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GEF-7 CHILD PROJECT CONCEPT

<u>**BRAZIL**</u>

CHILD PROJECT TYPE: Full-sized Child Project

PROGRAM: IP FOLU

PROJECT INFORMATION

Child Project Title:	Sustainable Multiple Use Landscape Consortia - Vertentes Project
Country:	Brazil
Lead Agency	WB
GEF Agency(ies)	WB
Executing Agency(ies):	Ministry of Environment; Ministry of Agriculture, Livestock and Food Supply; TBD.

PROJECT DESCRIPTION

1. a) Country Context (*maximum 500 words*)

Describe the country's relevant environmental challenges and strategic positioning relative to the systems transformation proposed for the program, including relevant existing policies, commitments, and investment frameworks, how are these aligned with the proposed approach to foster impactful outcomes with global environmental benefits?

Brazil has experienced impressive agricultural growth in the past four decades, emerging as a global leader in agricultural commodity production. Brazil is the world's largest beef exporter, providing close to 20 percent of total global beef exports, and soybean exporter (83 million metric tonnes exported in 2018). Most of this growth has taken place in the Cerrado biome. The rich and diverse Cerrado is a congregate of landscapes that are strategic for economic and environmental reasons as well as for food security. It covers approximately 200 million hectares (ha) of the Brazilian Central Plateau (24% of the country's total land area), rainwater falling in its highlands runs off in all directions, a phenomenon called the "umbrella effect[1]", feeding the three majors river basins – Tocantins, São Francisco and Paraná – a large geographic area that contains significant carbon stocks and substantial biodiversity. Agriculture, which occupies around 22 million ha, involves mechanized farming on large tracts of land and the widespread use of chemical inputs to correct soil acidity and enhance fertility. The Cerrado houses an estimated 50 million head of cattle, nearly 33% of the national herd, on 54 million ha of grassland, and comprises more than half (52%) of the soybean produced in Brazil. However, the expansion of agriculture production has reshaped the Cerrado landscapes with environmental costs, including significant loss of native vegetation and environmental and land degradation. On those anthropized areas, the prolonged use of grasslands for conventional beef cattle production diminishes the soil productivity capacity for agriculture and vegetation regeneration. In this context, the main development challenge for Brazil is to find the best way to sustainably manage

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[1]Jorge Enoch, "Situation on prospects for the Cerrado Waters". 2011.

those natural and productive landscapes, increasing food production while restoring degraded land and conserving natural characteristics of the Cerrado for its biodiversity and ecosystem services.

To change this trajectory, Brazil has historically developed a strong policy framework to foster sustainable agriculture and forest-protection, including the National Policy of Water Resources (Law No. 9,433/1997), the National Policy on Climate Change (Law 12.187/2009); the Sector Plan for a Low Carbon Economy in Agriculture – ABC Plan (Decree No.9,578/2018), the National Plan for the Promotion for Socio-Biodiversity Value Chains (Resolution No. 239/2009), the Forest Code (Law No. 12,651/2012), the National Policy to Combat Desertification (Law No. 13,153/2015), among others.

Additionally, Brazil is signatory to the United Nations Convention to Combat Desertification (UNCCD), United Nations Framework Convention on Climate Change (UNFCCC), Convention on Biological Diversity (CBD), Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Brazil is also engaged in such multilateral sustainability initiatives as Tropical Forest Alliance, Consumer Goods Forum, Roundtable on Responsible Soy, Food and Land Use Coalition. In 2017, Brazil signed the Soil Degradation Neutrality Strategy - LDN during UNCCD COP 13, whose self-determined goal is currently under construction and quantification.

Brazil has also submitted its Nationally Determined Contribution (NDC) to the UNFCCC, committing to reducing greenhouse gas (GHG) emissions by 37 percent below 2005 levels by 2025 and, as a subsequent indicative contribution, to reducing GHGs by 43 percent below 2005 levels by 2030.

In terms of investment framework, the Brazil Investment Plan (BIP), endorsed by the Forest Investment Program (FIP), represents an important portfolio for achieving Brazil's NDC commitments in the Cerrado biome. The BIP seeks to improve sustainable land use and forest management in the Cerrado to contribute toward reducing pressure on the remaining forests, reducing GHG emissions, and increasing carbon dioxide (CO_2) sequestration. FIP investments and learning are contributing knowledge and good practices to the current design, as well as co-financing.

Brazil is strategically positioned to contribute to the transformational change proposed by the FOLUR IP by: a) promoting sustainable food systems for soybean and beef cattle value-chains and catalyzing investment opportunities to scale-up production models with environmental and social benefits; b) promoting low-carbon commodities by making available incentives and market mechanisms for sustainable production of soybeans and beef cattle and other food systems, and implementing a socio-environmental business model (e.g., EMBRAPA's Carbon Neutral Meat Protocol); c) ensuring the legal protection of natural ecosystems on private lands; and d) restoring degraded lands by making financial incentives (e.g., favorable credit and access to markets) and technical assistance available to producers to support the implementation landscape management tools. This will be framed within an integrated landscape management (ILM) approach with the necessary institutional and governance capacities, and land use planning tools to enable implementation. Multiple environmental benefits are expected to result from implementing this strategy in selected productive landscapes, such as:

increase productivity on anthropized agricultural and pasturelands; reduce land degradation; increase carbon sequestration and lower GHG emissions; and improved habitat for key biodiversity species.

2. Project Overview and Approach (*maximum 1250 words*)

a) Provide a brief description of the geographical target(s), including the details of systemic challenges, and the specific environmental threats and associated drivers that must be addressed;

The project is focused on three areas **(Figure 1)** covering approximately 28.2 million ha. The selected landscapes are important for soybean and beef cattle production and located in major freshwater-producing basins, featuring Cerrado phytophysiognomies, including elements of the Pantanal, Caatinga and Atlantic Forest biomes. The three macro areas encompass important biodiversity hot spots, being a strong center of evolution and speciation of both flora and fauna. Since in these consolidated production areas there is minimum room for further legal vegetation suppression (municipal deforestation rate under the 3 macro areas are presented in a complementary document), the proposed intervention conduces to improved productivity at commodity areas, and consequent improvement of the local economy, increasing environmental perception and value, and contributing to these hot spots' viability. Moreover, those areas are characterized by arid climate spectrum and ecological transition hotspots, ecotones and occurrence of important endemic species, some already threatened.

Figure 1. Project proposed coverage. Colors represent great Brazilian river basins. Project's interventions would be deployed on Tocantins-Araguaia basin (yellow), as well as its adjacent watersheds Pantanal (light orange), Paranaiba/Paraná (light yellow) and São Francisco (greyish blue)

The three areas were selected based on hydrographic, edaphological, agricultural, and land use typologies criteria. The overall characteristics of selected intervention areas under the Vertentes Project are:

Area 1 is located in the Araguaia-Taquari watershed in the States of Goias, Mato Grosso and Mato Grosso do Sul, covering 20 municipalities with an area of 10.7 million hectares and 362,315 habitants. This area has 15,136 rural properties (with 15% owned by women). Soybean production reached, in 2017, nearly 2.5 million metric tonnes (in 761,301 hectares of which 89% are under no-till planting) and total cattle herd comprises 4.6 million heads. Grasslands cover an area of 4.9 million hectares of which 39% presents some degree of pasture degradation.

Area 2 is located in the Tocantins and Paranaíba watersheds in the States of Goias and Federal District, covering 8 municipalities occupying an area of 3.1 million hectares and 3.4 million habitants. This area

has 14,819 rural properties (with 18% owned by women). In 2017, soybean production reached 1.3 million metric tonnes, in 384,300 hectares of which 84% use no-till planting. Total cattle herd reached 973,161 heads, in 953,404 hectares of grassland of which 68% presents some degree of pasture degradation.

Area 3 is located in the Tocantins, São Francisco and Paranaíba watersheds in the States of Bahia and Minas Gerais, covering 32 municipalities with 14.4 million hectares and 813,527 habitants. The area has 55,118 rural properties (with 16% owned by women). In 2017, soybean production reached 3.7 million metric tonnes in 1.1 million hectares of planted area of which 99% are under no-till planting. Total cattle herd reached 2.1 million heads under 3.3 million hectares of grassland of which 62.5% presents some degree of pasture degradation.

It is noteworthy the high adoption of no-tillage techniques for soy production on the 3 selected areas (from 84% to 99%), indicating an opportunity for the Project to move a step forward on the direction of crop-livestock-forest integration (ILPF), certification and traceability within the supply chain. Beef cattle production, on the other hand, shows high levels of degraded pastures (almost 50% of grassland area), which represents a challenge but also great opportunities for productivity gains and implementation of improved practices. Experiences in the Cerrado area show that degraded pasture areas, once recovered, may in part be used in agriculture, allowing existing soybean producers to expand the planted area (incorporated from areas already in use, pastures recovered without deforestation).

Recovered pasture areas allow the adoption of ILPF in both cases: being partially converted for agricultural use or remaining fully used for beef production. The degraded pasture area can be recovered with agriculture allowing immediate use with agriculture (soybean/corn) followed by off season temporary pasture (sowed before grain harvest) and in the next season grain again (integration crop-livestock). In case of recovered area for main use as pasture the option (pasture-forest) and/or (crop-pasture-forest), with parts of pasture being regularly recovered with agriculture (2-3 seasons) can be applied.

Within the selected 3 macro areas (28.2 million ha), the project aims to be implemented in 1,700,000 ha, under 9 pre-selected productive landscapes (PLs), based on high occurrence of land degradation processes, importance of local environmental features and high incidence of endemic species **(Table 1)**. Although the implementation area is targeted in the selected 60 municipalities **(complete list on Annex 2)**, the design will be flexible enough to incorporate surrounding municipalities, if needed, to achieve economy of scale and to consolidate ecological corridors.

The proposed target to intervene in 1.7 million ha of landscape area under improved areas was based on evidence provided by the FIP/WB financed Sustainable Agriculture Production Project – Projeto ABC Cerrado (P143184) – closing in November 20, 2019, where with US$10.62 million enabled the adoption of sustainable practices in more than 700,000 hectares. Another scope indicative was the FIP/WB financed Integrated Landscape Management in the Cerrado Project (P164602), which targeted to reach 1,200,000 hectares of landscape under improved practices with US$ 21 million grant.

Table 1. Environmental and biodiversity features of selected productive landscapes

Productive landscapes (PL)	Biome coverage	Environmental features	Endemic species
Under Area 1:			
I - Emas – Alto Taquari	Cerrado combined with elements of Pantanal Atlantic Forest	Araguaia, Taquari and do Peixe River/Paranaíba springs; Serranópolis termal waters; archaeological sites; Salto do Sucuriú Falls	Alipiopsitta xanthrops (Papagaio do Cerrado); Tolypeutes mataco (Tatu-bola ocidental); Cattleya walkeriana; Butia purpurascens (Butiá vermelho); Byrsonima cordifolia; Hippeastrum leucobasis

II - Quedas do Araguaia – Couto Magalhães	Cerrado combined with elements of Pantanal, Cocais Woods and Amazonia	Couto Magalhães Falls; Araguaia's river beaches and islands; Marimbondo Waterfall; Sonora Canyons, Serra de Sonora; Serra do Roncador; Serra de Itiquira; Barra do Garças termal waters; ebb lakes and ponds	Inia araguaiensis (Boto do Araguaia); Cattleya araguaiana; Potamotrygon henlei (Arraia do Araguaia); Hyphessobrycon amandae (Tetra Foguinho)
Under Area 2:			
III - Serra Geral de Goiás	Cerrado; Caatinga; ecotone	Serra Geral de Goiás; Paranã Canyon (hand gliding free flight sites); Chapada dos Veadeiros; Serra Geral Rock Cliffs; Buraco das Araras (dolina); Terra Ronca and other caves; Salto do Itiquira Falls and other waterfalls; Carste de Mambaí; areões da serra; Paranã meteoric depression; Funil gorge and waterfall; termal waters; lakes; scenic rivers	Mergus octocetaceus (Pato Mergulhão); Kerodon acrobata (Mocó da Chapada); Tolypeutes tricinctus (Tatu-bola oriental); Pyrrhura pfrimeri (Tiriba Vermelha); Bauhinia malacotrichoides; Cattleya walkeriana; Podocarpus brasiliensis (Pinheiro de Brasília); Cattleya nobilior; Podocarpus barretoi (Pinheiro da Chapada); Vellozia albiflora (Canela-de-ema Branca); Cavanillesia umbellata (Barriguda); Chorisia glaziovii (Paineira Branca)
IV - Goyáz Velho	Cerrado, combined with elements of Atlantic Forest and Cocais Woods	das Almas, Tocantinzinho; Corumbá, dos Bois, and Verde rivers watersheds; Serra Dourada; Serra dos Pireneus; Serra do Pouso Alegre; historical cities; Chapada da Vendinha; Chapada de Brasília; dos Ecos and other caves;; Salto do Corumbá Falls; Morro do Cabeludo Hill; Morro do Rodeador Hill; Contagem Canyon; archaeological and paleontological sites; lakes; waterfalls; Serra Dourada Rocky Cliffs.	Cattleya walkeriana; Podocarpus brasiliensis (Pinheiro de Brasília); Cattleya bicolor; Phagmipedium vittatum (orquídea Sapatinho de Vênus); Juscelinomys kandango (roedor primitive); Cinolebias boitonei (Pirá-brasília); Rivulus brasiliensis (Rivulo do Planalto); Mesosetum longiaristatum; Tibouchina papyrifera; Otachyrium piligerum; Vochysia haenkeana (Pau Dourado); Scitalopus novacapitalis (Tapaculo de Brasília); Brycon orbignyanus (Piracanjuba); Taoniscus nanus (Inhambú Carapé)
Under Area 3:			
V - Acaba-Vida	Cerrado, combined elements of Caatinga	Corrente, Grande and Santa Maria rivers watersheds; Cataratas do Acaba-Vida Falls; Redondo Waterfall; Ondas river; scenic rivers; Chapada das Barreiras; Cuesta da Serra Geral	Cattleya nobilior; Mauritiella armata (Buritirana); Claravis pretiosa (Pomba Pararú); Cavanillesia arborea (Barriguda)
VI - Geraes da Bahia	Cerrado, com elementos da Caatinga	scenic rivers; Geraes; historical cities; cuesta da Serra Geral; Cavanillesia umbellata Woods; waterfalls	Cattleya nobilior; Mauritiella armata (Buritirana); Cavanillesia arborea (Barriguda); Claravis pretiosa (Pomba Pararú); Chorisia glaziovii (Paineira Branca); Cavanillesia arborea (Barriguda)
VII - Geraes do Grande Sertão-Veredas	Cerrado; Caatinga; ecótono	Plateaus; Serra das Araras; Peruaçu and other caves; Geraes; scenic rivers; archaeological and paleontological sites; historical cities; rocky cliffs; river beaches	Charitospiza eucosma (Mineirinho); Cattleya nobilior; Mauritiella armata (Buritirana); Cavanillesia arborea (Barriguda); Claravis pretiosa (Pomba Pararú); Chorisia glaziovii (Paineira Branca); Cavanillesia arborea (Barriguda); Nothura minor (Codorna mineira); Nothura boraquira (Codorna buraqueira)
VIII - Paracatu do Príncipe	Cerrado, com elementos de Caatinga e Mata Atlântica	Paracatu river watershed; serra dos Cristais; serra dos Topázios; caves; Geraes; river beaches; lakes; ebb ponds; chapadas; historical cities; archaeological and paleontological sites	Cattleya walkeriana; Podocarpus brasiliensis (Pinheiro de Brasília); Cattleya bicolor; Phagmipedium vittatum (orquídea Sapatinho de Vênus); Juscelinomys kandango (roedor primitivo); Mesosetum longiaristatum; Otachyrium piligerum; Vochysia haenkeana (Pau Dourado); Scitalopus novacapitalis (Tapaculo de Brasília); Taoniscus nanus (Inhambú Carapé); Nothura minor (Codorna mineira); Nothura boraquira (Codorna buraqueira)
IX - Lenda do Abaeté	Cerrado; com elementos da Mata Atlântica	Abaeté river watershed; Serra da Canastra northwest face; waterfalls; caves; archaeological and paleontological sites; medicinal waters; lakes	Mergus octocetaceus (Pato Mergulhão); Vochysia haenkeana (Pau Dourado); Scitalopus novacapitalis (Tapaculo de Brasília); Taoniscus nanus (Inhambú Carapé); Nothura minor (Codorna mineira)

The main systemic challenges for these landscapes are worsened by the growing demand for food commodities. Another specific challenge at landscape level is the integration of natural areas – required by the Brazilian legislation – from different rural producers in a way that they can become relevant for biodiversity and for production. In order to address those challenges, the project will be designed to face several barriers: (i) uncoordinated planning and landscape management processes at subnational and local levels; (ii) misaligned existing policies and incentives to promote sustainable agriculture value chains and forest protection; (iii) weak processes for stakeholder engagement and for knowledge transfer and technical assistance provision; and (iv) weak private sector engagement in financing and on sustainability issues.

b) Describe the existing or planned baseline investments, including current institutional framework and processes for stakeholder engagement and gender integration;

National government is investing in several programs to support the implementation of the Sector Plan for a Low Carbon Economy in Agriculture – ABC Plan (Law No 12,187/2009 and Decree No.9,578/2018), the Forest Code (Law No. 12,651/2012), and the National Policy to Combat Desertification (Law No. 13,153/2015) with the objective to promote sustainable land use and forest management improvements in the Cerrado. The key baseline programs and institution frameworks are under the Brazil Investment Plan (BIP), endorsed by the Forest Investment Program (FIP) Subcommittee on May 18, 2012 and managed by the World Bank:

• ***Environmental Regularization (P143334)*** supports the rural environmental cadaster in selected municipalities and enhance the capacity of the Brazilian Forest Service (SFB) and nine state environmental agencies to receive, analyze and approve rural environmental registries, as well as to link them to the National Rural Environmental Registry System (SICAR). In these municipalities, the project will support research, mapping and georeferencing of land use and rural properties. The investment amount is US$ 32.48 million, benefiting 57,942 registered rural families. The FOLUR CP will benefit from the base of land use planning and mapping already established in the SICAR, which identifies legal reserve deficits for native vegetation, to focus and scale-up land recovery activities.

• ***Sustainable Agriculture Production (P143184)*** works in collaboration with the Ministry of Agriculture, Livestock and Food Supply (MAPA), the National Rural Learning Service (SENAR) and the Brazilian Agricultural Research Corporation (EMBRAPA). The aim is to promote the adoption of sustainable and low carbon agricultural technologies - advocated by the national Low Carbon Agriculture policy (Plan ABC) among medium-sized producers in the Cerrado region. The investment amount is US$10.62 million, benefiting over 13,000 farmers. The FOLUR CP will tap into this network of farmers and further multiply the adoption of best practices for food production and land management. Additionally, the FOLUR CP will incorporate the lessons learned from this project operational approach to plan and develop the best interventional actions for its target areas.

• ***Forest Fire Prevention Systems and Monitoring of Vegetation Cover in the Brazilian Cerrado (P143185)*** supports the design and implementation of a monitoring system, including annual deforestation mapping and near-real time deforestation detection. It also helps to improve the forest fire risk information system and the estimation of greenhouse gas emissions from forest fires. Includes a hands-on training program on the application of fire hazard modeling tools. This project is in collaboration with the Ministry of Science, Technology and Innovation (MCTIC). The investment amount is US$9.25 million, benefiting agencies from the three spheres of government, as well as

actors involved in monitoring and conservation of the Cerrado Biome, such as protected area managers, academic and educational institutions, civil society organizations, and farmers. The FOLUR CP will have reduced risks because of the investment in fire detection and prevention, a factor of significant economic and environmental loss in the Cerrado. The accurate information produced on land use change, will also benefit the responsible production chains image to be consolidated with traders and consumer markets.

• *Integrated Landscape Management in the Cerrado (P164602)* aims to promote the adoption of environmental conservation and restoration practices, as well as low carbon agricultural techniques in selected Cerrado watersheds. To this end, it will support land use mapping, studies and institutional strengthening activities of the Ministry of Agriculture, Livestock and Food Supply (MAPA), Brazilian Forest Service (SFB), National Institute for Space Research (INPE), EMBRAPA and SENAR. It will also provide technical assistance to landowners, monitor landowner performance and support the forest restoration supply chain. The investment amount is US$ 21 million, benefitting over 4,000 farmers. With a similar approach, the FOLUR CP will deploy increased ambition regarding the integrated landscape management in productive landscapes, exploring synergies with common actors as well as new actor engagement for biodiversity conservation and sustainable use.

• *Forest Information Oriented Management for Conservation and Use of Forest Resources of the Cerrado by Public and Private Sectors - IFN Project* aims to implement and consolidate policy instruments that produce quality information on forest resources of the Cerrado, to support the formulation of policies and projects by the public and private sectors and contribute to the mitigation of greenhouse gases. In order to achieve that the project has trained 200 professionals in technical and project interest specialties; conducted biophysical and socio-environmental data collection in 3817 sampling points of National Forestry Inventory; processed and analyzed data from 6457 carbon stock samples; and will release in 2020 a Cerrado estimated carbon stock report. The FOLUR CP will boost from already in place soil carbon estimates being built to assesses and monitor stock levels during degraded land recovery activities; and forest inventory data to guide environmental recovery plans.

Also, Brazil joined the Initiative 20x20 in 2016 with a pledge to restore 22 million ha of degraded land by 2030. The pledge was made through MAPA and MMA. Under its primary restoration policy (Proveg), the National Plan for the Recovery of Native Vegetation (Planaveg) plans to restore 12 million ha through forest restoration, reforestation, and natural regeneration by 2030 as part of Brazil's NDC to the Paris agreement. The other 10 million ha will be restored as part of the Ministry of Agriculture, Livestock and Supply's Low Carbon Agriculture Program (ABC Plan), which runs from 2010-2020. The ABC Plan will restore 5 million ha of land through two programs, Livestock-Forestry Integration and Agroforestry Systems. The restoration of the remaining 5 million ha will be achieved through recovery of degraded pasture. The Planaveg document states that financing for the restoration plan can come from sources including the government, national and multilateral financing institutions, funds like the GEF, bilateral government agreements like Brazil's agreement with Norway, the private sector, and foundations.

At the FOLUR CP level, these initiatives have built up participatory processes to coordinate executors and local collaborators and to mobilize potential beneficiaries, including specific strategies to incentivize and create equal opportunities for both men and women's participation. Enhancing the

existing processes for stakeholder engagement and gender integration are key factors for effective Integrated Landscape Management (ILM) outcomes.

The FOLUR CP level will build on the experience gathered with the BIP projects to promote the private sector participation and the beneficiaries' access to finance to promote sustainable initiatives, and also on the knowledge generated from studies of the rural credit system. Results from the Sustainable Agriculture Project have shown great sustainability of the project's investment, considering that when the farmers see the results of the sustainable agriculture, they are willing to invest their own money or request additional funds to continue with the intervention.

The Vertentes Project will elaborate a strong communication strategy to reach out to key stakeholders to facilitate a common understanding of the vision, values and landscape needs through a neutral, non-threatening and constructive forum. Also, the project will conduct a gender assessment and design a gender strategy to encourage the equitable gender participation in the activities and eventual generation of income and work resulting from the interventions. The assessment of social impacts and benefits will incorporate a gender-sensitive lens and would propose specific actions to close identified gender gaps as well as indicators to monitor actions designed to address or narrow these gaps, such as communication strategy, specific training, facilitated participation in formal and informal decision-making structures and governance processes related to the equitable provision of inputs for restoration.

During project preparation an Environmental and Social Impact Analysis (ESIA) and a Stakeholder Engagement Plan (SEP) will be prepared as required by the World Bank's Environmental and Social Standards (ESSs) 1 and 10. The ESIA will assess the presence or not of Indigenous Peoples within the selected areas. It is worth mentioning that (i) a preliminary assessment pointed out that there are no Indigenous Lands within the selected areas (this information will be checked during the preparation of the ESIA) and (ii) the project is targeted at private farmers and landholders as they are the main responsible for commercial agricultural production as well as land degradation and deforestation. If Indigenous Peoples are present in the area, the ESIA will assess the potential indirect impacts and benefits that project activities may have on them as well as propose measures to promote their participation and the opportunities to increase their access to benefits.

Table 2. Stakeholder role and project engagement

Stakeholders	Role and project engagement
Other Federal Government institutions	Will harmonize national policies and guidelines. Improve policy-practice interactions. Give overall strategic advice.
State and municipal level governments	Directly involved at the project implementation and local articulation.

	Will be engaged at landscape planning and other project activities, such as the "off-farm" improvements.
National representatives of productive sector	Identification and mobilization of local actors.
	Technical assistance provision.
	Will cooperate on community capacity building actions.
	Strengthen the dissemination of climate smart agriculture benefits.
Commercial farmers and local communities.	Commercial farmers will be the agents of transformational change.
	The local communities will act as a social control to secure support, involvement and benefits from project-related activities.
Environmental and agricultural research institutions	Validation of technical material.
	Collaboration at Project technologies dissemination.
	Monitoring of implementation and results.
Agroindustry, traders and exporters	Will be the main transformational change stakeholders to foster sustainable landscape economy and mainstream sustainable practices along the value-chain.
	Improve traceability and security throughout the value-chain.
Financial institutions	Assist farmers in preparing on -farm investments proposals in order to access credit resources

c) Describe how the integrated approach proposed for the child project responds to and reflects the Program's Theory of Change, and as such is an appropriate and suitable option for tackling the systemic challenges, and to achieve the desired transformation with multiple global environmental benefits; and

The project will apply an ILM approach in the areas presented in item 2.1 to maximize the IP objectives for sustainable food systems and landscape restoration. Those anthropized/consolidated productive areas have historically applied, mainly for beef cattle production and in a lesser extent for agriculture, conventional practices with low rates of technological adoption, resulting in environmental degradation processes and productivity losses. To tackle those systemic challenges, the project will mobilize key stakeholders (farmers and their representative organizations, state and municipal governments, local financial and technical assistance agencies, NGOs, buyers and investors) and build on existing policies, programs and initiatives at the landscape level that are currently being implemented in an uncoordinated and fragmented fashion to establish a multi-disciplinary coalition of actors (consortiums) to catalyze investments and collectively enable an integrated and transformative business environment. The added value of the project is to build the synergy of the already installed actors, policies and initiatives to achieve proposed goals. The project design aims to integrate, complement and amplify the implementation of key sustainable policies as the ABC Plan and CAR, rather than stand-alone activities. The project will be managed by the Ministry of Environment (MMA) and the Ministry of Agriculture, Livestock and Food Supply (MAPA), which are the policy executors with the administrative and operational support of an executing agency (to be

determined). These elements of the institutional set up were carefully considered to guarantee the continuity and sustainability of activities after the project lifecycle.

At the landscape level, synergies and capacities will be enhanced allowing the formulation of a comprehensive land-use planning and governance for the implementation of on- and off-farm investments. To escalate innovation and increase farms' beef cattle productivity, the project will be built from tested and successful on-farm interventions applied in the FIP program (Sustainable Agriculture Production - P143184 and Integrated Landscape Management in the Cerrado - P164602). These tested approaches include knowledge and technical assistance provision of sustainable ABC agriculture practices (soil and water conservation practices; integrated crop, livestock and forest systems; recovery of degraded pasture land; cultivated commercial forests, etc.); forest protection and restoration practices (environmental compliance, soil and water conservation, etc.); associated with technical assistance to access credit for adoption of those practices.

The Project focus would be on areas with highly intensified agriculture and associated erosion and water quality issues. To that end, the project off-farm strategy would combine actions to build the capacity and awareness of the rural population about integrated natural resources management, strengthening public support services and infrastructure (research and innovation, land regularization, and rural roads rehabilitation and maintenance), and support for sustainable business initiatives of groups of small producers to foster their greater integration with remunerative value-chains. Despite not directly financing the following infrastructure interventions, the project will promote their implementation, and will aggregate innovative elements by mobilizing national, state and municipal governments to include in the landscape planning the rationale[2] for off-farm investments. While this initial list of activities provides a range of options, the component remains open to new initiatives which will be determined by landholders and other stakeholders in the selected areas.

Regarding agrochemicals, since the major premise of the Project is to coordinate existing policies and programs at the landscape level, the project will partner with the NGO inpEV (*Instituto Nacional de Processamento de Embalagens Vazias*) through the *Program Campo* Limpo to intervene in identified areas where requires handling of agrochemical packaging used in agricultural production. As a baseline, inpEV conducted the environmentally sound disposal of more than 144,000 tons of pesticide packages in 2018. An assessment is being carried out to estimate the potential benefit from these activities and it will be reported in the Project Concept Note.

Supported by leading Government agencies, the engagement with the private sector will play a key role in implementing and consolidating a socio-environmental business model conducive to environmental traceability and mainstream sustainable efforts made by farmers in their production systems, such as applying standards enabling them to meet the EMBRAPA's meat carbon neutral protocol. The project will identify the main local buyers, slaughterhouses, and traders to create a forum of discussion to understand the demand side and market needs, risks and harness their commitment to promote productive alliances with local farmers. When suitable, traceability will be

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[2] The project will not finance all this infrastructure, but rather will encourage its inclusion into spatial and rural development plans.

an important tool to engage with key value-chain players. The project aims to assess, at the landscape level, production base configuration and whether buyers (traders and slaughterhouses) would be interested in partnering in sustainable commercial arrangements. Traceability needs and costs will be assessed and how they can be offset by market access and premiums. The project will use the national system SISBOV - Brazilian System Identification and Certification of Bovine and Bubaline Origin (*Sistema Brasileiro de Identificação e Certificação de Origem Bovina e Bubalina*), managed by the Ministry of Agriculture. During preparation the team will engage with IFC to learn from their portfolio experiences, working in these sectors and areas.

The main beneficiaries are rural producers with small to medium sized farms (production area between 4 up to 70 fiscal units[3]), their associations and communities who benefit from the landscape's natural resources. These farmers and ranchers are targeted because: (i) small to medium-sized production units form the bulk of total agricultural land use in the Cerrado; and (ii) large farmers can access the technological know-how without government assistance. By increasing the sustainability and productivity of agricultural systems, indirect project benefits would be reflected in increased levels of employment and food security (through improved supply and resilience). The project aims to support 10,457 rural producers, of which 2,242 women. The estimation is conservative and based on the proportion of landholdings owned by women in the three selected areas (around 15% according to the latest data available through the 2017 Agrarian and Livestock Census). The project will incorporate lessons learned with the implementation of the FIP/WB financed Sustainable Agriculture Production Project – Projeto ABC Cerrado (P143184) with regards to participation of women on capacity building / technical assistance activities, which have been incorporated on FIP Landscapes Gender Action Plan.

The combination of these interventions will enable the supported productive landscapes to achieve the following global environmental benefits: (i) beef cattle and soybean value chains more sustainable; (ii) on- and off-farm land and water sustainably managed; (iii) on- and off-farm biodiversity conserved; (iv) waste and chemical pollution managed; and (v) GHG emissions mitigated. The adoption of more sustainable productive practices makes it also possible to increase production and income.

d) Describe the project's incremental reasoning for GEF financing under the program, including the results framework and components.

The GEF7 financing will build on and complement the ongoing investments in sustainability being made by government and private sector at the national and landscape level, with the support of development partners including the World Bank and the CIF/FIP. It will specifically support the incremental costs of interventions aimed at achieving a large-scale, transformational shift and GEBs. The landscape approach incentivized by the GEF-FOLUR will enhance the inter-institutional coordination and integrate the implementation of sustainable agriculture (ABC Plan) and environmental (Forest Code) policies, shifting towards sustainable development in rural areas, reversing the current business-as-usual (BAU) in the Cerrado biome and ecotones of land degradation,

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[3] A fiscal unit covers 5 and 100 ha depending on the municipality.

productivity and biodiversity losses. Project interventions will be designed to be aligned and respond to multiple socioeconomic and environmental challenges.

To achieve the desired landscape transformational impact the project aims to integrate the GEF-FOLUR and co-financing efforts to reach:

Table 3. Description of project targets by indicator

Indicator	GEF-FOLUR targets	Co-financing targets	Total targets
Area of land restored (ha)	150,000	100,800	250,800
Area of landscape under improved practices (excluding protected areas) (ha)	900,000	800,000	1,700,000
GHG emissions mitigated tCO$_2$eq	12,984,263	8,725,424	21,709,687*
Direct beneficiaries disaggregated by gender as co-benefit of GEF investment	4,000 male 1,000 female Total = 5,000	4,215 male 1,242 female Total = 5,457	8,215 male 2,242 female Total = 10,457

* In the proposed Project has the potential of sequestering 21,709,687 tons, of carbon within 20 years of accounting (5 years of implementation phase and 15 years of capitalization phase), considering 250,800 hectares of LUC from degraded land to grassland.

The project will be executed under 4 components:

Component 1. Development of Integrated Landscape Management (ILM) Systems: The component will build the necessary capacity and knowledge to support the planning, governance and main investments and develop ILM action plans at the pre-selected productive landscape areas. To this end, the component interventions will: (i) carry out communication campaign to inform stakeholders about the project's goals, scope and rules; (ii) strengthen key stakeholders' ILM capacities and governance to actively participate in the consortiums; (iii) harmonize existing policies, programs and land-use planning in the intervention area; (iv) identify potential on and off-farm investment needs; (v) identify market players and opportunities; and (vi) environmental risk assessments..

Main outcome: Jurisdictional sustainable landscape management plans formulated using ILM approach and adopted to guide interventions

Component 2. Promotion of sustainable food production practices and responsible value chains: This component will finance the implementation of: (i) training and technical assistance to farmers on sustainable agriculture practices and technologies; (ii) mobilize key stakeholders to catalyze off-farm investments; (iii) mobilize local financial agents to assist farmers in preparing on-farm investments proposals in order to access credit resources; and (iv) mobilize local private sector to participate and develop a socio-environmental business model conducive to environmental sustainability (jointly design traceability tools and productive linkages with benefited farmers).

Main outcomes: Area of degraded grassland restored; Area of landscapes under sustainable land management in production systems; Off-farm investments executed (to be detailed during preparation); Sustainable market linkages enhanced

Component 3. Conservation and restoration natural habitats: This component will finance activities to support the environmental regularization of rural landholdings through CAR to promote restoration and protection of critical habitats within private landholdings (APPs, RLs), including re-establishment of biological and hydrological flows; reconnection of fragmented habitats; and restoration of multiple ecological processes.

Main outcomes: Area of forest and forest land restored; Area of landscapes under improved management to benefit biodiversity

Component 4. Project Management and M&E: This component will focus on coordination, cooperation, and monitoring and evaluation (M&E), including knowledge generation and dissemination nationally and internationally, as further detailed on Section 3 of this proposal.

Main outcome: Integrated knowledge management, coordination and collaboration to capture lessons learns for replication in other areas.

3. Engagement with the Global / Regional Framework (maximum 500 words)

Describe how the project will align with the global / regional framework for the program to foster knowledge sharing, learning, and synthesis of experiences. How will the proposed approach scale-up from the local and national level to maximize engagement by all relevant stakeholders and/or actors?

The Project will engage through the FOLUR global platform and the UNDP Green Commodities Program with countries and platforms outside of the country to scale results and impact the broader food system. Additionally, the Project will connect with similar country projects within FOLUR based on similar commodities and approaches to share resources for combined and collective knowledge management products. These products can then contribute to FOLUR wide knowledge products. Moreover, the Project will connect to global level commodity and food supply chain initiatives and networks, primarily through UNDP's Green Commodities Programme and Good Growth Partnership, as well as through other means offered by FOLUR global platform. These connections will facilitate the project linking to global buyers interested in sourcing from jurisdictions advancing towards sustainable commodity production and to learn latest best practice and policy of the global markets. Successful experiences will be disseminated through specialized and thematically relevant forums within the Rio Conventions, and also within the World Forest Forum and the World Soil Alliance.

The Project's proposed approach has the potential to be implemented in other areas, as it will make use of existing local structures to identify regional resource-gaps and address these issues through participatory methodologies which will lead to custom local solutions. Thus, engagement of all relevant stakeholders is imperative to the Project's success.

The private sector will act as an important catalyst for the Project's approach to be scaled-up. The project executor will work closely with public and private sectors to build knowledge on the necessary means to develop the required institutional framework (e.g., setting up standards or voluntary guidance by the private sector) for the Project's approach to be implemented at different locations. This will enable the Project's approach to be expanded as a service of the private sector, independently of public financing, as it is done on other projects under the BIP Projects in Brazil, a private sector-oriented institution that has the needed capacity works as a implementing partner of the project.

At a national level, the Brazilian Government is strongly committed to incentivize low carbon agriculture through the ABC Plan, which provides the financial and technological means to scale-up the Project's approach. Also, with the achievement of Project's results, it will be possible for the Brazilian Government to confirm its benefits, implement the necessary improvements and include similar methodologies in investment plans focused on agriculture, such as the yearly rural financing policy (Plano Safra).

Annex 2. List of selected municipalities under the three macro areas

Municipality	Mracoregion	Microregion	Population (hab)	Total Area (ha)
Nova Crixás	GO - Noroeste	S. Miguel do Araguaia	12791	730223
Caiapônia	GO - Sul	Sudoeste de Goiás	18715	863513
Crixás	GO - Noroeste	S. Miguel do Araguaia	16852	466117
Piranhas	GO - Noroeste	Aragarças	10501	204777
Jussara	GO - Noroeste	Rio Vermelho	18587	408536
Aruanã	GO - Noroeste	Rio Vermelho	9635	305529
S. Terezinha de Goiás	GO - Norte	Porangatu	8931	120225
Barra do Garças	MT - Nordeste	Médio Araguaia	60661	907929
Araguaiana	MT - Nordeste	Médio Araguaia	3119	642297
Serranópolis	GO - Noroeste	Aragarças	8445	552672
Mineiros	GO - Sul	Sudoeste Goiás	66801	903877
Figueirão	MS - Centro-Norte	Alto Taquari	3044	488287
Coxim	MS - Centro-Norte	Alto Taquari	33516	640922
Pedro Gomes	MS - Centro-Norte	Alto Taquari	7666	365118
Costa Rica	MS - Centro-Norte	Alto Taquari	20496	416412
Alto Araguaia	MT - Sudeste	Alto Araguaia	18703	539929
Itiquira	MT - Sudeste	Rondonópolis	13163	865991
Alto Garças	MT - Sudeste	Tesouro	11868	386692
Tesouro	MT - Sudeste	Alto Araguaia	3786	428571
Guiratinga	MT - Sudeste	Rondonópolis	15035	504414
Luziânia	GO - Leste	Entorno do DF	208299	396110
Formosa	GO - Leste	Entorno do DF	127617	581179
Brasília	Distr. Federal	Brasília	2974703	578000
Cristalina	GO - Leste	Entorno do DF	58997	616209
Monte Alegre de Goiás	GO - Norte	Chapada Veadeiros	8527	311981
Iaciara	GO - Norte	Vão do Paranã	13808	155038
Guarani de Goiás	GO - Norte	Vão do Paranã	3940	122915
Flores de Goiás	GO - Norte	Vão do Paranã	16100	370943
Brejolândia	BA - Extr. Oeste	Cotegipe	10557	224721
S. Félix do Coribe	BA - Extr. Oeste	S. Maria da Vitória	15391	175436
Correntina	BA - Extr. Oeste	S. Maria da Vitória	32137	1149217
Côcos	BA - Extr. Oeste	S. Maria da Vitória	18777	1014057
Coribe	BA - Extr. Oeste	S. Maria da Vitória	14194	265712
São Desidério	BA - Extr. Oeste	Barreiras	33742	1511640

Serra Dourada	BA - Extr. Oeste	S. Maria da Vitória	17386	159225
Santana	BA - Extr. Oeste	S. Maria da Vitória	26614	190935
Baianópolis	BA - Extr. Oeste	Barreiras	13877	332072
Santa Maria da Vitória	BA - Extr. Oeste	S. Maria da Vitória	39845	198491
Jaborandi	BA - Extr. Oeste	S. Maria da Vitória	8385	999448
Montalvânia	MG - Norte	Januária	15689	150376
Buritizeiro	MG - Norte	Pirapora	28251	721840
Várzea da Palma	MG - Norte	Pirapora	38838	222028
Lassance	MG - Norte	Pirapora	6663	320422
João Pinheiro	MG - Noroeste	Paracatu	48472	1072747
Paracatu	MG - Noroeste	Paracatu	91724	822960
Lagamar	MG - Noroeste	Paracatu	7797	147456
S. Gonçalo do Abaeté	MG - Noroeste	Paracatu	6840	269217
Presidente Olegário	MG - Noroeste	Paracatu	19536	350374
Brasilândia de Minas	MG - Noroeste	Paracatu	15921	250969
Unaí	MG - Noroeste	Unaí	83448	844808
Icaraí de Minas	MG - Norte	Januária	11736	62566
Ponto Chique	MG - Norte	Montes Claros	4236	60280
S. Francisco	MG - Norte	Januária	56619	330810
Januária	MG - Norte	Januária	68420	666159
Arinos	MG - Noroeste	Unaí	18232	527942
Santa Fé de Minas	MG - Norte	Pirapora	3997	291745
Urucuia	MG - Norte	Januária	15833	207694
Buritis	MG - Noroeste	Unaí	24524	522519
Riachinho	MG - Norte	Pirapora	8283	171927
Pintópolis	MG - Norte	Januária	7563	122874

INDIA   **GEF-7 CHILD PROJECT CONCEPT**

CHILD PROJECT TYPE: FSP

PROGRAM: IP FOLUR

Child Project Title:	Transforming Rice-Wheat Food Systems in India
Country:	India
Lead Agency	FAO
GEF Agency(ies):	
Executing Partner(s)	Ministry of Agriculture & Farmers' Welfare (MoAFW); Ministry of Environment, Forest, and Climate Change (MoEF&CC)

PROJECT DESCRIPTION

1. Country Context
Describe the country's relevant environmental challenges and strategic positioning relative to the systems transformation proposed for the program, including relevant existing policies, commitments, and investment frameworks. How are these aligned with the proposed approach to foster impactful outcomes with global environmental benefits?

1.   India's food systems have significant environmental footprints: for example, unsustainable agricultural practices lead to encroachment on forest areas with impacts on biodiversity and carbon sinks; crop production systems (such as flooded rice) lead to major GHG emissions; excessive and inappropriate use of agrochemicals contributes to soil and water pollution; crop residue burning leads to air pollution and consequent health impacts.   The nature and relative significance of these different environmental impacts vary widely across landscapes and cropping systems. The impacts are particularly significant with globally important food crops like rice and wheat that are produced, consumed and exported from India. For example, 2019, India will account for 23% of global rice and 13% of global wheat production and will be the largest rice exporter (>25% share).

2.   This project will greatly accelerate India's efforts to evolve a new model of sustainable agriculture that goes beyond current resource intensive rice-wheat cropping systems, to transition towards ecologically functioning and healthy landscapes and ecosystems, providing for the needs of multiple user groups, and resulting in multiple global environmental benefits.

3.   This transformation will serve as a global learning ground for developing sustainable food systems and land management, as India's most significant contribution to the global agenda. Supporting evidence-based design of policy on food systems and landscape management will be a key element.

4.   To achieve this, the project will build on the government's national and international commitments on conservation of India's biodiversity, wildlife and forests; sustainable land and water management and GHG emission reduction as outlined in its national acts and plans; as well as its NBSAP, LDN targets and INDC. This will also build on the government's commitments on implementing farmers' rights, for instance India is presently co-chair of the Ad Hoc Technical Experts Group-Farmers' Rights (AHTEG-FR) in the Plant Treaty processes, and through executing its national signature programme on National Mission on Sustainable Agriculture.

2. Project Overview and Approach (*maximum 1250 words*)

a) *Provide a brief description of the geographical target(s), including details of systemic challenges, and the specific environmental threats and associated drivers that must be addressed;*

Target Geography

5.   The project sites selected are of global importance for food production and Global Environmental values. They include the following locations (please see maps in Annex 2):

- Four districts of Punjab and Haryana (P&H), covering 93,000 ha (approx. 10% of two states) These represent the Indo-Gangetic Plain (IGP) agroecosystem.

- Four districts covering 1,197,000 ha in Chhattisgarh and Odisha (C&O), representing highlands of central/eastern India, which contain large number of smallholders (including tribal people) with traditional farming systems. The States cover more than 290,000 km^2.

6. The project's actions in the 8 targeted districts will be scaled out to the rest of the above-mentioned states and to neighbouring states with shared conditions, food systems and challenges in the Indo-Gangetic plain and central/eastern highlands. This will be achieved through support to planning frameworks at landscape level, working with subnational jurisdiction officials, policy changes and guidance documents developed with the assistance of the project. In addition, the project will develop and reinforce links with a number of key Government programmes, including (see below) the crop diversification programme in Punjab, the *Rashtriya Krishi Vikas Yojana* (RKVY) scheme, the National Mission on Sustainable Agriculture (NMSA), the Promotion of Agricultural Mechanization for *In-Situ* Management of Crop Residue programme, and the Bringing the Green Revolution to Eastern India (BGREI) and Targeting Rice Fallow Areas (TRFA) sub-schemes.

Global Importance of the target landscapes

7. As the world's second largest producer of rice and wheat, India makes significant contributions to the global food supply.

8. The IGP (represented by the P&H landscape) contains 85% of India's rice-wheat area. Punjab is the 3rd largest rice producing state: P&H account for 11.3% of national production and are the 2nd and 3rd largest wheat producers. India is the largest exporter of Non-Basmati Rice and accounts for 25% of global rice trade.

9. C&O are also major rice producing states. They contain globally significant agrobiodiversity (ABD) and are part of a Vavilov Centre of Origin and Diversity of Rice. Additionally, they contain critical habitats of globally threatened wildlife, including the Bengal tiger, Asian elephant[4], wild dog and sloth bear. Their upland forests are vital for water flows for irrigated lowland agriculture, and also provide essential goods and services for local people, especially tribal people.

Threats

10. In P&H, focus on intensive monocropping of rice and wheat has, over decades, led to land degradation, aquifer depletion, chemical contamination of groundwater, as well as GHG emissions and air pollution from crop residue burning. In C&O, unsustainable agriculture practices that are unsuited to local agroecological conditions are accelerating land and aquifer degradation, eroding globally important agrobiodiversity and accelerating loss of globally important wildlife habitats (e.g. forest). There is also growing evidence of falling water tables as a result of over-extraction of water in C&O, as in P&H (please see Annex 4).

Systemic Challenges

1) Sector-specific approaches to development, incentive and planning frameworks that impede compatibility between interests of productivity, food security and environmental sustainability.

2) Lack of human and organizational capacities amongst farmers and lack of public service delivery mechanisms to be able to promote and manage farming systems and landscapes sustainably and generate GEBs.

3) Fragmented value chains that incentivize unsustainable production systems.

4) Knowledge and information on the status of natural resources and on options for sustainable management that are inadequate and not shared.

b) Describe the existing or planned baseline investments, including current institutional framework and processes for stakeholder engagement and gender integration;

Policy and institutional framework

11. India has a federal structure that supports transforming food systems and sustainable natural resource management, through its Ministry of Agriculture and Farmers' Welfare (MoAFW) and the

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[4] Odisha contains 4 high priority elephant corridors connecting designated wildlife reserves and other protected areas: Similipal-Satkosia, Baula-Kuldiha, Tal-Kholgarh and Kotgargh-Chandrapur
(https://www.sanctuaryasia.com/magazines/cover-story/6830-right-of-passage-elephant-corridors-of-india.html)

Ministry of Environment, Forest and Climate Change (MOEFCC). MoEFCC is the Central Government's nodal agency for planning, promotion, co-ordination and overseeing implementation of environmental and forestry policies and programmes.

12. MoAFW is the coordinating agency of Central Government in all agriculture-related matters, including agriculture, horticulture, animal husbandry, dairy, fisheries, training and skill development, research & career development in the agriculture sector as well as farmers' welfare.

13. The GoI's policy 'Think Tank' is the National Institution for Transforming India (NITI Aayog), which provides policy and technical advice on strategic and long-term policies and programmes to the Central and State governments. Its objective includes transforming the rural economy through the creation of modern rural infrastructure and integrated value chain systems thereby strengthening food production and food security.

14. The Scheduled Tribe and Other Traditional Forest Dwellers (Recognition of Forest Rights Act), 2006, better known as FRA or Forest Rights Act, of the GoI provides entitlements for forest dwelling communities. The FRA is also significant as it changed the narrative around ecosystem conservation and has recognized forest dwellers as "integral to the very survival and sustainability of the forest ecosystem". This legislation has had a substantial impact on addressing land tenure issues in forest landscapes and can be leveraged by the project to promote an integrated landscape approach especially in areas characterised by forest-agricultural mosaics.

Baseline investments

15. The project will build on a major baseline of Government investments in both target landscapes, which are largely focused on the promotion of agricultural production and productivity. While these respond to and recognize the problems of land degradation that affect the landscapes, they are not adequate to maximize global environmental benefits nor to address issues operating across landscapes, between sectors and among diverse stakeholders.

16. The proposed FOLUR Country Project is well positioned to capitalize on these ongoing investments, by adopting good practices, replicating successful approaches, drawing on expertise and integrating with existing Government led coordination and project implementation systems.

17. Key baseline programmes include:

- The Government's ***Rashtriya Krishi Vikas Yojana*** (RKVY) scheme, aimed at comprehensive agriculture development planning, taking into account agro-climatic conditions, natural resources and technology for ensuring more inclusive and integrated development of agriculture and allied sectors.
- The **National Food Security Mission** (NFSM), aimed at improving agricultural extension services, technology transfer and decentralized planning for key crops. Key sub-schemes include:
  - **Bringing Green Revolution to Eastern India**, improving productivity of rice-based productivity systems in Eastern India;
  - **Transforming Rice Fallow Areas**, bringing rice fallow areas under pulses and oilseed through improvements in irrigation and other infrastructure;
  - **Crop Diversification Schemes**, promoting cultivation of high value crops and supporting development of necessary infrastructure to link farmers with markets
- The **National Mission on Sustainable Agriculture** (NMSA), is aimed at promoting sustainable agriculture through a series of adaptation measures focusing on ten key dimensions encompassing Indian agriculture namely; 'Improved crop seeds, livestock and fish cultures', 'Water Use Efficiency', 'Pest Management', 'Improved Farm Practices', 'Nutrient Management', 'Agricultural insurance', 'Credit support', 'Markets', 'Access to Information' and 'Livelihood diversification'.

- The **Paramparagat Krishi Vikas Yojana** (PKVY) scheme, aimed at supporting and promoting organic farming, for the improvement of soil health, producing agricultural products free from chemicals and pesticides residues by adopting eco-friendly, low cost technologies.
- Government schemes for crop diversification away from rice in Punjab and Haryana to crops that are better suited to the agroecological conditions, require less water and other inputs to grow.
- '**Promotion of Agricultural Mechanization for *In-Situ* Management of Crop Residue**' in P&H, providing farmers with financial assistance to purchase crop residue management machines.
- The *Narwa, Garwa, Ghurwa* **and** *Baadi* (NGGB) scheme of the Chhattisgarh government, promoting sustainable and closed farming system, focused on water management, composting for building soil health, promotion of animal husbandry and sustainable agriculture around homesteads.
- World Bank Group investments, including:
  - **Policy loan to the Government of Punjab**, supporting legislative reforms to help the state diversify away from the current system of mono-cropped rice-wheat systems and encourage private sector participation;
  - The **Chhattisgarh Inclusive Rural and Accelerated Agriculture Growth Project** that aims to leverage the NGGB scheme to improve access to quality essential services and to enhance and diversify sources of income in select tribal dominated areas;
  - The **Odisha Integrated Irrigation Project For Climate Resilient Agriculture project** that aims to intensify and diversify agricultural production, enhance climate resilience and improve water productivity in selected areas.

Processes for stakeholder engagement and gender integration

18. GoI and FAO are both fully dedicated to improving gender equity and ensuring women's involvement in decision making. Principles of stakeholder and gender inclusion will be fully integrated within the project design, using tools such as intersectoral working groups at all levels with gender specific cohorts, as well as the implementation of Free, Prior and Informed Consent.

19. The project will promote the participation of a wide range of stakeholders including government agencies, civil society (e.g., NGOs, Self-Help Groups, and producers' groups), the private sector, women, indigenous peoples (scheduled tribes), and identified vulnerable groups (e.g., scheduled castes). This will start with a participatory stakeholder analysis methodology during the PPG phase to determine a baseline and initiate the process of continuous engagement. A grievance process will be incorporated into the project's management plan and structure.

20. All relevant project-related government policies, programmes and schemes will formally recognize and embed objectives related to improving the quality of life for rural women. Data collection and monitoring programmes under all project components will include gender-disaggregated data. Communications and knowledge management tools will have specific materials that will be relevant to women's empowerment. The project will use the knowledge management tool to facilitate the development of networks of women contributing to project objectives.

c) ***Describe how the integrated approach proposed for the child project responds to and reflects the Program's Theory of Change, and as such is an appropriate and suitable option for tackling the systemic challenges, and to achieve the desired transformation with multiple global environmental benefits***

21. The project's integrated approach, linking livelihoods, farming systems, production landscapes and food systems, reflects that of the FOLUR IP as a whole and is highly relevant to the nature of the environmental and sustainability challenges in India. The project's theory of change underlines this approach and is described in more detail in Annex 3.

22. The "macro" vision to be applied by the project will allow it to address the sustainability of the rice-wheat food system nationwide, in keeping with the systems focus of the FOLUR IP:

complementing its investments in sustainability and diversification in P&H, it will support the GoI in meeting its ambitious goal of shifting the weight of rice production to the moister landscapes of central/eastern India, while maintaining environmental sustainability, avoiding the risk of direct or indirect threats to high conservation value forests, and delivering major benefits for globally important biological and sociocultural values.

23.   The project will address the significant negative externalities in India's food systems, addressing soil and water pollution, issues related to crop residue management, high GHG emissions, and fragmented unsustainable land use in agriculture. It will contribute to the country's effort to achieving ecologically functioning and healthy landscapes and ecosystems in which spatial flows of ecosystem services are recognised and promoted, as are the needs of multiple user groups, and multiple global environmental benefits are delivered.

24.   The FOLUR IP priority of promoting sustainable food production practices will be reflected in the project's farm-level investments in both target landscapes. In P&H, it will help producers diversify away from rice-wheat monocultures into alternate crops that are less resource intensive, and more resilient, compatible with the site conditions, and sustainable; this will address significant existing negative externalities of the rice-wheat food system, including over-exploitation of ground water, soil and water pollution due to intensive chemical use, health impacts from crop residue burning, and GHG emissions due to land degradation and paddy management practices. In C&O, a focus at farm level on achieving the Government's goals of increasing productivity of the major target food crops through sustainable agricultural practices, in order to avoid the kinds of impacts already felt in P&H, will be complemented by an approach of building on and adapting traditional farming and resource use systems[5].

25.   The integrated landscape vision of the project, in line with the FOLUR theory of change, will be particularly important in C&O: in addition to supporting the sustainable management of irrigated lowland rice production systems, it will support the sustainable management and restoration of the upstream watersheds on which the sustainability of the irrigated rice production downstream depends.

26.   The positive food system dynamics encouraged by the project will be further strengthened and scaled through knowledge management, policy engagement and linking with global platforms and dialogue processes.

27.   Transformative change at scale, in accordance with IP principles, will be achieved by:

   (i)   Working directly with and through large-scale programmes, such as BGREI and the WB investments, to leverage impacts;
   (ii) Partnerships with state-managed value chains and procurement systems that operate nationwide and large-scale private sector value chain corporations with operations at both State and National levels (as well as global in some cases)
   (iii) Mainstreaming landscape-level planning (covered in Component 1 described below)
   (iv) Country-driven and system-wide capacity enhancement approach to enable people, strengthen organisations, institutions and the enabling policy environment.

28.   Engagement with the private sector will be a crucial element of the project, and will include:

   •   Developing partnerships with consortia such as WBCSD for promoting industry standards for sustainable production (e.g. the Sustainable Rice Standard of the Sustainable Rice Platform, supported by FAO)

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[5] Additional products of the diverse traditional farming and resource use systems in this area, which are of importance for nutrition and livelihoods, and in some cases have market potential, include tamarind and minor forest produce such as Sal (*Shorea robusta*), Chironji (*Buchanania lanzan*), Mahua (*Madhuca longifolia*), Niger, flax seeds, and honey.

- Working with specific private sector actors (including WBCSD members) and key intermediaries such as millers, and aggregators on the establishment and strengthening of value chains for products from sustainably-managed cropping and landscape management systems, including the facilitation of sourcing/supply commitments linking producers, traders and retailers, and the private sector sponsorship of the provision of technical and organizational support to participating farmers.

- Enabling efficiencies along the supply chain by strengthening conventional and alternative marketing channels and working with private sector actors such as millers and modern trade (including supermarkets).

- Working with the private sector to ensure that producers have access to the financial support needed to enable them to implement sustainable production and management systems, and to carry out ecosystem and landscape restoration – either through financing options provided by the value chain actors or through existing financial institutions. The project will focus on engagement with institutions to promote financing of sustainable value chain interventions; and influence industry-wide change through policy dialogues that improve regulatory frameworks around sustainable financing mechanisms

- Building capacities of producers, and small and micro enterprises engaged in rice and wheat value chains to access financing mechanisms provided by government, quasi-government and other private agencies. The improved capacities will also help in the ability to collaborate effectively with private market players and adopt systems around supply chains, traceability and certifications.

29. The multi-level integrated approach of the project, linking farm-level food production and resource management practices with landscape management and a higher-level macro vision of the food system as a whole, will be innovative and transformative for India. Given the country's position as the world's largest rice exporter, its participation in the IP will have a major impact on the sustainability of global food supply, thereby contributing to the first of the FOLUR IP objectives of promoting sustainable food systems to meet growing global demand. Coupled with the project's investments in knowledge management and outreach, this will also allow the country to serve as a global learning ground for approaches to transforming food systems and land management towards sustainability.

30. In Punjab and Haryana, much of the landscape is farmer under contract arrangements with large-scale absentee landowners. At present there are legal limitations on the duration of these contracts (maximum 3-years): this limits farmers' ability to invest in sustainable management, but the World Bank policy loan (considered as cofinancing for the project) is expected to favour modifications to the policy and legal frameworks to allow longer term leases that would be more favourable for intensification. In Chhattisgarh and Odisha, the upland tribal areas that will be the primary focus of project interventions are largely dominated by smallholders; as described above, the Forest Rights Act (FRA) provides farmers with sufficient tenure security to enable them to carry out sustainable management.

d) Describe the project's incremental reasoning for GEF financing under the program, including the results framework and components.

31. The project will promote sustainable and socially acceptable approaches to farming systems and integrated landscape management, in order to recognise spatial dynamics of land use changes, drivers and ecosystem service flows, and deliver multiple GEBs. It has the potential to transform rice and wheat production systems across northern India towards a path of sustainability, supporting the GoI in meeting its ambitious goal of shifting the weight of rice production to the moister landscapes of central/eastern India, while delivering major benefits for globally important biological and sociocultural values in the target states.

32. The project will build on a significant baseline of institutional investments aimed principally at maximizing agricultural productivity, most notably the Government's support to agricultural diversification in the degraded landscapes of the Indo-Gangetic Plain, to agricultural intensification in the C&O landscape, and to the management of rice fallows in C&O.

33. The incremental investments delivered through the project will serve to ensure the mainstreaming of considerations of environmental sustainability (e.g. maintenance of soil and water resources, protection of biodiversity and reduction of greenhouse gas emissions) into these baseline investments, integrating local and national considerations with global environmental benefits, addressing landscape-wide processes and working with value chains to leverage environmental benefits in food systems.

34. The specific incremental contributions of the key elements of the project results framework are as follows:

1) **Integration of cross-sector sustainability provisions into food systems, and planning frameworks,** addressing:
   - State/District level capacities for planning landscape management and restoration to address landscape-wide patterns of site conditions, ecosystem flows and biological processes, including the use of remote sensing to support land use planning[6], and technology-enabled solutions for monitoring energy and water usage[7];
   - Strengthening of national and policy frameworks to support sustainable rice landscapes and value chains to enhance delivery of Global Environmental Benefits (GEB) and sustainable livelihoods
   - Support to the development and updating of national and state level planning frameworks for promoting sustainable food systems

2) **Enhance farmer/community capacities to apply sustainable production, landscape management and restoration and to sustainable and inclusive value chains and procurement systems,** in order to maximize market-based incentives for sustainable production and reduce the negative externalities of markets and value chains, including:
   - Promotion of sustainable farming practices at target landscapes including farm and agro-ecological planning, climate resilient agriculture practices, efficient water management practices and crop residue management
   - The development of farmer capacities for value chain/market insertion
   - The exploration and development of alternative, sustainable, value chains
   - Facilitating value chain linkages between sustainable producers and value chain actors (public and private) committed to sustainable sourcing;
   - Branding/certification schemes based on sustainability standards
   - Awareness raising on sustainability options/benefits among consumers and other public/private value chain actors

3) **Improved conservation and restoration of habitats/ecosystems in production landscapes.** In accordance with the provisions of the landscape planning frameworks to be established and strengthened under Component 1, the project will provide support to conservation and restoration initiatives aimed at safeguarding the global environmental values (including, especially in Chhattisgarh and Odisha, biodiversity) of key ecosystems and maintaining/restoring their capacity to generate ecosystem services in both landscapes.

a) Restoration will be supported both on- and off-farm, including measures to recover the productive potential of agricultural lands through improved soil and water management and the application

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[6] Madhukar Patel and Dhiraj Khalkho. 2019. Water Resource Management Plan of a MicroWatershed using Geospatial Techniques. Int.J.Curr.Microbiol.App.Sci. 8(02): 270-277.
[7] https://www.cropin.com/tag/world-bank/

of agroforestry systems, and the rehabilitation and improved management of forest lands in order to safeguard the hydrological processes on which downstream agriculture depend. Measures will also be taken to reduce extractive pressures on natural ecosystems by supporting alternative livelihoods options.

b) Project support will be both direct (using GEF funds to cover the direct costs of restoration and conservation) and indirect (strengthening capacities among local communities and institutions to carry out restoration and conservation, and strengthening planning and financing framework to provide lasting enabling conditions for restoration and conservation).

4) **Knowledge management (KM) and outreach,** supporting adaptive management based on feedback from project implementation, the effective use of global knowledge advances, the systematic capture and capitalization of lessons learned through policy dialogues, and scaling out at local, national and regional levels,

3. Engagement with the Global/Regional Framework

*Describe **how the project will align with the global / regional framework for the program to foster knowledge sharing, learning, and synthesis of experiences. How will the proposed approach scale-up from the local and national level to maximize engagement by all relevant stakeholders and/or actors?** (maximum 500 words)*

35. During project formulation and early implementation, mechanisms and protocols will be formulated to ensure effective capture, documentation and management of knowledge and experiences generated through the project, and for linking the project KM/M&E system with that of the FOLUR IP Global Platform Project (GPP) in order to take full advantage of the opportunity presented by the GPP as a mechanism for scaling up and out.

36. Lessons and best practices identified through the project will be made available to the target audiences for scaling out at national, regional and global levels through the knowledge website to be established under the GPP (Pillar C, Strategic Knowledge Management and Communications), and the proposed global and regional flagship reports to be commissioned through the Platform.

37. The project will also take advantage of the Partnership Broker/Clearinghouse facility of the Global Platform, to develop strategic partnerships with global initiatives to access knowledge, tools and resources, through sector roundtables, industry associations conferences, and partner events, and to broker linkages with value chain actors committed to sustainable sourcing.
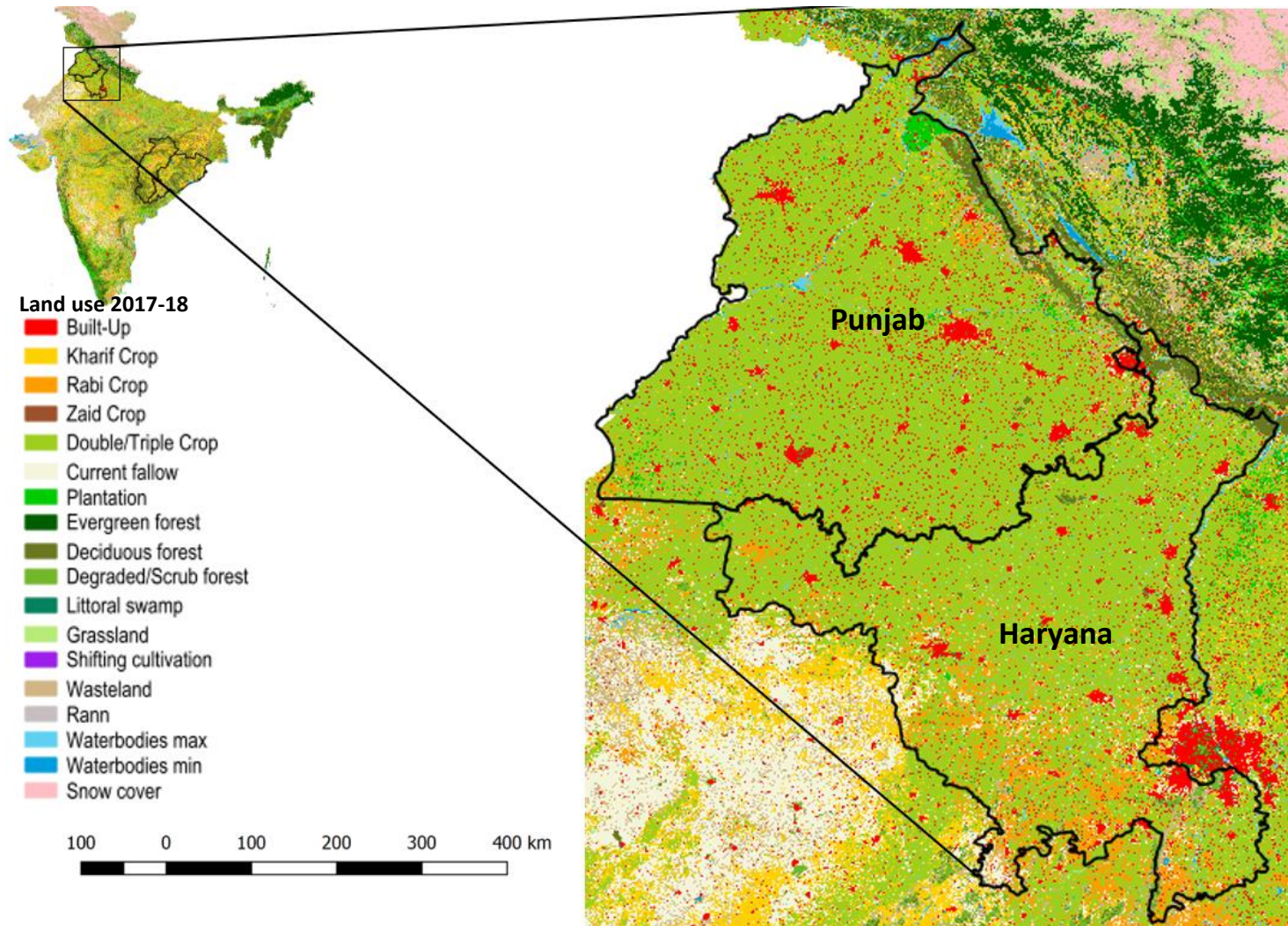
38. In addition, with orientation from and in coordination with the FOLUR GPP, the project will feed knowledge into knowledge hubs and platforms operating at national, regional and global levels, such as the Indian Business and Biodiversity Initiative (IBBI), the Sustainable Rice Platform (SRP), the Intergovernmental Science-policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Global Landscape Forum.

39. Engagement with the GPP (Pillar B, Policy and Value Chain Engagement) will serve to connect the value chains based in the target areas with regional and global private sector actors in order to identify and consolidate value chain opportunities and commitments to sustainability and inclusiveness. The Sustainable Rice Platform (SRP) will in particular serve as a channel for the engagement of rice sector actors active in Asia under the umbrella of the World Business Council for Sustainable Development (WBCSD), for technical inputs from agency members of SRP including IRRI, GIZ and UNEP, as well as for knowledge sharing. The Sustainable Rice Standard promoted by the SRP includes credible, pragmatic and accessible sustainability criteria that are accepted by rice value chain actors belonging to the SRP.
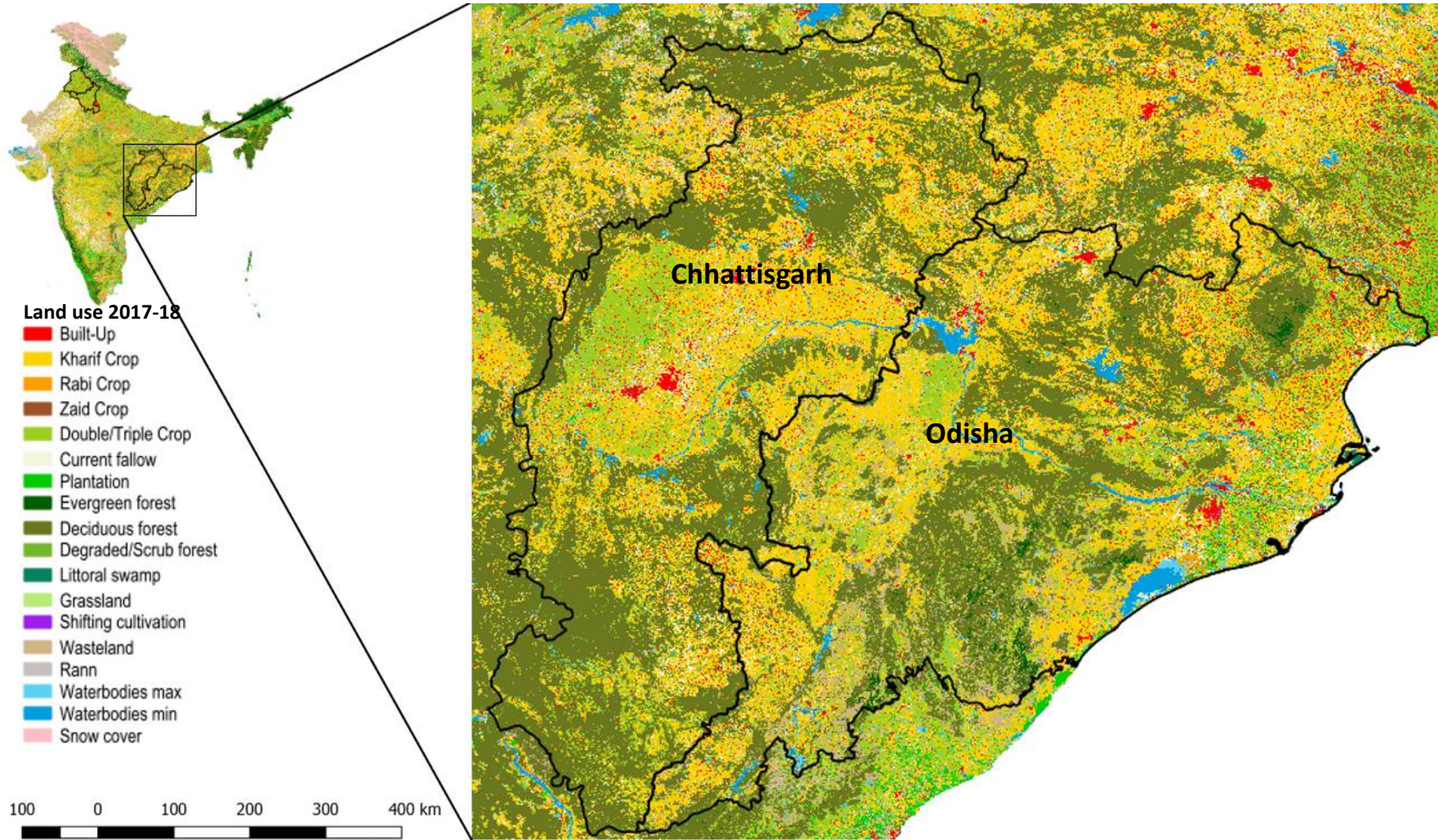
Annex 2: The Target Landscapes (four districts to be selected in each landscape during PPG)
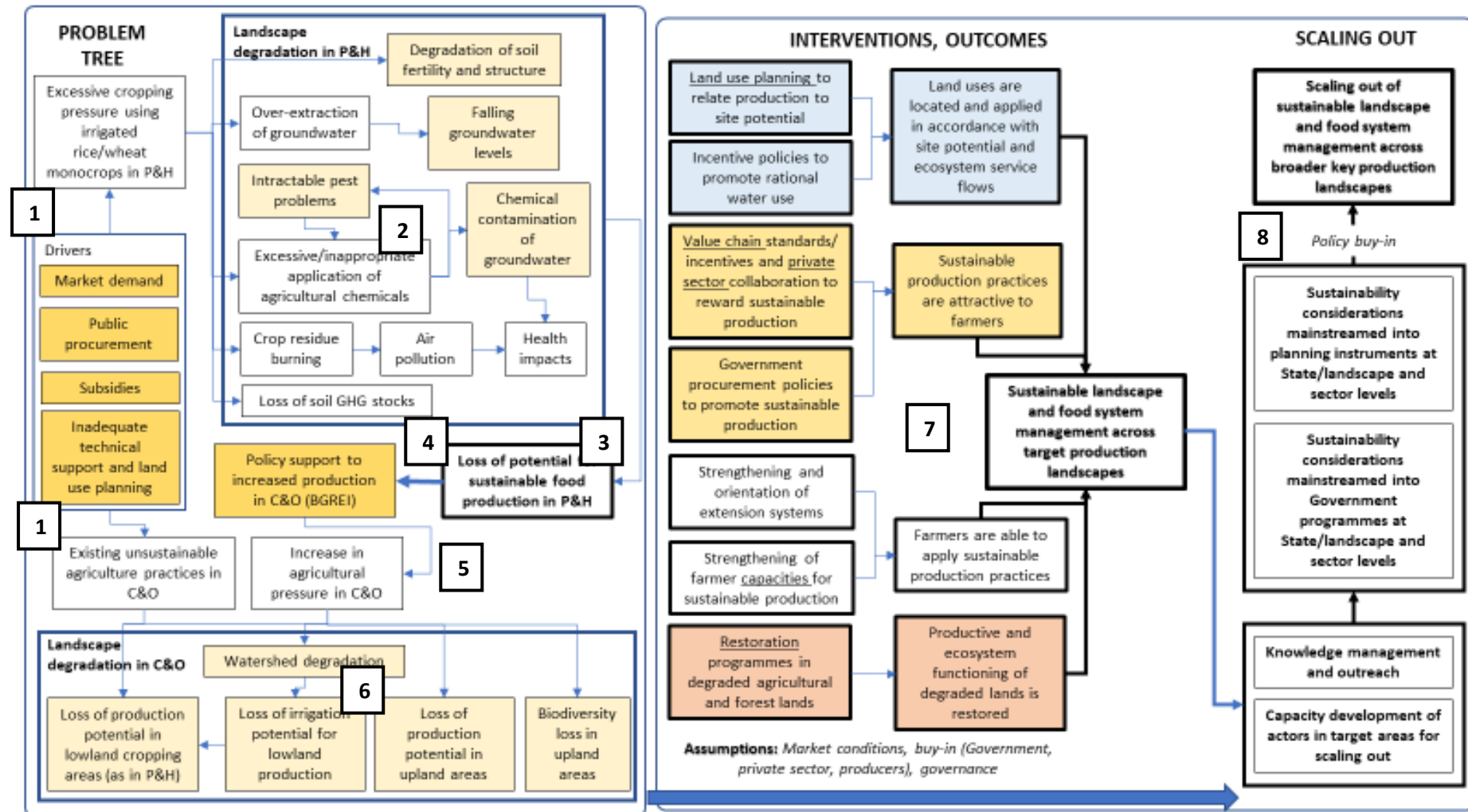
1. **Punjab and Haryana**

Land use 2017-18
- Built-Up
- Kharif Crop
- Rabi Crop
- Zaid Crop
- Double/Triple Crop
- Current fallow
- Plantation
- Evergreen forest
- Deciduous forest
- Degraded/Scrub forest
- Littoral swamp
- Grassland
- Shifting cultivation
- Wasteland
- Rann
- Waterbodies max
- Waterbodies min
- Snow cover

2. Chhattisgarh and Odisha

Land use 2017-18
- Built-Up
- Kharif Crop
- Rabi Crop
- Zaid Crop
- Double/Triple Crop
- Current fallow
- Plantation
- Evergreen forest
- Deciduous forest
- Degraded/Scrub forest
- Littoral swamp
- Grassland
- Shifting cultivation
- Wasteland
- Rann
- Waterbodies max
- Waterbodies min
- Snow cover

100   0   100   200   300   400 km

Annex 3: Project Theory of Change

Narrative explanation of theory of change

1) In both target landscapes, a combination of market demand for food crops (undiscerning in terms of environmental sustainability and impacts), public procurement and Government extension schemes focused on maximizing production of food crops, subsidies (for example free electricity for groundwater pumping) and inadequate capacities and systems for land use planning and technical support for sustainable production alternatives, drive unsustainable production practices and levels of production.

2) In P&H, over the course of several decades this has led to multiple impacts on soil fertility, groundwater levels and quality, and air quality. These include the "vicious cycle" effects of excessive and inappropriate use of agricultural chemicals, resulting in the loss of natural pest control agents and leading farmers to apply ever greater levels of pesticides.

3) The degradation of soil and water resources has led to the collapse of food crop production systems in P&H, leading the Government to consider the production of rice there to be unsustainable. In response, the Government is promoting crop diversification in P&H, but this has sustainability risks if adequate practices and safeguards are not applied.

4) Another response of the Government to the productive collapse of rice production in P&H is to promote a shift of production to the east of the country, where overall rainfall levels are higher (but water is still seasonally scarce), through the Bringing the Green Revolution to Eastern India (BGREI) sub-scheme.

5) This policy is increasing productive pressure in C&O; if increases in production are not accompanied with adequate criteria of environmental sustainability, there is a risk that the existing environmental problems in this area will be significantly increased in both upland and lowland areas.

6) On the uplands of C&O, increasing production levels and unsustainable practices, together with extraction pressures on forests (resulting in part from the breakdown of agricultural production), ineffective governance and inadequate land use planning, risk exacerbating the degradation of watershed forests, affecting water flows on which irrigated agriculture in lowland areas depends.

7) A four-pronged approach will be applied to correct this situation. Support to land use planning and incentives will ensure that ***land uses are located appropriately*** within the landscape, in accordance with site conditions (potential, environmental values and vulnerability); support to value chains and procurement systems will ensure that ***sustainable production is attractive*** to farmers; strengthening of farmer capacities and extension systems will ensure that ***farmers are able to produce sustainably***; and where necessary and appropriate landscape units will be restored for the ***provision of ecosystem services*** for production.

8) Sustainable food system and landscape management will then be ***scaled out to broader landscapes***, by mainstreaming the models applied in the target areas into broader planning instruments and programmatic investments.

Annex 4: Agricultural Trends in the target landscapes

1.   Increases in levels of agricultural inputs (inorganic fertiliser) in Punjab and Haryana, from 2006-7 to 2011-12 (million kg)
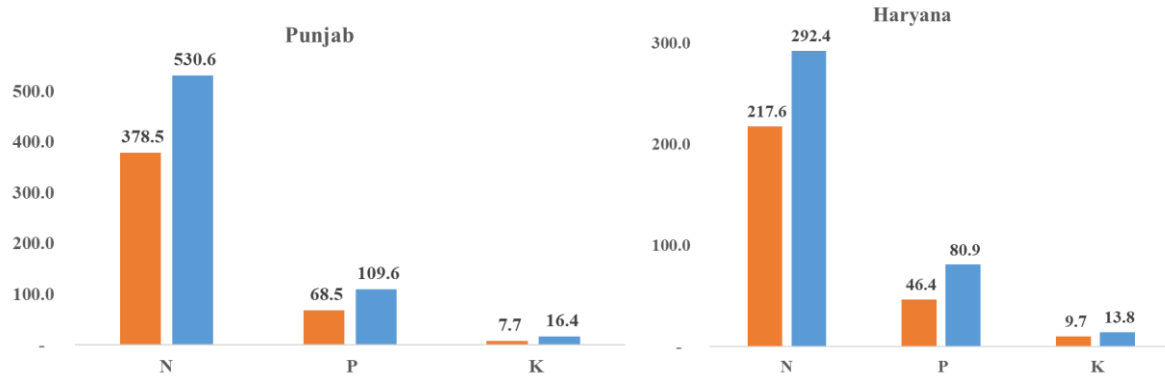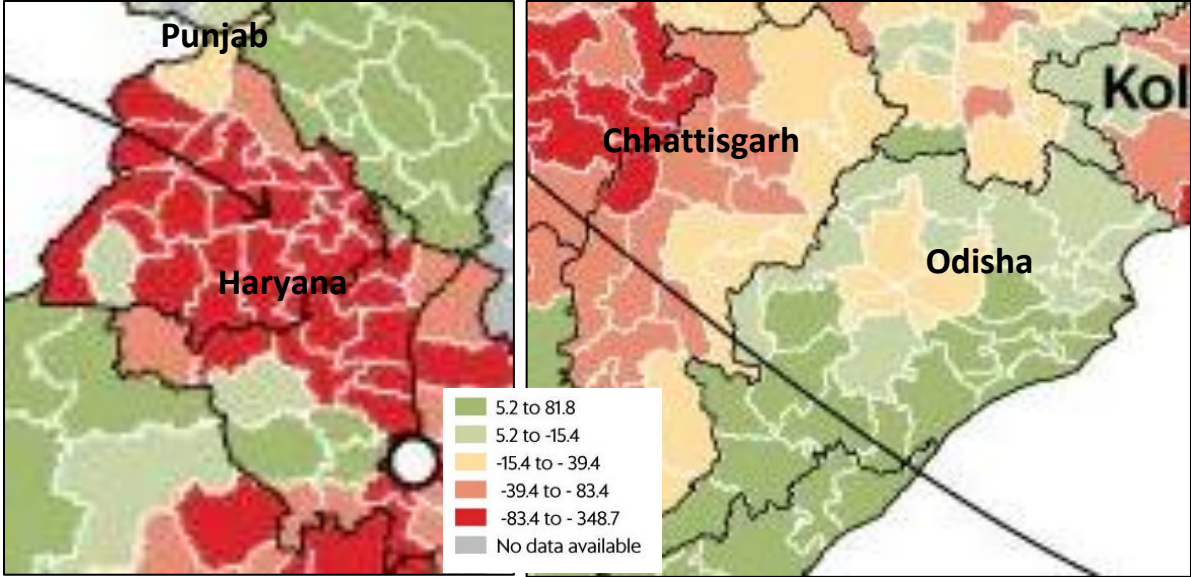

2.   Increases in levels of agricultural inputs (inorganic fertiliser) in Chhattisgarh and Odisha, from 2006-7 to 2011-12 (million kg)
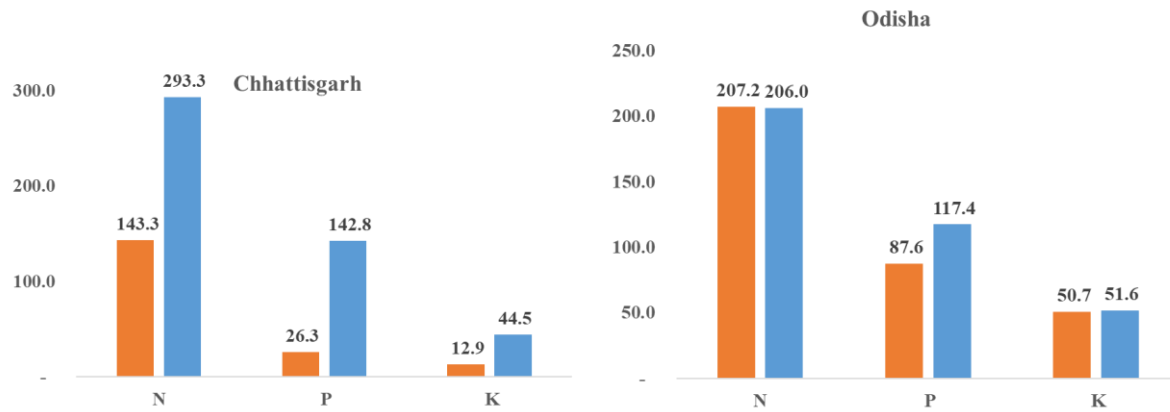
3.   Percentage changes in groundwater levels from 2008 to 2018 at district level, in Punjab and Haryana (left) and Chhattisgarh and Odisha (right)

Punjab

Haryana

Chhattisgarh

Odisha

Kol

🟩	5.2 to 81.8
🟨	5.2 to -15.4
🟧	-15.4 to - 39.4
🟥	-39.4 to - 83.4
🟥	-83.4 to - 348.7
⬜	No data available

GEF-7 CHILD PROJECT CONCEPT

CHILD PROJECT TYPE: **Full-sized Child project**

PROGRAM: **IP FOLU**

Child Project Title:	Promoting Integrated Landscape Management and Sustainable Food Systems in the Niger Delta Region in Nigeria
Country:	Nigeria
Lead Agency	FAO
GEF Agency(ies):	FAO
Executing Agency(ies):	Federal Ministry of Environment and Federal Ministry of Agriculture and Rural Development; World Resources Institute (WRI); UNIDO.

PROJECT DESCRIPTION

(i)   Country Context (*maximum 500 words*)
Describe the country's relevant environmental challenges and strategic positioning relative to the systems transformation proposed for the program, including relevant existing policies, commitments, and investment frameworks. How are these aligned with the proposed approach to foster impactful outcomes with global environmental benefits?

Nigeria's landscape is ecologically rich and diverse with rainforests in the south, drylands in the north (Sudan and Sahel) and a wide range of habitats. The southern rainforest portion, also known as the lower guinea forest, is classified amongst biodiversity hotspots in the world. This ecosystem diversity offers high potential for cultivation of diverse agricultural commodities – e.g. oil palm, cocoa and cassava in the tropical rainforest states, and rice, groundnuts, soybeans and livestock in the northern savannah states. Nigeria is the third largest producer of cocoa in Africa and fourth largest producer globally; a significant producer of palm oil; the largest producer of soybeans and maize in sub-Saharan Africa; the world's leading producer of yams and cassava; and the leading producer of groundnuts in Africa.

However, the production of these commodities has led to serious environmental degradation in Nigeria, including deforestation, declining soil fertility, biodiversity loss and reduction of other ecosystem services. Agricultural production constitutes a primary driver of Nigeria's alarming rate of deforestation, which at 3.7% is among the highest in the world[8]. Continuing global population growth, including in Nigeria (the most populous country in Africa), continues to increase demand for agricultural commodities and thus the pressure on the country's natural ecosystems.

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[8] National REDD+ Framework Strategy of the Federal Republic of Nigeria, 2016

Conscious of this problem, Nigeria is undertaking various programs and commitments to address forest loss, land degradation and transformation of food systems. As stipulated in its REDD+ strategy, Nigeria aims to achieve by 2030 sustainable management of its forests and ecosystems and a 20% reduction in emissions. The forest and land use change-related GHG mitigation commitments contained in Nigeria's Nationally Determined Contributions (NDC) foresee huge investments in sustainable forest and land management and landscape restoration over the 2020-2030 period[9]. Nigeria's Agriculture Promotion Policy (APP: 2016-2020), which aims to improve food security and boost export earnings, recognizes that the sustainable use of natural resources is critical for achieving APP objectives. Through the APP and other initiatives, Nigeria has prioritized sustainable agricultural production through investment in climate smart agriculture and sustainable land management to improve and restore degraded lands and enhance resilience in food and commodity systems[10]. Nigeria joined the African Forest Landscape Restoration Initiative (AFR100) and is committed to restoring 4 million hectares of degraded land. As a whole, these policies and commitments increase the likelihood for successful delivery of FOLUR IP outcomes in Nigeria.

Despite these policies and initiatives to support more sustainable practices and reduce the loss and degradation of forests, several key barriers remain that have blunted efforts to reduce deforestation and environmental degradation in Nigeria and in the target landscapes. These barriers include:

- Weak institutional and technical capacities for integrated land use planning and implementation and lack of cross-sectoral coordination, leading to misaligned sectoral policies and unsustainable practices;
- Low level engagement of the private sector, particularly those in the supply chains of forest-risk commodities and financial institutions, in REDD+ and other initiatives. Strengthening private sector engagement (to catalyse and scale-up investments) would require enabling policies and incentives, setting standards and raising awareness of opportunities in sustainable agriculture and deforestation-free commodities.
- Smallholder farmers' lack of capacities and poor access to innovative and sustainable production technologies and inadequate access to markets and financial services.
- Lack of awareness among most Nigerians, including farmers, of the negative consequences of agricultural expansion into forest areas which has limited public support for and acceptance of policies and programs to promote sustainable agricultural practices and forest conservation.

The selection of the two states, particularly Cross River, is strategic not only because of their globally important forest ecosystems under threat from expansion of commodities, but also because of the strong leadership role these states have played in addressing deforestation and their potential to influence other states. In fact, Cross River State's REDD+ strategy was developed first as a pilot to inform the national strategy and then serve as a model for other states. Similarly, the intention is to develop models for inclusive deforestation-free commodities that will be expanded to other states, with the potential to

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[9] Nigeria has focused its Nationally Determined Contributions (NDC) on reversing land degradation, and has set the following Land Degradation Neutrality (LDN) targets: improve land productivity and soil organic carbon stocks on 463,300 ha of cropland and grasslands by 2030; rehabilitate 10,565,040 ha of cropland showing early signs of declining productivity; halt conversion of forests and wetlands; and increase forest cover by 20% by 2030 compared to 2015 levels.

[10] The Agriculture Promotion Policy.

transform cocoa and palm oil systems throughout Nigeria (currently produced on ~ 1 million hectares of land). Given Nigeria's important position in the production of many agricultural commodities, as well as the country's engagement with international markets and private sector actors along the value chains of these commodities, the project offers an enormous potential to transform agricultural commodity systems.

(ii)   *Project Overview and Approach (maximum 1250 words)*

a) Provide a brief description of the geographical target(s), including details of systemic challenges, and the specific environmental threats and associated drivers that must be addressed

The target landscapes of this project are found within 2 states in the Niger Delta region of Nigeria, namely Cross River State (CRS) and Ondo State, which have a combined population of around 7 million persons. These two states have the highest remaining levels of forest cover of any states in Nigeria, contain over 50% of Nigeria's remaining tropical forests within the threatened West African Guinean Forest ecoregion, and harbour many rare plant and animal species, such as the critically endangered Cross River gorilla, Nigeria-Cameroon chimpanzee, Preuss's red colobus monkey and many others. CRS has what may be the richest site in Africa for butterflies[11].

At the same time, natural forests in CRS and Ondo are threatened by a number of factors, the most important of which is fragmentation and loss through agricultural expansion. The expansion and extensification of smallholder and commercial agriculture, including significant areas of cocoa and oil palm production, is the primary driver behind the accelerating rate of deforestation and degradation in both states. For both products, declining productivity on existing lands is pushing farmers to expand production onto new lands, which are primarily areas of existing natural forest ecosystems. More than 50% of Nigeria's cocoa production takes place in Ondo and CRS; about 30% of cocoa beans are processed in Nigeria with the rest exported, mainly to Europe. Cocoa productivity has been declining in recent years due to depleted soil fertility, old and low-yielding trees, weak farmer organizations, and inadequate support services including limited access to finance, pests and diseases, and climate change. Nigeria is one of the world's biggest producers of palm oil, and more than 5 million people (~ 38% women) are engaged in the palm oil value chain[12]. Key actors within the value chain are harvesters of wild oil palms, owners of small and large private farms, operators of estate plantations (including international companies such as PZ Wilmar), retailers and consumers. Challenges in the palm oil value chain include land tenure, low productivity and adoption of technologies and innovations, and limited access to finance, especially for smallholder and women farmers. From a recent country gender assessment[13] conducted by FAO and ECOWAS, challenges that women face in agriculture broadly and cocoa and palm oil sectors specifically

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[11] Cross River State REDD+ Strategy.
[12] Foundation for Partnership Initiatives in the Niger Delta (PIND)
[13] http://www.fao.org/3/CA0818EN/ca0818en.pdf

include lack of participation and decision-making in governance structures, access to training, tools and technology, and access to finance and markets.

With state governments promoting large-scale production of key commodities, one of the biggest challenges is the **absence of integrated land use planning** that can both optimize land use and allocate appropriate lands for agriculture (including large scale commercial plantations) that will not result in direct loss of forest ecosystems[14], or in pushing smallholder farmers off of their land and into forest areas. Other challenges include: **unsustainable agricultural practices** that deplete soils and reduce agricultural productivity, again often resulting in farmers moving to new fertile lands in forests.

b) Describe the existing or planned baseline investments, including current institutional framework and processes for stakeholder engagement and gender integration

With economic diversification based on agricultural commodities now a major policy priority in Nigeria[15], significant public and private sector investments are being made in commodities such as cocoa and palm oil. At the same time, the Government of Nigeria as well as Cross River and Ondo States have made commitments to reduce deforestation and forest degradation under the REDD+ framework. Support from state and federal governments is essential for the proposed project to succeed, and the high level of engagement and commitment of these partners in the REDD+ process clearly demonstrates strong political will. There has also been strong buy-in from other key stakeholders (communities, private sector) through their engagement in extensive multi-stakeholder consultations that informed the preparation of state and national REDD+ strategies. The World Cocoa Foundation (WCF) will be a key private sector partner, along with companies with large on-going and planned investments in cocoa and oil palm. Financial sector partners such as the Central Bank of Nigeria, First Bank of Nigeria Plc., Access Bank, and others, also will be involved through their investments in and services for agricultural sector programs.

Important baseline initiatives include:

Central Bank of Nigeria (CBN) Anchor Borrowers' Programme (ABP) and Commercial Agriculture Credit Scheme (CACS): CACS was established to fast-track the development of the agriculture sector, enhance productivity and national food security, and raise Nigeria's level of foreign exchange earnings. ABP aims to link over 600,000 smallholder farmers with reputable large-scale processors with a view to increasing production, creating a new generation of farmers and entrepreneurs, and enhancing financial inclusion. Cocoa and palm oil are among commodities targeted by these initiatives, and the CBN is strengthening engagement with selected states, including both of the proposed project states[16].

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[14] Idem.
[15] The Agriculture Promotion Policy
[16] https://nipc.gov.ng/2019/03/20/cbn-partners-11-states-on-palm-oil-production/

World Cocoa Foundation African Cocoa Initiative: Phase II of the initiative (2016-2021; US$ 12 million) is working in four West African countries (Cameroon, Côte d'Ivoire, Ghana, and Nigeria) to sustainably increase cocoa productivity among smallholder farmers. The project is designed to 1) increase cocoa production using quality and affordable planting materials, including supporting regulatory bodies to understand and adopt new technologies, developing screening protocols for drought and heat tolerant planting materials, training extension agents and farmers on flavour quality, etc.; and 2) facilitate access to financial services and products to support farm productivity and resilient agri-food systems. The World Cocoa Foundation is already engaged in a number of initiatives in Ondo and Cross River State, including a program to assess national seed garden production capacity and to establish cocoa seed gardens in Ondo State. The project also will pursue opportunities to exchange and learn with other FOLUR countries engaged in cocoa value chains, particularly West African neighboring countries as well as Colombia.

National Initiative for Sustainable and Climate Smart Oil Palm Smallholders: This initiative is funded by IDH (an organization that works with companies, CSOs, governments and others on new models for green & inclusive growth in commodity sectors and sourcing areas) and Solidaridad (a NGO that works with supply chain stakeholders to enhance capacities of the producers and improve livelihoods). The objective of this initiative is to contribute to climate policy objectives and market access through testing and scaling sustainable and climate-smart oil palm cultivation by smallholders.

> **c) Describe how the integrated approach proposed for the child project responds to and reflects the Program's Theory of Change, and as such is an appropriate and suitable option for tackling the systemic challenges, and to achieve the desired transformation with multiple global environmental benefits**

The project theory of change recognizes that market demand for cocoa and palm oil in both target areas drive unsustainable production practices and degradation of agricultural lands, which in turn lead to the expansion of agricultural production into forested landscapes. This on-going degradation of agricultural and forested lands has negatively impacted soil fertility and retention, groundwater quantity and quality, and biodiversity habitat, as well as reducing the incomes of local inhabitants. Fortunately, there is growing recognition within Nigeria of the need for intervention to ensure that the growth of cocoa, palm oil, and other products does not come at the expense of important forest ecosystems, and several enabling conditions have emerged that will help to address these problems, including: political will demonstrated by concrete commitments through the REDD+ partnership at federal and state levels; existing and planned investments and private sector partnerships; and recognition that integrated land use planning and management is a key element in transforming how (and where) food and commodities are produced and in meeting overall development goals (as illustrated in the National and Cross River State REDD+ strategies). Even so, a number of barriers exist to addressing the problems of unsustainable agricultural practices and agricultural expansion, including ineffective governance mechanisms and capacities, inadequate capacities and systems for land use planning, and insufficient technical support for sustainable

production alternatives. To address these barriers, the project will enable the sustainable intensification of agricultural production and restoration of degraded agricultural-forest areas, and couple this with enhanced capture of returns to farmers along the value chain for key agricultural commodities (cocoa and palm oil) through engagement in transformation, deforestation-free certification, and other investments. In so doing, the project will simultaneously improve yields and farmer incomes while also de-incentivizing agricultural expansion into forested areas with globally significant biodiversity and important ecosystem services values. Sustainable food system and landscape management systems will then be scaled out to broader landscapes, by mainstreaming the models applied in the target areas into broader planning instruments and programmatic investments.

In this manner, the project is closely aligned with the FOLUR IP Theory of Change. Furthermore, Nigeria's REDD+ strategy, as well as the REDD+ strategy for Cross River State[17], include strategic objectives and key actions on agriculture and restoration of degraded areas, and are therefore fully aligned with the FOLUR IP objectives and program framework. The proposed project interventions also are aligned with on-going and planned public and private sector investments as described above, and the project will capitalize on these other investments through sharing of learning, best practices, informing new policy formulation, and knowledge platforms at national and regional level.

The Project Objective is to promote sustainable cocoa and palm oil systems and landscape restoration in order to deliver multiple ecosystem services

1. Development of Integrated Landscape Management (ILM) systems. Among the critical tools provided for in state forest laws[18] are Land and Resource Use Plans and Management Plans; however, these plans have not yet been developed or implemented. The proposed project will support Ondo and Cross River states in the development and institutionalization of these plans, and in ensuring that the plans are aligned with the overall FOLUR strategy and objectives; are integrated into the institutional priorities and processes of relevant state institutions; are developed in a participatory manner with local stakeholders; and take into consideration the access of smallholder farmers to land. The plans will include mapping of degraded agricultural and forest lands, building on efforts to identify priority areas for restoration during the development o each state's REDD+ strategy, as well as identification and mapping of areas of High Conservation Value Forests (HCVFs). The promotion of efficient and sustainable land uses (optimization) through integrated landscape-level planning and management, especially with regard to large-scale commercial agriculture, has been identified as one of the main priorities to address deforestation drivers in both the national and state REDD+ strategies. The investment will represent an important vehicle for the implementation of these strategies, and will also support the harmonization of relevant sectorial regulations and policies, and strengthening of institutional coordination around sustainable commodity production policies and programs.

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[17] The REDD+ strategy for Cross River State has been completed; the strategy for Ondo State is still in process.
[18] Cross River State

2. Promotion of sustainable and inclusive cocoa and palm oil value chains: The project will scale up climate smart agriculture practices and access to improved genetic resources to enhance productivity; this effort will build on the strategies and practices developed under initiatives such as the World Cocoa Foundation's Climate Smart Cocoa Program, as well as programs within the region (e.g. knowledge resources and practical experiences on improved seed stock, training in inter-cropping at the establishment stage, etc.). To support adoption of such practices, the project will implement a capacity development program, including Information, Communication and Technology (ICT) tools for smallholder farmers, extension service staff, and other support institutions and value-chain actors, to accelerate uptake. The project will work to strengthen access to financial services for smallholder farmers engaged in sustainable palm oil and cocoa production by creating links with financing institutions and partners, and training producer groups and farmers in applying for and successfully managing financial products / services. The training activities will include programs specifically tailored for women, who often have less financial knowledge and less access to formal financial products than men and therefore a more urgent need to acquire financial knowledge, confidence, and skills to effectively participate in economic activities and financial decision-making both within and outside their households. In addition, training on the functioning of agricultural value chains will be provided to the Nigerian Incentive-based Risk Sharing System for Agricultural Lending (NIRSAL), the Central Bank of Nigeria (CBN), the Federal Ministry of Agriculture and Rural Development (FMARD), and commercial banks in order to provide these stakeholders with a better understanding of the issues related to developing efficient and effective value chains for key commodities in Nigeria, and to enable them to identify opportunities to provide loans to increase the output and quality of sustainable agricultural producers and processors, including associations or clusters of smallholder farmers. To strengthen the value and marketability of sustainable and climate smart agricultural products, the project will work with existing platforms, such as the World Cocoa Foundation, and private sector partners such as Mars to develop and promote standards and certification systems. Finally, the project will create incentive mechanisms to support the scaling-up of sustainable and inclusive value chains, including incentives such as targeted investments, training, and direct access to markets, that allow farmers and producer organizations to more directly participate in product transformation and value-added activities, and to benefit from certification programs.

3. Conservation and restoration of degraded habitats. The integrated landscape management planning process under Component 1 will include identification of priority areas for conservation and restoration based on mapping of degraded agricultural and forest landscapes. Based on this analysis, the project will support on-the-ground restoration activities in priority areas that have witnessed either a significant transformation from natural vegetation to other land uses, important declines in productivity in commodity production areas, or both – including the reorientation where necessary of on-going and planned restoration programmes (e.g. the 5 million trees programme in Cross River state), towards the delivery of multiple benefits including biodiversity conservation and restoration of forest carbon stocks. Restoration activities will focus on degraded agricultural and forest areas where restoration will strengthen ecosystem services (e.g. protection of soils and water supplies) to productive landscapes. Project restoration activities will build on lessons learnt from existing initiatives such as The Restoration Initiative and the Global Partnership on Forest and Landscape Restoration. The project also will support the strengthening of institutional capacities for restoration particularly among key public agencies at

national, state, and local level. In order to strengthen conservation of forested areas, the project will provide training for institutional stakeholders to better enforce environmental regulations and develop and implement local forestry management plans in the priority areas (including HCVFs) identified under Component 1, with the goal of protecting forest biodiversity and maintaining ecosystem functions (e.g. soil and water provision services) that benefit both forests and adjacent productive landscapes. To generate increased support and funding for conservation and restoration of natural ecosystems, including high conservation value forests within the two states, the project will provide capacity building to the state-level REDD+ stakeholder committees and/or other partners to sustain and scale up conservation and restoration over the long-term, in particular by coordinating and leading efforts to leverage investments in restoration from public and private stakeholders, such as Nigeria's restoration commitments under the Bonn Challenge and AFR 100. The project will also work with forest managers to encourage participatory forest management strategies merging the ideas and priorities of government, non-governmental organizations, forest communities and other stakeholders. Finally, in order to increase support for and participation in forest conservation and restoration, the project will carry out public education initiative on the negative impacts of forest loss and degradation.

4. Project Coordination, Collaboration, Communication and M&E: The project will contribute to strengthening inter-agency and inter-ministerial coordination mechanisms, and to generating knowledge and innovations for transformation of the global supply chain for cocoa and palm oil. The project will share innovative tools and approaches (e.g. integrated landscape management, institutional coordination mechanisms, incentives and investments to support sustainable agricultural practices) through a variety of public/private platforms. The project's information sharing, knowledge management and M&E activities will be closely linked with the FOLUR IP Global Platform Project (GPP); i.e. the project's KM/M&E system will be linked to that of the GPP; project lessons and best practices will be disseminated through the knowledge website to be established under the GPP as well as its global and regional flagship reports; the regional hub for cocoa-producing countries developed will be linked to the GPP; and the GPP's Partnership Broker/Clearinghouse facility will be used as a tool to develop strategic partnerships with global initiatives to access knowledge, tools and resources. In addition, the project will seek to work with other FOLUR projects in cocoa-producing countries in the region (i.e. Ghana and Cote d'Ivoire) to develop a regional hub for knowledge exchange, private sector engagement, policy coherence, and improved research and investment. Global Forest Watch and the Collect Earth suite of tools will be used for upstream data collection and assessment of past trends, cross-sectorial monitoring of land use change, and future impacts.

Global Environmental Benefits: The project will contribute to biodiversity conservation through integrated landscape management planning, restoration of land and forests, and ensuring agricultural production does not expand further into high conservation value forests within the target states; through the scaling up of sustainable and climate smart agriculture practices, and via climate change mitigation through increased carbon storage in cocoa and oil palm landscapes due to land, soil, and forest restoration and protection.

d) Describe the project's incremental reasoning for GEF financing under the program, including the results framework and components.

Nigerian agriculture is undergoing a major transformation, with a significant baseline of investments going into the expansion of commodity production for products such as cocoa and palm oil. At the same time, diverse stakeholders recognize that such investments must happen in a sustainable, inclusive, and responsible way in order to ensure the long term viability of these sectors, protect the environment, and improve livelihoods[19]. There is an important opportunity therefore to build on the baseline by making targeted investments in innovative deforestation-free palm oil and cocoa production models and thereby catalyse a transformational shift in key agricultural and commodity systems in Nigeria.

As noted above, the proposed project is fully aligned with National and State level REDD+ strategies and their associated plans and commitments, including the vision of the National REDD+ Strategy, which by 2030 will "achieve sustainable management of Nigeria's forests and ecosystems as well as reduced emissions from deforestation and forest degradation by 20% while promoting sustainable livelihoods and a climate resilient national economy towards attainment of Nationally Determined Contribution (NDC) and Sustainable Development Goals (SDGs)"[20]. Furthermore, by focusing on the issue of agricultural expansion into forested areas, the project responds to the identification in the national strategy that "agricultural expansion is believed to be the dominant driver (from subsistence and commercial agriculture)… of deforestation and forest degradation in Nigeria"[21]

The project also will strengthen implementation of the National REDD+ Strategy, including its stated goal of "implementing innovative measures within the forestry sector and related sectors to address the key drivers of deforestation and forest degradation"[22], through a number of approaches identified as priorities in the REDD+ strategies, including strengthening the capacity of REDD+ committees and relevant Ministries, Departments and Agencies and forest communities to manage forest and ecosystem resources effectively and efficiently; exploring increased budget allocations for REDD+ related activities; creating an enabling environment (incentive mechanisms) for investment in REDD+ activities; developing and implementing integrated landscape management plans. Beyond this, the project will provide additional global benefits by integrating approaches that are not emphasized in the existing REDD+ strategies, including 1) linking the restoration of degraded lands with REDD+ priorities for improved landscape planning and sustainable agricultural production; and 2) applying REDD+ principles to the agricultural commodity sector, including sectorial regulations and policies as well as all elements of the sector's value

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[19] REDD+ programme.
[20] National REDD+ Framework Strategy of the Federal Republic of Nigeria (p. 26)
[21] Ibid (p. 16)
[22] Ibid (p. 28)

chain; and 3) supporting forest management agencies in estimating the impacts of forest degradation and afforestation (forest enhancement) on carbon emissions levels[23].

The proposed project under the FOLUR CP will build on the base of institutional support, consultative processes, knowledge, and engaged stakeholders that has been built in the selected states and target landscapes through the development of REDD+ strategies. The project is well positioned to capitalize on the learning and strategy development sponsored under REDD+, but to go beyond it through a multi-sectoral approach linking producers with value chains, improving agricultural production practices, linking with private sector finance, and leveraging new resources for restoration of critical ecosystems and habitats. The project will also help to implement the strategies and actions planned with REDD+ support by integrating implementation in specific areas and catalyzing new investment in agricultural commodity value chains – which will improve forest conservation outcomes as well as people's livelihoods.

e) Engagement with the Global / Regional Framework (*maximum 500 words*)

Describe how the project will align with the global / regional framework for the program to foster knowledge sharing, learning, and synthesis of experiences. How will the proposed approach scale-up from the local and national level to maximize engagement by all relevant stakeholders and/or actors?

- During the PPG phase, a strategy will be developed to ensure the documentation and management of knowledge and experiences generated through the project, and for linking the project's KM/M&E system with that of the FOLUR IP Global Platform Project (GPP). Project lessons and best practices will be disseminated at national, regional and global levels through the knowledge website to be established under the GPP as well as the global and regional flagship reports to be commissioned through the Platform.
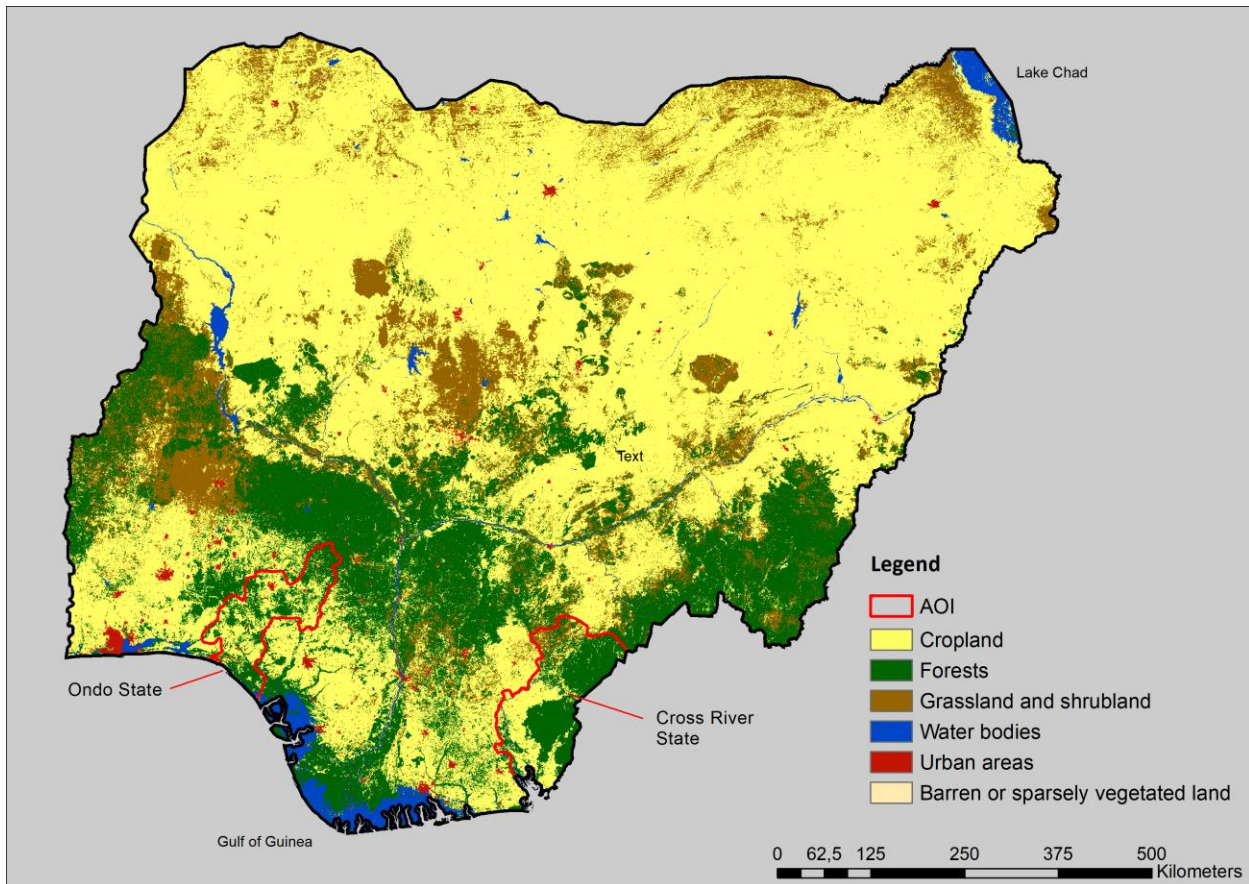
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[23] The Forest Reference Emission Level submitted to the UNFCCC through Nigeria's REDD+ process in December 2018 focused exclusively on deforestation; however, forest degradation is also an important source of carbon emissions through timber harvesting, fuelwood harvesting, and forest fires, and forest enhancement activities in degraded areas have a significant impact on these emissions levels (the lowland rainforests of Ondo and Cross River State have been the site of significant plantation silviculture).

- The proposed project approach is closely aligned with the overall FOLUR IP objectives, in that it will promote deforestation-free cocoa and palm oil value chains and restoration of highly degraded landscapes in two of the most important areas in West Africa in terms of remaining tropical forest ecosystems of high conservation value. As noted under Component 4, the project will seek to develop a regional hub for cocoa producing countries to enhance knowledge exchange, private sector engagement, policy coherence, improved research and investment, etc.; during the PPG phase, FAO will ensure that the other child projects in the region are part of the regional hub. This regional hub would represent an effective mechanism for connecting to the global platform project on knowledge management, as well as other public/private sector global platforms related to cocoa and palm oil.
- The project will also take advantage of the Partnership Broker/Clearinghouse facility of the Global Platform to develop strategic partnerships with global initiatives to access knowledge, tools and resources, through sector roundtables, industry conferences, and partner events. Nigeria is a member of several global and regional initiatives that will provide a platform / mechanism for sharing information and lessons and scaling up the results of the project; these include the Tropical Forest Alliance (TFA), Africa Palm Oil Initiative (APOI), World Cocoa Foundation African Cocoa Initiative (with Ghana, Côte d'Ivoire and Cameroon), Alliance for Green Revolution in Africa (AGRA), UN REDD+, and African Circular Economy Alliance in 2017.
- For example, the APOI has worked to bring together diverse partners (governments, companies, civil society groups, farmers, and indigenous and community groups) from palm oil-producing countries to forge alliances; helped to facilitate the Marrakesh Declaration, a governmental commitment to sustainable palm oil production across the region; and helped to link global stakeholders in the palm oil supply chain through the Consumer Goods Forum. In addition, the APOI supported a land-use planning process in Edo State to ensure that palm oil expansion takes place only on non-forested land designated for agriculture development. These on-going policy, coordinating and planning actions will benefit the proposed project, and in turn the project can add value by disseminating, replicating and leveraging these APOI activities in CRS and Ondo states. Furthermore, the project can benefit the APOI efforts by generating lessons learnt on piloting sustainable supply chains, better aligning incentives with sustainable production practices, and integrating palm oil production into overall landscape planning and management.
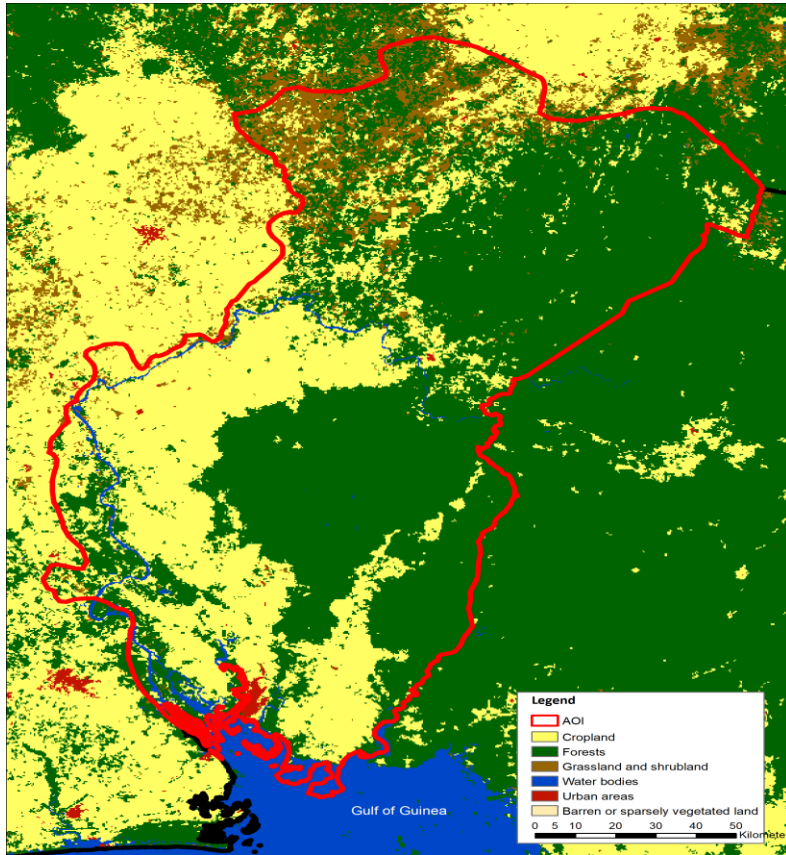
Annex B: Target Landscapes
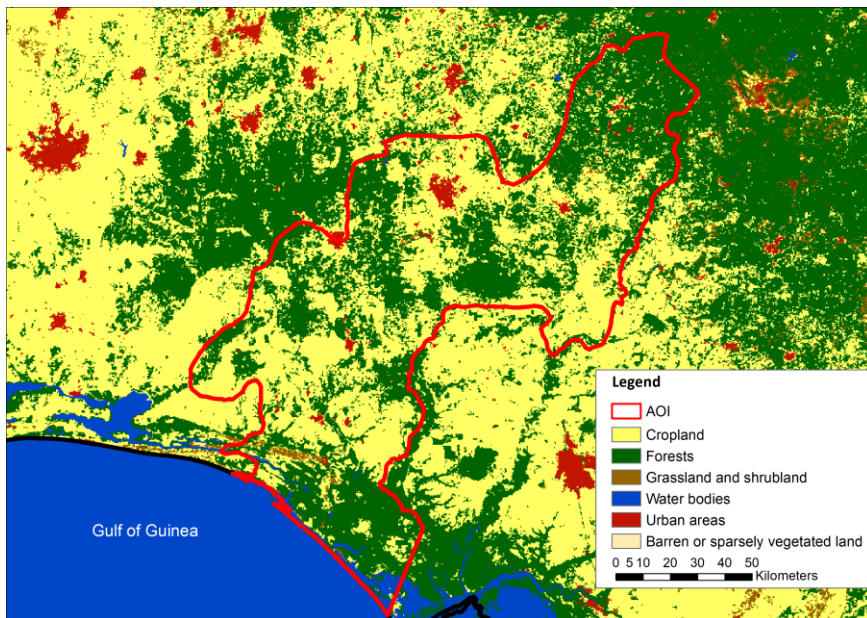
The project will address two landscapes in Nigeria:

1. Ondo State in the southwest of the country
2. Cross River State in the southeast of the country

Cross River State

Legend
- AOI
- Cropland
- Forests
- Grassland and shrubland
- Water bodies
- Urban areas
- Barren or sparsely vegetated land

Gulf of Guinea

0 5 10 20 30 40 50 Kilometers

Ondo State

Legend
- AOI
- Cropland
- Forests
- Grassland and shrubland
- Water bodies
- Urban areas
- Barren or sparsely vegetated land

Gulf of Guinea

0 5 10 20 30 40 50 Kilometers

GEF-7 CHILD PROJECT CONCEPT

CHILD PROJECT TYPE: FULL-SIZED CHILD PROJECT

PROGRAM: FOLUR

Child Project Title:	Paraguay FOLUR
Country:	Paraguay
Lead Agency	UNEP
GEF Agency(ies):	ICCF/Conservation Council of Nations (CCN) affiliate, ICCF Paraguay.

PROJECT DESCRIPTION

1. **Country Context (***maximum 500 words***)**

   Describe the country's relevant environmental challenges and strategic positioning relative to the systems transformation proposed for the program, including relevant existing policies, commitments, and investment frameworks. How are these aligned with the proposed approach to foster impactful outcomes with global environmental benefits?

Paraguay is one of the leading producers of soybeans and meat worldwide, and its economy is strongly based on these commodities that represent 65% of exports and 25% of gross domestic product. Regarding soybeans, it is among the top five producers and the fourth exporter, while it is placed as the 6th largest exporter of meat worldwide. The production of these commodities has expanded mainly driven by the growing demand of international markets. The growth of production has followed an extensive model demanding more and larger land areas. In the case of soybeans, the expansion has been at the expense of forests, which has meant a decrease in the area of the Atlantic Forest of Alto Paraná, considered a biodiversity hotspot, with just about 15% of its original cover remaining, estimated at 8 million hectares.

With regard to livestock, it was initially developed on natural pastures and then expanded to areas dedicated to agriculture and native forests. Currently, the largest expansion of livestock is concentrated in the Chaco or western region, where recorded deforestation rates have caused alarm both nationally and internationally (255,000 ha/year).

Taking into account the commitments made by the country to international multilateral conventions and the SDGs, the GoP has strived to reverse the loss of forests and biodiversity through regulatory and control instruments such as the Law 2524/2004 "Zero Deforestation Law", which bans land use change in the East of the country; also, Law 422/1973 "Forest Law" that regulates forest reserves nationally. Since 2006, through Law 3001/2006, a compensation scheme is effective, to incentivize conservation of remaining forest within a productive landscape. This mechanism is a good opportunity to reduce the growing pressure that commodity production places on native ecosystems that must be strengthened. Moreover, Law 716/1995 punishes illegal deforestation and Law 254/1994 of "Environmental Impact Assessment" makes obligatory the licensing process for any transformation of land in areas greater than 20 ha. Also, the GoP has approved the National Reforestation Plan (Decree 10.174/2012) aiming at raw material production but also, indirectly, to diminish deforestation of native forest. This Plan is directed to private investors and is financed through the Development Finance Agency (AFD). As of political will, GoP has refocused attention on environmental matters as per the National Development Plan 2030. Among others, it wants to continue production of commodities increasing efficiency and environmental sustainability, which implies controlling the use of natural resources, reducing the loss of natural heritage and biodiversity and encouraging the protection and recovery of ecosystems, including nationally funded compensation mechanisms. This framework, together with the commitments to the UNFCCC, CBD and UNCCD, as well as the ongoing efforts through sustainability platforms and financial mechanisms create an environment conducive to successfully implementing an initiative under FOLUR IP that will reduce the overall environmental impact of soybean and meat production in Paraguay, contributing to global environmental benefits in the BD, LD and CC areas.

2. **Project Overview and Approach (***maximum 1250 words***)**

   a) Provide a brief description of the geographical target(s), including details of systemic challenges, and the specific environmental threats and associated drivers that must be addressed;

The project will focus on two pilot areas and subsequently upscale its impact to national level through component 4.

• Chaco: department of Alto Paraguay - districts of Bahía Negra and Fuerte Olimpo; department of Boquerón - districts of Mariscal Estigarribia, Filadelfia and Loma Plata (174,000 km2, 43% of the country) KBAs such as the national parks Defensores del Chaco, Médanos del Chaco and Chovoreca are part of the vast cattle ranch/forest mosaic.

• Atlantic Forest: department of Caazapa in a soy production/forest mosaic. (9.496 km^2 – 2 % of the country) comprising the districts of San Juan Nepomuceno, Avaí and Tavaí. Three protected areas of global importance for the conservation of the Atlantic Forest and its associated BD, Caazapa and San Rafael National Park and the Tapyta Reserve are in this territory.

The Chaco is the second largest forest in South America after the Amazon covering 60% of Paraguay with 24M ha, housing 3400+ plant species, 400 endemic, and about 150 species of mammals, 12 of them endemic. The Atlantic Forest is an ecoregional complex of remarkable BD, plant and animal endemism. It hosts 7% of the Earth's plant species and 5% of vertebrates; 443 tree species per ha. Both ecosystems have significant potential for carbon storage, ecosystem services provision and commodity productivity.

Paraguay is the 6th largest global beef exporter, with 60% produced in the Chaco. It ranks as the 4th soy exporter worldwide, with almost 100% produced in the AF. Commodity expansion motivated by favourable market conditions is driving deforestation, fragmentation and forest/land degradation, causing connectivity loss between KBAs and remaining forests, ES loss and carbon emissions. Efforts from MADES, STP and the national forest institute INFONA are ongoing to promote/enforce a more sustainable use of natural resources. Notwithstanding, land use planning is incipient; while relevant laws and incentive schemes are not adequately and systematically applied. In this context, the project approach will ensure the commitment of all stakeholders involved in the value chains to the adoption of sustainable production systems under MRV standards and criteria.

b) Describe the existing or planned baseline investments, including current institutional framework and processes for stakeholder engagement and gender integration;

To achieve FOLUR's goals, the country meets certain basic conditions in the four components where incremental investments of the GEF will be made.

1. The Ministry of Environment, the Technical Planning Secretariat and municipal governments are mandated with territorial planning. With the support of external initiatives on defined planning methodologies and through national government backing, some municipal governments are making progress in the development of territorial and environmental land use plans.

2. Ongoing efforts on sustainable commodity production include Paraguay's participation in the GEF-6 Good Growth Partnership GGP efforts to decouple deforestation from soy and beef production and position the country as a sustainable commodity supplier. One of the main results has been the implementation of the Roundtable on Sustainable Finance, which promotes best practices in the financial sector to assure that investments in commodities are sustainable. Also, a platform for sustainable soy was established seeking adoption of sustainable practices along the soy value chain.

Regarding beef production, the GGP works in the Chaco region promoting sustainable production intensification through best agricultural practices application and protection of high conservation value areas. The Roundtable on Sustainable Beef was established to foster dialogue between beef value chain stakeholders.

The GGP initiative achievements are critical to promote sustainable practices among actors in the value chain and will be the starting points for the proposed FOLUR project. The FOLUR will work with producers to effectively implement the good practices recommended by the GGP and also with the demand end of the value chain, capitalizing the best practices and learned lessons and shortening the learning curve.

On the other hand, the Alliance for Sustainable Development, promoted by WWF-USAID, on sustainable meat production. These initiatives offer opportunities to establish synergistic and complementary actions, and GEF financing is essential for their consolidation, considering that both initiatives are nearing completion.

3. The legal framework of the country through Law 422 "Forestry Law", Law 4241 "Restoration of water courses protective forest" and Law 3001 "Environmental Services", creates favourable conditions to promote forest conservation and restoration. However, in addition to the political will for effective

implementation of these laws, it is necessary to advance institutional cooperation and coordination strategies and integrate them into the processes of land use planning, improved control by the responsible authorities, and a framework of adequate incentives to promote restoration activities.

4. Integrating land use planning with sustainable production management and conservation is an ongoing effort from national and local authorities that will greatly profit from the KM and dissemination investments of the project.

Multiple level stakeholders will be engaged building on their ongoing efforts. To promote participation of supply chain platforms, small, medium and large producers and organizations, as well as local and indigenous communities, local and national authorities, in the processes of land use planning, implementation of sustainable productive practices and forest conservation and restoration processes, strategies to ensure the inclusion of all groups, particularly the most vulnerable and least represented will be designed.

c) Describe how the integrated approach proposed for the child project responds to and reflects the Program's Theory of Change, and as such is an appropriate and suitable option for tackling the systemic challenges, and to achieve the desired transformation with multiple global environmental benefits; and

The FOLUR IP for a comprehensive land use approach linking production, conservation, and restoration at scale is a highly relevant model for achieving sustainable growth in Paraguay, where beef and soybean production for the world market continues with negative impacts on the landscape of its main biomes. The proposal is aligned with the key interventions of the ToC which collectively provide solutions to overcome persisting obstacles. Despite the political will of the government to stop illegal deforestation, a set of systemic challenges persist, including institutional and technical weaknesses, which do not allow adequate control. The absence of a public, integrated land use monitoring system impedes adequate information and planning of land use change and tenure. Reversing this situation is directly aligned with 'Formulating and implementing comprehensive land planning'. The weak coordination between institutions such as the INFONA and MADES responsible for the use of the land and its control makes application of incentives and enforcement of regulations difficult if not impossible on the ground, where local authorities are disconnected from the national framework of action, hence a perfect fit for 'Promoting Good Governance' through the project's interventions described below. And while the historic development of agricultural production in Paraguay is based on dated models of clearing land for pastures and crops, producers have incipient access to more sustainable productive protocols and are fairly disconnected from the schemes that would be more conducive to decoupling, including incentives, regulation, sustainable finance and technology/management options. The solutions for this will be found within the 'Scaling Innovation' and 'Leveraging Investment' proposal. The collective application of these interventions will result in avoided degradation and restored landscapes at scale, with productivity intensified and diversified as well as habitats restored. Hence transformed, healthier and more resilient landscapes will improve delivery of ecosystem services with consequent Global Environmental Benefits in terms of Biodiversity conservation, land productivity and carbon stores.

d) Describe the project's incremental reasoning for GEF financing under the program, including the results framework and components.

The project proposes the development of land use management plans at municipal level, which will define those areas dedicated to production, conservation, restoration, biological corridors, among others. Each plan will be prepared taking into account national environmental laws, making it possible to transfer these regulations to the reality of each territory. The plans will have legal force, becoming an instrument to improve

the application of laws in the territory to reduce deforestation rates as well as to implement local command and control measures. Also, the management plans will be used to identify and prioritize the payment of incentives for forest conservation to land users as provided in Law 3003 (payment for environmental services). The necessary capacity building, planning and convening activities engaging the private sector stakeholders such as producers and their trade associations to this end will be designed for national, subnational and local levels and tailored to the respective stakeholders' needs. The project will follow GEF guidelines to identify conditions of gender inequality and design strategies to ensure men's and women's access to similar opportunities for social, economic and environmental development.

The Integrated landscape management (ILM) system under **Component 1** will build on the existing information system available to the environment authorities. Using the GEF increment to upgrade it and adding to its functionality, it will allow integrating the necessary layers of information for improved monitoring of the landscape and decision making for land use planning. In alignment with the ILM system, participatory and gender sensitive land use plans[24] will be developed with national investments and cofinancing from partners providing state of the art methodologies. The GEF increment will support the gender sensitive integration of good governance at multiple levels and mandates, convening all relevant partners and generating the necessary capacities, including MADES as mandated for environmental LUP, as well as the Technical Planning Secretariat, subnational entities (departamentos) and municipal authorities and producers to achieve the inclusion of environmental standards in participatory plans.

Component 2 will build on ongoing baseline processes, structures and forums. On the Sustainable Beef and Soy Roundtables it will use the GEF increment to promote multi-stakeholder dialogue convening partners along both commodities' supply chains and develop a protocol for the effective operation of these sustainability platforms. While BAP for beef and soy production already exist, the GEF investment will implement their dissemination and strengthen capacities to apply them systematically, including authorities and land users, taking into account differentiated gender requirements. The sustainable finance platform receives important inputs from the GGP and related initiatives are ongoing in the country with important investments. UN Environment through UNEP FI is in charge of developing financial instruments for reduced deforestation commodity production and working with the local financial sector to enhance their environmental and social risk management practices in commodity financing and on developing models for integrating deforestation risk networking with banks that will promote sustainability protocols in the supply chains. With GEF support, these schemes can be disseminated among producers in the project area at first and after successful pilot implementation scaled to the national level subsequently. The project will involve working with a variety of groups such as individual small, medium and large soy and beef producers as well as their organizations such as the Paraguayan Rural Association, the Soy Producers Association, the Federation of Production Cooperatives, among other local organizations. At country level, it is estimated that there are 30.000 soy producers and nearly 150.000 cattle producers. Indigenous communities, local authorities (municipalities) and relevant public institutions will also be included. Other important stakeholders are the companies involved in the value chain of soy (exporters such as ADM, Cargill, Favero Group), and beef (abattoir such as Neuland, Chorti, Guarani). To this we may add the Regional Consortium for Agricultural Experimentation (CREA) of Jose Bobadilla and Agua Dulce. These partners and entities will be further engaged through the consultation process during the PPG in the productive areas of the pilot sites.

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[24] In Paraguay the ongoing plans are known as POUT: Planes de Ordenamiento Urbano y Territorial, which are developed and implemented at municipal level

Important baseline investments are directed towards conservation and restoration efforts targeting large areas of land, including a nationally funded environmental compensation mechanism (3001/06). However, they do not adequately target areas that would be key for ecosystem integrity and services or priority for globally significant Biodiversity. Application of GEF funding under **Component 3** will be strategic in guiding the involved stakeholders and authorities to make sure that KBAs and HCVF within their production landscapes are targeted to foster connectivity among national parks given priority by the GoP. To this end it will support the development of landscape restoration and sustainable forest management plans in alignment to the ILM plans under component 1 and strengthen local and national stakeholder capacities regarding landscape restoration and forest and biodiversity conservation taking into consideration gender equality. It will also be used to reduce pressure on national park areas by developing management plans for income diversification alternatives and investment for small holders in key areas of their productive lands near or between protected areas including options for men and women in ecotourism, apiculture, water harvesting, non-timber forest products, also building on previous experiences in GEF projects.

Component 4 will serve as a feedback mechanism to inform the national land use planning and sustainable management efforts on pilot impact and have a multiplier effect investing in scaling pilot results to the national level to achieve multiple GEBs at scale as well as to engage with the global FOLUR platform for KM . To this end, GEF resources will support dissemination and outreach efforts through targeted campaigns, mobilizing key stakeholders including the value chains and promoting the lessons from the pilot interventions widening the reach of the results in both landscapes influenced by the project, and making possible the sharing of project results with the global FOLUR platform.

3. **Engagement with the Global / Regional Framework (***maximum 500 words***)**

   Describe how the project will align with the global / regional framework for the program to foster knowledge sharing, learning, and synthesis of experiences. How will the proposed approach scale-up from the local and national level to maximize engagement by all relevant stakeholders and/or actors?

   The project's internal logic emulates the FOLUR PFD structure and theory of change, each of its components being designed in alignment with those of the global framework i) improving land use management and planning, ii) increasing land productivity for commodities and decoupling from deforestation, iii) promoting restoration and habitat connectivity at the landscape level and iv) scaling impact to the national level and beyond. This alignment makes the child project entirely compatible with the global platform and facilitates systematization and exchanges.

   The project's strategy to this end is to develop the key elements at pilot level first. The next step after gaining traction in the pilots is the systematization, replication and scaling to national level. Component 4 is in charge of the knowledge management (KM) portion of the project and will disseminate the lessons and results from the pilots to other areas in the country. In the case of Paraguay this is not difficult because the Chaco pilot represents most of the western part of the country predominantly dedicated to cattle ranching, while the Atlantic Forest pilot is responsible for the east, with mainly soy production, although there are overlaps.

Given the alignment with the PFD frame, the systematized results will also be applicable through the global programme to other countries in the region, taking into account that the Chaco biome has vast extensions belonging to Argentina and Bolivia with cattle ranching, while soy production in the east extends into Brazil and Bolivia. The programme and global projects will serve as a multiplier of lessons and successful procedures in this regard, and Component 4 will programme the necessary activities and budget to this end. Paraguay may also be interested in participating in a regional initiative on land use monitoring, informing LDN goals and applying risk management. This becomes particularly relevant in view of presently ongoing fires in the Chaco and Amazon biomes (September 2019).
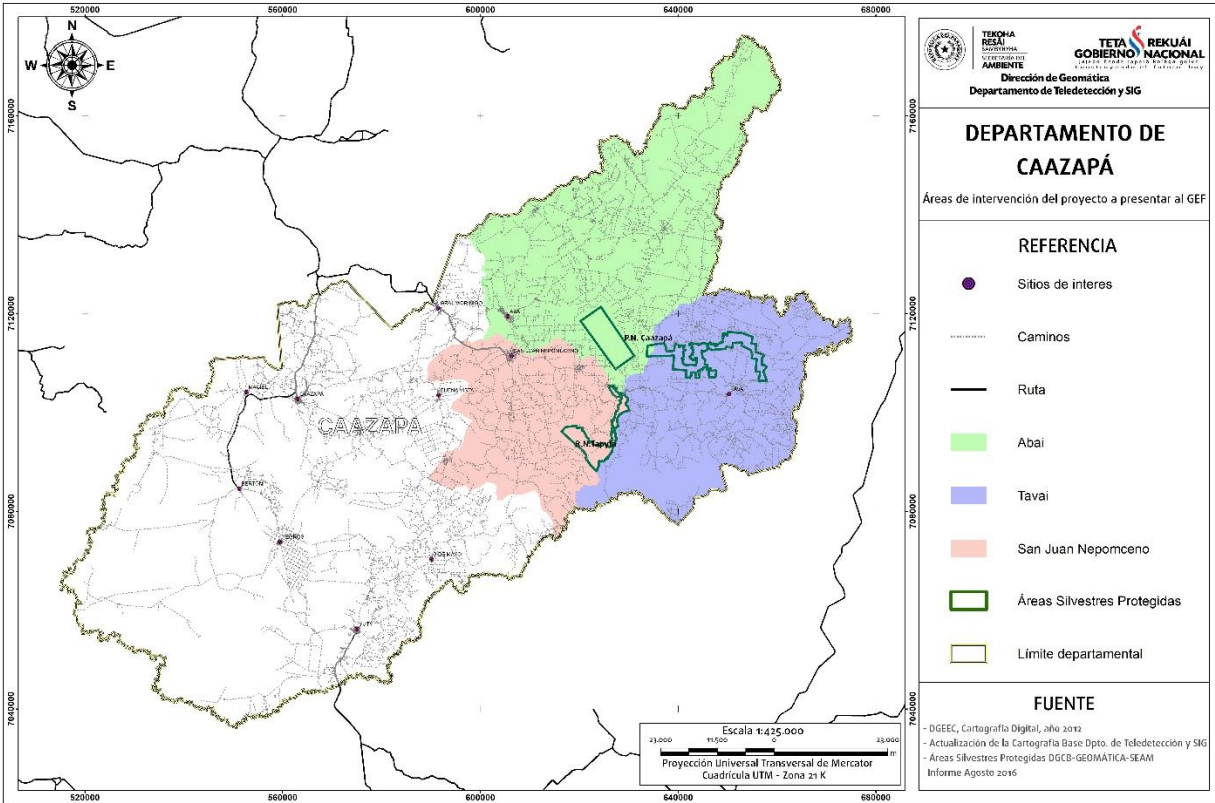
Natural connections beyond national borders are given through the value chain linkages from production to processing, commercialization, markets and financial aspects. It is envisioned that the global child project will convene the demand end of the chain, greening the markets, consumer expectations and financial instruments while national projects such as in Paraguay contribute more from the supply end compiling lessons and making them available to the global learning platform of the programme for practitioners and policymakers.

Annex B Landscape Maps (2 pages)

Project intervention area: Chaco: department of Alto Paraguay - districts of Bahía Negra and Fuerte Olimpo; department of Boquerón - districts of Mariscal Estigarribia, Filadelfia and Loma Plata. KBAs include national parks Defensores del Chaco, Médanos del Chaco and Chovoreca
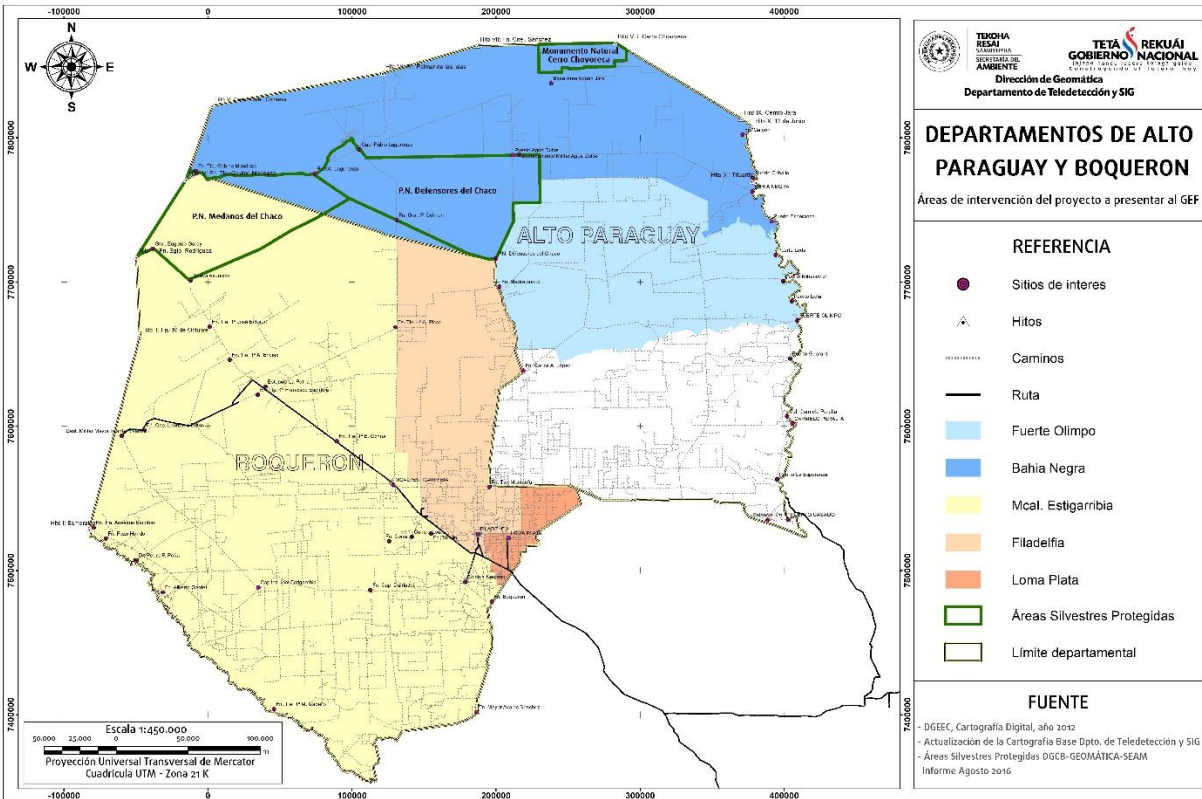
Project intervention area: Atlantic Forest: department of Caazapa comprising the districts of San Juan Nepomuceno, Avaí and Tavaí. Pas of global importance: Caazapa and San Rafael National Park and the Tapyta Reserve

GEF-7 CHILD PROJECT CONCEPT

CHILD PROJECT TYPE: Full-sized Child Project

PROGRAM: IP FOLU

Child Project Title:	Promoting integrated landscape management approach for conservation of the Mount Elgon ecosystem in Eastern Uganda
Country:	Uganda
Lead Agency	United Nations Environment Programme (UNEP)
GEF Agency(ies):	UNEP
Executing Partner	National Environment Management Authority (NEMA)
Government & NGO Partners	- Ministry of Water and Environment - Ministry of Agriculture, Animal Industry and Fisheries - Ministry of Gender, Labour and Social Development - Uganda Coffee Development Authority - International Union for Conservation of Nature

PROJECT DESCRIPTION

1. Country Context (*maximum 500 words*)

Describe the country's relevant environmental challenges and strategic positioning relative to the systems transformation proposed for the program, including relevant existing policies, commitments, and investment frameworks. How are these aligned with the proposed approach to foster impactful outcomes with global environmental benefits?

Uganda is the 1st Commonwealth, 2nd African and 8th world producer of coffee, producing 6% of global Robusta and 1% of the world's Arabica. Coffee contributes 15% of total goods exports (20 – 30% of foreign exchange earnings) and supports over 3.5 million families. 3.3% of Uganda's coffee exports are certified coffees under international labels and Ugandan Arabica coffee is among the best in the world. The Uganda Coffee Development Authority together with 130 other partners is part of the Sustainable Coffee Challenge and international companies (e.g. Sucafina S.A., Olam International, Altasheel, Volcafe & Bernhard Rothfos) are involved in Uganda coffee. The Government of Uganda (GoU) recognizes the importance of coffee for national transformation and poverty reduction and has developed several strategies to improve coffee production and marketing. The National Coffee Policy (2013) provides overall guidance and regulates activities of various actors in the coffee value chain. The National Coffee Strategy 2020/21 seeks to increase production from the current 4.4 million to 5.8 million bags (60-Kg) annually by 2020 by addressing issues around sustainable production practices and value chains. The Coffee Roadmap seeks to catalyze and transform the Ugandan coffee sector to reach an annual production of 20 million bags by 2030. The Uganda Coffee Sub-sector Climate Action Plan (2015) seeks to ensure a harmonized and coordinated approach towards a climate resilient and low-carbon development pathway.

Overall the National Programme on Sustainable Consumption and Production aims to transform conventional agricultural production into an organic farming system. Within the plan, interventions to overcome the sector

challenges to promote green agriculture include enhancing Sustainable Land Management Practices and promoting commercialization of agriculture particularly among small holder farmers. The GoU, has identified and prioritized inclusive access to productive land, sustainable natural resources including restoration of degraded landscapes and integrated landscape planning and management as one of the critical pathways to deliver on the Sustainable Coffee Challenge commitments and in achieving Uganda's National Development Plan, Vision 2040 and Sustainable Development Goals (SDGs).

The Mt Elgon landscape which is particularly famous for Arabica coffee is a priority landscape for sustainable coffee production systems. However, there is lack of sustainable land use planning and an integrated landscape management approach, which is very critical given the vulnerability of Uganda's remaining forests to agricultural pressures and climate change. The project will demonstrate the potential for integrated, inclusive and sustainable approaches in coffee production landscapes in a rapidly developing and trade-oriented economy to transform agriculture value chains and address the underlying drivers of environmental degradation in agriculture/food systems. 112,100 ha of Mt. Elgon forests are protected by a National Park hosting 37 globally threatened and 9 endemic species and acting as an important carbon sink. Uganda and Kenya are also at advanced stage to designate Mt Elgon as a Trans boundary Man and Biosphere Reserve. Mt Elgon is a water tower for both Uganda and Kenya, influencing economies and livelihoods of over 4 million people including generation of about 10% of Kenya's electricity from the Turkwel River.

2. Project Overview and Approach (*maximum 1250 words*)

2(a) Provide a brief description of the geographical target(s), including details of systemic challenges, and the specific environmental threats and associated drivers that must be addressed;

The project site is of 772,000 ha in the districts of Bukwo, Kween, Mbale, Bududa, Manafwa, Sironko, Kapchorwa, Namisindwa and Bulambuli of the Mt Elgon Landscape, Uganda. Roughly 200,000 ha of the area is covered by forests. Remaining area (+/- 500,000 ha) is agricultural land with the majority being subsistence agriculture. This relatively small region supports a high and rapidly growing population, highly dependent on agriculture for economic growth and subsistence. The current population in the region is approximately 4 million and is growing at 3.5% per year. Mt. Elgon landscape's remaining forests and wetlands are threatened by encroachment driven by agricultural expansion (coffee as the main cash crop), overharvesting of forest products and inappropriate agricultural practices, compounded by effects of climate change. There is loss of biodiversity at the ecosystem level, where habitats, species assemblages, and natural processes have steadily diminished or degraded in quality, weakening the fabric of ecological processes and prospects of sustaining economic growth. Many areas are affected by land degradation and are suffering soil loss, deforestation and forest degradation, with accompanying loss of carbon stocks. The systemic challenges are: rising coffee production without sustainable landscape approach, lack of organization and collective action across the landscape to ensure optimum utilization of land, lack of incentives for farmers to work collectively across the landscape, weak enforcement of regulations and a need to strengthen governance and enforcement, limited inter-sectoral and inter-district coordination, lack of financial/market instruments to promote sustainable production and links to sustainable value chains; insufficient international value chain actor involvement, insufficient incorporation of soil health in operations and high incidences of poverty.

2(b) Describe the existing or planned baseline investments, including current institutional framework and processes for stakeholder engagement and gender integration;

Uganda has developed the Agriculture Sector Strategic Plan (ASSP) (2015/16 to 2019/20), and priority sector investments are: (i) Value chain innovation platforms for coffee, dairy & honey ($675K); (ii) Agriculture cluster development programme targeting maize & coffee ($17.7M); (iii) Enhancing Africa Green Economy through Eco Geographical Indication for Coffee' project ($ 2.1M); (iv) Coffee extension support, certification & quality assurance ($70K); (V) Sustainable Land Management promotion ($1.6M). Several private companies e.g. Gumotino are working with certification firms e.g. Fairtrade in the Mt. Elgon landscape on the upscaling of organic certified coffee. At a national level, key actors in coffee certification in Uganda are Kawacom (U) Ltd., Kyagalanyi Coffee Limited, Central Coffee Producers Cooperative Union, National Union of Coffee Agribusinesses & Farm Enterprises (NUCAFE), Nile Highland Arabica Coffee Farmers Association, Bukonzo Joint Cooperative Society. The baseline investment will be determined during PPG. The Uganda Coffee Development Authority (UCDA) has a vision of a sustainable coffee industry with high stakeholder value for social economic transformation. The baseline investment from UCDA in alignment with the project is USD 3,350,000. Further, a Coffee Roadmap was launched in 2019 (https://www.globalcoffeeplatform.org/latest/2019/the-uganda-coffee-roadmap-is-on-the-move#newsarticle). The roadmap consists of nine initiatives, see below:

Demand and Value Addition	• Build structured demand • Brand Uganda coffee • Increase local coffee value addition
Production	• Strengthen farmer organisations • Support joint ventures • Provide and promote concessions
Enablers	• Improve quality of planting material • Improve access to quality inputs • Develop a coffee finance programme

The short-term goal is the doubling of coffee production by smallholders. This goal entails executing a rehabilitation and renovation (R & R) programme that upgrades about 400 thousand smallholder coffee farms, or about one quarter of the total number of coffee farmers in Uganda. The total cost of this process would be around US$ 170 million. During the PPG, the roadmap and its potential investment will be mapped and linkages established. The Government of Uganda is implementing integrated water resource management investments: (i) Catchment restoration ($3.76M); (ii) Enhancing biodiversity in agricultural land, ecological connectivity & REDD+ implementation ($ 0.5M); (iii) Trees for food security project ($675K). Uganda designed a Forest Investment Programme (FIP) with 3 investment projects (IP), and IP2: Climate Resilient Landscapes, Integrated Catchment Management and Nature Based Tourism in Uganda's Lake Kyoga Water Management Zone in the Mt Elgon Landscape is more relevant to this project. Stakeholder engagement will be at different levels: (i) National; (ii) Landscape; (iii) District; (iv) Sub-county; and (v) Village. All categories of stakeholders (Central Government entities, CSO, PSO, traditional institutions, etc) will be consulted. Targeted tools such as; (i) Gender mapping; (ii) Transect walks / Landscape Analysis; (iii) Timeline and Trends Analysis; (iv) Livelihood Analysis; and (v) Problem and Solution Matrix will be employed. A Gender-Responsive approach focusing on the development of women as leaders and decision makers will be employed. Gender analysis will be carried out to make sure that

women benefit from greater livelihoods diversification, including non-farm activities. At least one gender-responsive decision-support tool and participatory gender analysis processes will be applied to identify intervention pathways that unlock the barriers that currently prevent women smallholder farmers from participating in decision making and equitable benefit sharing.

2(c) Describe how the integrated approach proposed for the child project responds to and reflects the Program's Theory of Change, and as such is an appropriate and suitable option for tackling the systemic challenges, and to achieve the desired transformation with multiple global environmental benefits;

The four components of the project is directly aligned to the four components mentioned in the Program's Theory of Change.
1) Uganda's project Component 1 "Integrated Mt. Elgon Landscape Management System and institutional frameworks and improved governance" with Global Program's Component 1 "Development of Integrated Landscape Management Systems"
2) Uganda's project Component 2 "Sustainable coffee and staple crops production practices & responsible value chains" with Global Program's Component 2 "Promotion of sustainable food production practices & responsible commodity VCs"
3) Uganda's project Component 3" Natural habitat restoration" with Global Program's Component 3 "Restoration of natural habitats"
4) Uganda's project Component 4 "Knowledge Management" with Global Program's Component 4 "Global Platform: Coordination, Collaboration, M&E".

Under component 1, the project will implement activities that will develop a comprehensive land use plan for the landscape as a basis for integrated land management. This component will address the Governance barriers/Gaps Contributing defined in the Global Program's ToC:
- Weak planning processes and landscape management
- Conflicting policies
- Institutional capacity and collaboration on landscape goals
- Participation / inclusion of stakeholders/land users.

Under component 2, the sustainable production of coffee and other staple crops will be promoted. This addresses the following "Drivers Contributing" as defined in the Global Program's ToC:
- Agricultural expansion, unsustainable practices
- Commodity value chains unresponsive
- Knowledge gaps on sustainable production practices
- Insufficient scale of financing & fragmentation.

Under component 3, the project will improve habitats in the Mt. Elgon landscape for biodiversity conservation, ecosystem services and carbon stocks. This addresses the following "Drivers Contributing" as defined in the Global Program's ToC:
- Agricultural expansion, unsustainable practices

Under component 4, the project will improve knowledge on Integrated Landscape Management approaches at landscape, national and regional levels and addresses most of the "Proximate and Underlying Causes" listed in the Global Program's TOC.

The outcomes of the Uganda project also align directly with the outcomes listed in the Global Program's TOC: The project will contribute directly to the following Global Program Outcomes:

Integrated landscapes with:
- Improved planning & management practices
- Clarified inst. mandates & compatible incentives
- Reduced conversion and degradation of forests & natural habitats
- Increased restoration of agric. and env. services

Commodity & food production systems with:
- Producers investing in sustainable, responsible practices
- Clarified institutional mandates, policies & incentives
- Increased resilience & diversity, reduced degradation
- Sustainability standards in place

Commodity value chains with:
- More investment in sustainable practices
- Uptake of lessons, tools, innovations.

2(d) Describe the project's incremental reasoning for GEF financing under the program, including the results framework and components.

The GEF resources will be used to achieve sustainable coffee and staple crops production practices and responsible value chains. The incremental benefit is in supporting deforestation-free commodities by transforming the production systems of coffee and key food crops through promotion of integrated soil fertility improvement methods and demonstrating compatible agroforestry practices to improve biodiversity and tree cover, establishment of linkages with key agro-processors. The added value of GEF resources also lies in supporting restoration of degraded landscapes and coffee activities including applying learning, land use planning and community engagement to achieve greater results in an integrated way so as to deliver on global environmental benefits. The project will have a greater position to contribute significantly to the achievement of SDGs LDN, NDC and Aichi targets. The proposed budget for this project is USD 91,447,027,000. Government of Uganda ministries, district local governments, international NGOs and private sector will contribute USD 82,014,000. The incremental cost of the project is USD 9,433,027 and is requested from GEF.

The planned impacts and delivery pathways for the child project respond to and reflect the Theory of change as described below.

The FOLUR IP for promoting integrated landscape management approach for conservation of the Mount Elgon ecosystem in Eastern Uganda is a very good model for achieving sustainable development in Uganda through transitioning the Mt. Elgon region to a sustainable, integrated landscape with efficient coffee and staple crops (maize, banana and Irish potato) value and supply chain. The four components articulate the transition from identified problems to intended impacts, based on strategic interventions in the four project components.

Component 1: Integrated Mt. Elgon Landscape Management System and institutional frameworks and improved governance

As a first step in the integration of land use practices in the larger Mt. Elgon landscape, existing information on land use and vulnerability to climate change impacts will be collated and gaps identified. Studies will be undertaken to fill existing gaps and ensure that future land use decisions are based on existing and complete (as far as possible) information. With the updated information, integrated landscape management approaches and biodiversity conservation will be mainstreamed into district local governments and sectoral development plans and budgets. These district development plans will then be translated into district land management plans and combined to formulate an Integrated Land Management Plan for the entire Mt. Elgon Landscape. The final plan will be widely consulted within the Districts and well as with stakeholders across the entire Landscape. A key aspect that will be considered throughout the development of the Integrated Land Management Plan (ILMP) as well as in the mainstreaming of integrated landscape management approaches into district and sectors plans will be identifying and addressing the barriers hindering gender from participating in ILM approaches, including if relevant land tenure issues. In order to ensure the success of both the development and implementation of the Integrated Land Management Plan across the Mt. Elgon landscape, the capacity of extension workers and key local government leaders will be strengthened. The extension workers will be a key link between the decision makers and local farmers and natural resource users. In both the development and implementation of the ILMP, coordination and collective action are important, and the project will assist in this by strengthening (including expansion of members, including national sector representation) inter-institutional coordination of existing structures (Mt. Elgon stakeholder forum and Catchment Management Committees). Efforts will also be supported by the project to strengthen the governance, enforcement of laws and the compliance monitoring to ensure the effective implementation of the Mt. Elgon ILMP. This includes coordination and support with national level institutions as relevant.

Component 2: Sustainable coffee and staple crops production practices and responsible value chains

In line with the approved ILMP for the Mt. Elgon Landscape developed under Component 1, the project will support the promotion of highland specific climate smart agriculture and sustainable land management practices. This output will include on-farm diversification in an effort to promote a more diverse landscape as well as improve household food security. In order to assist in the uptake of the practices and the sustainable production of crops and their marketing, the project will incentivize farmers through the establishment of revolving funds and credit schemes. During the PPG, the best mechanisms and co-financing will be established. This will include the securing of impact investment in sustainable coffee in the landscape linking the production of sustainable coffee with HCVF conservation in the landscape. Specific focus will also be place during project implementation on building the capacity of farmers, extension workers and other actors to apply sustainable coffee standard along the coffee value chain. Capacities will also be built of smallholder farmers to participate in the coffee and food crop value chains that the project will promote. The project will develop, strengthen and link the products to markets, with largely a focus on coffee. The project will also develop protocols for the production of sustainable coffee which will be disseminated among decision-makers.

Component 3: Nature habitat restoration

As identified under the Mt. Elgon ILMP, the project will support the restoration of natural habitat in Mt. Elgon Landscape. The restoration activities will be targeted to foster connectivity between the protected areas and other natural habitats in the landscape. To this end the project will support the development of restoration plans and its implementation in alignment with the Mt. Elgon ILMP. This will include the strengthening of capacity in restoration and conservation of natural habitat, taking into consideration gender equality. The project will support the restoration of 55,000 hectares in the landscape to natural habitat during the project period.

Component 4: Knowledge management (sharing, learning and scaling up)

Under this component, the project will, in liaison with existing local, regional and national frameworks, set up an interactive monitoring and evaluation system to track the implementation of integrated landscape management in the Mt. Elgon landscape. The platform will be scaled to national level and developed with this purpose in mind. The project will also during implementation collate lessons learnt from the Mt. Elgon landscape as well define best practices and share this at local, regional and national levels to inform uptake of ILM practices and policy. In order to make best use of the information, best practices and lessons learnt at the landscape level, national and regional multi-stakeholder platforms will be established and made functional to encourage knowledge sharing and exchange of ideas on integrated landscape management.

3. Engagement with the Global / Regional Framework (*maximum 500 words*)

Describe how the project will align with the global / regional framework for the program to foster knowledge sharing, learning, and synthesis of experiences. How will the proposed approach scale-up from the local and national level to maximize engagement by all relevant stakeholders and/or actors?

Uganda is a member of regional bodies and platforms such as; the East African Community (EAC), COMESA, IGAD and New Partnership for Africa's Development (NEPAD) as well as the global alliance for climate smart agriculture initiative and coffee that brings together 130 other partners of the Sustainable Coffee Challenge. The project will use these platforms for learning, sharing experiences and creating synergies. A deliberate effort will be made for cross-country visits especially between East Africa and the Horn of Africa countries (Ethiopia, DR Congo, Kenya, Rwanda, South Sudan, Tanzania and Burundi) to share lessons learned and best practices and influence. Partnerships will be established among these countries with many opportunities for cross learning and sharing best practice. The proposed project will be aligned to various global and regional frameworks that Uganda is a signatory to and participates in such as: the UNCCD; UNCBD; The Bonn Challenge as part of AFR100 under the Bonn Challenge; and UNFCCC. Uganda will use her participation in these global platforms to share experiences and for learning as well as create synergies for leveraging and scaling up and out.

At national level, the project will be integrated into similar Government Programmes to foster knowledge sharing, learning, and synthesis of experiences such as: (i) Value chain innovation platforms for coffee,

dairy & honey; (ii) Agriculture cluster development programme targeting maize and coffee; (iii) Enhancing Africa Green Economy through Eco Geographical Indication for Coffee' project; (iv) Coffee extension support, certification and quality assurance; (v) Sustainable Land Management practices. Knowledge sharing, learning, and synthesis of experiences will also be done during the Ministry of Water and Environment's Joint Sector Review meetings that brings all line Government Ministries, Departments and Agencies together as well as Private Sector Organizations, Civil Society Organizations, donors/development agencies and bilateral agencies.

At landscape level, the project will work in collaboration with the District Local Governments during project design, implementation and joint participatory monitoring so as to enable learning, sharing of experiences and integration of project activities into the District Development Plans. Also, the project will use the Mt. Elgon Stakeholders' Forum (MESF), a forum that brings together both state and non-state actors in the Mt. Elgon Landscape to foster knowledge sharing, learning, and synthesis of experiences. Also, an action research and learning program will be established to provide evidence and support for local innovation and flexibility in order to support the adoption of approaches at community level. The action research and learning will gather information on innovations, best practices and lessons learned and provide evidence to foster sharing, learning, and synthesis of experiences and opportunities for scaling out and up.