowland forest, which has the highest vascular plant diversity of all Sumateran and Indonesian forests (perhaps the highest diversity in the world). There are several significant biosphere reserves in Riau province, including Cagar Biosfer Giam Siak Kecil Bukit Batu and Giam Siak Kecil – Bukit Batu biosphere reserves. Riau Province is one of the richest provinces in Indonesia, and is particularly rich in petroleum, natural gas, rubber, and palm oil plantations. The province tends to grow faster than the Indonesian average, based</p>

Country	Province/District	Summary Description
		largely on natural resource-derived revenues. This fuels high rates of deforestation, and the associated fires contribute to the haze in the region.
Liberia (Commodity: Oil Palm)	Grand Cape Mount, Bomi, Gbarpolu and Bong, in Western Liberia – 310,170 ha	In this landscape, oil palm development is at a nascent stage but promises to grow substantially within the current concession areas and with smallholders. A major palm oil concession has been granted over land that was assumed to be unencumbered public land but in reality extends over vast areas that feature an intense mix of forest-dependent communities, high biodiversity value forest and competing natural resource interests such as logging, mining and rubber. The potential for conflict between pending oil palm plantation concessions and closed canopy natural forest is significant. Liberia contains the largest remnant of the Upper Guinean rainforest that once belted the continent. These forests provide a wide range of social, economic and ecological benefits to the Liberian people. They also provide habitat for globally important biodiversity. There is a serious risk that the end result of current land use trends is a fragmented and degrading natural landscape that fails to meet conservation objectives and is also sub-optimal for industry and communities. Communities own much of the land and are highly dependent for subsistence on the land and resources that palm oil developments will consume. Conflicts between communities and palm oil companies have already occurred over land rights and resource use. The social implications of large-scale land clearance for palm oil are therefore high. Sustainably integrating palm oil investments into forested landscapes in Liberia poses a number of challenges. In both industrial and conservation terms, this landscape represents a proving ground of regional and perhaps global significance and could potentially be the ideal test-bed for piloting innovative, integrative approaches that will deliver model progress towards sustainable development.
Paraguay (Commodity: Beef)	<p>1) Central Boquerón (Department of Boquerón) – 1.128.194 ha</p> <p>2) Northern Boquerón (Department of Boquerón) – 987,656 ha</p> <p>3) Agua Dulce (Department of Alto Paraguay) – 748,110 ha</p>	<p>The impacts of expanding beef production are high and the deforestation frontier is continuing to expand within these three landscapes of the El Chaco region. The areas are situated either in the Department of Boqueron or in the neighbouring department of Alto Paraguay and incorporate both buffer zones and areas adjacent to the Defensores del Chaco national park, as well as the productive landscape between the Rio Negro National Park and the Defensores del Chaco Park.</p> <p>The landscapes contain a combination of small and large-scale farmers, with endemic structural problems and a lack of capacity for land use planning and enforcement that increases the threats to biodiversity and ecosystem integrity in the region. Central Boqueron differs from Northern Boqueron and Agua Dulce in terms of bio-physical and socio-economic factors. Central Boqueron has a semi-humid climate and the area has already undergone extensive land use change, with areas of degraded lands and relatively low provision of ecosystem services. It has a high population density of small, medium, and large-scale farmers, relatively few protected areas, and the highest level of deforestation among the three Paraguayan target areas.</p> <p>Northern Boqueron and Agua Dulce have similar bio-physical and socio-economic characteristics. Both have a semi-arid climate and neither has experienced extensive land use change yet. Agua Dulce has relatively high productive potential, and both provide high levels of ecosystem services. Northern Boqueron and Agua Dulce have low population density, primarily composed of large-scale farmers. Although both are under the Chaco Biosphere Reserve protected area, deforestation in Agua Dulce is the second highest in Paraguay and the areas are at high risk of future deforestation, especially given continuing encroachment on the northern, southern, and eastern portions of the buffer zone of the Defensores del Chaco National Park.</p>

43. The project objective is to encourage sustainable practices for oil palm, beef and soy production while conserving forests and safeguarding the rights of smallholder farmers and forest-dependent communities.⁴¹

44. Project components and outcomes are described below.

COMPONENT 1: DIALOGUE, ACTION PLANNING, POLICIES AND ENFORCEMENT

Component 1 Outcomes

Outcome 1.1: Responsible Governmental authorities, along with private sector & civil society organizations, build consensus and reduce conflict related to target commodity production and growth at national and sub-national levels in the three target countries, Indonesia, Liberia and Paraguay, through structured dialogue in national and sub-national commodity platforms and district/target landscape commodity forums

Outcome 1.2: Practical alignment of policies and measures that reduce deforestation and forest degradation, implementation of public and private investments and other actions related to target commodities production in the three target countries through finalized, adopted and implemented national and sub-national Commodity Action Plans

Outcome 1.3: Dialogue and action planning contributes to improved national and sub-national policies, regulations and programmes related to commodity production and **associated environmental protection practices** in the three target countries that address the drivers of deforestation, forest degradation and greenhouse gas emissions in commodity value chains

Outcome 1.4: Dialogue and action planning contributes to improved national and sub-national policies, regulations and programmes related to land use allocations for commodity production and set asides in the three target countries strengthen norms, tools, REDD+ safeguards and incentive mechanisms, improving access to and use of degraded and existing agricultural lands

Outcome 1.5: Dialogue and action planning contributes to improved monitoring and enforcement of existing and new (ref. Outcome 1.3) policies and regulations, strengthening the rule of law in the three target countries and particularly within selected landscapes

45. Structured dialogue is a central principle and tool of the Production child project and is defined herein as a process through which public and private sector stakeholders engage , plan and undertake actions and investments related to a particular commodity production chain. The project will support the establishment and operations of three national and four sub-national commodity platforms, as well as up to 4 district/landscape forums, to facilitate structured dialogue on sustainable production within the target countries, thus facilitating action planning, policy reform and improved enforcement capabilities (Outcome 1.1). **A list of stakeholders expected to be engaged via national platforms is provided in Annex _.**

46. Based on root cause analysis and agreed upon by a wide array of stakeholders, commodity platforms will develop and implement strategies and action plans, leading to the practical alignment and implementation of public and private investments and other actions related to target commodities (Outcome 1.2). Platforms will enable public-private discussions, as well as greater coordination among different governmental institutions and ministries. More

⁴¹ Soy production is the primary focus in the IAP's separate child project for Brazil.

broadly, they will provide public, private and civil society sector stakeholders with a forum within which to share experiences, coordinate activities and find ways to work more in partnership rather than pursuing competing or conflicting strategies traditionally associated with an environment vs. development paradigm.

47. Through the national and sub-national commodity platforms, the project will facilitate action planning that targets priority systemic barriers facing government oversight of, and policy and programmatic support for, sustainable, reduced-deforestation commodity production practices (Outcome 1.3), land use allocations for commodity production and set asides (Outcome 1.4) and with their implementation/enforcement (Outcome 1.5). These are broadly defined as barriers to governments' playing a positive and effective role in encouraging a form of commodity production that is economically efficient, promotes equity and is protective of natural capital. Critical policies, programmes, regulations and associated barriers and gaps will be identified at local, provincial/regional and national levels by national and sub-national commodity platforms, as well as the project's global support services, including south-south co-operation between IAP and other countries, and through a bottom-up connection to experience being gained in target landscapes (components 2 and 3) and lessons being captured there and elsewhere (component 4). Preliminary priorities for Indonesia and Paraguay are listed in **Table 7**. These will be targeted during the initial period of project implementation.

48. Dialogue and action planning will also be closely linked to the demonstration and barrier removal activities under components 2 and 3, informed by past discussions in cases where the existence of a platform, e.g. the Indonesia Palm Oil Platform (INPOP), predates the project. Platforms will also ensure that the views of smallholders, local communities and disadvantaged groups are given more attention by helping to empower communities and increase smallholder competitiveness within commodity production. The project will help to guide /monitor initial implementation of these action plans. It should be noted, however, that because action plans take time to be developed, the majority of project activities have already been identified during the PPG and will not need to wait for guidance from the newly established platforms.

Table 7: Priority policies, programmes and regulations

Indonesia	Liberia	Paraguay
<ul style="list-style-type: none"> Strengthen a Government Regulation on seedlings, which aims to optimize utilization of quality seedlings for increased yield Develop and implement a policy to increase the number of extension officers, for instance through the establishment of private (contracted) extension officers Assist the development of a guideline to implement the Minister of Agriculture Regulation No. 98 Year 2013 on Plantation License, particularly regarding the responsibility of companies to develop community 	<ul style="list-style-type: none"> Develop and adopt a national definition and policy on HCS/HCV forest Strengthen the Environmental and Social Impact Analysis (ESIA) process as it relates to oil palm investments Ensure that grievance mechanisms for conflict resolution are adequately developed and implemented Support the definition of a Free Prior Informed Consent (FPIC) process in the Liberian context in line with Liberian cultures and traditions Complete the national interpretation of RSPO principles and criteria, which, 	<ul style="list-style-type: none"> The Environmental Assessment Law 294/93 and its regulatory decrees The Prevention and Control of Fire Law All regulations related to the Chaco Biosphere Reserve Specific resolutions for the Chaco

Indonesia	Liberia	Paraguay
plantations <ul style="list-style-type: none"> Analyze the challenges and limitations in implementing the regulation on the development of communities' independent plantations near company, and recommend strategies to counter the challenges and limitations 	among other benefits, will create opportunities for smallholders to become RSPO certified	

49. One cross-cutting theme of the work will be to identify and address overlaps and outright contradictions involving policies at national and sub-national levels of government. A second, analogous theme will be to tackle contradictions across different government ministries—for example, between ministries of agriculture and ministries of environment. In both cases, the project will support harmonization of policies, regulations and programmes in order to remove overlaps and contradictions while encouraging complementarities and synergies.

50. With the support of local forums, changes within these landscapes will be continually assessed and monitored for, *inter alia*, persisting governance-related barriers. In this way, the adaptive management and definition of project priorities and strategies will benefit from a built in feedback loop consisting of guidance from the platforms and from lessons being learned—and challenges encountered—at landscape level, ensuring the child project's resilience to disruptive and unpredictable external changes. Overall lessons from the experience will be cultivated and examined for potential amplification and replication.

51. Through dialogue on systemic issues and the project's demonstration activities under components 2 and 3, analyzed under the project's knowledge component (4), the platforms will provide ready fora for such lessons to be assessed and follow up activities to either continue, converge or emerge. The platforms will enable the sharing and rapid dissemination and uptake of developments, lessons learned and innovations, both among stakeholders at a common geographic scale (e.g. within a province), as well as between geographic scales (e.g. province → national and vice versa). National and sub-national platforms will also serve as a fulcrum for connecting up and exchanging lessons with private sector and donor initiatives, as well as with other co-ordination fora, such as REDD+ initiatives, roundtables and industry groups.

COMPONENT 2: FARMER SUPPORT SYSTEMS

Component 2 Outcomes

Outcome 2.1: Enhanced understanding of commodity farmer needs and effectively demonstrated approaches to meeting these needs through training and other support

Outcome 2.2: Improved national and sub-national farmer support systems to encourage sustainable, reduced deforestation commodity production and intensification through adoption of farmer support strategies emphasizing reduced deforestation, sustainable intensification, biodiversity conservation and elimination of the gender gap in agricultural productivity

52. Unsustainable production practices are common in areas where palm oil and beef are produced and sourced. In addition to reducing environmental damages associated with commodity production on existing agricultural lands,

farmer support systems based on principles of sustainable intensification offer an important path to increasing production while minimizing deforestation. Opportunities here are significant, both globally and in target countries, particularly given that smallholders, for example, tend both to produce at relatively low levels of efficiency and to expand into new areas. Farmer support systems—including extension programs, training schools, log book and technology exchange programs applications to measure yields, and so on—have the potential to generate green growth, enhance benefits and income for farmers and substantially reduce the pace of deforestation.

53. The component will also support the assessment of training needs aimed at identifying technical, knowledge-related barriers preventing more efficient, intensified and sustainable practices from taking hold. The process will include a thorough review and bringing together of best practices for production and for farmer training from government and private sector, including any earlier experience with such trainings. The assessments will emphasise farmers, and their needs, within deforestation frontier areas ('deforestation landscapes'), where sustainable commodity intensification is appropriate (i.e. not in peat or other 'no go' areas in Indonesia, for example). Broad training needs related to sustainable intensification, including the need for awareness-raising related to avoiding deforestation, will be assessed. The strategies will determine how many farmers need support, in which technical topics and priority geographic areas, and at what potential cost. The assessments will be prepared in close consultation with both Government and private sector stakeholders and will be designed to complement REDD+ strategies and associated Policies and Measures (PAMs).

54. The component will also demonstrate effective approaches to supporting the sustainable intensification of commodity production within target landscapes. Key areas of support to be tested and assessed via pilots will include: establishment of demonstration plots; smallholder mapping and legality assessment; targeted support to sustainable production. The child project will also test approaches to building the capacity of public and private extension services, including knowledge dissemination and training on the use of new tools and technologies. These approaches will be tested, refined and demonstrated in target landscapes within all three pilot countries.

55. Based on the above assessment and learnings from pilot farmer support efforts, the project will support the development of national commodity farmer support strategies, including technical, financial and marketing/logistical approaches to closing yield gaps, increasing incomes and conserving important natural capital and essential ecosystem areas. Strategies will include programs aimed at educating and engaging smallholders in conservation, while providing benefits linked to production improvement (e.g. support services, supply of agri-inputs, replanting incentives, access to seedlings, etc.), all while increasing transparency within the supply chain. Strategies will be based on farmer needs assessments and will include farmer mapping, the latter to ensure that support is provided only to farmers operating legally prescribed ('go') areas. This will help to create important incentives for farmers to operate in such areas and in accordance with all applicable regulations. Emphasis will be placed on supporting farmers in 'deforestation frontier' areas.

COMPONENT 3: LAND-USE PLANS AND MAPS IN TARGETED LANDSCAPES

Component 3 Outcomes

Outcome 3.1: Improved land use planning/zoning helps to shift targeting and conversion to commodity production from high biodiversity value, high carbon stock, ecosystem service-rich forested areas to degraded or otherwise **more suitable** lands

Outcome 3.2: Enhanced land use set aside and protection strategies, including gazettement, of HCV and HCS forest areas within commodity-producing landscapes, reduces deforestation, avoids **65.6** million tons of CO₂e emissions and contributes to conservation of 1 million ha of high value forest areas and associated biodiversity

56. The ability to effectively mainstream forest conservation into spatial planning in the face of commodity expansion pressures depends on multiple factors, including accurate maps of HCV areas and degraded lands, stakeholder buy in, etc. Based on national-level HCV definitions developed (in cases where they do not already exist) under component 2, the child project will develop a detailed definition and identification of the 'right' land for commodity production and forest conservation in up to three landscapes (Outcome 3.1). The child project will contribute to the development of spatial plans aimed at ensuring commodity production and expansion within appropriate areas, as well as the reduction and eventual elimination of deforestation associated with commodity expansion, beginning with HCV and HCS areas. Land use maps, access to degraded and targeted lands and forest conservation efforts will be clearly identified, agreed upon and promoted, resulting in improved land use planning and zoning systems that help protect priority areas.

57. Based on the conclusions of the planning exercise, the child project will provide support to agreed conservation actions for no go areas (Outcome 3.2). Many areas will already have legal protection and their conservation will depend on improved data and enforcement. Others may benefit from local or provincial government decrees or, in the case of Paraguay in particular, community conservation areas aimed at protecting no go areas and identifying areas for ecological restoration. Private sector land owners will also be encouraged to conserve existing HCV within their concessions (see component 2).

58. The child project will also engage local government authorities, companies and communities in extensive awareness raising, consultation, and participation in regard to go and no-go areas in the selected landscapes. In addition, finalized plans will be disseminated to communities and the general public through awareness raising campaigns to ensure key stakeholders are aware and up to date regarding new regulations and stipulations, as well as the risks of continuing business-as-usual production. The effectiveness of various conservation approaches at reducing commodity-driven conversion will be carefully monitored.

COMPONENT 4: KNOWLEDGE MANAGEMENT AND M&E

Component 4 Outcomes

Outcome 4.1: Increased knowledge of factors underpinning the readiness of landscape-level environments to adopt reduced-deforestation commodity production improves the design and future implementation of intervention and capacity building strategies and tools for improving the sustainability of commodity production

Outcome 4.2: Uptake, adaptation and replication of demonstrated lessons and knowledge in 7 other sub-national and national situations via the IAP's Global Community of Practice and through other knowledge-sharing mechanisms

59. The child project's theory of change and its component structure reflect three interlinked themes: dialogue, demonstration and knowledge. Component 4 supports the third of these themes. It will ensure that the child project gathers and shares lessons systematically and effectively—with a special emphasis on developing and disseminating knowledge. It will also support resilience and adaptive management, so that the project fully integrates and reacts to the success and failures of relevant activities, both within and outside the Programme. In this sense, the key to the project's ultimate effectiveness will lie not merely in the proximate, site-level impacts of its demonstrations, but rather with its emphasis on ensuring lesson learning, knowledge building and dissemination both up and down the spatial scale from landscape to global in order to improve and accelerate impact.

60. The programmatic approach of the Commodities IAP offers an excellent learning environment. The knowledge management, monitoring and evaluation component will operate in close co-operation with analogous efforts being supported by the demand and transactions child projects, all working under the umbrella of the adaptive management and learning project. The knowledge management and M&E component will operate at the global, rather than national level, but will be closely linked to national level activities. This will allow it to learn and compare across IAP countries in order to identify common solutions and differences, including in relation to global cross-cutting issues such as gender and resilience.

61. The component will use a variety of approaches to increasing knowledge of effective strategies and tools for improving production of commodities in ways that do not involve conversion of forested land (Outcome 4.1). The child project will develop a tool for tracking landscape-level status and dynamics of change, the role of commodity production and expansion as a driver and the effectiveness of government, NGO and donor interventions in encouraging reduced deforestation commodity production. The child project will also leverage landscape and country-level lessons learned from components 1–3 and produce and disseminate thematic studies and other knowledge, awareness and communications materials. Lesson learning and dissemination will centre on, but not be limited to, the project's own lever strengthening, barrier removal and demonstration activities.

62. Given that the IAP program as a whole will be working in four target countries, there will be substantial opportunities for sharing lessons learned and facilitating uptake, adaptation and replication of demonstrated lessons and knowledge, both among the target countries themselves and with other countries facing similar challenges, particularly at the regional level (Outcome 4.2). This will create significant opportunities for south-south co-operation. Success stories will figure prominently among the lessons being shared, with the goal of ensuring extensive within- and between-country uptake and replication.

63. Mechanisms for learning will include the following:

- (i) A highly qualified team of short- and medium-term experts delivering technical support and coherence within the thematic technical areas being addressed by the project. This team will deliver cutting-edge tools and technical support services to target countries and landscapes, while capturing and drawing connections between emerging lessons in the target countries and elsewhere globally. The global support team will also nurture linkages with key regional and global partners, while helping to bring project lessons to international fora, such as Conference of the Parties for the Biodiversity and Climate Change Conventions, and the United Nations Framework on Forests (UNFF). Support teams in specific areas such as land use change monitoring will include members from developing countries who have helped to tackle similar challenges in their own countries—thus bringing an important element of south-south co-operation into the process
- (ii) A series of co-ordination and dialogue mechanisms, ranging from landscape-level forums to national-level platforms (see Component 1 above) to a global-level community of practice which will serve, *inter alia*, to enable dissemination of knowledge and learning.

64. Overall, the approach will ensure both that all project activities are imbued with cutting edge knowledge and that new knowledge generated by the project is amplified and replicated through provincial and national platforms and beyond. Dissemination within the IAP program's own Global Community of Practice, as well as through other global fora, will also ensure that knowledge sharing and replication take place throughout the project implementation period, rather than, for example, as an afterthought in the final year of the project.

4) Incremental Cost Reasoning

65. Despite significant ongoing efforts to address commodity-driven deforestation, baseline support in this area is insufficient to reduce significantly current levels of deforestation associated with the production of agricultural commodities. As a result, under the baseline scenario, important negative global environmental and socio-economic impacts will accompany the projected expansion of commodity production in a number of countries around the world. These include loss of critical and other habitat, extinction and extirpation threats to numerous species, continuing high levels of CO₂ emissions due to forest loss, reduction in sequestration capacities as forests are converted, etc.

66. The challenges of the baseline scenario have been carefully examined and linked to a series of barriers. These include, *inter alia*, the following⁴²:

- In the absence of a broader sustainable development framework, Government ministries, private sector, and civil society hold conflicting visions and pursue competing strategies related to commodity production and growth;
- Policies, regulations and government enabling environments related to commodity production—particularly those affecting selection of locations for expansion and regulating production practices—are enabling high levels of deforestation;
- Systems for monitoring and enforcement of existing policies and regulations have limited capacity to prevent deforestation associated with commodity production;
- HCV and HCS areas are poorly known and inadequately protected from conversion to commodity production
- Knowledge regarding successful approaches to removing deforestation from commodity supply chains is limited.

67. The production project will play an essential role in the overall IAP supply chain approach to reducing commodity-driven deforestation. The project will work on production policy and enforcement, fostering dialogue and public

⁴² Table 3 above presents a full list of barriers likely to persist under the baseline scenario

private partnerships; strengthening farmer support systems and agri-inputs; strengthening land use planning mapping, and; knowledge and learning. By removing barriers in each of these areas, including those listed above, by demonstrating innovative tools and approaches for doing so, and by playing an indispensable part in the IAP's global knowledge and learning effort, the project will deliver an important range of national benefits to the IAP target countries as well as important global benefits (see the following section on global benefits).

68. **Table 8** below summarizes the project's incremental reasoning and global environmental benefits.

Table 8: Incremental reasoning and global environmental benefits

Current practices	Alternative practices supported by project	Expected global benefits
Dialogue and action planning		<ul style="list-style-type: none">Improved management of target landscapes covering 7.95 million ha.Enhanced conservation of one million ha of high value forestSustainable land management practices in commodity producing areas covering 200,000 ha65.6 million tons CO2e in reduced emissions
<ul style="list-style-type: none">Government ministries, private sector, and civil society hold conflicting visions and pursue competing strategies related to commodity production, growth and environmental objectives	<ul style="list-style-type: none">Commodity platforms will enable public-private discussions, greater coordination among different governmental institutions and ministries and mainstreaming / integration of global and national environmental values into decision-making	
Policies, enforcement and monitoring		
<ul style="list-style-type: none">Policies, regulations and government enabling environments related to commodity production—particularly those regulating production practices and affecting conservation and forest management—are enabling high levels of deforestationSystems for monitoring and enforcement of existing policies and regulations have limited capacity to prevent deforestation associated with commodity production	<ul style="list-style-type: none">Policies, regulations and programmes have been strengthened to ensure that commodities in ways that enable continued commodity production and growth with reduced deforestation, lower emissions and conservationCost-effective systems approaches developed for enhanced monitoring and enforcement	
Farmer support systems		
<ul style="list-style-type: none">Producers often prefer to increase production through deforestation, lacking sufficient resources / support from public, private or public-private systems to sustainably intensify agricultural productivity of lands already in cultivationFarmer support systems operate at low capacity	<ul style="list-style-type: none">Enhanced systems for improving knowledge and skills, and for providing other support to producers to enable improved yields with reduced deforestation. These systems will advocate socially and environmental responsible strategies for intensifying production, leading to greater uptake of sustainable commodity production practices.	
Land use planning and mapping		

Current practices	Alternative practices supported by project	Expected global benefits
<ul style="list-style-type: none">• HCV and HCS areas are poorly known and inadequately protected from conversion to commodity production• Land use planning/zoning systems operate in ways that fail to prevent the targeting and conversion to production of high biodiversity value, high carbon stock, ecosystem service-rich and other forest areas nationally and sub-nationally, while degraded or otherwise appropriate lands remain underutilized	<ul style="list-style-type: none">• Improved knowledge of HCV and HCS locations• Land use plans and strategies to ensure set asides from commodity production within target landscapes	
Knowledge and learning		
<ul style="list-style-type: none">• Knowledge regarding successful approaches to removing deforestation from commodity supply chains is limited based on a combination of factors, including the frequent desire amongst producers, traders and buyers to keep their supply chains opaque, limited lesson capture and poor communication/dissemination of successful and efficient agri-commodity supply chain outcomes• Knowledge of successful approaches, techniques, tools and strategies fail to be applied to potentially analogous situations in tropical forest areas	<ul style="list-style-type: none">• Enhanced understanding of the dynamics of commodity production growth and expansion within landscapes enables better policy and programme design• Lessons learned and shared at multiple geographic levels via Platforms and Community of Practice, creating a powerful replication effect	

5) Global Environmental Benefits

69. **Table 9** below summarizes global environmental benefits by GEF Focal area objective / program. **Table 10** provides basic information on the project landscapes and deforestation. Finally, **Table 11** presents landscape-level projections of reduced deforestation and .

70. The project's objective and rationale for pursuing this production strategy for reduced-deforestation commodities is to maintain globally significant biological diversity and the benefits that brings such as ecosystem services of water, carbon sequestration, intact ecosystems and habitat for species diversity and health. We acknowledge that agricultural growth is important, but know that it can be achieved sustainably. While these strategies will lead to conservation of biological diversity, they also would lead to the reduction of forest loss, by promoting no new deforestation. Beneficiaries from intact forests and ecosystems include indigenous people who subsist on these resources, and rely upon the benefits of these ecosystems for long-term survival.

Table 9: Global environmental benefits, by GEF focal area objective and program

Focal area objective	Program / outcome	Summary of global benefits	Source of data / methodology
BD-4: Mainstream biodiversity conservation and sustainable use into landscapes and seascapes and production sectors:	Program 9: Managing the Human-Biodiversity Interface. Contributing to Outcome 9.1 by increasing the area of productive landscapes that integrate sustainability criteria into their management; and Outcome 9.2 by incorporating biodiversity and forest cover considerations in national and subnational agriculture commodity policies.	<ul style="list-style-type: none"> The project will support seven target landscapes covering 7.95 million ha, to ensure that land use decision making—both decisions regarding the awarding of concessions for commodity production and decisions regarding where to produce commodities within existing concessions—are made in ways that sharply reduce baseline levels of commodity-driven deforestation. In conjunction with the development of national and sub-national commodity action plans, the project will help to revise and update 16 national and sub-national policies, regulations and programmes to ensure that biodiversity and forest cover considerations are mainstreamed into national and sub-national agricultural policies. 	<ul style="list-style-type: none"> Total area of jurisdictions in which the project will work in Indonesia, Liberia and Paraguay to strengthen management through spatial planning, increased enforcement, policy change, HCV and HCS set asides, etc.
CCM-2: Demonstrate Systemic Impacts of Mitigation Options:	Program 4: Promote conservation and enhancement of carbon stocks in forests, and other land use, and support climate smart agriculture. Contributing to both Outcome A and B by accelerating the adoption of management practices that reduce GHG emission from land use change and deforestation, and supporting the development and implementation of model policy, planning and regulatory frameworks that foster low GHG development from agriculture commodities.	<ul style="list-style-type: none"> The project will accelerate the adoption of management practices associated with the production of target commodities (beef and palm oil) that reduce GHG emissions from land use change and deforestation by 65.6 million tons of CO₂e. These carbon mitigation benefits will arise from avoided deforestation due to enhanced set asides as well as from district level policy changes. The project will support the development and implementation of model policy, planning and regulatory frameworks that foster low GHG development from agriculture commodities at national and sub-national levels in three target countries. 	<ul style="list-style-type: none"> See following tables and tracking tool for details and assumptions.
SFM-1: Maintained Forest Resources: Reduce the pressures on high conservation value forests by addressing the drivers of deforestation.	Program 1: Integrated land use planning. Program 2: Identification and maintenance of high conservation value forests. Program 3: Identifying and monitoring forest loss. Contributing to both Outcomes 1 and 2 on cross-sector policy and planning approaches at appropriate governance scales and innovative mechanisms to avoid the loss of high conservation value forest.	<ul style="list-style-type: none"> The project will support good agricultural practices and sustainable intensification on 200,000 ha, through farmer trainings The project will establish or strengthen at least 7 national and sub-national commodity platforms, bringing together a wide range of public and private sector stakeholders to develop national and sub-national commodity action plans covering policy, planning and other aspects of sectoral management. 	<ul style="list-style-type: none"> The ha estimate is based on a target of 6,000 farmer beneficiaries and will be measured through a survey of farmers to determine the extent to which they have changed their practices.

Table 10: Basic information on target landscapes and deforestation

Geographic unit of analysis (single or multiple landscapes)	Area of district / landscape (ha)	Area of forest cover (ha)	BAU: projected annual defor. (%)	BAU: projected annual defor. (ha.)	Carbon content estimates used (tons MG/ha) ⁴³	BAU: annual emissions (tCO ₂ e/yr)
(i) South Tapanuli, North Sumatra	1,300,000	508,829	1.7%	8,650	182	5,773,020
(ii) Pelalawan, Riau	1,317,206	341,325	3.0%	10,240	182	6,833,948
(iii) Sintang, West Kalimantan	2,160,000	988,334	2.3%	22,732	182	15,170,988
(iv) Western Liberia (Sime Darby concession)	310,170	268,972	1.7%	4,573	148	2,481,578
(v-vii) Paraguay (combined landscapes)	2,863,960	1,783,121	1.0%	17,831	28.6	1,870,723
<i>Production project totals</i>	7,951,336	3,890,581	1.65%	64,025		32,130,257

⁴³ Sources: (i-iii) - <http://glad.geog.umd.edu/dataset/primary-forest-cover-loss-indonesia-2000-2012>) and Hansen et al (2015) (https://earthenginepartners.appspot.com/science-2013-global-forest/download_v1.2.html); (iv) - <http://rainforests.mongabay.com/deforestation/2000/Liberia.htm> and (v) - <http://rainforests.mongabay.com/deforestation/2000/Paraguay.htm>

Table 11: Projections of avoided deforestation and associated emissions reductions⁴⁴

Geographic unit of analysis (single or multiple landscapes)	Enhanced set aside areas (Assumption: deforestation rate reduced by 35%)			Other (not set aside) areas (Assumption: deforestation rate reduced by 15%)			Combined areas		
	Target area for set asides (ha)	GEF alternative: projected annual defor. (%)	GEF alternative: projected annual defor. (ha)	Area (ha)	GEF alternative: projected annual defor. (%)	GEF alternative: projected annual defor. (ha)	GEF alternative: Total annual defor. (combined)	GEF alternative: projected annual emissions (tCO2e/yr)	Avoided emissions (tCO2e)/yr
(i) South Tapanuli, North Sumatra	300,000	1.1%	3,315	208,829	1.4%	3,018	6,333	4,226,325	1,546,695
(ii) Pelalawan, Riau	80,000	2.0%	1,560	261,325	2.6%	6,664	8,224	5,488,506	1,345,441
(iii) Sintang, West Kalimantan	140,000	1.5%	2,093	848,334	2.0%	16,585	18,678	12,465,538	2,705,450
(iv) Western Liberia (Sime Darby concession)	130,000	1.1%	1,437	138,972	1.4%	2,008	3,445	1,869,461	612,117
(v-vii) Paraguay (combined landscapes)	350,000	0.7%	2,275	1,433,121	0.9%	12,182	14,457	1,516,676	354,048
<i>Production project totals</i>	1,000,000	1.1%	10,680	2,890,581	1.4%	40,456	51,135	25,566,507	6,563,751

10-year time frame = **65.6 million tons CO2e**

⁴⁴ The project will train project officers to use the FAO Exact Tool at the start of the project), and will re-validate the baseline GHG data using the tool during the inception phase. It is unlikely that ground verification or satellite imagery will be used due to high costs and inability to use it uniformly all across the landscapes. During implementation, the project will rely on forest area monitoring data which is available on an annual basis from forest agencies in the target countries. This will enable the project to confirm the dynamics in the forest area in the targeted landscapes. Forest area data thus collected will be inputted into the FAO Exact Tier 1 option and will thus allow tracking of progress with respect to the GHG avoidance target.

71. This project supports efforts to maintain globally significant biodiversity and the ecosystem goods and services that it provides to society, which is one of the primary goals of Sustainable Forest Management. The project also aims to directly reduce the pressures on high conservation value forests by addressing the drivers of deforestation. The project will promote sustainable land management in systems through driving demand for sustainable commodities, which maps to the SFM 3 goal to reverse the loss of ecosystem services within degraded forest landscapes.

72. By supporting the uptake of reduced deforestation agricultural practices in the target landscapes, the child project also improves community resilience to large-scale, long-term environmental change. Continued deforestation due to the expansion of commodity production areas diminishes the extent to which communities can access clean water, firewood, and other environmental services. Through the reduction of deforestation in the commodity supply chain, this child project will help communities in the target landscapes offset, at least to some degree, the accelerating and increasingly manifest effects of climate change, including disrupted precipitation and temperature cycles, that threaten to degrade the capacity of forested areas to provide essential environmental services.

6) Innovation, sustainability and potential for scaling up

73. The innovative approach of the IAP program as a whole comes from directly linking demand and production through the specific focus on commodities sourced from the targeted landscapes, complemented by measures to enhance investment in reduced-deforestation commodities, for a 'whole of supply chain' approach to supporting reduced deforestation practices. Through coordinated support in the IAP target countries, the program engages producers to adopt sustainable agricultural practices, finances reduced deforestation production, and builds regional and global demand for responsibly produced commodity products from the target countries.

74. The production child project will work to change the overall structure of the market, to tip the global market for palm oil, soy and beef towards production that does not lead to deforestation. Sustainability and continuation of activities after program implementation comes from the change in business and market practices toward "reduced deforestation sourcing." The new market structure and business standard will maintain producers and buyers aligned with the new practices over the long term and will likely strengthen over time, or even be adopted by producers and buyers of other commodities with analogous supply chain structures.

75. The project will support the identification of opportunities, and implementation of approaches, to scaling up principles, policies and practices related to production of a given commodity, particularly those based on lessons learned by the project itself. The specific approach taken will depend on the locations of analogous commodity-driven deforestation processes. Given that the project's on-the-ground work will take place mainly in specific districts, scaling up will begin within the larger-scale jurisdictions within which these districts are situated, e.g. demonstrate in districts and scale up to provinces, in the case of Indonesia. Here, provincial platforms will serve as the means of dissemination for landscape-level findings and encouragement of uptake by other districts within the province where similar processes of commodity-driven deforestation are taking place.

76. At the next level, scaling up will branch out to other provinces; again in the case of Indonesia, landscape-level lessons will be disseminated via the country's national palm oil platform (InPOP), as well as through an associated

UNDP-GEF project operating in three provinces of Kalimantan.⁴⁵ Special attention may be paid to provinces such as West Papua, where palm oil expansion is in a relatively early but rapid stage. Given Indonesia's global leadership in palm oil production, a significant percentage of global palm oil production may thereby be 'touched' by the project simply via this national uptake process.

77. Global-level scaling up will take place in several ways. First, the Community of Practice (CoP) being set up under the Adaptive Management and Learning (AM&L) project, together with project outreach at various global fora, will stimulate uptake beyond the borders of the three target countries. Second, multi-national companies involved in the national commodity platforms can be expected to bring their lessons to other countries where they are operating. Multinationals, national companies and platforms will be stimulated to expand their commitments to other commodities and to other geographies, specifically those geographies which are new frontiers of deforestation. The project builds on a strong baseline of public and private sector commitment to changing production towards reduced-deforestation commodities, and project activities will further empower these key stakeholders to implement such commitments. Third, close co-operation with UN-REDD will help to encourage dissemination to, and scaling up by, countries engaged in REDD+ processes. Finally, the project's initial target commodities and target countries can ultimately be expanded. Replication will come from applying the approach and proven model to other commodities and countries with similar issues.

A.2. Child Project component contributions to IAP

78. The Production project has four components, each of which makes an important contribution to the overall IAP impact, as follows:

- Component 1 - Dialogue, action planning, policies and enforcement: This component plays a fundamental role in underpinning the entire IAP. The dialogue and action planning elements in particular offer a unique opportunity to connect producers, buyers and financial sources together and thus embodies the supply chain approach. Enforcement and policy change are key to reducing deforestation impacts via improved monitoring and altered incentives
- Component 2 - Farmer support systems: This component, in which farmer support systems are developed through needs assessment, demonstrations and development of national strategies, will ultimately help to build farmer capacities to sustainably intensify their production systems. Availability of sustainably produced commodities represents the supply side of the IAP supply chain approach and will need to link up with strengthened demand for such products being generated through the demand project.
- Component 3 - Land use planning: This component is critical to delivering the most directly measurable global impacts through the establishment of no go areas for commodity production. By ensuring that production avoids HCV and HCS areas in target landscapes, the component will be a key source of tangible global environmental benefits generated by the IAP.
- Component 4 - Knowledge management: The IAP employs a sophisticated approach to knowledge management, taking advantage of its multi-tiered structure to channel lessons learned from landscape to province to country to global levels, largely via commodity fora, national platforms and a global community of

⁴⁵ "Strengthening Forest Area Planning and Management in Kalimantan", GEF Project ID# 6965.

practice. The production project makes an important contribution by generating key lessons related to production practices, planning , policy, farmer support systems, etc.

A.3. Stakeholders

Stakeholder engagement during project preparation

79. The production project PPG phase has included extensive stakeholder engagement. This included various Program-level engagements, in which various relevant organizations were consulted jointly. These consultations had the following results: (i) raising awareness about the IAP and the production project; (ii) identifying organizations' potential roles during implementation; (iii) identifying areas of synergy so that the project could build on rather than duplicating existing initiatives; and (iv) ensuring effective coordination with other interventions in this production-protection space.

Table 12: Organizations consulted at the global level during the preparation of the production project

• Tropical Forest Alliance 2020	• Rainforest Alliance
• KLD (Norway's International Climate and Forest Initiative)	• Oxfam
• U.K. Department for International Development (DFID)	• Fauna and Flora International
• IDH	• EcoAgriculture Partners
• UN REDD	• Marks and Spencer
• Forest Trends (executing the UNDP/GEF Supply Change project)	• Climate Advisers
• Mondelez	• Carbon Disclosure Project
• Proforest	• Global Canopy Program

80. In addition, a Program Advisory Committee was established comprised of representatives of the private sector (Mondelez International), the banking sector (Grupo Santander), bilateral donors (DFID), as well as foundations/alliances (Climate and Land Use Alliance and World Economic Forum), in order to provide technical and strategic feedback into the design of the production and other IAP projects. Several virtual meetings were held with this Committee in 2016 with the participation of the Steering Committee to ensure that feedback would be addressed in the project design.

81. Regular communication was maintained with all the Implementing Agencies involved in this project and with GEF through Steering Committee meetings and additional *ad hoc* thematic meetings, including as on the topics of M&E, resilience, gender and IAP cohesion. This included efforts to ensure that each project was designed in a way that would allow it to contribute to the overall aims of the programme's integrated supply chain approach.

82. Extensive consultations were carried out to ensure that the proposed intervention builds on existing work and to obtain inputs on the interventions that are considered most feasible and effective. Stakeholders consulted were from the following sectors: platforms and collaboration fora, NGOs, institutes and thought leaders, the banking financial sector, private sector, donors, academia and others. Child project working group meetings also took place regularly to design the most appropriate interventions.

83. National-level and sub-national project design workshops and focus group discussions were held in order to come to agreement on proposed interventions, solicit the input of all relevant stakeholders (including GEF OFPs), and ensure appropriate linkages the between production, demand and transactions elements of the Program design. These included workshops in Paraguay (January 2016), Indonesia (October 2015 and April 2016), and Liberia (May 2016), among others. In addition to focusing on the design elements of the production project, these consultations included supply chain integration and linkages with the IAP demand and transactions and learning projects.

84. **Annex G** of in each project document under the Production child project provides specific details of stakeholders at the level of target countries and landscapes, the vast majority of whom were consulted or engaged during the PPG Phase.

Stakeholder engagement in implementation of Program:

85. A Partnership Strategy for the IAP as a whole was developed during the PPG phase, which identifies the role and relationship expected with stakeholders⁴⁶. Stakeholders were categorized as either engaged stakeholders, who may be consulted or kept informed of the progress or who will benefit from IAP implementation, and partners (active stakeholders), which comprise a subset of the above and who will actively participate in Program implementation. The potential role(s) that partners can play during implementation were:

- providing expert guidance or critique,
- providing innovative tool(s), thinking or experience,
- increasing the scale of impact of the IAP/ influencing the enabling environment,
- providing implementation services, and/or providing co-financing.

86. A partnership database was developed and populated with information supplied at the global level and by each of the child project agencies in terms of the stakeholders they propose to engage during implementation and the expected nature of this engagement. The extensive work to build and consolidate relationships and to develop a Partnership Strategy that was carried out during the PPG phase will be built upon during Program implementation and will increase the level of ownership and impact of the IAP.

87. The main categories of stakeholders and their roles in the production project are described below in **Table 13**.

Table 13: Main categories of stakeholders and their expected involvement in the production project

Stakeholder	Stakeholder involvement in production project
Governments, at the national, state, province and district levels	Governments influence the enabling conditions for sustainable practices, including, for example, policies that favour a production-protection agenda. The project will

⁴⁶ See AM&L project document.

Stakeholder	Stakeholder involvement in production project
	work closely particularly with the governments of Paraguay, Indonesia and Liberia on issues related to policies, incentive mechanisms, and platforms, among others.
Private sector, i.e., buyers, traders, processors, consumer goods manufacturers and retailers	The IAP will work with the private sector to foster increased demand for sustainably sourced commodities and to strengthen transparency in line with increased commitments from various companies to remove deforestation from their supply chains.
Producers, at a range of scales from smallholders (including women and indigenous groups), local communities, SMEs to multinational companies	The IAP production child project will strengthen the extension services available to producers to implement good agricultural practices and low carbon agriculture, and will support intensification where coupled with the setting aside of HCV and HCS lands for protection. The IAP will also stimulate greater demand for sustainably produced commodities. More details on how women and indigenous groups will be integrated into the project can be found in section A4 on gender and in the production and Brazil child project proposals.
NGOs and Civil Society, such as CI, WWF, Proforest and Forest Trends	CI and WWF are two of the Implementing Agencies for this Program. The IAP will also collaborate with other NGOs to make use of their expertise and contacts and in some cases, for implementation services (e.g., Proforest).
Platforms and Collaboration Fora, such as Tropical Forest Alliance, Consumer Goods Forum, Climate & Land Use Alliance, IDH	Partnerships with such platforms and fora will enable the IAP to leverage and add momentum to their work, in order to catalyze widespread change, and also to gain insights to feed into the learning agenda of the IAP.
Academia, such as University of Michigan and University of Wisconsin	Academic institutions may provide specific tools or may develop papers to assess or validate approaches or to support knowledge management related to reduced-deforestation commodity production.
Donors, such as KLP, DFID or the Moore Foundation	By supporting other initiatives that are aligned with the objectives of the project, these donors strengthen the enabling environment for positive change.
Organizations that take a gender lens to work on development or environmental issues, such as the Global Gender and Climate Alliance, WOCAN (Women Organizing for Change in Agriculture and Natural Resource Management) and WEDO (Women's Environment and Development Organization)	Through its gender mainstreaming strategy, the CIAP will ensure that women and men's issues are addressed in Program implementation (see section A.4 for more details). Liaising with these organizations will strengthen this integration of gender aspects in the program and in the policy work to be undertaken.

88. **Annex G** provides specific details of stakeholders at the level of target countries and landscapes.

A.4. Gender Equality and Women's Empowerment

89. As part of overall IAP preparation, gender analyses carried out during the PPG phase gathered information on gender differences related to the commodities supply chain, including reduced productivity of female-led farms due to differential access to inputs. Issues such as gender differences in terms of access to resources, such as land, livestock and financial services, were examined as well as legal rights and land tenure issues that may act as a barrier to increasing productivity for women. Other issues such as the gender division of labour and differences in availability of time were also factors that were assessed. Based on these analyses, a Program Gender Mainstreaming Strategy and

Action Plan was prepared⁴⁷, the objective of which is to guide actions taken across the components of the IAP Program to ensure that gender mainstreaming is adequately addressed throughout implementation. The plan assesses gender issues in the oil palm, soy and beef supply chains, and describes the gender mainstreaming strategies of each child project. It is closely aligned with both the UNDP Gender Equality Strategy and with the GEF Gender Mainstreaming Policy. The IAP strategy will be complemented by country-level action plans, to be developed during the inception phase.

90. According to the above reviews, gender differentiation in production of agricultural commodities has a wide range of economic and social impacts. The problem has been noted in studies covering Indonesia's palm oil sector as well as in Paraguay's livestock sector.⁴⁸ For example, gender-related social issues facing Indonesia's palm oil sector include:⁴⁹

- Women's participation in the oil palm sector, while significant, is barely addressed in studies and statistics.
- Women are often excluded from formal plot ownership. Plots are generally registered in men's names, which means that mainly men are eligible to become members of co-operatives;
- In the plantation sector, a gendered division of labor put in place by plantation managers often relegates women to lower paid casual jobs
- Women may not be paid directly for fruit collection in cases where their contribution is used to help meet their spouses' production quotas.
- Women and children often bear the brunt of health hazards in the palm oil sector, including those associated with application of pesticides.

91. The Production child project will engage stakeholders, including commercial producers, smallholders (men and women) and communities to encourage forest conservation and to improve agricultural yields without compromising environmental quality. In doing so, the project will make a material contribution to gender equality and women's empowerment in the target countries. The project includes a gender-disaggregated objective-level indicator for "the number of direct project beneficiaries among groups including smallholder farmers and forest-dependent communities" and will contribute to a gender-disaggregated Programme-level indicator on learning. In addition, an international consultant will provide support for gender mainstreaming at the global and country levels.

92. **Table 14** describes the specific issues and barriers relating to gender equality and women's empowerment, as well as the actions planned to mainstream gender into the child project's implementation. Country-level action plans will be developed during the project's inception phase.

⁴⁷ See AM&L project document, Annex I.

⁴⁸ See, e.g., Li TM. 2015. Social impacts of oil palm in Indonesia: A gendered perspective from West Kalimantan. Occasional Paper 124. Bogor, Indonesia: CIFOR; Gumucio et al. 2015 *Silvopastoral Systems in Latin America: Mitigation Opportunities for Men and Women Livestock Producers*. CCAFS Policy Brief. CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), Copenhagen.

⁴⁹ Li TM 2015.

Table 14: Integration of gender equality and women's empowerment into project design, by component

Component	Issues/barriers	Gender mainstreaming actions planned for implementation
1. Dialogue, action planning, policies and enforcement	<ul style="list-style-type: none"> Women's voices, perspectives and interests are under-represented in decision-making processes Policies may not be geared to addressing challenges that are predominantly facing women 	<ul style="list-style-type: none"> The composition of national and sub-national commodity platforms will be designed to ensure gender balance and coverage of gender issues (relevant Ministries, NGOs, etc) Gender-based analysis of policy proposals as appropriate
2. Farmer support systems	<ul style="list-style-type: none"> Despite their often important role in the commodity production supply chain, women may not benefit commensurately from development co-operation efforts A persisting gender gap means that women's comparative lack of access to agricultural inputs, and income has a significant impact on productivity and income use within the sector 	<ul style="list-style-type: none"> Farmer needs assessments will take care to identify gender-disaggregated roles and needs Farmer support strategies will be based on a thorough analysis of women's role in the agricultural economy Encouraging women's active participation in agricultural co-operatives Ensuring that agricultural policies and extension services are gender targeted, focusing, inter alia, on the needs of women farmers.
3. Land use planning	<ul style="list-style-type: none"> Women are under-represented in land use planning and zoning discussions Planning may not take account of differential benefits and costs related to ecosystem services, e.g. where women's labour related to firewood, oil palm fruitling collection may go 'unaccounted' 	<ul style="list-style-type: none"> Women's representation in planning decisions will be ensured Landscape-level planning will take full account of the stock and flow values of natural capital, including the many elements which remain outside of the market economy and tend to affect women and vulnerable groups disproportionately
4. Knowledge management and M&E	<ul style="list-style-type: none"> Gender differences are not always considered in analysis of sustainable commodity challenges and interventions Discussion and learning does not always refer specifically to gender issues 	<ul style="list-style-type: none"> A study analyzing the gender gap (see Component 3) as it effects the target countries and commodities and of lessons learned through project efforts to remove this barrier The Global Community of Practice will include thematic discussions specifically on gender and convene expert organizations to present to participants, as well as sharing and lesson learning concerning the implementation of gender mainstreaming strategies and integration of gender in program M&E

A.5 Risks

93. Key risks and management responses are shown in **Table 15** below.

Table 15: Risks and risk management

Risk	Risk management	Risk rating
Inter-dependencies between components in the production project and between these components and those of the demand, transactions and adaptive management and learning projects cause significant delays and inconsistencies in implementation	The project has systematically identified linkages and inter-dependencies among individual components of the production project (see Table 4 above) and between these components and those of the other IAP projects. These analyses will be further elaborated during the inception phase and will form the basis for an IAP co-ordination plan to be led by the adaptive management and learning project. Co-ordination efforts will take place within target countries as well as at	Medium

Risk	Risk management	Risk rating
	global level. This issue will be prioritized as it is a fundamental element of the success of the IAP approach.	
Stakeholder willingness to commit to changes in policies and practices depends on a complex set of political and economic factors linked to self interest	Based on a set of pragmatic considerations, the project design ensures key stakeholder incentives, including financial, social and health factors, are well aligned with project activities to encourage the uptake of sustainable production practices. Adaptive management efforts will include review and updating of assumptions in this regard as part of its lesson learning approach.	Medium
Government officials may perceive environmental degradation as a necessary cost of pursuing economic development, leading to decisions that undermine efforts to reduce deforestation through the adoption of sustainable production practices.	The project is designed to emphasize the national benefits associated with reduced deforestation commodity production, as well as global benefits. Project activities ensure that key stakeholders, particularly those within government, maintain incentive structures that encourage the promotion of environmentally sustainable practices. Again, the project will consider this aspect in its lesson learning and adaptive management elements.	Medium
Vagaries of world commodity markets and associated price changes, including those driven by the effects of climate change and sources of environmental degradation, may negate the project's assumptions and render some of its strategies sub-optimal. Government policies aimed at softening the impacts of global price changes on production (e.g. Indonesia's biodiesel mandate) further complicate the picture.	The project will incorporate a range of commodity price scenarios into its landscape-level planning work. It will likewise encourage Governments to take a holistic look at the impacts of demand-side interventions.	Medium
Improved agricultural practices for the sustainable intensification of beef production may incentivize producers and government decision makers to exceed production increase targets through continued into forested areas.	The project will work with key stakeholders to foster greater appreciation for the value added by forested areas, especially HCV and HCS forests. By working with stakeholders to encourage the adoption of a comprehensive understanding of economic development, one that encompasses, for example, environmental services, and well aligned incentive structures within decision-making institutions, exceeding production increase targets through continued commodity expansion at the expense of forested areas will be less attractive to producers and decision makers.	Medium
Activities to strengthen the sustainability of beef production in the target landscape may lead producers to relocate expansion plans to other areas due to regulatory leakage, leading to higher rates of deforestation in those regions	The project will co-ordinate sub-national activities with national-level stakeholders to reduce regulatory inconsistency in regards to production practice standards and protection of HCV/HCS forests. In addition, the project will emphasize the benefits of sustainable production practices for producers, including financial, social and health factors. These measures will make relocation of commodity expansion to areas outside of the target landscapes less attractive to producers.	Medium
Weak demand growth for sustainable commodities, especially in domestic markets, may negate assumptions regarding the financial sustainability of project strategies.	The project will work in close coordination with the other CIAP program child projects, especially the Demand child project, to facilitate synergies between the two projects. By aligning activities to encourage sustainable production and activities to cultivate domestic and international demand for sustainable products, the CIAP program will ensure adequate financial sustainability for widespread adoption of sustainable production practices.	Medium

Risk	Risk management	Risk rating
Climate change and associated extreme events significantly affect agricultural production, leading to pressure to expand production and reducing support for setting aside high conservation value forests and for sustainably sourced commodities, undermining the ability of the IAP to achieve expected impacts	<p>The IAP Program as a whole and the production project in particular have built in consideration of resilience into all aspects of their design and also ensured that proposed interventions are climate-proofed. The IAP is built on the premise that agricultural production is expected to significantly increase and the Program will work to ensure that the areas for expansion are carefully selected so that high carbon forests and biological corridors are not used. Spatial planning to be carried out through the production project—both in terms of proposed areas for expansion and for set-asides—will take into consideration climate scenarios.</p> <p>It should also be noted that the project focuses on reducing deforestation, thus contributing to climate change mitigation</p>	Medium

Resilience

94. As highlighted in the recent guidance from GEF on RAPTA (Resilience, Adaptation Pathways, Transformation Assessment Framework), resilience assessment involves the identification of risks and points-of-no-return, opportunities for adaptation and/or transformation, and the costs and benefits of these options. The design phase of the IAP program has involved an analysis of risks at the level of each child project and for the Program as a whole. For the Production child project, *anticipated* project risks and adaption measures are presented in the table above. Risk management and implementation of adaptation measures will be carried out continuously throughout project implementation.

95. The Production project intervention occurs at multiple geographic levels, including global, national, sub-national and landscape levels. The project's PPG phase has emphasized an initial mapping out of the variables controlling change at the smallest of these geographic units of analysis, i.e., the level of commodity-producing landscapes. It did so while acknowledging the complex connections between landscapes and 'higher' levels, e.g. national and global; such connections are characteristic of systems that are heavily influenced by global markets—a central factor underpinning the project's integrated, global approach.

96. The fundamental question facing the IAP may be characterized as follows: how can dynamic change within productive landscapes—including sometimes rapid increases in the production of important commodities—be made more resilient and sustainable⁵⁰, particularly in ways that help to sustain forest cover and associated ecosystem services such as biodiversity and climate services, as well as equity, green growth and socio-economic benefits?

97. As a first step in addressing the above question, the PPG team began the process of creating an IAP perspective, or lens, through which to view and monitor landscape-level dynamics⁵¹. This lens is reflected in the project's theory of change and in its definition of 'elements of sustainability and resilience'. Importantly, it is also visible in the project's structure of components, outcomes and outputs. The simple idea here is that the project can strengthen landscape-level systems by bolstering these constituent elements—which are seen a common but differentiated across landscapes. Thus, while every such landscape is unique and its evolution through time to some extent unpredictable,

⁵⁰ Here, sustainability and resilience are seen as partially overlapping concepts, so that increased sustainability may largely correlate with increased resilience over the long term.

⁵¹

the project design is based on the assumption that there is sufficient similarity among landscapes and among the factors controlling their sustainability, that principles and actionable lessons can emerge from a multi-landscape comparative and learning approach.

98. While landscape sustainability and resilience are thus briefly reduced and simplified in theory, complexity re-emerges once these elements are considered as part of complex and dynamic systems wherein the elements—including policies, plans, people and personalities—are interacting and where the landscapes as a whole remain subject to buffeting by external factors, e.g. commodity price shocks, national policy changes, global REDD+ agreements, etc.

99. Given the above characterization, the project’s strategy for building landscape-level resilience and sustainability during the full project includes the following:

- To further iterate the elements of sustainability and resilience concept, based on lessons learned during the project, and to develop a landscape scorecard for same.
- To apply the scorecard to multiple landscapes, including both project and control landscapes.
- To develop a systems-level approach to understanding the interactions among elements and between them and exogenous factors. Thus, the elements-based approach may be taken one step further here as it comes to serve as a model describing the dynamic evolution of the system over time. Here, different approaches, e.g. to a given policy dilemma, will push the system in a particular direction. In this sense, the system can be compared to the ecological system of which it is a fundamental component, albeit one with a heavily anthropogenic, and externally-influenced overlay.
- Within the above framework of analysis, to ensure ongoing monitoring of unexpected and hard-to-predict shocks and stresses, and using this analysis to adaptively manage the project and, more importantly, to recommend corresponding course of action to policy makers. **Table 16** below presents one possible typology for describing specific options and alternatives for adapting agricultural systems which, to the extent possible, may be considered from a broader landscape resilience perspective, rather than in isolation. This approach will be dynamic in nature, acknowledging the complex systemic nature of the problems and solutions and external variables.
- Finally, to arrive at an enhanced understanding of the characteristics that make policy, project and programme interventions—including actions at landscape, provincial, national and global levels—successful in supporting landscape-level sustainability and resilience.

Table 16: Issues and choices impacting the resilience of commodity-producing landscapes

Type of factor / option	Example
Micro-level options	Farm production adjustments such as diversification and intensification of crop and livestock production; changing land use and irrigation; and altering the timing of operations.
Income-related responses	Crop, livestock and flood insurance schemes, credit schemes, and income diversification opportunities
Institutional changes	Pricing policy adjustments such as the removal or putting in place of subsidies, the development of income stabilization options, agricultural policy including agricultural

	support and insurance programs; improvements in (particularly local) agricultural markets, and promotion of inter-regional trade in agriculture.
Technological developments	Development and promotion of new crop varieties and livestock feeds, improvements in water and soil management, and improved animal health technology

Source: Kurukulasuriya, P., Rosenthal, S., 2003. Climate change and agriculture: a review of impacts and adaptations. Climate Change Series Paper No. 91, World Bank, Washington, DC.

100. The extent to which the project and the IAP Program as a whole have been able to bolster resilience will be assessed annually through project and Program M&E. In addition, resilience will be discussed annually at Program Steering Committee meetings. These meetings will provide a forum for the IAP agencies and partners to discuss how well they have been applying a resilience lens to ensure robustness in project implementation and to review lessons emerging from implementation. If additional adaptation measures or even transformation of project or Program activities or objectives appear to be needed, the costs and benefits of options will be discussed on an annual basis at these Program Steering Committee meetings and as a result of M&E activities. In this way, an iterative and participatory approach will be followed to refine project and Program planning. Finally, resilience will be discussed in the two Global Community of Practice events to be organized by the A&L project.

A.6. Institutional Arrangement and Coordination

Institutional arrangements for project implementation

101. The programming of activities across different projects and geographies to deliver intertwined outputs will be critical for the outcomes of this Program. Agencies, governments and partners involved in the implementation will be jointly responsible for the necessary coordination and synergy of it. The combined view and expertise of the different stakeholders, complemented by key partners, provides a comprehensive analysis of the problem and challenges related to implementation. The coordination required is also at a technical level. The support to production and strengthening of local capacity in the governments and farmers has to be met by an increased interest and responses from the demand side. The balance and synchronization of volumes and timing of production and demand are required to allow for meaningful transactions that fuel the transformation of the market and benefit local producers.

102. The Production Project Organisational Structure globally is shown in **Figure 1** below.

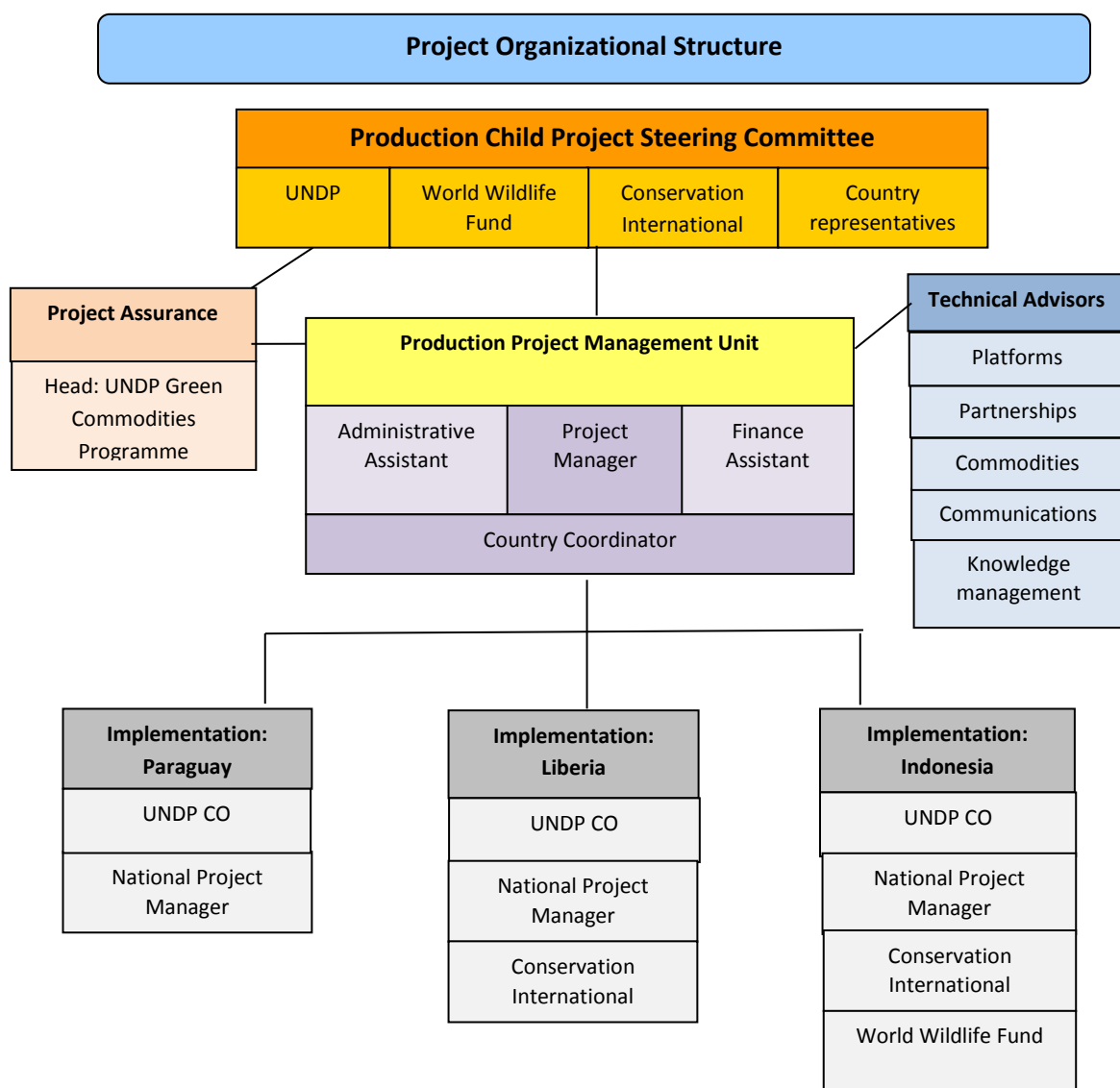
103. The **Project Steering Committee** will be responsible for providing strategic guidance to project implementation and making management decisions, by consensus, when guidance is required by the Project Manager, including recommendation for UNDP/Implementing Partner approval of project plans and revisions. In order to ensure UNDP's ultimate accountability, Project Steering Committee decisions will be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case a consensus cannot be reached within the Committee, final decision shall rest with the UNDP Programme Manager. The terms of reference for the Project Steering Committee are contained in Annex E. The Committee will comprise the lead representatives from the following institutions:

- Steering Committee Chair: UNDP
- Steering Committee Members: Representatives from CI and WWF; one UNDP Country Office representative and a government representative from each of the three focal countries

104. Project Steering Committee meetings will take place two times per year (or more frequently if needed and agreed upon), with at least one of these meetings being in person and the other one being virtual. The locations of the face-to-face meetings will be determined by consensus among the members.

105. **Project Advisory Committees** will be established in each participating country in order to review progress and planning, provide guidance and ensure co-ordination amongst UNDP, Government and responsible parties (UNDP and/or CI).

106. The **Production Project Management Unit (PMU)** will be composed of the Project Manager and Country Coordinator, with support from a Finance Assistant and Administrative Assistant. The PMU will be based in Panama at the UNDP offices to be co-located with the UNDP Green Commodities Program Core Team. A **Global IAP Manager** will spend 70% of his/her time on this project and 30% on the AM&L project. S/he will run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Steering Committee. S/he will be overall responsible for the successful completion of project outputs, ongoing monitoring or progress and adaptation of workplans as required, and ultimately the achievement of the project's objective. In addition to his/her responsibilities within the project, s/he will be responsible for the coordination of the project with other projects within the IAP, through regular communications as well as attendance to coordination and knowledge management events within the AM&L project.



107. The Global IAP Manager will be supported by a **Country Coordinator**, who will be responsible for the coordination of project activities between Paraguay, Liberia and Indonesia, and for the reporting of progress within each country back to the Project Manager.

108. Several **Technical Advisors** will be contracted to support project implementation by providing specialist expertise for various specific outputs of the project. Areas of expertise will include: Platforms, Partnerships, Commodities, Communications, Knowledge Management, and REDD+. Indicative TORs for the main Technical Advisors are found in Annex E.

109. A **National Project Manager** will be employed in each of the three focal countries to lead implementation of project activities and provide technical and coordination support to the responsible party/ies as appropriate. S/he will also liaise with and update the UNDP CO of each country on project activities as required and will report on all project activities to the Country Coordinator.

Planned co-ordination with other relevant GEF-financed projects and other initiatives

110. The Production project will coordinate with the following relevant GEF-financed and other initiatives⁵²:

- The UNDP/GEF "Mainstreaming Biodiversity Conservation and Sustainable Land Management into Production Practices in all Bioregions and Biomes in Paraguay" project is under implementation and will include work on soy production, including strengthening governance, promoting market-based incentives and capacity building for landscape management. The production project's work on the ground in Paraguay, which will focus on the Chaco region, will be informed by lessons learned in this project that is focused on the Atlantic Forest.
- UNDP is in the preparatory phase of developing several other commodity-related projects, such as one in Indonesia, entitled "Strengthening Forest Area Planning and Management in Kalimantan" which will promote systemic long-term changes beyond the oil palm supply chain that are a necessary ingredient for IAP success. While both the IAP and the Kalimantan project provide policy support, the former focuses on the production side of the policy and regulatory environment while the latter will strengthen forest area management and planning. Coordination will be ensured through the Sustainable Palm Oil Initiative (SPOI) supported by the UNDP Country Office in Indonesia.
- UNDP is developing a project on coffee, cacao and palm in Peru, one on cacao and palm in Ecuador, and one on coffee and cacao in the Dominican Republic, among others. UNDP will ensure continued sharing of experiences among these different projects, a task that will be facilitated by UNDP's Green Commodity Program, based in Panama.
- In Honduras, the UNDP/GEF project "Delivering multiple global environmental benefits through sustainable management of production landscapes" is under implementation. Among other elements, this project is addressing sustainability issues surrounding beef production through work at multiple levels, including policies, markets and certification, financing, and governance. As the overall lead for the IAP, UNDP will be in a good position to ensure lessons learned from these national projects are shared and built upon.
- The World Bank-led Sustainable Landscapes Program will promote sustainable land management in the Amazon, including in Brazil, Colombia and Peru. In Brazil, this Program will involve integrating "management and restoration of forests in agricultural landscapes by providing innovative financing mechanisms, addressing bottlenecks that prevent farmers from participating in low carbon agriculture, and increasing amount of loans to mid-sized farmers to encourage recovery of degraded lands". Given that Brazil is also an IAP focus country, lessons learned from the Sustainable Landscapes Program will be shared to build on what has been achieved. The Peru child project will be led by UNDP and will include the "development and application of financial instruments that promote environmentally-sustainable forms of production; increased participation in practices that increase yield and quality while reducing environmental impact; planning for sustainable production at local levels; and connecting local 'green' producer groups with private sector commodity traders". UNDP will ensure lessons learned are shared with this CIAP.

⁵² See section A.8 below for mechanisms to be used for supporting knowledge exchange and co-operation with these projects.

- This Commodity IAP will promote effective sharing of knowledge and experiences with the other two Integrated Approach Pilots being financed under the GEF-6 programming strategy, which include "Fostering Sustainability and Resilience for Food Security in Sub-Saharan Africa", and "Sustainable Cities". This may include leads from the different IAPs participating in joint calls and if feasible in each other's Global Community of Practice or other information sharing events. This communication at the level of the three IAPs will ensure that the effectiveness of the integrated approach is assessed on an ongoing manner and that recommendations for further integrated GEF programming are developed as an input into GEF-7.
- The Global Impacts Platform component will complement and mutually benefit other efforts that are currently under development or in pilot implementation. One recently-launched pilot initiative that this project will leverage is the Sustainability Impacts Learning Platform co-developed by WWF, the ISEAL Alliance, and the Sustainable Food Lab. This existing platform provides a crowd-sourced database and map of research on the effectiveness of implementing VSS and corporate sustainability efforts. Unlike other efforts to compile impacts research on sustainability initiatives, this platform includes in-progress efforts and is updated in near real-time, enabling improved conservation and research decision-making using the latest available information. Experience from the first year of this pilot effort (i.e., 2016) will be valuable for understanding users' receptivity to the concept and its functionalities, and for clarifying further improvements that may be needed.
- Finally, this project complements a variety of other efforts to conduct regular monitoring of the outputs and outcomes of specific deforestation-free and sustainability commitments. For instance, the Global Forest Watch platform provides near-real time monitoring of tree cover globally, and supports a range of analytics to track tree cover change in production units, jurisdiction, and other physical areas. And many companies, watchdog NGOs, and reporting platforms are providing, collating, or analyzing data on progress toward fulfilling commitments. However, this array of activities is focused on providing first-order estimates of progress; for instance, Global Forest Watch cautions that ground truthing is necessary to understand deforestation dynamics more definitively in specific locales. Evaluation and impacts research is an essential complement to routine monitoring – providing a deeper level of understanding and rigor into the effects of sustainability interventions and the causes and contributing factors of these effects. The Global Impacts Platform will help support and utilize this critical part of the evidence base, alongside the work of others to conduct regular monitoring.

A.7 Benefits

105. A significant share of agricultural production of palm oil and beef in the tropics is carried out by smallholders under conditions of low productivity and resulting limited incomes. As production continues to grow to meet increasing populations and demand, important opportunities will emerge for smallholder farmers to improve their livelihoods. However, realizing these opportunities will require strategies to increase productivity, ensure equity and respect producer rights. IN addition, as niche markets for sustainably produced products continue to grow, it will become increasingly important for farmers to use sustainable production practices. Larger producers, cooperatives and SMEs will also benefit from these approaches.

106. Important non-commercial benefits are also expected in line with the project's emphasis on reduced deforestation. Many landscapes that have been heavily converted to commodity production have experienced significant loss of natural capital and of the ecosystem goods and services that such capital has historically been

capable of providing on a sustainable basis. Notably, the impacts of such losses have tended to fall on the poor and otherwise vulnerable groups. The avoidance of these socio-economic costs will constitute a significant benefit from successful implementation of the present project.

107. The production project will deliver substantial socio-economic benefits, including through its support the identification and dissemination of best practices to farmers and will demonstrate their implementation to over 6,000 farmers in Indonesia, Liberia and Paraguay in specific landscapes. This support will include support for extension services, training in good agricultural practices, and the promotion of increased but sustainable intensification of agriculture in appropriate areas, among others. By connecting sustainable producers with new buyers and markets for reduced deforestation products, the demand project also will contribute significant benefits to producers.

108. The above socio-economic benefits are intrinsically linked with the realization of global environmental benefits (GEB). Producers must receive the necessary support in terms of capacity, inputs, supportive national policies, links to markets and access to credit in order to implement more sustainable practices and to farm in the appropriate areas. These changing practices will ensure that the expected GEB in terms of reduced deforestation, reduced greenhouse gas emissions, preservation of ecosystem services, and maintenance of key habitat for biodiversity are achieved.

A.8 Knowledge Management

111. The Reduced Deforestation Production child project will adopt a knowledge management (KM) strategy that ensures lessons are gathered, developed and disseminated systematically and effectively. The child project will increase knowledge of the factors constituting an enabling environment for the adoption of reduced-deforestation commodity production, improving the design and future implementation of strategies and tools for improving the sustainability of commodity production in the future. It will develop a tracking tool that captures the status and dynamics of the changing role of commodity production as a driver of deforestation, as well as the effectiveness of government, NGO and donor interventions toward reduced deforestation. The project will also produce and disseminate thematic studies and other knowledge products on the project's lever strengthening, barrier removal and demonstration activities, among others.

112. The child project's co-ordination and dialogue mechanisms, ranging from landscape-level forums to national-level platforms to a global Community of Practice, will be used as conduits for the dissemination of knowledge and learning. Beyond these, the child project's highly qualified team of experts will also nurture linkages with key regional and global partners, help bring project lessons to international fora and foster south-south learning and co-operation.

113. An important factor in multiplying and extending the insights and impacts of the production project's learnings will be its close, integrated relationships with the other IAP projects. These relationships will be both direct and bilateral—e.g. between the production and demand or production and transactions project—as well as multi-project in nature. The latter in particular will be mediated and co-ordinated by the AM&L project. In both cases, the project will link closely with analogous knowledge management efforts supported by the other child projects. **Key**

mechanisms for enabling knowledge-related connections and synergies to emerge from the production and other IAP projects will include the following:⁵³

- A dedicated Global Knowledge Lead will foster a culture of knowledge creation and management and uptake of learnings among the team and will regularly exchange information with, and brief the child project KM leads, as well as the Program Steering Committee.
- KM at the level of each child projects will include specific emphasis on creating and sharing knowledge on the learnings emerging from its interventions with the child project partners.
- The AM&L project will commission a study to examine the effects of increased demand and financing on sustainable production and vice versa—by definition a multi-project result.
- KM will include learning and information sharing about the experience of implementing an integrated approach pilot itself.
- A key step in building towards each Community of Practice (CoP) will consist of an effort to weave together Programme-level lessons from project-level experiences, for sharing with partners.
- Learning exchanges/ study tours will be carried out both by the production child project and the demand project. The A&L project will help ensure coordination between the two child projects for these study tours and will also glean learnings from the study tours to contribute to the overall KM agenda of the IAP.
- The Global Communications lead will liaise with the child projects to ensure consistency among child projects in publications and communications documents in terms of messaging and use of the IAP logo and art files, in order to maintain IAP cohesion.

114. For further discussion of the child project's knowledge management strategy, please refer to Component 4 above and in the project document.

B. Project consistency

B.1 Consistency with National Priorities

115. The IAP Program as a whole is consistent with GEF's strategic goals, as well as with global commitments made under different environmental Conventions and key agreements. The 2020 Strategy for the GEF emphasizes the importance of delivering integration solutions by tackling underlying drivers of environmental degradation to establish synergies as well as greater and more sustained impacts. This Commodities IAP is one of three IAPs supported by the GEF-6 programming strategy. As the finance mechanism to the UNFCCC, UNCBD, and UNCCD, GEF plays an important role in supporting global forest management and conservation. The three Rio Conventions have made clear the importance of forests to achieving their individual objectives. This program will be able to address the common goal of reducing and avoiding the loss of forest resources, and will support the following specific objectives:

- Aichi Biodiversity Targets (CBD decision X/2)

⁵³ This list includes items funded by the AM&L and other child projects as well as the production project.

- Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.
- ii. Target 7: By 2020, areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.
- REDD+ activities (UNFCCC decision 1/CP.16)
 - Reducing emissions from deforestation.
 - Conservation of forest carbon stocks.
- DLDD (desertification, land degradation and the effects of drought) and sustainable forest management (SFM) (UNCCD decision 4/CO P.8)
- Reinforce SFM as a means of preventing soil erosion and flooding, thus increasing the size of atmospheric carbon sinks and conserving ecosystems and biodiversity.

116. The program contributes to the UNFF Global Objective on Forests (E/2006/42 E/CN.18/2006/18): Reverse the loss of forest cover worldwide through SFM, including protection, restoration, afforestation, and reforestation, and increase efforts to prevent forest degradation. This IAP is also consistent with the objectives set forth in the 2015 New York Declaration on Forests, a non-legally binding high-level political declaration/pledge in which world leaders endorsed a global timeline to reduce the loss of natural forests by 50% by 2020, and work to end it by 2030. The Declaration is accompanied by an Associated Voluntary Action Agenda. The Declaration was endorsed by a large number of governments (including Indonesia, Liberia, and various states of Brazil), major corporations (including major commodity buyers and consumer goods manufacturers), NGOs/CSOs, and indigenous groups. Numerous private companies and governments have also issued ambitious new commitments to halt deforestation and address other key social and environmental risks in the commodity supply chains in response to the historically negative social and environmental impacts of tropical commodity production. These include the Consumer Goods Forum Deforestation Resolution and the policies of more than 300 individual companies and brands, ranging from agricultural producers and traders to consumer goods companies and retailers.

117. The IAP will support the achievement of the several of the Sustainable Development Goals (SDGs). Indirectly, it will support the following:

- *SDG2*: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture. A key IAP focus is to increase agricultural productivity of small-scale commodity producers through the intensification of their farming practices (coupled with protection of other areas) by facilitating access to inputs, knowledge, financial services and markets for sustainable sourced commodities. The Program will also strengthen capacity in, and promote uptake of, good agricultural practices and low carbon farming and practices that help maintain ecosystems.
- *SDG4*: Ensure inclusive and quality education for all and promote lifelong learning. In particular, through the production child project, farmer support systems will be strengthened and some capacity building will be provided to extension services to strengthen the training opportunities available for farmers and increase their skills in order to be able to contribute to sustainable development.

- *SDG 5*: Achieve gender equality and empower all women and girls. The IAP has developed a Gender Mainstreaming and Action Plan (*please see Annex X*), which was compiled based on the gender mainstreaming approaches of each child project, and which will ensure the full participation and realization of benefits by women and men in the IAP.
- *SDG8*: Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all. The IAP will promote increased efficiency in production to decouple economic growth and increased productivity from environmental degradation and deforestation.

118. Priority SDGs for this Program include the following:

- *SDG12*: Ensure sustainable consumption and production patterns. The project will promote the more sustainable production of soy, beef and palm oil through capacity building on low-carbon agriculture and good agricultural practices in targeted areas, while promoting forest conservation in others, as well as strengthening of the enabling environment. The demand child project aims to support sustainable consumption of these three commodities by increasing demand from major buyers and traders as well as from the Indonesian public for sustainably sourced commodities.
- *SDG13*: Take urgent action to combat climate change and its impacts. The program will promote low- carbon farming practices to reduce greenhouse gas emissions. In addition, the intensification of agriculture in appropriate areas will be coupled with a protection agenda through support for land use planning and the setting aside of high carbon forests, thus reducing emissions from deforestation.
- *SDG15*: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss. The entire program is designed around how to promote sustained agricultural production of key commodities without a concomitant increase in deforestation. Land use planning, identification of biodiversity corridors and other actions will support the sustainable management of forests and biodiversity conservation.

119. The IAP will also support the commitments made at the 21st UNFCCC Conference of the Parties in Paris in 2015. The final text of the agreement commits all signatories to working to keep warming to within 2° degrees. It also specifically advises parties to take action to preserve sinks and reservoirs of greenhouse gases, including forests, and encourages parties to implement and support *policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation. The child projects will work toward supportive policy and incentives to reduce deforestation associated with agricultural commodity production.*

C. DESCRIBE THE BUDGETED M &E PLAN:

120. The project results as outlined in the project results framework will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves these results. Supported by Component Four: Knowledge Management and M&E, the project monitoring and evaluation plan will also facilitate learning and ensure knowledge is shared and widely disseminated to support the scaling up and replication of project results.

121. Project-level monitoring and evaluation will be undertaken in compliance with standard UNDP requirements as outlined in the [UNDP POPP and UNDP Evaluation Policy](#). Though these UNDP requirements are not detailed in this document, the UNDP Country Office will ensure UNDP M&E requirements are met in a timely fashion and to high quality standards. The additional and mandatory GEF-specific M&E requirements as outlined in this section will be undertaken in accordance with the [GEF M&E policy](#) and GEF guidance materials (link to be added)⁵⁴. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management, and the exact role of project target groups and other stakeholders in project M&E activities, will be finalized during the Inception Workshop and will be detailed in the Inception Report.

Oversight and monitoring responsibilities:

122. The main **Implementing Partner** for this project is the United Nations Development Program (UNDP). The Implementing Partner is responsible and accountable for managing this project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of UNDP resources.

123. **Conservation International (CI)** will act as responsible party on collaborative advantage for certain project activities in Liberia, in close co-operation with the National Project Manager. **CI** and **Worldwide Fund for Nature (WWF)** will act as responsible party on collaborative advantage for certain project activities in Indonesia, in close co-operation with the National Project Manager of that country.

124. UNDP will monitor the implementation of the project, review progress in the realization of the project outputs, and ensure the proper use of UNDP/GEF funds. UNDP Country Offices (CO) in Indonesia, Liberia and Paraguay will provide project assurance service for country specific components as well as support services to the project - including procurement, contracting of service providers, human resources management, administration of project grant funding, and financial services and charge direct project costs as stipulated in the project budget section. Countries portion of the implementing agency fee will be agreed based on the extent of project assurance/cycle management services to be assumed by each country office.

125. The **project assurance** role will be provided by the head of the Green Commodities Programme at UNDP Regional Service Centre.

126. The primary responsibility for day-to-day project implementation and regular monitoring rests with the Project Manager. The Project Manager will develop annual work plans based on the multi-year work plan included in the annexes, including annual targets at the output level to ensure the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for reporting (i.e. GEF PIR), and reporting to the Project Board at least once a year on project progress. The Project Manager will inform the Project Board and the UNDP Country Office of any delays or difficulties as they arise during implementation, including the implementation of the M&E plan, so that the appropriate support and corrective measures can be adopted. The Project Manager will also ensure that all project staff maintain a high level of transparency, responsibility and accountability in monitoring and reporting project results.

127. The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the [UNDP POPP](#). This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed, and monitored and reported using UNDP corporate systems; and, updating the UNDP gender marker on an annual basis based on progress reported in the GEF PIR and UNDP ROAR reporting. Any quality concerns flagged by the process must be addressed by project management. Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Unit as needed. The project target groups and stakeholders including the GEF Operational Focal Point will be involved as much as possible in project-level M&E.

Audit Clause:

128. The project will be audited according to UNDP Financial Regulations and Rules and applicable audit policies on NIM implemented projects (link to be added)

Additional GEF monitoring and reporting requirements:

129. Inception Workshop and Report: A project inception workshop will be held after the project document has been signed by all relevant parties to: a) re-orient project stakeholders to the project strategy and discuss any changes in the overall context that influence project implementation; b) discuss the roles and responsibilities of the project team, including reporting and communication lines and conflict resolution mechanisms; c) review the results framework and discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E plan; d) review financial reporting procedures and mandatory requirements, and agree on the arrangements for the annual audit; e) plan and schedule Project Board meetings and finalize the first year annual work plan. The Project Manager will prepare the inception report no later than one month after the inception workshop. The final inception report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board.

130. GEF Project Implementation Report (PIR): The Project Manager, the UNDP Country Office, and the UNDP-GEF Regional Technical Advisor will provide objective input to the annual GEF PIR covering the reporting period July (previous year) to June (current year) for each year of project implementation. The Project Manager will ensure that the indicators included in the project results framework are monitored annually well in advance of the PIR submission deadline and are reported on accordingly in the PIR. The PIR that is submitted to the GEF each year must also be submitted in English and shared with the Project Board. The UNDP Country Office will coordinate the input of the GEF Operational Focal Point and other stakeholders to the PIR. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR. The project's terminal 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.

131. GEF Focal Area Tracking Tools: In line with its objective and the corresponding GEF Focal Areas/ Programs, this project will prepare the following GEF Tracking Tool(s): *list the required GEF Tracking Tool(s), as agreed with the UNDP-GEF RTA*. The baseline/CEO Endorsement GEF Focal Area Tracking Tool(s) – submitted in Annex to this project document – will be updated by the Project Manager/Team (*indicate other project partner, if agreed*) and shared with *the mid-term review consultants* and terminal evaluation consultants before the required *review/evaluation* missions take place. The updated GEF Tracking Tool(s) will be submitted to the GEF along with the completed *Mid-term Review report* and Terminal Evaluation report.

132. Mid-term Review (MTR): An independent mid-term review process will begin after the second PIR has been submitted to the GEF, and the final MTR report will be submitted to the GEF in the same year as the 3rd PIR. The MTR findings and responses outlined in the management response will be incorporated as recommendations for enhanced implementation during the final half of the project's duration. The terms of reference, the review process and the final MTR report will follow the standard templates and guidance available on the [UNDP Evaluation Resource Centre \(ERC\)](#). Additional quality assurance support is available from the UNDP-GEF Directorate. The final MTR report will be available in English and will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and approved by the Project Board.

133. Terminal Evaluation (TE): An independent terminal evaluation (TE) will take place before operational closure of the project. The Project Manager will remain on contract until the TE report and management response have been finalized. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance available on the [UNDP Evaluation Resource Centre](#). Additional quality assurance support is available from the UNDP-GEF Directorate. The final TE report will be cleared by the UNDP Country Office and the UNDP-GEF Regional Technical Adviser, and will be approved by the Project Board. The TE report will be publically available in English on the UNDP ERC.

134. The UNDP Country Office will include the planned project terminal evaluation in the UNDP Country Office evaluation plan, and will upload the final terminal evaluation report in English and the corresponding management response to the UNDP Evaluation Resource Centre (ERC). Once uploaded to the ERC, the UNDP Independent Evaluation Office will undertake a quality assessment and validate the findings and ratings in the TE report, and rate the quality of the TE report. The UNDP IEO assessment report will be sent to the GEF Independent Evaluation Office along with the project terminal evaluation report.

135. The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure in order to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office and/or the GEF Independent Evaluation Office.

Table 17: Mandatory GEF M&E Requirements and M&E Budget

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ⁵⁵ (US\$)		Time frame
		GEF grant	Co-financing	
Inception Workshop (national-level)	UNDP Country Offices	USD 15,000	<i>add</i>	Within first three months of project start up in country
Inception Report	Project Manager	None	None	Within two weeks of inception workshop
Standard UNDP monitoring and reporting requirements as outlined in the UNDP POPP	UNDP Country Office	None	None	Quarterly, annually
Monitoring of indicators in project results framework	Project Managers in each target country	Per year: USD 6,000	<i>10,000</i>	Annually
GEF Project Implementation Report (PIR)	Project Manager and UNDP Country Office and UNDP-GEF team	None	None	Annually
NEX Audit as per UNDP audit policies	UNDP Country Office	Per year: USD 3,000	<i>1,000</i>	Annually or other frequency as per UNDP Audit policies
Supervision missions	UNDP Country Office	None ⁵⁶	2,500	Annually
Oversight missions	UNDP-GEF team	None ⁵⁶	1,500	Troubleshooting as needed
Knowledge management as outlined in Outcome 4	<i>Project Manager</i>	<i>See project budget</i>	<i>1,500</i>	<i>On-going</i>
GEF Secretariat learning missions/site visits	Project Manager and UNDP-GEF team	None	None	To be determined.
Mid-term GEF Tracking Tool to be updated	<i>Project Manager</i>	<i>USD 10,000</i>	<i>None</i>	<i>Before mid-term review mission takes place.</i>
Independent Mid-term Review	<i>UNDP Country Office and Project team and</i>	<i>USD 75,000</i>	<i>10,000</i>	<i>Between 2nd and</i>

⁵⁵ Excluding project team staff time, salaries? and UNDP staff time and travel expenses.


⁵⁶ The costs of UNDP Country Office and UNDP-GEF's participation and time are charged to the GEF Agency Fee.

GEF M&E requirements	Primary responsibility	Indicative costs to be charged to the Project Budget ⁵⁵ (US\$)		Time frame
		GEF grant	Co-financing	
<i>(MTR)</i>	<i>UNDP-GEF team</i>			<i>3rd PIR.</i>
Final GEF Tracking Tool to be updated	Project Manager	USD 10,000	None	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE) included in UNDP evaluation plan	UNDP Country Office and Project team and UNDP-GEF team	USD 85,000	10,000	At least three months before operational closure
Translation of MTR and TE reports into English	UNDP Country Office	USD 5,000	none	As required. GEF will only accept reports in English.
TOTAL indicative COST				
Excluding project team staff time, and UNDP staff and travel expenses		USD 236,000		

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

A. GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies⁵⁷ and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yy yy)	Project Contact Person	Telephone	Email Address
Adriana Dinu, UNDP-GEF Executive Coordinator.		07/31/2016	Andrew Bovarnick Head – Green Commodities Programme	+507 302 4589	andrew.bovarnick@undp.org

⁵⁷ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF

ANNEX A: PROJECT RESULTS FRAMEWORK

Intended Outcome as stated in the UNDAF/Country Programme Results and Resources Framework:
Outcome indicators as stated in the Country Programme Results and Resources Framework, including baseline and targets:
Applicable Outputs from the 2014 – 2017 UNDP Strategic Plan: Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.
Applicable Output Indicators from the UNDP Strategic Plan Integrated Results and Resources Framework: Output 1.3 indicator 1.3.1: Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals and waste at national and/or subnational level.

	Objective and Outcome Indicators	Baseline⁵⁸	Mid-term Target⁵⁹	End of Project Target	Assumptions⁶⁰
Project Objective: Encourage sustainable practices for oil palm and beef production while conserving forests and safeguarding the rights of smallholder farmers and forest-	Number of new partnership mechanisms with funding for sustainable management solutions of natural resources, ecosystem services, chemicals and waste at national and/or subnational level.	Two national green commodity platforms (in Indonesia and Paraguay)	At least 40 private sector, civil society, and donor organizations newly connected and engaged in broad-based dialogue under national and sub-national platforms	At least 60 private sector, civil society, and donor organizations newly connected and engaged in broad-based dialogue under national and sub-national platforms	Platforms and action plans fully incorporate the objective of, and provide effective support for, reduced deforestation commodity production
	Number of direct project beneficiaries among groups including smallholder farmers and forest-dependent communities (disaggregated by gender)	NA	At least 2,500 farmers benefitting	At least 6,000 farmers benefitting	
	Area of high conservation value forest (HCVF), or equivalent, identified and set aside within commodity production landscapes for conservation of globally	<10% of total HCVF within the landscapes is set aside	At least 25% of total HCVF is set aside	At least 50% of HCVF is set aside	The type of set aside utilized (planning, regulation, etc.) is adequate to ensure

⁵⁸ Baseline, mid-term and end of project levels must be expressed in the same neutral unit of analysis as the corresponding indicator. Baseline is the current/original status or condition and need to be quantified wherever possible. The baseline must be established before the project document is submitted to the GEF for final approval. The baseline values will be used to measure the success of the project through implementation monitoring and evaluation.

⁵⁹ Target is the change in the baseline value that will be achieved by the mid-term review and then again by the terminal evaluation.

⁶⁰ Risks must be outlined in the Feasibility section of this project document.

	Objective and Outcome Indicators	Baseline⁵⁸	Mid-term Target⁵⁹	End of Project Target	Assumptions⁶⁰
dependent communities	significant biodiversity and associated ecosystem goods and services				long-term protection
Component 1 Dialogue and public private partnerships; production policies and enforcement	Outcome 1.1 Responsible Governmental authorities, along with private sector & civil society organizations, build consensus and reduce conflict related to target commodity production and growth at national and sub-national levels Outcome Indicator 1.1.1 Number of national and sub-national commodity platforms, and number of district district/target landscape forums established and fully operational	Baseline 1.1.1 2 national commodity platforms (Indonesia = INPOP, Paraguay = national soy and beef platform), 1 sub-national commodity platform (Indonesia = JSSPO)	Mid-term Target 1.1.1 3 national commodity platforms; 4 sub-national platforms; and up to 4 district/target landscape forums	End of Project Target 1.1.1 3 national commodity platforms; 4 sub-national platforms; and up to 4 district/target landscape forums	The airing of grievances and concerns enabled by dialogue under the Platforms has the desired outcome of reducing conflict.
	Outcome 1.2 Practical alignment and implementation of public and private investments and other actions related to target commodities Outcome Indicator 1.2.1 Number of national and sub-national Commodity Action Plans finalized and adopted by national and sub-national governments	Baseline 1.2.1 0 national and sub-national Commodity Action Plans finalized and adopted	Mid-term Target 1.2.1 1 national level action plan finalized, adopted and implemented	End of Project Target 1.2.1 3 national-level and four sub-national level action plans finalized, adopted and implemented	
	Outcome 1.3 Improved national and sub-national policies, regulations and programmes related to commodity				

	Objective and Outcome Indicators	Baseline ⁵⁸	Mid-term Target ⁵⁹	End of Project Target	Assumptions ⁶⁰
	production practices in three target countries Outcome Indicator 1.3.1 Number of policy and regulatory priorities achieved through technical co-operation, analysis and advocacy support	Baseline 1.3.1 0 policy and regulatory priorities realized	Mid-term Target 1.3.1 3 policy and regulatory priorities achieved (including at least 1 of the priority policies and practices listed in Table 7)	End of Project Target 1.3.1 5 policy and regulatory priorities achieved (including at least 3 of the priority policies and practices listed in Table 7)	
	Outcome 1.4 Improved national and sub-national policies, regulations and programmes related to land use allocations for commodity production and set asides in three target countries Outcome Indicator 1.4.1 Number of improved national and sub-national policies, regulations and programmes related to land use allocation for commodity production	Baseline 1.4.1 0 improved policies, regulations and programmes related to land use allocation for commodity production	Mid-term Target 1.4.1 3 improved national or sub-national policies, regulations and programmes	End of Project Target 1.4.1 5 improved national or sub-national policies, regulations and programmes	
	Outcome Indicator 1.4.2 Number of improved national and sub-national policies, regulations and programmes related to the identification and designation of areas of HCV and HCS, particularly within concessions and on privately owned lands	Baseline 1.4.2 0 improved national and sub-national policies, regulations and programmes related to the identification and designation of areas of high conservation value within target landscapes	Mid-term Target 1.4.2 3 improved national and sub-national policies, regulations and programmes	End of Project Target 1.4.2 6 improved national and sub-national policies, regulations and programmes	

	Objective and Outcome Indicators	Baseline ⁵⁸	Mid-term Target ⁵⁹	End of Project Target	Assumptions ⁶⁰
	<p>Outcome 1.5 Improved monitoring and enforcement of existing and new (ref. Outcome 1.4) policies and regulations in three target countries and particularly within target landscapes</p> <p>Outcome Indicator 1.5.1 Substantial increases in relevant enforcement actions in target landscapes, based in part on use of improved monitoring systems and enforcement protocols</p>	<p>Baseline 1.5.1 Baseline and targets to be determined in co-operation with relevant sub-national authorities during the inception phase</p>	<p>Mid-term Target 1.5.1 TBD</p>	<p>End of Project Target 1.5.1 TBD</p>	<p>Increased risk of enforcement actions is sufficient to affect decision making re. whether to engage in illegal behaviour</p>
Component 2 Farmer support systems and agri-inputs	<p>Outcome 2.1 Improved national and sub-national systems for supporting sustainable, reduced deforestation commodity production and intensification</p> <p>Outcome Indicator 2.1.1 Existence of national and sub-national farmer support strategies emphasizing: (i) reduced deforestation, (ii) sustainable intensification, (iii) biodiversity conservation and (iv) elimination of gender gap in agricultural productivity</p>	<p>Baseline 2.1.1 No farmer support strategies exist</p>	<p>Mid-term Target 2.1.1 Three national and four sub-national strategies under preparation and including referenced criteria</p>	<p>End of Project Target 2.1.1 Three national and four sub-national strategies adopted, including referenced criteria</p>	<p>Private sector remains committed and sees advantages in encouraging smallholder intensification</p>
	<p>Outcome 2.2: Effective approaches to smallholder support (via public private partnerships) have been demonstrated</p> <p>Outcome Indicator 2.2.1 Number of smallholder farmers trained in, and employing sustainable agricultural practices</p>	<p>Baseline 2.2.1 0 farmers trained</p>	<p>Mid-term Target 2.2.1 2,500 farmers trained and employing sustainable agricultural</p>	<p>End of Project Target 2.2.1 6,000 farmers trained and employing</p>	<p>The benefits of employing good agricultural practices are apparent and outweigh any short-term gains from less sustainable methods</p>

	Objective and Outcome Indicators	Baseline ⁵⁸	Mid-term Target ⁵⁹	End of Project Target	Assumptions ⁶⁰
			practices	sustainable agricultural practices	
Component 3: Land use plans and maps in targeted landscapes	<p>Outcome 3.1: Improved land use planning / zoning helps to shift targeting and conversion to commodity production from high biodiversity value, high carbon stock, ecosystem service-rich forested areas to degraded or otherwise appropriate lands</p> <p>Outcome Indicator 3.1.1 Number of hectares of HCV and HCS forest areas in commodity-producing landscapes protected through strengthened zoning or similar enhanced legal and regulatory protections</p>	Baseline 3.1.1 0 ha of HCVF and HCS covered	Mid-term Target 3.1.1 230,000 ha of HCVF and HCS covered	End of Project Target 3.1.1 One million ha of HCVF and HCS covered	
	<p>Outcome 3.2: Enhanced land use set aside and protection strategies, including gazettement, of HCV and HCS forest areas within commodity-producing landscapes, reduces deforestation, avoids 65.6 million tons of CO2e emissions and contributes to conservation of 1 million ha of high value forest areas and associated biodiversity</p> <p>Outcome Indicator 3.2.1 Tons CO2e emissions avoided due to gazettement and other related land use and protection strategies</p>	Baseline 3.2.1 0 additional tons Co2e emissions avoided	Mid-term Target 3.2.1 12 million tons Co2e emissions projected to be avoided based on actions to date	End of Project Target 3.2.1 65.6 million tons Co2e emissions avoided (lifetime direct)	
Component 4: Knowledge management.	Outcome 4.1: Increased knowledge of effective strategies and tools for improving production of commodities in ways that do not involve conversion of forested land				

	Objective and Outcome Indicators	Baseline ⁵⁸	Mid-term Target ⁵⁹	End of Project Target	Assumptions ⁶⁰
	Outcome Indicator 4.1.1 Technical understanding of factors underpinning landscape-level enabling environments determining readiness for reduced-deforestation commodity production and impacts of associated capacity building interventions	Baseline 4.1.1 No widely tested methodology or scorecard available	Mid-term Target 4.1.1 Scorecard methodology developed and baseline capacity assessment completed for nine production landscapes covering 8 million ha	End of Project Target 4.1.1 End of project assessment completed and utility of methodology assessed and improved	
	Outcome 4.2: Uptake, adaptation and replication of demonstrated lessons and knowledge Outcome Indicator 4.2.1 Documented examples of specific lessons shared via Community of Practice being applied in other sub-national and national situations	Baseline 4.2.1 0 examples	Mid-term Target 4.2.1 3 examples applied successfully	End of Project Target 4.2.1 7 examples applied successfully	

Annex B: Responses to Project Reviews⁶¹

1. REVIEWS FROM PFD STAGE

Comments from Council	Response
Comments from Germany	
<ul style="list-style-type: none"> Germany recommends that the focus be not limited on the three commodities mentioned in the PFD (palm oil, soy and beef), as there are other important agricultural drivers, such as Cacao (important in West-Africa), Sugar, Rubber, Paper/Pulp. 	<p>While we agree that the other commodities mentioned also play an important role in agriculturally-driven deforestation, the IAP team concluded that the Program would be spread too thinly if it were to cover additional commodities and/or countries. However, we will invite stakeholders from other commodity sectors to share practice and learnings through the Global Community of Practice that we will establish. In particular, the plan is to invite stakeholders from the cocoa sector, which is also grappling with the issue of deforestation. If further funds for integrated programming are available in GEF-7, the commodity scope could be expanded.</p>
<ul style="list-style-type: none"> Initiatives on deforestation-free supply chains contain many aspects and approaches that are already covered in previous or existing efforts on environmental governance (in particular FLEGT and REDD). The PFD should describe how planned activities can be built on such efforts and specifically for the pilot countries that are foreseen. 	<p>FLEGT has been included in the demand child project within knowledge management activities.</p> <p>The national and sub-national platforms to be supported under Component 1 of the production child project will serve as a fulcrum for connecting up and exchanging lessons with co-ordination fora, such as REDD+ initiatives. National commodity training needs assessments will be designed to complement REDD+ strategies. The production project will also facilitate knowledge-sharing efforts, including a Community of Practice (CoP). Finally, the project will engage with REDD+ country programmes, e.g. those in Cote d'Ivoire, PNG, Vietnam, Colombia, Ecuador, Peru and Ethiopia. This will linking up with, informing and learning from, REDD+ work in these countries, particularly work undertaken in co-operation with UN-REDD.</p>
Comments from US	
<p>1. Co-financing:</p> <ul style="list-style-type: none"> The level of co-financing from recipient governments is only \$3.5 M. Therefore as the child projects are developed, we expect agencies will engage recipient countries to preserve country-driven programming – a hallmark of GEF success. 	<p>A strong effort has been made to integrate the IAP within Governmental priorities and programmes. This is reflected in the substantial amount of co-financing committed to by Governments. Furthermore, the National Platforms and subnational platforms to be developed/ consolidated are key tools for government leadership and drivenness of the processes and interventions.</p>
<p>2. Project Scope:</p> <ul style="list-style-type: none"> The United States welcomes the components of the proposal that focus on creating enabling environments (including land use 	<p>The production child project now provides much greater detail on the actions that will be carried out to strengthen the enabling environment for the sustainable production of commodities. This includes various Components, including dialogue, action planning and public private partnerships; production policies and</p>

⁶¹ This table includes responses to those project reviews from the PFD stage that relate directly to the Production project. The complete set of responses to PFD reviews is included in Annex B of the AM&L document.

<ul style="list-style-type: none"> planning, available land, financing), and producer capacity and practices (restoration, monitoring and enforcement, dialogue). These components should be further developed as countries formalize their participation in this IAP and determine which of the proposed elements included in this PFD will be consistent with their priorities. 	<p>enforcement; farmer support systems, and land use planning. The transactions child project will promote financing options for sustainable production. As noted above, support has been defined based on a careful analysis of government priorities. For example, specific priority policies and regulatory measures have been identified in consultation with Governmental partners (see Table 6 of production CEO Endorsement)</p>
<p>3. As the child projects are developed, the priority for GEF funding should be: (1) developing country governments, (2) producers, (3) financial institutions and (4) large buyers. We believe this order reflects the greatest potential to improve supply chain sustainability. Also, the PFD should provide more detail regarding support for development country governments.</p>	<p>The child projects have been developed with a view to prioritizing actions and funding for developing country governments in the 4 IAP target countries, strengthening producer support systems, working with financial institutions to incentivize sustainable production and engaging large buyers to promote commitments to source reduced deforestation commodities.</p> <p>The production child project now provides much more detail on the support that will be provided for developing country governments in Indonesia, Liberia and Paraguay, and the Brazil child project details this for Brazil. Governments are partners in the majority of these projects' activities, with producers, particularly smallholders also important beneficiaries. The Program will strengthen national and subnational platforms as a key tool for government leadership and drivenness and also contribute significantly to strengthening of national policy and legislation and enforcement.</p>
<ul style="list-style-type: none"> Comments from STAP 	<p><u>Note:</u> None of the STAP comments at the PFD submission were directly relevant to the production project. Responses can be found in the CEO document for AM&L</p>
<ul style="list-style-type: none"> Comments from GEF Secretariat 	
<ul style="list-style-type: none"> More detailed country and intervention specific risk analysis expected at CEO Endorsement. 	<p>Each child project CEO Endorsement has now included a much more detailed assessment of potential project risks and risk mitigation measures.</p>
<ul style="list-style-type: none"> More detailed analysis of initiatives at country and intervention specific levels are expected at CEO Endorsement 	<p>A much more detailed description of other initiatives and plans is now provided in each of the child project documents including how the IAP Program will coordinate with these.</p>

2. GEF SECRETARIAT REVIEW OF 31 JULY 2016 CEO ENDORSEMENT DOCUMENT SUBMISSION

Secretariat comment at CEO Endorsement	Response and location in documents
<p>1. <i>If there are any changes from that presented in the PIF, have justifications been provided?</i></p> <p>August 15, 2016 This is a child project under the Commodity IAP program, for which no PIF stage was required. The project is in line with the supply chain of the program, and focuses on "production" of beef in Paraguay and oil palm in Indonesia and Liberia. We note that following request from the Government, soy production in Brazil will be addressed through a separate child project designed with a supply chain lens. However, we do not see the logic of having a separate project for Paraguay (see para 18 of Prodoc), and therefore request that the submission be revised accordingly to fully integrate Paraguay (including description of target landscapes - Table 1 and Annex in Prodoc).</p> <p>While revising the documents, please address the following:</p>	<p>Paraguay elements have been fully integrated into the project document, including all relevant outputs, tables, annexes, etc.</p>
<p>i) include a list of stakeholders to be engaged under component 1 based on typology in para 29 of prodoc and para 86 of Endorsement doc; it would seem that a comprehensive list for each commodity is possible given the extensive consultations done during project preparation;</p>	<p>(i) Country-specific lists of stakeholders to be engaged under Component 1 are presented in Annex E of the CEO ED. Additional details regarding many of these stakeholders are provided in Annex G of the project document.</p>
<p>ii) in para 21, please provide reference for "...recent exhortations by the Indonesian President";</p>	<p>Reference could not be located; this sentence has been deleted.</p>
<p>iii) clarify why Liberia policies are not yet determined (para 47, Table 7 of Endorsement) and when they will be;</p>	<p>Liberia policy priorities, which had been identified in para 70 of the prodoc, have now been incorporated into Table 7 of the CEO doc (following para 48). They are:</p> <ul style="list-style-type: none"> • Develop and adopt a national definition and policy on HCS/HCV forest • Strengthen the Environmental and Social Impact Analysis (ESIA) process as it relates to oil palm investments • Ensure that grievance mechanisms for conflict resolution are adequately developed and implemented • Support the definition of a Free Prior Informed Consent (FPIC) process in the Liberian context in line with Liberian cultures and traditions • Complete the national interpretation of RSPO principles and criteria, which, among other benefits, will create opportunities for smallholders to become RSPO certified.
<p>iv) south-south cooperation (para 172 of prodoc) is welcome, but framework for how</p>	<p>The discussion of south-south co-operation has been expanded, with reference, <i>inter alia</i>, to relevant frameworks and resources (see</p>

Secretariat comment at CEO Endorsement	Response and location in documents
<p>this will happen with what resources needs to be clarified; and</p>	<p>UNDP prodoc, paras. 229-232). Key elements of south-south co-operation discussed there include:</p> <ul style="list-style-type: none"> • The CoP, to be established under the Adaptive Management and Learning project, will support South-South learning, cooperation, and networking among a broad array of practitioners. The CoP will bring together practitioners and producers from the South, with a focus on Brazil, Paraguay, Indonesia and Liberia and will thus serve as a strong platform to facilitate South-South cooperation and technology transfer. The Production project will provide funding for pilot country participation in the COPs. • numerous opportunities for sharing lessons learned by the production and Brazil projects, both among the pilot countries themselves and with other countries facing similar challenges, particularly at the regional level will create significant opportunities for south-south co-operation; • opportunities will be identified and pursued for exchanges with countries involved in UN-REDD, GCP and GEF commodity projects in order to optimize institutional learning and dissemination in key technical areas related to the commodity production: deforestation nexus. • the production project team, working in close co-operation with the AM&L team, will engage regularly with external partners, will participate at key events and will disseminate information through media coverage, publications and presentations, all of which will facilitate South-South learning, and; • key stakeholders will participate in study tours to learn more about the relationship between advances on the demand and production sides of the supply chain.
<p>v) Institutional arrangement for implementation needs to clarify role of National Project Managers relative to other child projects in the target countries; how will coordination be achieved to ensure coherence and consistency?</p>	<p>The discussion of the challenge of in-country co-ordination and the role of NPMs has been expanded (see para. 256 of the UNDP project document).</p> <p>To summarize, in Indonesia and in Paraguay, the National Project Manager (NPM) will act as National Focal Point (NFP) for the project (in Liberia, this role will be undertaken by CI). As described in the AM&L prodoc, the NFP role will be designated for each of the four IAP target countries: Brazil, Paraguay, Liberia and Indonesia (total of 4 national focal points). Each NFP will gather information on the main planned deliverables each year from the Implementing Agencies (IAs) working in the countries in order to prepare national workplans that are well sequenced and coordinated, that outline major milestones/ main planned deliverables and that will be agreed upon by the IAs. The development of well sequenced and coordinated workplans will facilitate technical synchronization of key deliverables across the individual child projects and four IAP target countries. In the event of shifts in the timing of these deliverables, these workplans will be reviewed and adjusted as necessary. The focal points will facilitate communication among the Implementing agencies working in each country to enable this to happen.</p>

Secretariat comment at CEO Endorsement	Response and location in documents
<p>2. Is the project structure/ design appropriate to achieve the expected outcomes and outputs?</p> <p>The project structure includes 4 components and 11 outcomes, but it is not clear how the design will actually deliver on the targets proposed for GEBs. Please clarify and address the following:</p> <p>i) ensure consistency in outcomes presented in para 35 of endorsement doc and para 13 of Prodoc with those in Table A of endorsement;</p>	<p>Outcomes have been checked and consistency ensured throughout the CEO Endorsement and UNDP project documents.</p>
<p>ii) include SFM1 (not SFM3) in Table A of endorsement to be consistent with TT; and provide clear description of how project will support each of the focal areas in section 5 of endorsement doc;</p>	<p>Table A already referred to SFM-1 ("Maintained forest resources")</p> <p>Table 9 has been added to the CEO ED (see p.34) to describe global benefits by GEF focal area.</p>
<p>iii) clarify how the outcomes for farmer beneficiaries under component 2 will translate into actual hectares of land under sustainable production;</p>	<p>The following text has been added to Table 9, p. 34, row for SFM-1:</p> <ul style="list-style-type: none"> The project will support good agricultural practices and sustainable intensification on 200,000 ha. through farmer trainings <p>The project will establish or strengthen at least 7 national and sub-national commodity platforms, bringing together a wide range of public and private sector stakeholders to develop national and sub-national commodity action plans covering policy, planning and other aspects of sectoral management.</p>
<p>iv) clarify what specific actions will be taken to support scaling-up of key production principles and practices beyond the target geographies; how will the project draw on others under the program, especially the AM&L project?</p>	<p>See revised CEO document, paras. 75-77, which now includes the following discussion:</p> <p>The project will support the identification of opportunities, and implementation of approaches, to scaling up principles, policies and practices related to production of a given commodity, particularly those based on lessons learned by the project itself. The specific approach taken will vary according to the locations of analogous commodity-driven deforestation processes, as follows:</p> <ul style="list-style-type: none"> Given that the project's on-the-ground work will take place mainly in specific districts, scaling up will begin within the larger-scale jurisdictions within which these districts are situated, e.g. demonstrate in districts and scale up to provinces, in the case of Indonesia. Here, provincial platforms will serve as the means of dissemination for landscape-level findings and encouragement of uptake by other districts within the province where similar processes of commodity-driven deforestation are taking place. At the next level, scaling up will branch out to other provinces; again in the case of Indonesia, landscape-level lessons will be disseminated via the country's national palm oil platform (InPOP), as well as through an associated UNDP-GEF project operating in three provinces of

Secretariat comment at CEO Endorsement	Response and location in documents
	<p>Kalimantan.⁶² Special attention may be paid to provinces such as West Papua, where palm oil expansion is in a relatively early but rapid stage. Given Indonesia's global leadership in palm oil production, a significant percentage of global palm oil production may thereby be 'touched' by the project simply via this national uptake process.</p> <ul style="list-style-type: none"> • Global-level scaling up will take place in several ways. First, the Community of Practice (CoP) being set up under the Adaptive Management and Learning (AM&L) project, together with project outreach at various global fora, will stimulate uptake beyond the borders of the three target countries. Second, multi-national companies involved in the national commodity platforms can be expected to bring their lessons to other countries where they are operating. Multinationals, national companies and platforms will be stimulated to expand their commitments to other commodities and to other geographies, specifically those geographies which are new frontiers of deforestation. The project builds on a strong baseline of public and private sector commitment to changing production towards reduced-deforestation commodities, and project activities will further empower these key stakeholders to implement such commitments. Third, close co-operation with UN-REDD will help to encourage dissemination to, and scaling up by, countries engaged in REDD+ processes. Finally, the project's initial target commodities and target countries can ultimately be expanded. Replication will come from applying the approach and proven model to other commodities and countries with similar issues.
<p>v) gender mainstreaming is discussed in the Prodoc, but it is not clear where and how women and men are specifically engaged in production of each commodity to warrant a gender- differentiated approach; correct para 170 sentence stating "(women and women)";</p>	<p>"women and women" has been corrected to read "men and women" (see CEO document, para. 93)</p> <p>A Program Gender Mainstreaming Strategy and Action Plan was developed during the PPG to guide actions taken across the components of the IAP Program to ensure that gender mainstreaming is adequately addressed throughout implementation. The plan is annexed to the coordination project "Adaptive Management and Learning for the Commodities IAP". The plan assesses gender issues in the oil palm, soy and beef supply chains, and describes the gender mainstreaming strategies of each child project. In addition, specific country level action plans will be developed during the inception phase.</p> <p>The gender section in the CEO doc (section A.4. p.40-41) has been strengthened with the following text:</p> <p>Gender differentiation in production of agricultural commodities</p>

⁶² "Strengthening Forest Area Planning and Management in Kalimantan", GEF Project ID# 6965.

Secretariat comment at CEO Endorsement	Response and location in documents
	<p>has a wide range of economic and social impacts. The problem has been noted in studies covering Indonesia's palm oil sector as well as in Paraguay's livestock sector. For example, gender-related social issues facing Indonesia's palm oil sector include:</p> <ul style="list-style-type: none"> • Women's participation in the oil palm sector, while significant, is barely addressed in studies and statistics. • Women are often excluded from formal plot ownership. Plots are generally registered in men's names, which means that mainly men are eligible to become members of co-operatives; • In the plantation sector, a gendered division of labor put in place by plantation managers often relegates women to lower paid casual jobs • Women may not be paid directly for fruit collection in cases where their contribution is used to help meet their spouses' production quotas. • Women and children often bear the brunt of health hazards in the palm oil sector, including those associated with application of pesticides. <p>In economic terms, a number of studies have identified a significant 'gender gap' in agricultural productivity—ranging from 4 to 25 percent, depending on the country and the crop—within various agricultural sectors in developing countries. According to one report, "this gap exists because women frequently have unequal access to key agricultural inputs such as land, labor, knowledge, fertilizer, and improved seeds."⁶³ The report goes on to estimate that the gender gap amounts to \$100 million in Malawi, \$105 million in Tanzania, and \$67 million in Uganda per year.</p> <p>An important element of the project's logic is support for sustainable intensification—improving agricultural productivity on a per ha basis—as part of a strategy for reducing commodity-driven deforestation. A key reason for this and other projects⁶⁴ to undertake a gender-differentiated approach, therefore, in addition to equity issues, is the opportunity to achieve productivity gains through such an approach. The magnitude of this opportunity is, in general terms, proportional to the gender gap in agricultural productivity.</p>
<p>3. Is the financing adequate and does the project demonstrate a cost-effective approach to meet the project objective?</p> <p>The breakdown of GEF grant and co-financing</p>	<p>Tables showing GEF financing and co-financing have been revised to ensure internal consistency</p>

⁶³ World Bank and ONE 2014.

⁶⁴ FAO notes that "the potential benefits of gender equality have made the sector a privileged entry point for gender mainstreaming". See <http://www.fao.org/gender/gender-home/gender-programme/gender-livestock/en/>

Secretariat comment at CEO Endorsement	Response and location in documents
<p>by component is adequate and cost-effective, and the focus on farmer support systems for bulk of the co-financing is particular welcome given the need to influence this important group of stakeholders in the supply chain. There are however inconsistencies in the numbers between the tables. Please double check total amounts to ensure they are adding up correctly.</p>	
<p><i>4. Does the project take into account potential major risks, including the consequences of climate change, and describes sufficient risk response measures? (e.g., measures to enhance climate resilience)</i></p> <p>Important risks are considered, but no reference is made to climate change and potential effects; please clarify and describe appropriately in accordance with any existing projected climate change scenarios for both the commodities and targeted geographies.</p> <p>The issue of resilience in broader sense is also an important priority for the program that seem to have been overlooked despite guidance provided with support from STAP. Please clarify how resilience was taken into consideration during project design, and carefully considered during implementation.</p>	<p>The project team greatly appreciates the earlier support provided by STAP on this topic. A proposed approach to the issue during the full project is described in paras. 95-101 of the CEO Endorsement document. This includes, <i>inter alia</i>, the following discussion:</p> <p>Climate change has been added to Table 13 (p. 43-44).</p> <p>A resilience section has been added in this document (p44-46) to clarify how resilience was taken into consideration during the project design for implementation. The following is an excerpt from the section.</p> <p>The fundamental question facing the IAP may be characterized as follows: how can dynamic change within productive landscapes—including sometimes rapid increases in the production of important commodities—be made more resilient and sustainable⁶⁵, particularly in ways that help to sustain forest cover and associated ecosystem services such as biodiversity and climate services, as well as equity, green growth and socio-economic benefits?</p> <p>As a first step in addressing the above question, the PPG team began the process of creating an IAP perspective, or lens, through which to view and monitor landscape-level dynamics. This lens is reflected in the project's theory of change and in its definition of 'elements of sustainability and resilience'. Importantly, it is also visible in the project's structure of components, outcomes and outputs. The simple idea here is that the project can strengthen landscape-level systems by bolstering these constituent elements—which are seen a common but differentiated across landscapes. Thus, while every such landscape is unique and its evolution through time to some extent unpredictable, the project design is based on the assumption that there is sufficient similarity among landscapes and among the factors controlling their sustainability, that principles and actionable lessons can emerge from a multi-landscape comparative and learning approach....</p> <p>Given the above characterization, the project's strategy for building landscape-level resilience and sustainability during the full project</p>

⁶⁵ Here, sustainability and resilience are seen as partially overlapping concepts, so that increased sustainability may largely correlate with increased resilience over the long term.

Secretariat comment at CEO Endorsement	Response and location in documents
	<p>includes the following:</p> <ul style="list-style-type: none"> • To further iterate the elements of sustainability and resilience concept, based on lessons learned during the project, and to develop a landscape scorecard for same. • To apply the scorecard to multiple landscapes, including both project and control landscapes. • To develop a systems-level approach to understanding the interactions among elements and between them and exogenous factors. Thus, the elements-based approach may be taken one step further here as it comes to serve as a model describing the dynamic evolution of the system over time. Here, different approaches, e.g. to a given policy dilemma, will push the system in a particular direction. In this sense, the system can be compared to the ecological system of which it is a fundamental component, albeit one with a heavily anthropogenic, and externally-influenced overlay. • Within the above framework of analysis, to ensure ongoing monitoring of unexpected and hard-to-predict shocks and stresses, and using this analysis to adaptively manage the project and, more importantly, to recommend corresponding course of action to policy makers. Table 13 below presents one possible typology for describing specific options and alternatives for adapting agricultural systems which, to the extent possible, may be considered from a broader landscape resilience perspective, rather than in isolation. This approach will be dynamic in nature, acknowledging the complex systemic nature of the problems and solutions and external variables. • Finally, to arrive at an enhanced understanding of the characteristics that make policy, project and programme interventions—including actions at landscape, provincial, national and global levels—successful in supporting landscape-level sustainability and resilience.
<p>5. Is co-financing confirmed and evidence provided?</p> <p>The total co-financing amounts to just under \$165 million, most of it contributed as in-kind by Governments of the participating countries. This reflects strong ownership for the project, which is critical for anchoring the entire IAP program. However, some of the co- financing letters from Paraguay are missing.</p>	<p>One additional co-financing letter has been received since the first submission and included in the package. A second referenced letter is not forthcoming and has been removed from the list and calculations. The total co-financing now amounts to \$ 164,700,268.</p>
<p>6. Are relevant tracking tools completed?</p> <p>The TT is included, but cover page wrongly refers to another child project; please correct and address the following:</p> <p>i) under CCM, if land under "low</p>	<p>A new tracking tool is being submitted, with correct references and some revised calculations based on new data received regarding the landscapes. Additional information is also provided in the section on global environmental benefits (p.33).</p> <p>As indicated in the tracking tool, an estimated 6,000 farmers will</p>

Secretariat comment at CEO Endorsement	Response and location in documents
<p>GHG" is 400 ha, then where what land uses will be associated with the life time estimates of emission reductions?</p> <p>ii) also under CCM, please specify number of farmers to be associated with the land use practices that will generate GHG benefits.</p> <p>Please note also that incremental reasoning and estimates of GEBs should be made consistent across all the documents and in the tracking tool; Table E and Table 8 in the Endorsement doc, and Project Results Framework in Prodoc all show very different estimates, and are inconsistent with those in description of outcomes and outputs in the documents.</p> <p>Finally, please clarify methodology used to derive GEB estimates (land area and GHG) and how they will be monitored during project implementation.</p>	<p>receive training in good agricultural practices under the project. Given that only a percentage of the trained farmers will adopt these practices, leading to an estimate of 200,000 ha where enhanced and more sustainable agricultural practices will be in place. However, no direct calculations have been made of the carbon benefits associated with 'low-GHG commodity production' on existing agricultural lands.</p> <p>Instead, the project's estimated carbon benefits of 65.6 million tons CO₂e are derived from estimates of avoided deforestation, over a 10-year timeframe, of 128,898 ha. This would represent a modest reduction in annual deforestation rates across the total project landscape areas of 7.95 million ha—which include an estimated 3.89 million ha of forest—from a BAU estimate of 1.65% per year to a GEF project alternative of 1.31%. This avoided deforestation benefit would come in two parts:</p> <ul style="list-style-type: none"> • a projected 35% reduction in deforestation, compared with BAU, across one million ha where the project is supporting the establishment or strengthening of set asides, both on private and public lands; • a projected 15% reduction in deforestation rates across the remaining three million ha, linked to broader policy changes, together with the benefits of improved productivity ('sustainable intensification').
<p><i>8. Is the project coordinated with other related initiatives and national/regional plans in the country or in the region?</i></p> <p>The baseline includes reference to existing platforms for coordination, but no specific link to other GEF projects (existing and planned) for coordination. Please provided a summary of all relevant GEF projects and clarify how this production project will harness opportunities for link during implementation.</p>	<p>A description of projects and co-ordination plans is provided in paras. 111-12</p>
<p><i>10. Does the project have descriptions of a knowledge management plan?</i></p> <p>The knowledge management plan is adequately presented and described, but no reference is made to how this will be aligned with other child projects under the program. Please clarify.</p>	<p>Key mechanisms for enabling knowledge-related connections and synergies to emerge from the production and other IAP projects are now described in para. 114 of the CEO Endorsement document. This includes, <i>inter alia</i>, the following</p> <p>Key mechanisms for enabling knowledge-related connections and synergies to emerge from the production and other IAP projects will include the following:⁶⁶</p> <ul style="list-style-type: none"> • A dedicated Global Knowledge Lead will foster a culture of knowledge creation and management and uptake of learnings among the team and will regularly exchange information with, and brief the child project KM leads, as well as the Program Steering Committee. • KM at the level of each child projects will include specific

⁶⁶ This list includes items funded by the AM&L and other child projects as well as the production project.

Secretariat comment at CEO Endorsement	Response and location in documents
	<p>emphasis on creating and sharing knowledge on the learnings emerging from its interventions with the child project partners.</p> <ul style="list-style-type: none"> • The AM&L project will commission a study to examine the effects of increased demand and financing on sustainable production and vice versa—by definition a multi-project result. • KM will include learning and information sharing about the experience of implementing an integrated approach pilot itself. • A key step in building towards each Community of Practice (CoP) will consist of an effort to weave together Programme-level lessons from project-level experiences, for sharing with partners. • Learning exchanges/ study tours will be carried out both by the production child project and the demand project. The A&L project will help ensure coordination between the two child projects for these study tours and will also glean learnings from the study tours to contribute to the overall KM agenda of the IAP. • The Global Communications lead will liaise with the child projects to ensure consistency among child projects in publications and communications documents in terms of messaging and use of the IAP logo and art files, in order to maintain IAP cohesion.
<p>11. Has the Agency adequately responded to comments at the PIF⁶⁷ stage from:</p> <p>Please address relevant STAP comments from PFD stage.</p> <p>Please address relevant Council comments from PFD approval stage.</p>	<p>See Annex B, Part 1 of CEO document. The table includes responses to those project reviews from the PFD stage that relate directly to the Production project. The complete set of responses to PFD reviews is included in Annex B of the AM&L document.</p>

⁶⁷ If it is a child project under a program, assess if the components of the child project align with the program criteria set for selection of child projects.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS⁶⁸

A. Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: \$300,000			
<i>Project Preparation Activities Implemented</i>	<i>GEF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Activity 1: Project preparation grant to finalize the UNDP-GEF project document for project: “(Global): Support to reduced deforestation commodity production (IAP)” including country engagement, consultation and adaptation and baseline studies	300,000	105,617.68	194,382.32
Total	300,000	105,617.68	194,382.32

ANNEX C: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF Trust Funds or to your Agency (and/or revolving fund that will be set up)

⁶⁸ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

ANNEX D: TARGET LANDSCAPE PROFILES

PARAGUAY

Characteristic	Central Boquerón	Northern Boquerón	Agua Dulce
Location	Department of Boqueron (Central Chaco)	Department of Boqueron (buffer zone and area of influence of Defensores del Chaco National Park)	Department of Alto Paraguay (productive landscape between the Rio Negro National Park – Pantanal and the Defensores National Park)
Landscape surface area	TBD	TBD	TBD
Key characteristics (bio-physical)	<ul style="list-style-type: none"> Semi-humid (900-1100 mm/yr rainfall) High level of land use change. Presence of degraded areas due to many years of intensive agricultural use. Small-sized forest remnants throughout the productive landscape. Larger remnants in indigenous communities and possibly in larger ranches. Connectivity potential: TBD Ecosystem services (relative values): low for regulation services, high for support services, medium for provision services (UNEP, 2013)⁶⁹ 	<ul style="list-style-type: none"> Semi-arid (900-1100 mm/yr rainfall) Low level of land use change Large areas of forest remnants in private properties High connectivity potential Ecosystem services (relative values): high for regulation services, support services, and provision services (UNEP, 2013) 	<ul style="list-style-type: none"> Semi-arid climate (900-1100 mm/yr mm/yr rainfall) High productive potential (soils with agricultural aptitude and abundance of underground water) Large areas of forest remnants in private properties High connectivity potential Ecosystem services (relative values): high for regulation services, support services, and provision services (UNEP, 2013)
Socio-economic aspects/main land uses	<ul style="list-style-type: none"> High population density Livestock production (beef and dairy) Agriculture 	<ul style="list-style-type: none"> Low population density Livestock production (beef) 	<ul style="list-style-type: none"> Low population density Livestock production (beef). Agriculture: Some producers are testing soybean crops , which generates much expectation
Key productive stakeholders	<ul style="list-style-type: none"> Small farmers (less than 100 has) Medium sized farmers (100 – 500 has) Large scale ranchers (several 000 has) Indigenous communities with commercial 	<ul style="list-style-type: none"> Large scale ranchers (several 000 has) 	<ul style="list-style-type: none"> Large scale ranchers (several 000 has)

⁶⁹ Regulation services: soil formation, nutrient and water cycles, climate regulation; Support services: habitat for wild species and indigenous peoples; Provision services: water, food, raw materials and genetic resources.

Characteristic	Central Boquerón	Northern Boquerón	Agua Dulce
	agricultural and livestock production		
Presence of Protected Areas (PA) and Indigenous Communities	<ul style="list-style-type: none"> • Low representativity of PA • Indigenous communities with traditional livelihoods and subsistence agriculture/and commercial scale agriculture (mentioned above) 	<ul style="list-style-type: none"> • High representativity of PA (public and private) (area located within the Chaco Biosphere Reserve). • No indigenous communities 	<ul style="list-style-type: none"> • High representativity of PA (area located within the Chaco Biosphere Reserve). • Presence of indigenous peoples in voluntary isolation. • No settled communities
Main threats to biodiversity and ecosystem integrity	<ul style="list-style-type: none"> • Highest level of deforestation (Guyra Paraguay, 2015) • Highest incidence of fire for land clearing (INPE, 2016) • High risk of future expansion to neighbouring areas (UNREDD, 2015) 	<ul style="list-style-type: none"> • Roads currently being opened for future clearing. High risk of future deforestation (UNREDD, 2015). • Encroachment on PA (southern portion of Defensores del Chaco National Park buffer zone) 	<ul style="list-style-type: none"> • Increasing level of land use change. Second highest deforestation rate (Guyra Paraguay, 2015) • Highest risk of future deforestation (UNREDD, 2015) • High incidence of fire for land clearing. Area with high to critical level of fire threat (INPE, 2016). • Encroachment on PA (northern and eastern portions of Defensores del Chaco National Park buffer zone)
Potential for up-scaling	<ul style="list-style-type: none"> • High 	<ul style="list-style-type: none"> • High 	<ul style="list-style-type: none"> • High
Other aspects	<ul style="list-style-type: none"> • Easy access year round • Highly organized cooperatives • Trained human resources/technical assistance services/research centres • High level of mechanization • Cultural and economic diversity (Mennonites, Paraguayans, Indigenous communities, other nationalities) • Existing experiences and knowledge on SLM practices (e.g. soil recovery, water management, silvopastoral systems) 	<ul style="list-style-type: none"> • Very low population density • Lack of infrastructure (e.g. roads) • Absence of central government institutions 	<ul style="list-style-type: none"> • Very low population density • Lack of infrastructure (e.g. roads) • Absence of central government institutions

INDONESIA

Characteristic	North Sumatera Province	West Kalimantan Province	Riau Province
Location	<ul style="list-style-type: none"> Province of North Sumatera District of South Tapanuli 	<ul style="list-style-type: none"> Province of West Kalimantan District of Sintang 	<ul style="list-style-type: none"> Province of Riau District of Pelalawan
Landscape surface area	<ul style="list-style-type: none"> Province of North Sumatera has a total area of 181,860 km². District of South Tapanuli is divided into 14 Sub District and 212 villages. The largest sub district is Saipar Dolok Hole, which has a total area of 47,303 ha. 	<ul style="list-style-type: none"> Sintang District is the third largest in West Kalimantan after Ketapang and Kapuas Hulu. Sintang District has an area of 21.635 Km² (2.16 million ha) and is divided into 287 villages and 14 sub-districts. The largest sub-district is Ambalau (6.386,40 km² or 29,52%) and the smallest sub-district is Sintang (277,05 km² or 1,28%). 	<ul style="list-style-type: none"> Province of Riau has a total area of 87,023.66 km² Pelawan District consists of 12 sub districts. The largest sub district is Teluk Meranti, covering 391,140 ha of area.
Key characteristics (bio-physical)	<ul style="list-style-type: none"> Altitude of North Sumatera ranges from sea level to 2,200 meters ASL, divided in three topographic categories: the relatively flat east, the centre (undulating to hilly) and the west (undulating). The mix of altitude range and high slopes in the centre and west can impose considerable limitations of productivity potential and suitability for different agricultural commodities in various areas. Climate is strongly influenced by the Barisan Mountain Range and climate seasonality (i.e. distinction between wet and dry seasons) is generally less defined in Sumatera than in Java and other areas of Indonesia: the dry season usually occurs between June and September and the rainy season occurs between November to March. 	<ul style="list-style-type: none"> Sintang is located in the province of West Kalimantan with a total area of 2,163,500 ha and exhibits a mostly hilly (low montane) landscape. The hilly areas are between 1,170 to 2,278 m above sea level and comprises of about 63% of the district area (mostly in Serawai and Ambalau sub-districts). About 37% of the district is considered flat. West Kalimantan is located between the Kalingkang/Kapuas Hulu mountains to the north and the Schwaner mountains to the south. Of the total district area, 47% (1,022,968 ha) is dry land mix farming, followed by secondary dry land forest (23.55% or 509,547 ha) and primary dry land forest (18.7% or 403,945 ha). The rest consists of agricultural plantations, bushes, secondary swamp forest, open areas, swamp bushes, forestry plantations, mining and dry land agriculture land. The forest area includes Bukit Baka National Park (181,000 ha), a location within the Heart of Borneo. Sintang District has a wet tropical climate, with average rainfall of 249 mm/month with the average rainy days of 17 days/month. The peak months for precipitation are between 	<ul style="list-style-type: none"> Riau hosts some of the most biodiverse ecosystems on Earth and unique species such as the critically endangered Sumatran tigers and endangered Sumateran elephants. Comparative studies found Riau's Tesso Nilo dry lowland forest to have the highest vascular plant diversity among 1,800 tropical forest survey plots studied on all continents, and higher diversities than other Sumateran and Indonesian forests. In mapping out its priority conservation regions across the world, WWF included dry lowland and peatland forests in Riau as the <i>Sumateran Islands Lowland and Montane Forests</i> and <i>Sundaland Rivers and Swamps</i> of its Global 200 priority ecoregions.

Characteristic	North Sumatera Province	West Kalimantan Province	Riau Province
		<p>January and October.</p> <ul style="list-style-type: none"> The average temperature of Sintang District ranges between 26 and 27 degrees Celsius and the average humidity is between 80% and 90%. Sintang District is characterised by two major rivers namely the Kapuas and Melawi rivers and two small rivers. The small rivers are Ketungau and Kayan, and they are tributaries of Kapuas and Melawi respectively. 	
Socio-economic aspects/main land uses	<ul style="list-style-type: none"> Regional Gross Domestic Product (RGDP) for North Sumatera at Current Market Prices in 2013 was 403.93 trillion rupiahs (RPJMD 2013). It is strongly influenced by three main sectors: agriculture (30%), manufacturing (30%) and trade/hotels/restaurants (27%), representing a diversified economy. Agriculture sector includes forestry, but its contribution as a sub-sector cannot be disaggregated using available data. Palm Oil, rubber and coffee play a crucial role in the agricultural sector. North Sumatera produces around 4 Million tons of Crude Palm Oil (CPO), making it the second largest producer of CPO in Indonesia after Riau (7 Million tons) (BPS 2014). The province is the second largest producer of rubber in the nation with an annual production 400,000 tons per annum second only to South Sumatera at around 900,000 tons (BPS 2014). Despite the prominent role that North Sumatera plays in the agriculture sector, yields for plantation commodities vary according to the producer groups and jurisdiction available. 	<ul style="list-style-type: none"> The main plantation crops in Sintang are rubber and palm oil. To increase the production of this crops through Perkebunan Inti Rakyat (Plasma farm) and Perkebunan Swadaya (Independent smallholder). Palm oil production in Sintang District in 2013 amount 739,119.92 ton with area productive 51,374.21 ha. There is still immature palm oil plantation around 66,414.68 ha. There are 11,288 plasma farmer palm oil plantations with the planted area 28,929.39 ha in 2012. Banking policies do not support smallholders' credit needs Mills' buying standard is high. Smallholders have difficulty achieving these standards. Plasma farmers get higher prices than independent farmers because of the quality of their product. Independent farmer have difficulty getting technical and financial assistance because of the uncertain legal status of their land (no land certificate). 	<ul style="list-style-type: none"> Riau is the largest producer of CPO in Indonesia (7 million tons in 2014) Riau is currently one of the richest provinces in Indonesia and is rich in natural resources, particularly petroleum, natural gas, rubber, palm oil and forest plantations. Extensive logging and plantation development in has led to a massive decline in forest cover in Riau, and associated fires have contributed to haze across the larger region. The economy of Riau expands faster (8.66% in 2006) than the Indonesian average (6.04% in 2006), and is largely a resource-based economy, including crude oil (600,000 bpd), palm oil, rubber trees and other forest products.
Key stakeholders	<ul style="list-style-type: none"> Ministry of Agriculture Ministry of Environment and Forestry National Land Agency Provincial Forest Service Provincial Estate-Crop Office 	<ul style="list-style-type: none"> Ministry of Agriculture Ministry of Environment and Forestry National Land Agency Provincial Forest Service Provincial Estate-Crop Office 	<ul style="list-style-type: none"> Ministry of Agriculture Ministry of Environment and Forestry National Land Agency Provincial Forest Service Provincial Estate-Crop Office

Characteristic	North Sumatera Province	West Kalimantan Province	Riau Province
	<ul style="list-style-type: none"> District Forest Service District Estate-Crop Office Palm Oil Mill and Plantation Companies Indonesia Oil Palm Farmer Association (APKASINDO) 	<ul style="list-style-type: none"> District Forest and Estate-Crop Office Indonesian Oil Palm Farmer Association (APKASINDO) Palm Oil Mill and Plantation Companies West Kalimantan Development Bank 	<ul style="list-style-type: none"> District Forest and Estate-Crop Office UNDP Indonesian Sustainable Palm Oil (ISPO) DINAS
Presence of Protected Areas (PA) and Indigenous Communities	<ul style="list-style-type: none"> North Sumatera, with a forest cover of 3.9 Million ha, has the most forests in Sumatera after the province of Aceh (4 Million ha). These forests are home to 2 distinct populations of the Sumateran Orangutan and tiger, linked to the Leuser Ecosystem in the north, and the Batang Toru Forest Ecosystem (BTFE) in the south. The BTFE is prone to significant habitat fragmentation and this unique habitat that supports a number of species (including tigers, orangutans and tapirs) is under considerable risk as it doesn't have the same level of protection and resources compared to the Leuser ecosystem. 	<ul style="list-style-type: none"> The forest areas of Bukit Baka-Bukit Raya National Park are dominated by the peaks of the Schwaner range, which supports a mountainous tropical rain forest ecosystem. The surrounding area is potentially threatened by palm oil expansion. 	<ul style="list-style-type: none"> Giam Siak Kecil – Bukit Batu Biosphere Reserve, Indonesia, is a peatland area in Sumatera featuring sustainable timber production and two wildlife reserves, which are home to the Sumateran tiger, Sumateran elephant, Malayan tapir, and Malayan sun bear. Research activities in the biosphere include the monitoring of flagship species and in-depth study on peatland ecology. Initial studies indicate a real potential for sustainable economic development using native flora and fauna for the economic benefit of local inhabitants. Cagar Biosfer Giam Siak Kecil Bukit Batu (CB-GSK-BB) is one of seven Biosphere Reserves in Indonesia. They are located in two areas of Riau Province, Bengkalis and Siak. CB-GSK-BB is a trial presented by Riau at the 21st Session of the International Coordinating Council of Man and the Biosphere (UNESCO) in Jeju, South Korea, on 26 May 2009. CB-GSK-BB is one of 22 proposed locations in 17 countries accepted as reserves for the year. A Biosphere Reserve is the only internationally recognised concept of environmental conservation and cultivation. Thus the supervision and development of CB-GSK-BB is a worldwide concern at a regional level. CB-GSK-BB is a unique type of Peat Swamp Forest in the Kampar

Characteristic	North Sumatera Province	West Kalimantan Province	Riau Province
			Peninsula Peat Forest (with a small area of swamp). Another peculiarity is that the CB-GSK-BB was initiated by private parties in co-operation with the government through BBKSDA (The Centre for the Conservation of Natural Resources), including the Sinar Mas Group , owning the largest paper and pulp company in Indonesia.
Main threats to biodiversity and ecosystem integrity	<ul style="list-style-type: none"> Data shows that Mandailing Natal, Langkat and South Tapanuli are the three regencies with the biggest forest areas in North Sumatera province. They are connected to a forest corridor of Batang Gadis National Park and Batang Toru protected forest. However, the KBA forest is threatened by deforestation and degradation. The expansion of oil palm plantations is a key driver. 	<ul style="list-style-type: none"> Contradictory regulations about sustainability. In this context of financial institution to continue give a loan for palm oil without consider the ISPO or RSPO. 	<ul style="list-style-type: none"> Deforestation and forest degradation in Riau have been driven by various parties using destructive logging and forest clearance – both illegal and legal – for development of settlements, infrastructure, agriculture, etc. Most significant drivers of forest conversion are the rapidly expanding pulp & paper and palm oil industries. Between 1982 and 2007, these two industries replaced ca. 2 million hectares of natural forest in Riau. Often farming in isolated areas and with little regulatory oversight, smallholders (up to 25 hectares is considered a smallholding) in Riau frequently lack agricultural know-how so are less productive compared to larger companies, leading to pressure to clear forests, use chemicals and engage in environmentally unsustainable agricultural practices to grow oil palm. These farmers are also less likely to be integrated into the global supply chain, and so lose out financially and technically.
Potential for up-scaling	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> High 	<ul style="list-style-type: none"> High

Characteristic	North Sumatera Province	West Kalimantan Province	Riau Province
Other aspects	<ul style="list-style-type: none"> The province of North Sumatera and the district of South Tapanuli currently have Memorandums of Understanding with Conservation International (CI), an IAP implementation partner. CI is also working with government agencies and local partners to provide training to small holder farmers and local agricultural extension workers. The province, with support from CI, has established a Joint Secretariat for Sustainable Palm Oil (JSSPO), which provides a platform for government and private sector engagement. This forum is managed by the regional environmental agency under a decree from the governor. The main aim of the secretariat is to encourage uptake of sustainable agricultural practices and reduce environmental impacts, including on forests. 	<ul style="list-style-type: none"> UNDP and Solidaridad have joined forces to assist the Indonesia Palm Oil Platform (INPOP) in its effort to establish provincial platforms. The local platforms, led by regional government representatives, will support the implementation of INPOP's national action plan and initiatives, which include the training of smallholders in good agricultural practices, forest conservation and mapping as well as accelerating ISPO certification of smallholders. 	<ul style="list-style-type: none"> The Indonesian Ministry of Agriculture and UNDP began the process of pilot project to develop guidelines for smallholder certification using the Indonesian Sustainable Palm Oil (ISPO) system with a baseline data derived from six palm oil cooperatives, representing a total of 2,200 farmers, in Riau province on Sumatera island, a key palm oil producing area in Indonesia, in February of 2015. A total of 500 smallholders were trained for ISPO certification, in which 30 persons were, in addition, trained to become the trainer for ISPO certification process. Furthermore, out of 30 persons, 17 people were selected to function the group's ICS. UNDP and Solidaridad have joined forces to assist the Indonesia Palm Oil Platform (INPOP) in its effort to establish provincial platforms. The local platforms, led by regional government representatives, will support the implementation of INPOP's national action plan and initiatives, which include the training of smallholders in good agricultural practices, forest conservation and mapping as well as accelerating ISPO certification of smallholders.

ANNEX E: ORGANIZATIONS EXPECTED TO PARTICIPATE IN NATIONAL COMMODITY PLATFORMS: BY TYPE AND COUNTRY

Country / Stakeholder type	Indonesia	Liberia	Paraguay ⁷⁰
1. Governmental bodies	<ul style="list-style-type: none"> • Coordinating Ministry for Economic Affairs • Directorate General of Estate Crops, Min of Agriculture • Directorate of Perennial and Beverages Crops, DGE, Min of Agric • Directorate of Estate Crops Protection, Min of Agric • Directorate General of Planning, Min of Environment and Forestry • Directorate General of Natural Resources and Ecosystem Conservation, Min of Environment and Forestry • Directorate General of Land Use and Land Tenure, Ministry of Agrarian and Spatial Planning / National Land Agency • Directorate General of Land Use and Land Tenure Controlling, Ministry of Agrarian and Spatial Planning / National Land Agency • Maritime and Natural Resources Department, Ministry of National Development Planning/ National Development Planning Agency • Minister's Expert Staff For Environment and Climate Change, Ministry of Agriculture • Supervisory Board, Certified Palm Oil Fund • Directorate for Food and Agriculture, Ministry of National Development Planning • Department of Food and Agriculture, Coordinating Ministry of Economic Affairs. • Center for Agriculture Training, Agency For Human Resource and Extension 	<ul style="list-style-type: none"> • Forest Development Authority (FDA) • Ministry of Agriculture (MOA) • Environmental Protection Agency (EPA) • National Bureau of Concessions (NBC) • Liberia Institute of Statistics and Geo-Information Services (LISGIS) • National Investment Commission (NIC) • Ministry of Finance and Development Planning • Ministry of Internal Affairs • Senate Committee on Agriculture and Forestry • House Committee on Agriculture and Forestry 	<ul style="list-style-type: none"> • SEAM • MAG – VMG & VMA • INFONA • Public Ministry • SENACSA: the National Service for Animal Health and Quality • Ministry of Industry and Trade (MIC) • INDI-Instituto Paraguayo del Indígena (Paraguayan Indigenous People Institute) • National Cadaster Service Directorate of Public Registries • Departmental Governments (Boquerón, Alto Paraguay and Presidente Hayes) • Municipalities (3 Municipalities in priority areas)

⁷⁰ Participants in sub-national beef platform are shown for Paraguay.

Country / Stakeholder type	Indonesia	Liberia	Paraguay ⁷⁰
	<ul style="list-style-type: none"> Development, Min of Agriculture (member) Assistant for Agriculture and Estate Crops, Deputy for marketing and Production, Ministry of Cooperative and SME National Standard Agency/ National Accreditation Committee CPO Fund Management (BPD PKS) Estate Crops Services of Riau Province Estate Crops Services of South Sumatera Province Estate Crops Services of West Kalimantan Province Peatland Restoration Agency (BRG) 		
2. Private sector, i.e., producers, buyers, traders, processors, consumer goods manufacturers and retailers	<ul style="list-style-type: none"> Indonesian Palm Oil Board Indonesian Palm Oil Association (GAPKI)SPKS - Serikat Petani Kelapa Sawit (Oil Palm Smallholders Union) FORTASBI - Indonesian Sustainable Palm Oil Farmers Forum Sinar Mas (GAR, PT Smart) PT Asian Agri PT Astra Agro Lestari PT Musim Mas Cargill Tropical Oils Indonesia (PT Hindoli) Sime Darby (Mina Mas) Wilmar Indonesia PT Sampurna Agro First Resources Agro Harapan Lestari/Good Hope MEDCO Mopoli Raya PTPN III, IV Indo Food (Lonsum, Salim Group) Super Indo Unilever ADM Dreyfus 	<ul style="list-style-type: none"> Sime Darby (SD) Golden Veroluem Liberia (GVL) Equatorial Palm Oil (EPO) Maryland Oil Palm Plantation Oil Palm Association of Liberia (OPAL) Brown Agro Inc. Local Farm Inc. 	<ul style="list-style-type: none"> FECOPROD: Federation of Production Cooperatives Main Cooperatives in the Chaco: <ul style="list-style-type: none"> CHORTITZER Ltda. FERNHEIM Ltda. NEULAND Ltda. Chambers of Commerce <ul style="list-style-type: none"> Rural Association of Paraguay (ARP) Paraguayan Beef Chamber (CPC) Commodity Buyers and Traders <ul style="list-style-type: none"> Frigochorti (Coop. Chortitzer Ltda.) Frigorifico Neuland (Coop. Neuland Ltda.) Frigochaco (Coop. Fernheim Ltda.) Frigorifico Guarani S.A Frigorifico Concepción S.A Frigomerc S.A (internatcadena internacional) JBS Paraguay S.A (cadena

Country / Stakeholder type	Indonesia	Liberia	Paraguay ⁷⁰
	<ul style="list-style-type: none"> Bunge 		<ul style="list-style-type: none"> internacional) Agrofrio S.A – Viva Meat S.A (cadena internacional)
3. NGOs and civil society organizations	<ul style="list-style-type: none"> Indonesian Palm Oil Board Oil Palm Smallholder Association Bogor Agricultural University Institute Plantation of Indonesia Palm Oil Community of Indonesia Indonesian Plantation Company Union Conservation International WWF FFI Forest Peoples Programme (FPP) CIFOR SNV Earth Innovation Institute / Inobu PILAR/CPI FP2SB HUMA AMAN PSL (Ex IPOPOP) KADIN (Indonesian Chamber of Commerce) Belantara (Sinar Mas/APP) Tanoto (Asian Agri) National Committee for Women Rights Daemeter Oxfam Solidaridad Kehati (Indonesia Biodiversity Foundation) RSPO Indonesia ZSL WRI Sucofindo (Certification Body/CB) Mutu Agung Lestari (CB) Tuv Reinland (CB) 	<ul style="list-style-type: none"> Conservation International Solidaridad Proforest Fauna and Flora International (FFI) Sustainable Development Institute Green Advocates ACDI VOCA World Resources Institute GROW 	<ul style="list-style-type: none"> WWF Guyra PY Solidaridad Indigenous Peoples' Organizations (to be identified)

Country / Stakeholder type	Indonesia	Liberia	Paraguay ⁷⁰
Platforms and Collaboration Fora	<ul style="list-style-type: none"> • TFA2020 Indonesia WG • PISagro 	<ul style="list-style-type: none"> • TFA 2020 – Africa Palm Oil Initiative • Consumer Goods Forum 	
Development partners	<ul style="list-style-type: none"> • UNDP • UKCCU • USAID <ul style="list-style-type: none"> • IFC / World Bank • IDH 	<ul style="list-style-type: none"> • UNDP • World Bank • IFC • Food and Agricultural Organization of the United Nations • IDH • USAID 	<ul style="list-style-type: none"> • WWF • USAID