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Report No: PAD4359

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A  
PROPOSED IDA CREDIT  
IN THE AMOUNT OF EURO 132.6 MILLION  
(US\$140.0 MILLION EQUIVALENT)

AND

A PROPOSED LOAN  
IN THE AMOUNT OF US\$8 MILLION  
FROM THE STRATEGIC CLIMATE FUND (SCF)

TO THE  
REPUBLIC OF CÔTE D'IVOIRE

FOR A  
FOREST INVESTMENT PROJECT, PHASE 2

June 8, 2022

Environment, Natural Resources and the Blue Economy Global Practice  
Western and Central Africa Region

**CURRENCY EQUIVALENTS**  
(Exchange Rate Effective April 30, 2022)

Currency Unit = West African CFA Franc (XOF)

EUR 1 = US\$ 1.0558

XOF 1 = US\$ 0.0016

**FISCAL YEAR**  
January 1 - December 31

**ABBREVIATIONS AND ACRONYMS**

ACCEL	Accelerating Action for the Elimination of child Labor in supply chains
AFD	French Development Agency ( <i>Agence Française de Développement, AFD</i> )
ANDE	National Environment Agency ( <i>Agence Nationale de l'Environnement</i> )
AWPB	Annual Work Plan and Budget
B/C	Benefit-Cost
BCEAO	Central Bank of West African States ( <i>Banque centrale des États de l'Afrique de l'Ouest</i> )
BNETD	National Agency for Technical Studies and Development ( <i>Bureau National d'Etudes Techniques et de Development</i> )
CCAP	World Bank Group's Climate Change Action Plan
CCC	Coffee-Cocoa Board ( <i>Conseil Café-Cacao</i> )
CFI	Cocoa and Forests Initiative
CIAT	International Center for Tropical Agriculture
CLCG	Local Co-Management Committee ( <i>Comité Locaux de Co-Gestion</i> )
COPIL	Steering Committee ( <i>Comité de Pilotage</i> )
CPF	Country Partnership Framework
CSO	Civil Society Organization
DA	Designated Account
DGM	Dedicated Grant Mechanism
DPO	World Bank Development Policy Operation
ESCP	Environmental and Social Commitment Plan
ERP	Emission Reduction Payment
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standards
EX-ACT	Ex-Ante Carbon-Balance Tool
EU	European Union
FAO	Food and Agriculture Organization
FCPF	Forest Carbon Partnership Facility
FCV	Fragility, Conflict and Violence
FIP-1	Forest Investment Program, Phase 1
FIP-2	Forest Investment Project, Phase 2

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FM	Financial Management
FOLUR	Global Environment Facility Food Systems, Land Use and Restoration Impact Program
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GEF	Global Environment Facility
GF	Gazetted Forest
GHG	Greenhouse Gas
GM	Grievance Mechanism
GRS	Grievance Redress Service
GPN	General Procurement Notice
HCS	High Carbon Stock
HCV	High Conservation Value
IFC	International Finance Cooperation
IFR	Interim Financial Report
IGA	Income-Generating Activity
IGF	Inspector General of Finance ( <i>Inspection Générale des Finances</i> )
ILO	International Labor Organization
IRR	Internal Rate of Return
LDCA	Local Community Development Agents
LMP	Labor Management Procedures
LRP	Livelihood Restoration Plan
LRS	Livelihoods Restoration Strategy
M&E	Monitoring and Evaluation
MFD	Maximizing Finance for Development
MINEDD	Ministry of the Environment and Sustainable Development ( <i>Ministère de l'Environnement et du Développement Durable</i> )
MINEF	Ministry of Water and Forestry Resources ( <i>Ministère des Eaux et Forêts</i> )
MRV	Measurement, Reporting, and Verification
NCB	National Competitive Bidding
NDC	Nationally Determined Contribution
NGO	Nongovernmental Organization
NPV	Net Present Value
NTFP	Non-Timber Forest Product
OIPR	Ivorian Office of Parks and Reserves ( <i>Office Ivoirien des Parcs et Réserves</i> )
OIREN	Ivorian Observatory for Natural Resources Management ( <i>Observatoire Ivoirien pour la Gestion des Ressources Naturelles</i> )
PAP	Project-Affected Person
PDIC	Cocoa Integrated Value Chain Development Project ( <i>Projet de Développement Intégré de la Chaîne de Valeur du Cacao</i> )
PDO	Project Development Objective
PFMP	Participatory Forests Management Plan
PIM	Project Implementation Manual
RCI	Republic of Côte d'Ivoire
REDD+	Reducing Emissions from Deforestation and Forest Degradation
RFB	Request for Bid
RF	Resettlement Framework
RP	Resettlement Plan
SCS	Social Conflict Study
SDGs	Sustainable Development Goals
SEA/SH	Sexual exploitation and abuse / sexual harassment
SEP	Stakeholder Engagement Plan

SEP-REDD+	REDD+ Permanent Executive Secretariat ( <i>Secretariat Exécutif Permanent</i> )
SMEs	Small and Medium Enterprises
SODEFOR	National Forest Development Agency ( <i>Société de développement des forêts</i> )
SOE	Statement of Expenditures
SORT	Systematic Operations Risk-Rating Tool
SPN	Specific Procurement Notices
SPREF	Forest Preservation, Rehabilitation, and Extension Strategy ( <i>Stratégie de Préservation, de Réhabilitation et d'Extension des Forêts</i> )
SWIFT	Survey of Well-Being via Instant and Frequent Tracking
TNP	Taï National Park
ToR	Terms of Reference
UIAP	Integrated Project Administration Unit ( <i>Unité Intégrée d'Administration de Projets</i> )
UN	United Nations
UNDB	United Nations Development Business
UNFCCC	United Nations Framework Convention on Climate Change
UNOPS	United Nations Office for Project Services
WACA	West Africa Coastal Areas Management Program

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## DATASHEET

### BASIC INFORMATION

Country(ies)	Project Name	
Cote d'Ivoire	Forest Investment Project, phase 2	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P175982	Investment Project Financing	High

### Financing & Implementation Modalities

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

Expected Approval Date	Expected Closing Date
30-Jun-2022	28-Feb-2029
Bank/IFC Collaboration	
No	

### Proposed Development Objective(s)

The Development Objective is to conserve and increase the forest stock and improve access to sources of income from sustainable forest management for selected communities in target zones.

### Components

Component Name	Cost (US\$, millions)
Component 1. Support the Development of Participatory Forests Management Plans	5.00



Component 2. Support the Implementation of Participatory Forests Management Plans in Category 3 GFs in the Cocoa Belt	68.00
Component 3. Support Sustainable Management of National Parks and Nature Reserves	12.00
Component 4. Support the Implementation of Participatory Forests Management Plans of Category 4 GFs in the Savanna	44.00
Component 5. Project Administration, Coordination, and Safeguards	19.00

## Organizations

Borrower: Adama Coulibaly

Implementing Agency: Ministry of Environment and Sustainable Development

## PROJECT FINANCING DATA (US\$, Millions)

### SUMMARY

Total Project Cost	148.00
Total Financing	148.00
of which IBRD/IDA	140.00
Financing Gap	0.00

### DETAILS

#### World Bank Group Financing

International Development Association (IDA)	140.00
IDA Credit	140.00

#### Non-World Bank Group Financing

Trust Funds	8.00
Strategic Climate Fund Grant	8.00

### IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Cote d'Ivoire	140.00	0.00	0.00	140.00
National PBA	140.00	0.00	0.00	140.00



Total	140.00	0.00	0.00	140.00				
Expected Disbursements (in US\$, Millions)								
WB Fiscal Year	2022	2023	2024	2025	2026	2027	2028	2029
Annual	0.22	5.00	12.31	15.00	30.00	35.00	32.55	9.92
Cumulative	0.22	5.22	17.53	32.53	62.53	97.53	130.08	140.00

## INSTITUTIONAL DATA

### Practice Area (Lead)

Environment, Natural Resources & the Blue Economy

### Contributing Practice Areas

### Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

## SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

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





## COMPLIANCE

### Policy

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

☐ Yes ☒ No

Does the project require any waivers of Bank policies?

☐ Yes ☒ No

### Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

**NOTE:** For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

### Legal Covenants

#### Sections and Description

The Recipient shall ensure the configuration of the accounting software no later than three (3) months after the



Effective Date, or such later date as agreed by the Association

Sections and Description

The Recipient shall ensure update of the IGF internal auditors' annual work plan no later than three (3) months after the Effective Date, or such later date as agreed by the Association

Sections and Description

The Recipient shall ensure the revision of the Mobile-money Operator provider contract for the purpose of carrying out Parts 2.1 and 4.1 of the Project no later than six (6) months after the Effective Date, or such later date as agreed by the Association

Sections and Description

The Recipient shall ensure the recruitment an accountant no later than three (3) months after the Effective Date, or such later date as agreed by the Association

Sections and Description

The Recipient shall ensure the recruitment of an external auditor no later than six (6) months after the Effective Date, or such later date as agreed by the Association.

Sections and Description

For the purpose of carrying out Part 1 of the Project, the Recipient shall, no later than one (1) year after the Effective Date, or such later date as agreed by the Association, establish Gazetted Forests Co-Management Committees (CLCGs) or the selected Gazetted Forests.

Sections and Description

No later than three (3) months after the Effective Date, or such later date as agreed by the Association, the Recipient shall elaborate and adopt a manual satisfactory to the Association

Sections and Description

The Recipient shall, not later than three (3) months after the Effective Date, or any later date agreed by the Association, adopt a manual detailing the selection process and the implementation of the Subprojects

Sections and Description

For the first year of Project implementation, the Recipient shall, adopt a manual detailing the operationalization of the digital system to be financed under Part 2.1 (b) of the Project (the "Agroforestry Contract Management Manual").

Sections and Description

Not later than one (1) month after the Effective Date for the first year of Project implementation), the Recipient shall prepare and furnish to the Association a draft annual work plan and budget for the Project (including Training and Operating Costs) for the subsequent calendar year of Project implementation, of such scope and detail as the Association shall have reasonably requested.

Sections and Description

The Recipient shall, no later than twelve (12) months after the Effective Date, or such later date as agreed by the



Association: (a) establish a Project Directorate within MINEF, and ensure that said Project Directorate has adequate capacity to take over Project implementation, including fiduciary management of the Project, through the provision of resources and staffing, all acceptable to the Association

#### Sections and Description

Without limitation to Section 1.2.3 of the ESCP and prior to carrying out any activity under any C3 GF Participatory Forests Management Plans (PFMPs), the Recipient shall have: (a) finalized the C3 GF PFMPs (including through ministerial approval); (b) adopted relevant supporting technical studies, and (c) carried out relevant RPs and LRPs, all in form and substance satisfactory to the Association, as further described in the ESCP.

#### Conditions

Type Effectiveness	Financing source Trust Funds	Description FIP-SCF Loan Agreement has been executed and delivered and all conditions precedent to the effectiveness of said agreements (except for the execution and effectiveness of this Agreement) have been fulfilled
Type Effectiveness	Financing source IBRD/IDA	Description Financing Agreement has been executed and delivered and all conditions precedent to the effectiveness of said agreement (except for the execution and effectiveness of this Agreement) have been fulfilled.



## I. STRATEGIC CONTEXT

### A. Country Context

1. To develop an inclusive and lasting growth that is driven by a more productive and resilient agriculture, Côte d'Ivoire is set to manage its natural resources – land, forest, and water – more sustainably. The country, with a total surface area of 322,463 km<sup>2</sup> and a 550 kms coastline, is divided into two main ecological regions -- a forest zone in the South and a savanna zone in the North – and four major river basins. Its economy depends heavily on the abundant agricultural lands: the agriculture sector contributes to 21 percent of the country's Gross Domestic Product (2020) and employs 70 percent of the active population. Côte d'Ivoire is the world's largest producer and exporter of several agricultural commodities, including cocoa which accounts for about one-third of total exports.

2. **The country has enjoyed remarkable economic success since 2012 but poverty remains high, particularly in rural areas.** While growth slowed in 2020 due to the COVID-19 pandemic, Côte d'Ivoire has been one of the fastest growing economies in Africa in the past decade with an average GDP growth rate of 8.2 percent during the 2012-2019 period (5.7 percent in per capita terms). The economic rebound ignited in 2012 reversed a 25-year decline in well-being, and the incidence of poverty fell from 55.3 percent in 2011, to 39.4 percent by 2018. Progress toward poverty reduction has been uneven across the country, with poverty incidence declining by 6.9 percentage points (from 31.6 to 24.7) in urban areas while remaining high, around 55 percent in rural areas. Western regions stand out as lagging regarding poverty mass and severity, particularly those regions where cash crop production (cocoa, rubber, and palm oil) is prevalent. About 55 percent of Ivorian cocoa producers and their families live below the poverty line.<sup>1</sup>

3. **The country's natural resources, which have already been depleted through extensive deforestation** particularly in the Southern forest zone where 75.5 percent of the population live, are under increasing pressure from the rapid population growth. The population, which was estimated at 6.7 million in 1975, increased to an estimated 28 million by 2021.<sup>2</sup> This rapid growth results from a combination of high natural population growth and significant immigration from neighboring countries (with non-native-born Ivorians making up 24 percent of the population).

4. To tackle those challenges in a systemic way, Côte d'Ivoire announced in May 2022 during the 15<sup>th</sup> Conference of the Parties of the United Nations' Convention to Combat Desertification (COP15, UNCCD) their *Abidjan Legacy Program*. This US\$1.5-bn five-year program aims to create a model for sustainable land management through better agricultural practices, reforestation and agroforestry, and sustainable water management. It is a recognition that improved agricultural productivity can only be reached and sustained if it is grounded in a more strategic management of land, forest, and water resources. The Abidjan Legacy Program will be supported by the World Bank through several complementary projects. The proposed Forest Investment Project Phase 2 is a core element of this approach. It expands on the Forest Investment Project Phase 1: Phase 1 engaged with local communities in promoting a participatory approach for forest management, reinforced the preservation of a large national park and established a pilot program for performance based reforestation, supported enhanced livelihood through development and implementation of income generating activities; Phase 2 will pursue those activities and seek to implement an integrated

<sup>1</sup> World Bank. 2019. *Côte d'Ivoire Economic Outlook: Why the Time Has Come to Produce Cocoa in a Fully Inclusive and Responsible Manner* July 2019 (accessed November 2020), <https://www.worldbank.org/en/country/cotedivoire/publication/cote-divoire-economic-outlook-why-the-time-has-come-to-produce-cocoa-in-a-responsible-manner>.

<sup>2</sup> Initial estimates announced by the Institut National de Statistiques (INS) based on the 2021 general population census.



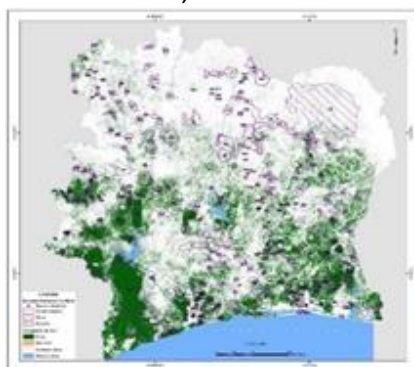
development approach for Gazetted Forests that have been heavily degraded by agriculture (i.e. cocoa).

## B. Sectoral and Institutional Context

5. **Deforestation in Côte d'Ivoire has occurred at a rapid rate since the 1960s.** The country lost approximately 13 million ha of forest cover, reducing forest cover from about 46 percent of the country in 2000 to only 11 percent today.<sup>3</sup> From 1990 to 2015, Côte d'Ivoire had the highest deforestation rate in the world (Figure 1), losing on average 4.3 percent of its total forested area annually (BNETD 2016).<sup>4</sup> As indicated in Figure 1, by 2015, forest cover had almost disappeared in the southwest except for the Taï National Park and the N'Zo Partial Faunal Reserve. According to the National Forest Development Agency (*Société de développement des forêts*, SODEFOR), encroachment on the state's Gazetted Forests (GFs) increased from 18 percent (1996) to around 50 percent (2014). From 2017 to 2018, the increase of forest lost in Côte d'Ivoire was the second highest in the world.<sup>5</sup>

**Figure 1. Deforestation in Côte d'Ivoire**

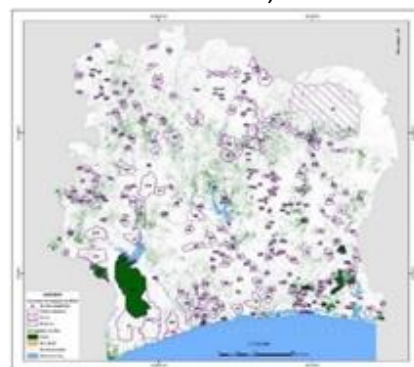
a. Forest cover, 1990



b. Forest cover, 2000



c. Forest cover, 2015



Source: BNETD, 2016.

6. **The main direct drivers of deforestation and forest degradation** are (a) the massive expansion of extensive slash-and-burn agriculture, primarily for cocoa production (cocoa is responsible for 38 percent of deforestation in Côte d'Ivoire with 40 percent of cocoa production coming from GFs and protected areas<sup>6</sup>); (b) the uncontrolled harvesting of forests, particularly for fuelwood (currently estimated at 20 million m<sup>3</sup> per year, a figure that continues to grow due to the weak protection of GFs caused by significant shortcomings in the governance of forest resources); (c) bushfires (accidental or intentional, often for agriculture or hunting); and (d) mining, notably illegal small-scale gold mining.

<sup>3</sup> Sources : Forest Preservation, Rehabilitation, and Expansion Strategy (*Stratégie de Préservation, de Réhabilitation et d'Extension des Forêts*, SPREF), June 2018 and Global Forest Watch. Côte d'Ivoire 2019. <https://www.globalforestwatch.org/dashboard/country/CIV>.

<sup>4</sup> BNETD (*Bureau National d'Etudes Techniques et de Développement*). 2016. *L'identification, l'analyse et la cartographie des causes de la déforestation et de la dégradation des forêts dans les sept zones agroécologiques de la Côte d'Ivoire*.

<sup>5</sup> Weisse, M., and E. D. Goldman. 2019. "The World Lost a Belgium-Sized Area of Primary Rainforest Last Year." World Resources Institute. April 25, 2019. <https://www.wri.org/blog/2019/04/world-lost-belgium-sized-area-primary-rainforests-last-year>.

<sup>6</sup> Source: BNETD 2016.



7. **Deforestation leads to multiple negative impacts such as the loss of soil productivity, ecosystems, and biodiversity.** If nothing is done to reverse the trend of deforestation and loss of ecosystem services for agriculture, it is estimated that 90 percent of suitable land for cocoa cultivation will disappear.<sup>7</sup> This would result in a severe blow to the country's agricultural sector. Given that so many farmers, including small-scale cocoa farmers, live below the poverty line, any additional stress from forest loss and cocoa production farming system could be catastrophic. The role that cocoa production plays in the decline of forests further complicates the issue and highlights the need to establish the right balance between the preservation of forest landscapes and the support for sustainable livelihoods for forest communities that depend on agriculture for their survival.

8. **The Government has responded ambitiously** to reverse the trends of deforestation and forest degradation with its *Forest Preservation, Rehabilitation, and Extension Strategy* (SPREF, 2018), which aims at recovering the country's forest cover and further guided the adoption of a new Forest Code in July 2019. Côte d'Ivoire's ambition is to (a) generate a transformational change in the management of forests, through the adoption of an integrated approach that combines economic development, social well-being, and the conservation of natural resources and (b) increase forest cover from 11 percent to 20 percent by 2040. To this end, the Government has adopted a zero-deforestation agricultural policy that is centered on developing zero-deforestation supply chains. In addition, the Nationally Determined Contributions (NDCs) submitted by Côte d'Ivoire in 2015 under the UNFCCC Framework<sup>8</sup> specifically call for mitigation measures in agriculture and forestry. In November 2019, the Government passed a series of decrees and *arrêtés*<sup>9</sup> aimed at supporting implementation of the Forest Code and the new SPREF, thus establishing a policy framework, which supports the implementation of the World Bank-supported operations.

9. To address deforestation and forest degradation, the Government of Côte d'Ivoire has also been involved in the mechanism for reducing emissions from deforestation and forest degradation (REDD+) and fostering sustainable management of forests. With support from the World Bank through the Forest Carbon Partnership Facility preparation grant (FCPF-Readiness Fund), the French Development Agency (*Agence Française de Développement*, AFD), and several United Nations (UN) agencies, the country established a strong national REDD+ system to strengthen its institutional framework. The system entails the creation of a National REDD+ Commission and the development of a National REDD+ Strategy, a National Forest Surveillance System, multiple safeguards instruments, a safeguards information system, a reference emission

<sup>7</sup> The cost of climate change on Côte d'Ivoire's cocoa sector is estimated at US\$1.1 billion annually by 2050 (about 3.9 percent of current real GDP) from increasing temperature and decreasing water in dry seasons—both environmental conditions that healthy forests can mitigate. *International Center for Tropical Agriculture (CIAT). 2018. The Economic Case for Climate Action in West-African Cocoa Production.* Healthy forests are a key to carbon sequestration and mitigation of climate change. Sequestration is achieved not only through the tree canopy but also through forests' role in maintaining healthy soil that can successfully act as a substantial carbon sink—healthy soils hold up to 75 percent of carbon held on land—more than three times what is stored in living plants and animals. *Food and Agriculture Organization. 2017. Landscapes for Life. Approaches to Landscape Management for Sustainable Food and Agriculture (accessed January 24, 2020), <http://www.fao.org/3/i8324en/i8324en.pdf>.*

<sup>8</sup> UNFCCC = United Nations Framework Convention on Climate Change

<sup>9</sup> Decree No. 2019-979 of November 27, 2019, on the terms and conditions for the management of agroforestry, the exploitation of agricultural plantations, and the marketing of agricultural products in agroforestry. This decree defines the modalities for the development of agroforestry, the exploitation of agricultural plantations, and the marketing of agricultural products in agroforestry; Decree No. 2019-977 of November 27, 2019, on procedures for the classification of forests and agroforests. This decree stipulates that any forest in the national forest estate regularly acquired by the state may be classified in the private forest estate of the state or of the territorial collectivities: either on the initiative of the Forest Administration or at the request of a territorial collectivity; Ministerial Order No. 861/MINEF/CAB of December 13, 2019, on the modalities for the elaboration and implementation of forest and agroforestry management plans. The purpose of this order is to define the modalities for the elaboration and implementation of forest and agroforestry management plans. In addition, the Government has published data on the spatial boundaries of national parks, reserves, and GFs on an open digital platform.





level, a measurement, reporting, and verification (MRV) system for emissions reduction, and a REDD+ registry and certification manual.

10. **To implement its National REDD+ Strategy, the Government prepared an Emission Reduction Program Document,**<sup>10</sup> which was approved by the Carbon Fund Donors in June 2019, and a results-based Emissions Reduction Payment Project (ERP) (P170309) in the amount US\$50 million that was signed on October 30, 2020. The ERP targets the most densely forested area in the southwest (the Cocoa Belt), which is also the most pressured by deforestation and forest degradation due to cocoa production. This area includes the Taï National Park (TNP)—one of the only remaining intact dense rainforests in West Africa.

11. **Role of cocoa in deforestation:** Recognizing the role that cocoa production plays in deforestation and forest degradation and acknowledging that deforestation and degradation are the second leading cause of global warming (responsible for about 20 percent of global greenhouse gas [GHG] emissions), the governments of Côte d'Ivoire and Ghana, along with 34 leading cocoa and chocolate companies, committed in 2017 to working together through the Cocoa and Forests Initiative (CFI) to end deforestation and restore forest areas in West Africa, in line with the 2015 Paris Climate Agreement. Building on the lessons learned and good practices from other commodities and sectors, such as the Consumer Goods Forum, the CFI has developed a concrete, time-bound, joint action plan that spells out the critical actions to end deforestation, with a focus on (a) forest protection and restoration; (b) sustainable cocoa production and farmers' livelihoods; and (c) community engagement and social inclusion. The CFI's progress in Côte d'Ivoire includes, among other things, commitments from private sector partners to stop any new conversion of forest lands for cocoa production and increase the traceability of cocoa sourcing to enable the enforcement of agreements such as the 'Elimination of Cocoa Production and Sourcing from National Parks and Reserves'.<sup>11</sup>

12. **The World Bank is supporting the Government of Côte d'Ivoire to implement the CFI and its broader REDD+ efforts through** (a) the upcoming Cocoa Integrated Value Chain Development Project (*Projet de Développement Intégré de la Chaîne de Valeur du Cacao*, PDIC) (P168499), which will support public-private Partnership models to ensure that both the Government and private sector co-invest in sustainable long-term cocoa development, in line with the CFI action plans; (b) a Development Policy Operation (Third Fiscal Management, Education, Energy, and Cocoa Reforms, P166388; FY2019), which included prior actions under Pillar 1<sup>12</sup> on cocoa production sustainability, reforms to the Forest Code, and cocoa production norms, standards and measures and will be further pursued in the new Development Policy Operation (DPO) series under preparation; (c) a South-South Knowledge Exchange between Cocoa Producers in West Africa and Latin America (P171856) financed by the FCPF, which developed a cocoa agroforestry guide to be implemented in the context of the CFI; (d) a Forest Investment Program - Phase I (FIP-1) (P162789) and a Dedicated Grant Mechanism (DGM) for Local Communities (P163004), which are supporting enhanced carbon sequestration through agroforestry, reforestation, and conservation of protected areas and their adjacent lands in the south-west and center regions of the country; and (e) the payment for results ERP around the TNP (P170309), targeting the entire Cocoa Belt in the southwest region and the areas covered under FIP-1 and the DGM.

<sup>10</sup> ERP Document <https://www.forestcarbonpartnership.org/system/files/documents/190422-ERPD%20RCI%20FV.pdf>.

<sup>11</sup> CFI Annual Progress Report. 2020: Cargill (accessed November 2020), <https://www.cargill.com/doc/1432159394919/cargill-cocoa-forests-initiative-annual-report-2020.pdf>.

<sup>12</sup> Pillar 1 supports the establishment of the policy and regulatory framework for environmentally sustainable investments in cocoa, agroforestry, renewal energy, and energy efficiency. In agriculture, the objective is to support the reduction of deforestation associated with cocoa production and encourage private investments to adopt sustainable and formal supply chains for cocoa.



13. Forest areas have two classifications and are administered by three entities:

- (a) **The Rural Forest Domain of the State (*Domaine Forestier Rural de l'Etat*)**, managed by the Ministry of Water and Forests (*Ministère des Eaux et Forêts*, MINEF), is an area where priority is given to agriculture, but which may also be granted for forest exploitation.
- (b) **The Permanent Forest Estate of the State (*Domaine Forestier Permanent de l'Etat*)**, which covers 6.3 million ha (19 percent of the total country area) and includes (i) 234 GFs (4.2 million ha), managed by SODEFOR and (ii) eight national parks (including the TNP, the largest reservoir of biodiversity in West Africa) and eight natural reserves totaling 2.1 million ha, managed by the Ivorian Office of Parks and Reserves (*Office Ivoirien des Parcs et Réserves*, OIPR).

14. Table 1 depicts the new classification of the country's 234 GFs by category and the guiding principles of their sustainable management according to the SPREF.

**Table 1. Categories of GFs**

Category	Number	Comments
Category 1 (C1)	27	<b>GFs preserved to more than 75 percent and dedicated to full conservation.</b> Some GFs concerned could be categorized as protected areas in the short term or at the expiration of logging concession agreements, if any.
Category 2 (C2)	19	<b>GFs with a degradation rate between 25 and 75 percent to be recovered</b> through establishment of production forests in partnership with private sector.
Category 3 (C3)	76	<b>GFs with a degradation rate higher than 75 percent to be recovered</b> through agroforestry in partnership with the private sector.
Category 4 (C4)	112	GFs in the center and north of the country are dedicated to large-scale reforestation programs in partnership with the private sector and nongovernmental organizations (NGOs).
<b>Total</b>	<b>234</b>	

### C. Relevance to Higher Level Objectives

15. The project is fully aligned with the Systematic Country Diagnostic (SCD, report No 98178) updated in 2022, and the latest Country Partnership Framework (CPF) (FY16-19) extended to 2021 (report No. 96515-CI) by the Performance and Learning Review (Report No 122566-CI) of April 2018. The SCD recognizes Côte d'Ivoire's political commitment to address climate change, reduce pressure on its forest resources while achieving the country's growth ambitions. It highlights reducing deforestation (by accelerating ongoing reform in frameworks and mapping, and strategies for reforestation and agroforestry), especially in the cocoa sector as key policy priorities to promote shared prosperity and achieve poverty reduction. The project directly contributes to the CPF's Objective 1: Improve productivity in agriculture/agribusiness value chains and Objective 4: Formalize and enhance access to land for business and agriculture. In line with government priorities and WBG corporate priorities, and on the basis of recent in-country consultations, the upcoming CPF 2022-2026 will have an even stronger focus on the sustainable management of natural resources.

16. **The project supports the World Bank's Forest Action Plan FY16-FY20.** The project covers the main interventions of the Forest Action Plan's Focus Area 1 on Sustainable Forestry, *"to protect and optimize the use of forest, both natural and planted, to sustain livelihoods, create jobs and economic opportunities in rural areas while preserving ecosystem services delivered by forests"* as well as the cross-cutting themes of rights, participation, institutions and governance, climate change, and resilience. The project's strategic involvement in the forestry and agriculture sectors and their governance will strengthen the foundations for positive forest





outcomes while improving living conditions and livelihoods of the targeted rural population. Furthermore, as dense forests are a sink for approximately 30 percent of worldwide carbon emissions, it is important to maintain this natural sink over the next decades as countries work to reduce emissions, to assist in achieving the 2050 net zero emissions target, in line with the 2015 Paris Climate Agreement.

17. **The project's approach also embodies many of the UN Sustainable Development Goals (SDGs).** Overall, the project interventions will contribute to poverty reduction (SDG 1: No Poverty) and inclusive and sustainable economic growth (SDG 8: Decent Work and Economic Growth). The project promotes (a) sustainable forest management and reversal of land degradation (SDG 15: Life on Land) and (b) climate change action, awareness raising, and human capacity in climate change mitigation and adaptation, which will increase the resilience of the rural population (SDG 13: Climate Action). It will also contribute to capacity building of local communities, enhancing multi-stakeholder partnerships to mobilize and share knowledge, expertise, and technology in the targeted forest areas while at the same time encouraging and promoting effective partnerships with public, private, and civil society organizations (SDG 17: Partnerships for the Goals).

18. The project is in line with the World Bank Group's Climate Change Action Plan (CCAP) (2021-2025), and the Next Generation Africa Climate Business Plan (FY21-26). The CCAP confirms the World Bank's commitment to deploy performance-based mechanisms to support client countries' efforts towards a low-carbon development trajectory, tackling the climate crisis through increasing climate finance to reduce emissions, strengthening climate change adaptation, and aligning financial flows with the Paris Agreement. It also aims to transition to a low-carbon and resilient development pathway through supporting natural capital, economic growth, and job creation. The Next Generation Africa Climate Business Plan is grounded in the World Bank's commitment to support climate-resilient and low carbon development in the African region. The project aligns with the ecosystem stability and water security strategic direction, aiming for an enhanced management of landscapes, an increase of ecosystems resilience and carbon sequestration, while simultaneously contributing to socio-economic resilience.

19. The project also aligns with the Africa Western and Central Region (AFW) Strategic Priorities (2021-25) and with the World Bank Group Strategy for Fragility, Conflict and Violence (FCV) (2020-2025). The focus of the project on promoting reforestation associated with food crops production (*taungya* method) and cocoa based agroforestry is in line with the strategy's goal of ramping up climate resilience, with efforts focusing on food security by building resilient agriculture value chains, targeting investments to secure ecosystem stability, and mitigating climate shocks by strengthening resilience of the poorest. The project also puts an emphasis on strengthening environmental and social safeguards including conflict resolution systems which is equally aligned with the World Bank Group FCV Strategy, particularly on its pillars for preventing violent conflict and interpersonal violence, by addressing the drivers of fragility and immediate- to long-term risks—such as climate change, demographic shocks, gender inequality, patterns of discrimination, economic and social exclusion, and perceptions of grievances and injustice—and strengthening the sources of resilience and peace before tensions turn into full-blown crises.

20. **The project is undertaken within a changing international environment with regard to the cocoa value chain** and supports the efforts and commitments from the international community, notably the European Union (EU), United Kingdom, United States, and Germany to participate in a deforestation-free and socially sustainable supply chain for cocoa. In 2019, the European Commission called for both “regulatory and non-regulatory measures” to be considered to ensure the EU consumes products “from deforestation-free supply chains.” Furthermore, the European Parliament passed a resolution on October 22, 2020, containing recommendations to establish a regulatory framework to curb and reverse deforestation for



which the EU is responsible on a global scale. The project supports these international and related national commitments by developing and facilitating the implementation of forest management plans and championing forest-friendly initiatives for adoption by cocoa farmers, such as agroforestry systems.

21. **Partnership arrangements and programmatic approach:** To increase aid effectiveness and emphasize long term programmatic approach to promote deforestation-free cocoa value chains, conserve and increase forest stock in Côte d'Ivoire, this operation is a continuation and upscale of the FIP1 which builds on positive pilots with reforestation and National Park preservation. Those pilots on sustainable landscape management, will be expanded in FIP2 to tackle deforestation caused by cocoa expansion which was not targeted under FIP1. The FIP2 also aligns with several ongoing World Bank instruments and projects (DPO, DGM, PDIC, The Emissions Reduction Program) and the Global Environment Facility 7 FOLUR (Food Systems, Land Use and Restoration Impact Program) Child project.

22. In addition, FIP-2 and the upcoming PDIC (P168499) will complement each other to support cocoa-based agroforestry through a programmatic landscape approach. This will ensure that key GFs and the areas and communities surrounding these forests are all part of an overall landscape approach to address the issues facing the southwest. FIP-2 will intervene within targeted C3 GFs in the cocoa belt for the implementation of cocoa-based agroforestry, and in C4 GFs for reforestation and National Parks for conservation. The PDIC activities are implemented to support cocoa-based agroforestry in the rural domain areas adjacent to the targeted C3 GFs and the TNP. The PDIC will also work to establish a national traceability system for cocoa sourcing by liaising with the cocoa industry and the Cocoa Board (*Conseil Café-Cacao*, CCC) for the treatment of farms affected by the swollen shoot disease and provide cash transfers to impacted farmers to compensate for crop loss.

23. Furthermore, to reduce fragmentation, the project will 'crowd-in' all available sources of finance, expertise, and solutions in support to the implementation of the SPREF and the CFI through a maximizing finance for development (MFD) approach. The project will partner with the following public and private sector entities that are considering parallel financing in support of the SPREF and the CFI (both of which underpin program activities): (a) the European Investment Bank through its project, which aims to elaborate and support implementation of management plans for 219 GFs (C2 and selected C3 and C4 GFs not covered by FIP-2) and (b) cocoa agribusiness operators (private sector) who may be granted concessions in C3 GFs for the implementation of cocoa-based agroforestry. The Sustainable Trade Initiative developed a green plan targeting one of the landscapes covered by the project (Cavally) to garner financing from donors active in that landscape. The Government is also partnering with conservation NGOs, such as African Parks, for protection and biodiversity conservation of C1 GFs. Coordination of these activities will draw on the donor platform established in 2010, covering agricultural and rural development, environment, and biodiversity conservation with participation of all key ministries. This will help the country optimize collaboration and access to financing from various donors to support the objectives of the SPREF and the CFI.

## II. PROJECT DESCRIPTION

24. This project builds on the trust-funded FIP-1 (P162789), which has been under implementation since 2018 and is scheduled to close at the end of May 2023, with results achieved to date in Box 1 below.



## Box 1: FIP-1 results

**Engagement with local communities is an effective instrument in promoting a participatory approach in forest management plans.** Fifteen local committees for GF co-management were successfully established in the villages adjacent to the project targeted sites. Local committees have been trained in basic concepts of participatory GF management, including awareness raising on ecosystem services provided by forest resources and the GFs positive impacts on the environment and contribution in attenuating climate variations. These committees were instrumental in development and implementation of GFs management plans.

**Performance-based payment systems can be successful in providing alternative income sources to local communities thereby reducing human pressure on natural resources.** As of today, the project established agroforestry buffer zone of 5,400 hectares against the 2021 target of 5,000 ha around the Tai National Park, and 3,400 ha of reforestation in the center region: 240 performance-based reforestation contracts have been signed with 520 beneficiaries, 42 percent of whom are women. The project financed establishment of nurseries led by women for the development of tree seedlings and transportation of seedlings to the plantation sites; field preparation to enable successful planting and the actual planting works.

25. **Project Sites:** The Project targets: (a) three C3 Gazetted Forests (*Rapides Grah, Haute Dodo et Scio*) in the South West; (b) four National Parks and Reserves (*Tai National Park, Nzo Nature Reserve, Mont-Peko* in the South West and *Mabi Yaya* in the South East); and (c) 16 C4 GFs in the center and the north (*Haut Bandama, Loho, Pyerrhé, Kobo, Matiemba, Sougourou, Kouabo-Boka, Boka-Go, Laka, Fêtékro, Ahua, Bandama Supérieur, Léraba, Nzi Supérieur, Boundiali, Pouniakélé*).

26. **Gender assessment.** A gender analysis was conducted in the project sites and identified key gender gaps. Specific actions to address these gaps and indicators to monitor outcomes are as follows:

- (a) Constraints on women's access to lands and revenues generated from cocoa production in the southwest/east region, given that cocoa agriculture is predominantly male dominated.
  - **Actions.** The project will work with SODEFOR to provide greater legal security to women by granting them long-term contracts for agroforestry in selected GFs (*contrats agroforestier*) for the implementation of reforestation through the *taungya* system (a method of intercropping where agricultural crops such as maize, peanut, cassava, plantains, soya, and so on can be planted among forest trees). The sale of the food crops will not only provide direct revenues to the women but also contribute to reinforce food security.
  - **Indicator.** Number of agroforestry contracts granted in GFs to women's associations for reforestation through the *taungya* system.
- (b) Need for further training on high potential and innovative *taungya* system using environmentally sound agricultural techniques.
  - **Actions.** Project funds will be allocated for training women in innovative *taungya* techniques and for provision of biopesticides and biofertilizers.
  - **Indicator.** Number of female farmers trained in *taungya* techniques and supported with the use of biopesticides in *taungya* plantations.
- (c) Poor access to water for tree nurseries and related activities.
  - **Actions.** Project funds will be earmarked toward establishment of boreholes and/or water reservoirs for irrigation of tree nurseries and *taungya* plantations.
  - **Indicator.** Number of boreholes and water reservoirs established for women's association.



- (d) Transport constraints for women to reach the GFs for farming and to reach markets for sale of food crops.
- **Actions.** The project will allocate funds to purchase appropriate means of transportation for female farmers.
  - **Indicator.** Number of transportation equipment (for example, motorized tricycles) provided to women with projects funds.

## A. Project Development Objective

### PDO Statement

27. The Project Development Objective (PDO) is to conserve and increase the forest stock and improve access to sources of income from sustainable forest management for selected communities in target zones.

### PDO Level Indicators

- (a) Targeted Gazetted Forest areas under sustainable management based on defined criteria<sup>13</sup>(ha)
- (b) GHG emissions reduced (tCO<sub>2</sub>eq)
- (c) Targeted Forest-dependent communities with increased access to income sources derived from sustainable GF management
- (d) Satisfaction of target beneficiaries (level of engagement by gender and age per target area) (%).

## B. Project Components

28. The project is articulated around four components to support implementation of the CFI and the SPREF summarized as follows, with details in annex 1 (detailed project description).

### Component 1: Support the development of Participatory Forests Management Plans (PFMPs) (US\$5 million equivalent)

29. This component will build on FIP-1 to continue laying the foundation for implementing the SPREF through two subcomponents: (a) support elaboration of PFMPs of targeted C3 GFs in the southwest and (b) support elaboration of PFMPs of targeted C4 GFs in the savanna area.

#### ***Subcomponent 1.1: Support elaboration of PFMPs of targeted C3 GFs in the southwest (US\$4 million)***

30. This subcomponent aims at supporting the elaboration process of the PFMPs and associated studies of the project targeted C3 GFs (*Rapides Grah, Haute-Dodo, and Scio*) which started under the FIP-1. The subcomponent will finance technical assistance to undertake detailed census of farmers and georeferencing of their agricultural plots in the three GFs in order to complement the PFMPs which are based on a 10 percent sampling of the GF surface areas. The development of relevant studies will start now and may be considered as project eligible expenditures under retroactive financing in an amount not to exceed US\$1,000,000. The subcomponent will also support agroforestry capacity building activities to targeted cocoa producers.

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<sup>13</sup> The criteria include the (a) number of GF management plans developed; (b) adoption and implementation of agroforestry schemes and *taungya* methods; (c) establishment of conservation areas in GFs for natural regeneration of degraded lands; and (d) establishment of areas dedicated to production forests for timber and fuelwood.



31. The subcomponent will also finance the elaboration of Environmental and Social Impact Assessments (ESIAs) of the PFMPs, Resettlement Plans, an exhaustive social conflict analysis study and Livelihood Restoration Plans for the compensation of potential persons affected by the implementation of the PFMPs.

***Subcomponent 1.2: Support elaboration of PFMPs of targeted C4 GFs in the Savanna areas (US\$1 million)***

32. This subcomponent will finance consultancy services to support SODEFOR with the development of PFMPs for the project targeted C4 GFs and associated ESIAs. Before the development of the PFMPs, socioeconomic analysis of riparian communities will be conducted, and fauna and flora maps established. The subcomponent will first finance (a) workshops and consultations led by SODEFOR and local NGOs for the establishment, where nonexistent, of local co-management committees (*Comités Locaux de Co-Gestion*, CLCGs) in villages adjacent to targeted C4 GFs; (b) operating costs of CLCGs' participation in the elaboration process of the PFMPs; and (c) validation and dissemination workshops before the Government's adoption of the PFMPs.

33. Awareness raising for women will be reinforced to ensure that women: (a) are fully informed of the objectives sought; (b) are encouraged to participate in the process; (c) encouraged to take leadership positions in CLCGs; and (d) ensure that the PFMPs are gender-oriented.

**Component 2: Support the Implementation of Participatory Forests Management Plans in Category 3 GFs in the Cocoa Belt (US\$68 million equivalent)**

34. This component will support implementation of PFMPs through three subcomponents: (a) support cocoa-based contractual agroforestry agreement; (b) support capacity enhancement of SODEFOR for sustainable forests management; and (c) support livelihoods restoration for potential PAPs and income generating activities for riparian communities.

***Subcomponent 2.1: Support cocoa-based agroforestry through a contracting system with GF cocoa farmers (US\$35 million)***

35. The subcomponent supports the recovery of GFs cover by minimizing social impacts, through an agroforestry contractual system between SODEFOR and GF farmers, including inter alia: (i) the development of regulatory framework reform for the creation of agroforests for cocoa production<sup>14</sup>, (ii) providing tree seedlings, Training, and technical assistance activities for tree planting and maintenance, (iii) awareness raising activities on child labor, (iv) addressing complaints in accordance with the Project's grievance redress mechanism, and (v) incentivizing farmers through performance-based payments for participation in plantation works. ... For the three targeted C3 GFs, the project will support establishment of 300,000 hectares of cocoa-based agroforestry, prior to which site-specific decrees changing the status of these GFs to Agroforests will be taken by the Government.

36. The following agroforestry and restoration schemes will be supported:

- cocoa-based agroforestry through the introduction of 50 to 100 trees per ha in highly degraded areas (flat zones of the GF) and 100 to 250 trees per ha in cocoa plantations located on steep slopes of mountain chains. This will be based on a 10-year renewable agroforestry contractual agreement

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<sup>14</sup> As per decree No. 2019-977 of November 29, 2019, agroforests will be created thereby legalizing cocoa production through agroforestry



throughout the duration of the PFMPs (10 years), between the farmer and SODEFOR. As indicated in the agroforestry technical itinerary (Annex 5), agroforestry is expected to improve cocoa productivity versus full sun cocoa farming, and,

- Full restoration of HCV/HCS zones (mountain tops, riverbanks and wetlands) through conservation of remnant forests and natural or assisted regeneration with the introduction of native tree species up to 400 trees per ha. Farmers with portions of their plots in these areas will be invited to sign a 5-year non-renewable contract and will have to stop cocoa agriculture at the contract expiration to enable full restoration of these sensitive areas in the medium to long term.

37. The contract template including farmers' and Government obligations is attached in annex 5 which includes obligations to not engage in child labor which will lead to termination of the contract. Furthermore, labor inspectors will be recruited to prevent and monitor child labor in project targeted areas. Labor inspectors, SODEFOR and farmers will receive training to implement monitoring tools developed by the International Labor Organization (ILO) under a program entitled 'Accelerating Action for the Elimination of child Labor in supply chains' (ACCEL). The program developed tools for inspection tailored to the cocoa subsector, which will support the PDIC project to train labor inspectors and implement a monitoring system for child labor in targeted cocoa production areas.

38. Farmers will be incentivized through agroforestry performance-based payments for their participation in plantation works, from nursery establishment to planting and maintenance of trees planted. In addition, for food security, farmers will be authorized to implement the *taungya* system. This integrated and participatory 'win-win' situation for farmers is designed to not only provide alternative income streams, but to also make the farmers key players in sustainable management of the GFs. Farmers' payments will be triggered by (a) tree seedlings produced by ha; (b) trees planted per ha and the percentage of success; and (c) the effective maintenance of trees planted. The project will ensure that performance-based contracts are signed equally by men and women depending on their areas of interests.

39. The proposed payment, as shown in table 2, will be paid to the farmers for performance-based agroforestry implementation, in line with national standard rates for forestry works:

**Table 2. Proposed Payment Rates for Agroforestry**

Activities	Proposed Payment
Nursery development for 100 plants/ha	US\$50/ha
Nursery development for 400 plants/ha	US\$125/ha
Field preparation and planting	US\$30–75/ ha
Plantation maintenance	US\$25/ha/year

***Subcomponent 2.2: Strengthening the capacity of SODEFOR, MINEF and local institutions for sustainable GF management (US\$3 million)***

40. The subcomponent aims to enhance the capacity of SODEFOR and MINEF to ensure successful implementation of cocoa-based agroforestry, reforestation as well as overall sustainable GF management. It will finance services of a seasoned agroforestry firm, which will be recruited at the onset of project implementation and housed at SODEFOR for capacity enhancement and knowledge transfer to SODEFOR employees in agroforestry and reforestation activities. Field level Local Community Development Agents (LCDAs) with forestry, agroforestry, agro-economy, rural development and community outreach profiles, will also be recruited and trained in cocoa-based agroforestry as well as in the ILO's monitoring tools to prevent





child labor within the GFs. They will be equipped with motorcycles and based at the village level for daily monitoring and supervision of the implementation of child-labor-free agroforestry contracts, and will report to SODEFOR decentralized management centers. The operationalization of the digital system will be detailed in a specific agroforestry contract management manual which will be elaborated at the onset of project implementation, reviewed and approved by the World Bank.

41. The sub-component will finance salaries and operating costs of the LDCA's for their participation in consultations and awareness raising activities along with local NGOs in support to decentralized SODEFOR GF management centers. The subcomponent will also finance (a) acquisition of equipment, including vehicles, motorcycles, and drones to enhance the capacity of MINEF and the decentralized SODEFOR management centers of targeted GFs for efficient forest surveillance and (b) rehabilitation of site-specific control posts where patrolling agents will be posted on a rotational basis for close GF surveillance, operating costs for communication (cell phone and internet services) among patrollers for timely coordination of the GF surveillance activities.

42. Village monitoring committees (watchdog committees) formed within the CLCG will also be set up to support SODEFOR in its surveillance efforts. They will participate in GF surveillance jointly with SODEFOR. The project will support the operating costs of the CLCGs, including regular meetings, and provision of communications technology (for example, cell phones) and motorcycles for patrolling of GFs. Regional Councils will be involved in awareness raising activities at the local level focused on communication, education, and information on agroforestry and its economic, social, and environmental benefits to the communities. Operating costs related to activities conducted by the Regional Councils will be supported by the project.

43. SODEFOR's capacity is low as many of its seasoned employees have either retired and been replaced with less experienced foresters or set up their own consulting firms. Therefore, the agency lacks the required and experienced human resources for the implementation of the SPREF. To maintain its enhanced technical and human resources capacity built with project support, the strategy of the SODEFOR is to absorb the LDCAs as permanent employees after project closure to ensure long-term sustainability of GF management under the SPREF. Furthermore, the agroforestry technical assistance firm will transfer knowledge to SODEFOR's less experienced employees throughout project duration to further enhance the agency's capacity.

***Subcomponent 2.3: Support livelihoods restoration for PAPs and income-generating activities for GF riparian communities (US\$30 million, of which US\$25 million for PAPs and US\$5 million for riparian communities through IGAs).***

44. This subcomponent is designed to provide financial and technical support to (a) farmers who might not be interested in joining the agroforestry schemes, farmers with 5-year non-renewable contracts, and (b) riparian communities interested in undertaking activities other than agriculture to improve their living conditions.

45. The following five options of livelihoods restoration for PAPs identified in the Livelihoods Restoration Strategy developed during project preparation, will be supported by the subcomponent: (a) establishment of a sharecropping system whereby the PAP can work on a landowner plot, and in return obtain a mutually agreed share of the harvests; (b) land leasing for agriculture in the rural domain; (c) professional reconversion of non-agricultural activities in the rural domain; (d) land allocation for the continuation of agriculture in the enclaves or adjacent rural areas; and (e) reconversion for the development and implementation of alternative Income Generating Activities in the rural domain.



46. In terms of IGAs, special emphasis will be given to non-timber forest products (NTFPs) IGAs such as beekeeping and mushroom production and commercialization, which are currently under way with demonstrated success among the forest-dependent communities in the GFs of Béki (cocoa belt) and Kobo (center region). An evaluation of the value chains of these ongoing NTFPs will be conducted at project start and lessons learned will be used in the development of the new NTFPs to be financed with project support.

47. For beekeeping and honey production, the subcomponent will finance (a) capacity building and acquisition of high productivity hives for targeted forest-dependent communities; (b) a marketing study looking at sources of demand, packaging, labeling, and certification options; and (c) small honey processing units for beneficiaries to be organized in cooperatives with support from the project.

48. For mushroom production and commercialization—an activity mostly run by women—the project will work with potential beneficiaries to identify their needs and support them with small equipment to facilitate production, processing, storage, and packaging.

49. Other eligible IGAs may include (a) transformation of agricultural products (that is, cassava into a national dish ‘attiéké’); (b) small livestock production (local poultry, pork, and small ruminants); (c) non-conventional breeding (rabbit, snails, and aulacode); (d) vegetable gardening; (e) organic food cropproduction; and (f) conversion including training to undertake other tertiary jobs.

50. Care International, the NGO selected competitively to implement the DGM IGAs and microprojects, will support implementation of the subcomponent.

### **Component 3: Support Sustainable Management of National Parks and Nature Reserves (US\$12 million equivalent)**

51. This Component will scale up FIP-1 interventions to support sustainable management of national parks located in the cocoa belt that are under threat of cocoa agriculture and illegal artisanal gold panning encroachments. The component is articulated around two subcomponents.

#### ***Subcomponent 3.1: Capacity enhancement for surveillance and ecological monitoring of national parks and natural reserves (US\$7 million)***

52. This subcomponent aims at enhancing the surveillance capacity of OIPR and awareness raising within communities to sustain the integrity of the TNP and adjacent N’zo Natural Reserve and enhance the preservation of Mabi-Yaya Natural Reserve and Mont Peko National Park.

53. The subcomponent will finance (a) provision of drones and training for their effective use to enhance aerial surveillance of the parks; (b) works to restore highly degraded access roads (approximately 200 km) to ease ground surveillance in the northeast and western areas of the TNP and its adjacent Nzo Fauna Reserve, which are under encroachment threat of illegal artisanal gold panning; (c) rehabilitation of degraded quarters for surveillance agents; (d) provision of patrolling vehicles and technical equipment to enhance ground surveillance; and (e) operating costs related to annual surveillance plans of the targeted protected areas.

54. The subcomponent will also finance (a) production and dissemination of communication and awareness raising materials on themes related to illegal artisanal gold mining and its impacts on the environment and human health; (b) agreements with local radio to disseminate awareness raising messages





on the sustainable management of protected areas; (c) awareness raising workshops in schools for environmental education led by local environment NGOs to be recruited and financed by the project; and (d) technical assistance for the scientific monitoring and piloting approaches to natural regeneration of old gold panning sites at the vicinities of the Parks which are hazardous for park rangers and riparian communities.

***Subcomponent 3.2: Support enhanced livelihoods of park adjacent communities (US\$5 million)***

55. The objective of this subcomponent is to reduce human pressure on the targeted national parks and reserves through development and implementation of alternative IGAs to benefit riparian communities including: (i) organic vegetable gardening; (ii) organic food crop production; (iii) animal husbandry; (iv) fish farming and aquaculture; (v) community-based reforestation and agroforestry; and (vi) beekeeping.

56. Two categories of beneficiaries will be eligible to receive subgrants for the development and implementation of IGAs: (a) community associations (average 20 people per association) and (b) individuals. The proposed financing thresholds per community association and individual is as follows:

- (a) Threshold per community associations: US\$20,000 to US\$60,000
- (b) Threshold for an individual microproject: US\$5,000 to US\$10,000

57. Subgrants will be provided to recipients in tranches through mobile transfer to recipients in three installments (40 percent advance payment, 40 percent at midterm, and 20 percent on completion of IGA training and development). For community-based reforestation and agroforestry IGAs around the TNP, payments will be made using a result-based payment approach through mobile money transfer.

58. The subcomponent will also finance works for the establishment of boreholes (identified as a need in the gender gap assessment) for park riparian communities to increase access to potable water (for both women and men) and for establishment of nurseries by women to support vegetable gardening. 'Tricycles' (motorized cargo transport) will also be financed to facilitate women's access to production sites and to the markets for the sale of their agriculture and agroforestry products—given that lack of means of transportation was also identified as a gender gap between men and women.

59. Care International will support implementation of this subcomponent.

**Component 4: Support implementation of Participatory Forest Management Plans of Category 4 GFs in the Savanna (US\$44 million equivalent, of which IDA US\$36 million and SCF FIP trust fund US\$8 million)**

60. The objective of this component is to support the implementation of C4 GFs PFMPs through: (a) establishment and management of production forests through performance-based payment and (b) promotion of partnership with women associations and local private sector for sustainable forest management.

***Subcomponent 4.1: Support establishment and sustainable management of production forests (US\$29 million)***

61. This subcomponent aims at addressing the drivers of deforestation and forest degradation due to harvesting of natural forests for timber and fuelwood, through the development of forest plantations managed sustainably to provide for the country's needs for wood energy and timber.



62. The subcomponent will support SODEFOR in establishing a total of 20,000 ha of production forests, including 17,000 ha of timber plantations with teak and gmelina species and 3,000 ha of fuelwood plantations with *Cassia siamea*, a fast-growing fuelwood species commonly used in Côte d'Ivoire for wood-energy. These plantations will be co-managed by SODEFOR and local community as the project is not supporting commercial harvesting and will ensure that ESS6 requirements related to forestry plantations are being complied with through verification by the independent observation under Component 5.

63. Establishing production forests in highly degraded areas in the GFs will be supported by the following preparatory activities: (a) an analytical study to ascertain soil quality and identify, survey, and map potential plantation sites; (b) field-level works and posts to demarcate areas to be allocated for plantation establishment; and (c) support to established community-led nurseries in the enclaves or adjacent rural lands, for the production of selected adaptive tree species.

64. The subcomponent will finance works for plantation development and for the establishment of fire breaks (manual and/or vegetative) around plantations, which will be closely monitored against potential bushfires (a driver of deforestation and forest degradation) throughout the first four years of growth (when new plantations are most vulnerable to bushfires in the dry season).

65. Local communities will be incentivized through a payment-for-results mechanism to encourage their active participation in plantation works, including, supporting already established nurseries for tree seedlings by women; transporting plants to plantation sites in GFs; and ensuring maintenance of plantations through establishment of fire breaks, removal of weeds, and overall plantations surveillance.

66. Performance-based contracts will be established between farmers, SODEFOR, and UIAP. The project will ensure that performance-based contracts are signed by both men, especially youth, and women as done under FIP-1.

67. Payments will be triggered by (a) the number of seedlings developed in the nurseries by women; (b) stage of field preparation; (c) the number of tree seedlings transported to plantation sites; (d) the number of tree seedlings planted and the percentage of success (that is, well-established seedlings over a grace period); and (e) effective maintenance of planted trees. Performance verification will be carried out by decentralized SODEFOR GF management centers, CLCG, the supervision firm. Mobile payment transfer will be made by MTN based on the verification report to be submitted to it by UIAP. An independent verification firm will audit all performance-based payments on a by-yearly basis and report back to UIAP and to the World Bank. It is expected that through this performance-based system, 4,000 jobs will be created based on an average of 5 ha of reforestation area per farmer, that is, 20,000 ha of degraded GFs that will be reforested through the subcomponent.

68. The performance-based manual for reforestation and agroforestry established for FIP-1 has been revised to support implementation of this subcomponent.

69. The subcomponent will also finance (a) acquisition of patrolling equipment, including vehicles and motorcycles, to enhance the capacity of the decentralized SODEFOR management centers of targeted GFs for efficient surveillance of plantations; and (b) operating costs for monitoring and surveillance of forest plantations.



***Subcomponent 4.2: Promotion of partnership with women associations and local private sector for sustainable forest management (US\$15 million of which IDA US\$7 million and SCF FIP trust fund US\$8 million)***

70. The objective of this subcomponent is to enhance women and local private sector participation in sustainable forest management.

71. **Women participation in forest management.** The subcomponent will work with SODEFOR to establish partnership agreements with women for the management of C4 GFs of Loho, Pyerrhé, and Kobo. The project will also support capacity building in *taungya*; provide women with tree seedlings and agricultural inputs packages; establish boreholes and water points; and provide means of transportation and technical assistance to the women's associations for nurseries development, planting, and tree maintenance.

72. The subcomponent will also provide small grants to women associations for the development and implementation of animal breeding microprojects to further enhance women's access to income through the sale of their agricultural harvest and animal products, as well as for improved food security. Care International will support this activity as part of the partnership agreement with the project.

73. **Partnership with the local private sector for sustainable GF management.** FIP-1 is currently partnering with a local private investor (Nzi River Lodge) that has an agreement with SODEFOR to upgrade the GFs' network that includes Laka-Mafa, Besse-Boka, Fetekro (41,000 ha) as a fauna reserve for biodiversity conservation. FIP-1 financed a 'long fence' to support the demarcation of the Laka-Mafa, Besse-Boka, Fetekro complex from the Rural Domain. FIP-2 will support electrification of the fences to contain the wildlife within the GF complex thereby protecting riparian communities from destruction of their farms by wildlife.

**Component 5: Project Administration, Coordination, and Safeguards (US\$19 million equivalent)**

74. The objective of this component is to support overall daily administration of the project to ensure that regular monitoring and evaluation (M&E) is carried out and there is a feedback loop of findings to inform decision-making on project implementation. The component is implemented through the following two subcomponents.

***Subcomponent 5.1: Project administration, coordination (US\$11 million)***

75. The subcomponent aims at ensuring coordination and close monitoring of project activities. Given the elevated social risk associated with the project, the subcomponent will prioritize large scale communication on project activities and finance at the onset of project implementation, services of a seasoned communication agency which will develop a strong communication strategy with well-designed strategic messages tailored to the project targeted audiences, especially local communities at the grassroots level which may be project affected persons. The communication agency will also develop annual communication plans and campaigns to be deployed throughout the project's life span to ensure continued stakeholder engagement. Local NGOs, regional councils and local administrative authorities will also participate in awareness raising campaigns and their operating costs will be supported by the subcomponent.

76. The subcomponent will also finance: (a) salaries of employees (except for civil servants) dedicated to project implementation; (b) operating costs (workshops) for the establishment and monitoring of annual budgeted work plans and associated Procurement Plans in a participatory and inclusive manner with project technical executing agencies SODEFOR for Components 1, 2, and 4 and OIPR for Component 3; ; and (c)



operating costs for M&E missions. Costs of project annual audits and supervision costs associated with project implementation and meetings such as stakeholder engagement workshops, technical trainings, project launching, midterm review, and completion workshops will also be supported.

77. To ensure an independent evaluation of the project's results, the sub-component will finance services of civil society organizations to carry out independent monitoring of Project implementation through the development of a clear methodology for independent oversight, field missions to collect data and the production of observation reports. A digital system for the monitoring of project activities will also be set up.

78.  
79. The Integrated Project Administration Unit (UIAP), which currently supports all environmental projects financed by the Bank in Cote d'Ivoire, will include full time dedicated environmental and social specialists, a gender specialist with adequate knowledge on SEA/SH, and a stakeholder engagement specialist to respectively ensure the implementation of safeguard documents prepared as part of the Project. This includes adequate resources for equipment, mobilization/travel for the environmental and social team. The UIAP will also retain sufficient experienced and local resettlement expertise through project implementation. This expertise will include at least one full time, highly qualified seasoned resettlement expert and up to three local resettlement specialists to provide support to the UIAP. The subcomponent will also finance the services of an experienced supervision and implementation support firm to support UIAP in project execution. To guide execution and management of project activities, the FIP-1 Project Implementation Manuals (PIMs) have been revised by UIAP to factor in FIP-2. The PIMs also provide details on: (a) the actions and indicators aimed at addressing gender gaps identified during project preparation; (b) potential gender-based violence (GBV) risks related to project implementation and measures to mitigate them; and (c) a grievance mechanism (GM).

***Subcomponent 5.2: Support national capacity building in environmental and social safeguards (US\$8 million)***

80. This subcomponent aims at improving the country's systems for the implementation of World Bank Environmental and Social Framework (ESF) instruments. The subcomponent will finance services of a specialized safeguards firm with experience and knowledge of World Bank ESF to enhance national capacity, including supporting UIAP with project safeguards instruments implementation. The firm will undertake: (a) a needs assessment of all the key stakeholders to establish what capacity already exists and where further training is required; (b) development and implementation of an ESF training plan; and (c) capacity-building support to national institutions, especially the National Environment Agency (*Agence Nationale de l'Environnement*, ANDE) for its decentralization at the local level, SODEFOR, OIPR, CCC, the Ministry of the Environment and Sustainable Development (*Ministère de l'Environnement et du Développement Durable*, MINEDD), MINEF as well as other ministerial entities or agencies in charge of implementation of World Bank-financed projects. This will include technical assistance for the development of environmental and social terms of reference, environmental and social safeguards instruments, environmental and social studies (that is, environmental and social impact assessments), and workshops or forums on the ESF contents and procedure. Table 3 presents the project cost summary.



Table 3. Project Costs Summary

Components	IDA financing (US\$ million)	FIP SCF loan (US\$ million)
<b>Component 1: Support the development of Participatory Forests Management Plans</b>	<b>5</b>	<b>0</b>
Subcomponent 1.1: Support elaboration of PFMPs of targeted C3 GFs in the southwest	4	0
Subcomponent 1.2: Support elaboration of PFMPs of targeted C4 GFs in the savanna area	1	0
<b>Component 2: Support the Implementation of Participatory Forests Management Plans in Category 3 GFs in the Cocoa Belt</b>	<b>68</b>	<b>0</b>
Subcomponent 2.1: Support cocoa-based agroforestry through contracting system with GF farmers	35	0
Subcomponent 2.2: Strengthening the capacity of SODEFOR for sustainable GF management	3	0
Subcomponent 2.3: Support livelihoods restoration for PAPs and income generating activities for GF riparian communities	30	0
<b>Component 3: Support Sustainable Management of National Parks and Nature Reserves</b>	<b>12</b>	<b>0</b>
Subcomponent 3.1: Capacity enhancement for surveillance and ecological monitoring of national parks and nature reserves	7	0
Subcomponent 3.2: Support enhanced livelihoods of park adjacent communities	5	0
<b>Component 4: Support the Implementation of Participatory Forests Management Plans of Category 4 GFs in the Savanna</b>	<b>44</b>	<b>0</b>
Subcomponent 4.1: Support establishment and sustainable management of production forests	29	0
Subcomponent 4.2: Promotion of partnership with women associations and local private sector for sustainable forest management	7	8
<b>Component 5: Project Coordination</b>	<b>19</b>	<b>0</b>
Subcomponent 5.1: Project management and M&E and independent observation	11	0
Subcomponent 5.2: Capacity building in environmental and social safeguards	8	0
<b>Total</b>	<b>140</b>	<b>8</b>

#### D. Project Beneficiaries

81. The primary beneficiaries are: (a) GF cocoa farmers and GF riparian communities; and (b) communities adjacent to national parks and natural reserves. The total estimated beneficiaries are 776,000 people.

82. The secondary beneficiaries are the institutions responsible for GFs and national parks management: SODEFOR and OIPR, as the project will enhance their capacity for managing the protected areas; the Ministries in charge of Forests and Water, Environment, and Agriculture; the CCC; and the CFI institutions for capacity building in agroforestry schemes. Table 4 summarizes the different types of beneficiaries, PAPs, and activities/benefits supported by the project.



Table 4. Summary of Benefits Received by Project Targeted Beneficiaries and/or PAPs

Beneficiaries and Benefits/PAPs and Compensation			
Beneficiaries	Benefits	PAPs	Compensations
<b>C3 GFs</b> farmers and their family members (approximately 437,000 people)	<ul style="list-style-type: none"> <li>• Cash for agroforestry operations</li> <li>• Capacity building in introduction of tree species in cocoa farms</li> <li>• Long-term land exploitation security as they will continue farming in the GFs should they respect the clauses of the agroforestry contracts with the Government</li> <li>• Awareness raising on the content of the CFI, SPREF, new Forest Code, and related application decrees</li> <li>• Participation in the GF management plans' establishment; and awareness raising on the content of the CFI, SPREF, new Forest Code, and related application decrees</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Estimated</i> 3,850 farmers (and their families) with plots in mountain slopes who will implement high-density agroforestry thereby decreasing their cocoa production harvests and farmers with portions of their farms in HCV/HCS zones (mountain tops or wetlands) who will sign non-renewal contracts.</li> <li>• <i>Estimated</i> 300 farmers (and their families) who may decide to opt out of the contracting system (estimate is based on the experience with agroforestry in Béki GF).</li> </ul>	Project support to compensate at replacement cost for assets' loss, excluding land and restore PAPs' livelihoods through IGAs under Subcomponent 2.3
<b>C3 GFs</b> enclave communities (116,000)	<ul style="list-style-type: none"> <li>• IGAs, including NTFPs as reflected in Subcomponent 2.3</li> <li>• Participation in the GF management plans' establishment; ESIA; and awareness raising on the content of the CFI, SPREF, new Forest Code, and related application decrees</li> </ul>	n.a.	n.a.
<b>National parks riparian communities in the cocoa belt</b> (108,000)	<ul style="list-style-type: none"> <li>• Project support through IGAs as reflected in Subcomponent 3.2</li> </ul>	n.a.	n.a.
<b>C4 GFs</b> riparian communities (115,000)	<ul style="list-style-type: none"> <li>• Participation in development of forests management plans</li> <li>• Jobs creation through performance-based reforestation program in production forests, food security through the taungya system</li> <li>• Land use security through taungya based agroforestry agreements with women-led associations.</li> </ul>	n.a.	n.a.
<b>Total: approximately 776,000 people</b>			



Secondary Beneficiaries	Benefits
Cocoa industry	• Participation in project-funded capacity-building activities in cocoa-based agroforestry
SODEFOR	• Technical assistance in cocoa-based agroforestry, equipment for forest surveillance, rehabilitation of forest rangers' living quarters, and operating costs for enhanced forest surveillance
OIPR	• Equipment for improved national parks surveillance, rehabilitation of access roads to national parks, rehabilitation of park rangers' living quarters, and operating costs for national parks enhanced surveillance
SEP-REDD	• Support on Operating costs for MRV of forest cover evolution
Sectoral ministries involved in forest management	• Capacity building in agroforestry schemes and operating costs for their involvement in project supervision
Regional councils and local administrative entities	• Capacity building in agroforestry schemes and operating costs for their involvement in awareness raising at the grassroots level in support to field level activities implementation.
Nongovernmental institutions	• Support on Operating costs for monitoring of project activities and for their participation in conservation activities in national parks and natural reserves
Local private sector	• Support conservation activities and participation in training in GF surveillance techniques

## D. Results Chain

83. Forest cover in Côte d'Ivoire has been declining steadily and studies (BNETD 2016) indicate that GFs are under the greatest threat. The project has designed targeted activities to address the drivers of deforestation and forest degradation. A combination of cocoa-based and *taungya*-based agroforestry schemes, IGAs, and large-scale reforestation is expected to increase forest cover and income generation for farmers and reduce the likelihood of further encroachment into forests.

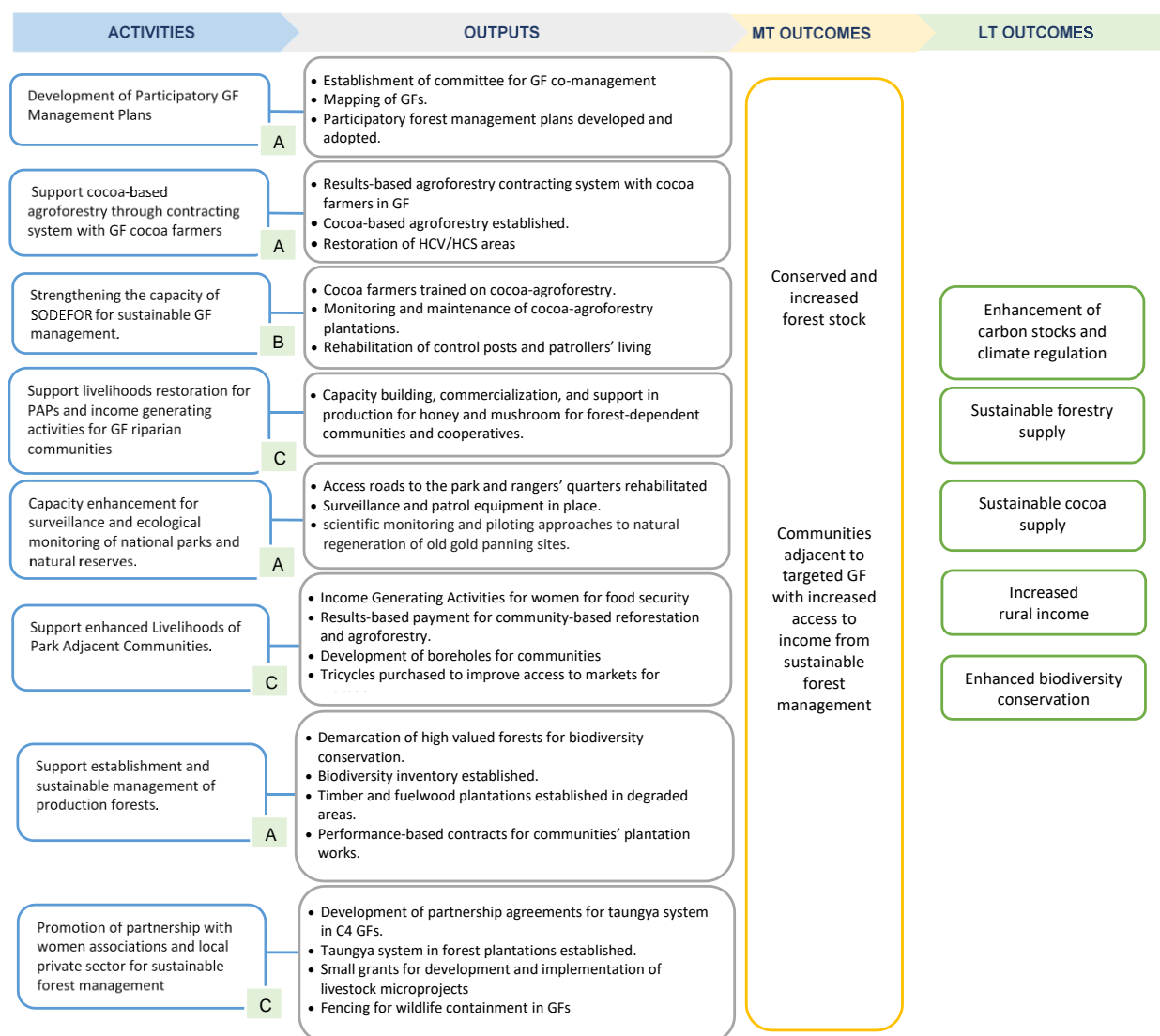
84. New plantations will be established on degraded lands to increase timber and fuelwood production to meet urban wood and energy demands. Improving management for conservation in areas that hold higher biodiversity, and sustainable extraction of forest resources for increased income and easier consumption, will contribute to the maintenance of the country's existing forests.

85. The project is designed to address multiple drivers of deforestation and enhance forest governance. All activities will be supported through technical assistance, so that the species and technologies adopted are appropriate to the country context. All measures will be designed using inclusive stakeholder participation and selected incentives so that the activities remain sustainable after the project period. These forest management-focused activities will, in the long-term, build the resilience of communities and reduce emissions from deforestation and forest degradation.





Figure 2. Results Chain



#### Critical Assumptions for FIP-2 success

- A. Quality of inputs/assets and works provided and performed
- B. Conducive regulatory and institutional landscape within forestry
- C. Willingness of communities to engage in project activities: performance-based payments, sub-grants for IGAs, and forest co-management.





## E. Rationale for World Bank Involvement and Role of Partners

86. **The rationale for World Bank involvement is multidimensional.** The World Bank brings valuable support through technical expertise in forestry, landscape, and climate issues. It conducts technical analysis; provides advice; and designs projects to address countries' critical adaptation and mitigation needs, including sustainable land management, forest and land use, climate-smart agriculture, as well as building resilience into infrastructure investments. In Africa, the World Bank's environment and natural resources portfolio focuses on promoting sustainable and resilient management of natural resources and helping countries with adaptation, as well as mitigation, of climate change impacts. The World Bank can provide expertise to Côte d'Ivoire based on a large staff of technical and sectoral experts in key fields. To support countries' initiatives toward reduced emissions from deforestation and forest degradation, the World Bank hosts a range of carbon and climate finance mechanisms, which provide technical and financial support for transformational changes in land use and forestry.

87. **The World Bank also has a legacy of related assistance to Côte d'Ivoire** through (a) the REDD+ mechanism (FCPF-Readiness and Carbon Fund Emissions Reduction Program); (b) the Climate Investment Funds (FIP-1 and DGM); and (c) other projects in the environment sector such as the West Africa Coastal Areas Management Program (WACA) and the Obsolete Pesticides Management Project. Consequently, the project is well-positioned with a view to ensuring local ownership and longer-term sustainability. In addition, the World Bank's multisectoral work allows for a more integrated approach to the intersection of deforestation and the cocoa sector as illustrated by the programmatic approach and coordination of activities between FIP-2 and the PDIC.

88. Additionally, the World Bank's mandate allows it to act as a convening power for all governmental actors, other development partners, the private sector, and NGOs involved in environment and natural resource use reforms. In the case of the Côte d'Ivoire, the Ministry of Environment and Sustainable Development, Ministry of Agriculture, Livestock Department, Ministry of Economy and Finance, regional councils, community governance institutions, and traditional authorities. The project was prepared in close coordination with other development partners, including, among others, the European Investment Bank, the cocoa industry, and the World Cocoa Foundation. Consultations were conducted with these partners to ensure complementarity of interventions, notably with the cocoa industry, which may be granted agroforests concessions by the Government. Continued dialogue will be maintained throughout project implementation to strengthen synergy of actions.

## F. Lessons Learned and Reflected in the Project Design

89. The project design benefits from a range of lessons learned from experiences from FIP-1 as well as national, regional, and international efforts to promote effective forest restoration, afforestation, conservation, and enhanced livelihoods of communities. The project's design incorporates a landscape approach (specifically taking into account sectoral concerns in agriculture, forestry, and community development) in recognition of lessons learned globally on the complex set of actors, activities, and environments at play in a large-scale forest investment. It also incorporates lessons from well-proven forestry initiatives. First and foremost, the country has gleaned a significant set of lessons through its work over the past 10 years in implementing the REDD+ process. The studies and work undertaken through the national REDD+ and Readiness Fund have directly affected the design of project activities and components. In particular, results from pilots and studies related to sustainable forest management have significantly informed the design of key project components. Experiences from the Forests Law Enforcement, Governance, and Trade Action Plan in Côte d'Ivoire have also informed project design with regard to improved forest governance and monitoring for control of destructive practices.



90. **Involving local communities.** The importance of co-management with community and stakeholder involvement for successful implementation of restoration and conservation initiatives has been shown in several other countries and regions over the past decades. Over the past 15 years, for example, Benin has demonstrated leadership in involving forest-dependent communities in co-management and forest surveillance as well as commitment within its own forestry administration to these principles. Project design elements for co-management, community, and stakeholder participation are based on lessons learned from the Benin experience through direct cooperation between the two countries' forestry departments.

91. The project design draws on significant World Bank experience on sustainable forest management especially the Forest Sector Program, which succeeded in significantly reducing new agricultural encroachment within the GFs during 1991–1995. However, the Forest Sector Program demonstrated that its strategy could be most effective in sustainable management of forest resources when local population was involved. This represents an approach that this project aims to replicate and implement. Today, there is a strong political commitment to sustainable forest management as demonstrated by the recent forest sector policy, that this project will pilot, and the increased support from donors through the REDD+ mechanism and other climate funds.

92. Finally, the design of actions to support the enhanced surveillance and management of national parks stems directly from the World Bank's extensive experience in projects focused on protected area management, biodiversity conservation, and the use of conservation trusts throughout Sub-Saharan Africa.

### III. IMPLEMENTATION ARRANGEMENTS

#### A. Institutional and Implementation Arrangements

93. **Steering Committee/Comité de Pilotage (COPIL):** FIP-2 COPIL will be chaired by the Minister of Water and Forest. The COPIL will have high-level representatives from the key sectoral ministries and agencies involved with the project (Prime Minister's office, Agriculture and Rural Development, Environment & Sustainable Development, Budget, Planning & Development, Solidarity Poverty Alleviation, Women/Family/Children, Research, Industry and Mining) as well as the General Directors of SODEFOR and OIPR, CCC and the Cotton and Cashew Council.

94. The COPIL is responsible for: (a) approving policy guidelines and providing overall supervision for project implementation; (b) approving the annual work plans and budgets (AWPBs); and (c) reviewing the annual implementation performance report to be prepared by the project and overseeing the implementation of corrective actions, when necessary. The COPIL will meet twice a year (ordinary meetings) to review and validate the FIP-2 annual budgeted workplans and may also call for extraordinary meetings as needed to discuss and resolve issues that might hinder project implementation.

95. **The COPIL is assisted by a Technical Committee** comprising seasoned and technically sound professionals from the key sectoral ministries involved with the project. The Technical Committee will ensure prior technical review of all project orientation documents, including the AWPBs before their submission for approval by the COPIL.



96. **Project administrative and fiduciary coordination will be ensured by UIAP** which was established by Inter-Ministerial Decree (MINEDD, MINEF and MEF) in July 2020 and currently coordinates two World Bank-financed projects: FIP-1 (P162789) and West Africa Coastal Areas Resilience Project (P170916). The projects are supported by the following shared administrative and fiduciary support services: (a) financial management; (b) procurement; (c) monitoring and evaluation; (d) environmental and social safeguards which will be enhanced with a gender specialist with adequate knowledge on SEA/SH; and (f) communication and stakeholder engagement. UIAP capacity will also be enhanced with seasoned involuntary resettlement expertise and operating resources to support elaboration and implementation of resettlement and livelihoods restoration plans for the benefit of PAPs. The Steering Committed Secretariat is ensured by the UIAP general Coordinator.

97. Project administrative and fiduciary coordination will be transferred to a Project Directorate to be established at the Ministry of Water and Forests within 6 months to one year after project effectiveness. The Directorate will be staffed with experienced project core team to be competitively recruited: (a) project coordinator; (b) M&E Specialist; (c) Financial Management Specialist; (d) Procurement Specialist; (e) Communication Specialist; and (f) Safeguards Specialists. Their capacity will be enhanced as needed by the World Bank team. Close monitoring of project activities will be supervised by the Minister as the President of the Project Steering Committee.

98. **Technical execution will be ensured by SODEFOR for (Component 1, 2 and 4).** The Director Generals of the respective agencies will establish technical project execution units staffed with: (a) a designated technical coordinator; and (b) designated field-based personnel for the execution of agroforestry, reforestation and conservation activities. In addition, community development agents will be competitively recruited and based at the village level and under the responsibility of SODEFOR decentralized GF management centers in San-Pédro for Rapides Grah and Haute-Dodo and in Guiglo for Scio, to support agroforestry activities at the grassroot level. The five SODEFOR decentralized centers in the center and northern regions (Hambol, Gbèkè, N'Zi, Bagoué and Tchologo) will be responsible for the reforestation activities in targeted 16 GFs.

99. Technical Assistance for Agroforestry and forest restoration will be recruited at the onset of project implementation and housed at SODEFOR for capacity enhancement in agroforestry and reforestation activities. The firm will also: (a) support with coaching/mentoring cocoa farmers for the introduction of tree species in their plots as well as tree maintenance to balance the ratio of sun-to-shade in cocoa farms; and (b) train farmers in best agricultural practices including intensification and sustainable land management.

100. **The three decentralized OIPR directorates located in the Southwest (Soubré), East (Adzopé), and West (Man)** will be responsible for conservation activities implementation respectively for TNP/Nzo fauna reserve, Mabi-Yaya and Mont-Péko.

101. **Supervision/implementation support firm** will be recruited to ensure the overall supervision, oversight and monitoring of the implementation of all project activities executed by SODEFOR, OIPR, Care as well as UIAP. The supervision firm will be recruited by year one of project implementation.

102. **Care International** will have overall responsibility for development and implementation of livelihoods restoration activities for PAPs and of alternative IGAs for GF riparian communities. Care's work will be supervised technically by OIPR and SODEFOR, and UIAP (for use of funds) with oversight by the supervision firm.



103. Independent observation and verification: Independent monitoring of the implementation of several aspects of the project will be carried out including: (a) payment-for-results mechanism; (b) production forests establishment and management; (c) agroforestry implementation in GFs in line with GFs management plans; and (d) monitoring project activities to prevent potential use of child labor on forest plantation sites. The civil society report will make it possible to verify that the activities implemented have respected the commitments made and that the results presented are consistent with the reality on the ground. The civil society team will: (a) develop a clear methodology for independent oversight focused on a set of issues to be agreed upon with the World Bank; (b) receive all information necessary for oversight; (c) carry out field missions to collect data; and (d) produce observation reports.

104. The PIMs that have been developed during project preparation to provide further details on the institutional and implementation arrangements.

## **B. Results Monitoring and Evaluation Arrangements**

105. **Project M&E:** Project M&E will serve to: (a) monitor and report on implementation progress as agreed in budgeted annual workplans; (b) proactively identify gaps during implementation and take immediate corrective actions; and (c) assess and report on the achievement of planned outputs, outcomes, and impacts according to the project's results framework. The M&E system will focus on tracking project results and providing gender-disaggregated data whenever possible based on baselines established during project preparation.

106. **Overall M&E:** Overall M&E will be ensured by the UIAP, SODEFOR and OIPR. UIAP will be responsible for data collection, upstream monitoring and reporting to the FIP COPIIL and to the World Bank on an annual basis, and overall progress toward achieving the intended project results. Specific elements of the M&E system will include (a) technical, procurement, and FM audits; (b) ESF obligations; (c) analysis of intermediate project outcomes and the strength of the participatory GF management, cocoa-based agroforestry, the *taungya* system, and performance-based payment contracts (through an analysis to be provided by an independent observer); and (d) impact evaluation of the living conditions of GF farmers and riparian communities. The carbon impact will be monitored using proxies and will rely on the MRV system and more generally on the online system that is already in place and provides information on forest cover change (supported by the Food and Agriculture Organization [FAO]).

107. **Monitoring Reporting and Verification (MRV) of emissions reduced:** The MRV service housed within the SEP-REDD will be responsible for monitoring emissions reductions generated by the FIP-2 activities. These emission reductions will be verified and accounted for before triggering carbon payments through the ERP. The Côte d'Ivoire Parks and Reserves Foundation is the fiduciary entity that will receive funds from the FCPF Carbon Fund and will be responsible for transferring carbon payments to FIP-2 beneficiaries in line with a benefit sharing plan, as approved by the Carbon Fund Participants in August 2021.

## **C. Sustainability**

108. **Project activities are significant and transformational, particularly with regard to the involvement of communities.** Successful implementation of the project activities will create a new, more collaborative, and sustainable approach to forest management in target areas. In particular (a) the focus on GF co-management with forest dependent communities; (b) GF management partnerships with women-led associations for their sustainable management using *taungya*-based agroforestry; and (c) the performance-



based reforestation program, presents the potential to create the conditions for long-term change in community perception of forest management and control that could create models for and positively impact the sustainability of resources use.

109. Furthermore, the high rate of deforestation and degradation observed in Côte d'Ivoire over the past five decades led the country to become involved in the international REDD+ process in 2011. Côte d'Ivoire's political commitment to the national REDD+ process was then embodied in Decree No. 2012-1049 of October 24, 2012, which was signed by the President following its adoption by the Council of Ministers upon the joint proposal of the Ministers of Environment, Water and Forests, and Agriculture. This decree lays the foundation for the national REDD+ process and provides for the establishment of REDD+ readiness management structures. This political commitment to the national REDD+ process is also manifested in the country's endorsement of the New York Declaration on Forests, which aims to eliminate deforestation caused by agriculture by encouraging companies to adopt zero-deforestation policies and encouraging local administrations to manage their forest resources appropriately. This commitment to the REDD+ process provides the basis for direct government support for the implementation and goals of FIP-2 and ensures sustainability of project results. Furthermore, the project helps address the issues of deforestation and forest degradation on a long-term basis by lending direct support to the Government's 2017 commitments under the CFI (with clear action plans for zero-deforestation cocoa cultivation) and forward-looking commitments under the SPREF (recovering the country's forest cover from its current 11 percent to 20 percent by 2040).

#### IV. PROJECT APPRAISAL SUMMARY

##### A. Technical, Economic and Financial Analysis

###### Technical

110. The proposed project builds on FIP-1, developed to address key drivers of deforestation and forest degradation in Côte d'Ivoire through agriculture intensification, agroforestry, restoration of degraded forests, afforestation, and promotion of alternatives to timber and fuel wood extracted from GFs. The project will follow international good practice guidelines for the implementation of sound agroforestry and climate-smart agriculture in partnership with the World Bank-financed PDIC (P168499). The PDIC will also partner with the Department of Agriculture to provide technical guidance to cocoa farmers in agricultural intensification and with research Institutes for the development of guidance on use of alternatives to pesticides in the *taungya* system and in cocoa agroforestry farms. SODEFOR (in charge of implementing project activities in the GFs) and OIPR (in charge of national parks) have demonstrated track record and technical capacity to implement their respective project activities.

###### Economic and Financial Analysis

111. **The economic analysis shows positive outcomes for the project.** The cost-benefit analysis demonstrated positive results across almost all sensitivity scenario and data assumptions (Table 5). This analysis compares the project costs US\$148 million and operation and maintenance costs (suggested as one percent of the capital costs during years 7-20 of the project life) with the project benefits, both discounted to 2022 (the baseline year).

112. **Benefits.** While the project generates a wide range of benefits, only some of them could be estimated in monetary terms, they include: benefits resulted from improved productivity of climate resilient cocoa agroforestry systems, timber (teak), fuelwood plantations and *taungya* intercropping, increment ecosystem



services due to reduced deforestation and land degradation, and income increase for the beneficiaries participating in IGAs. Other benefits are discussed in a qualitative manner.

113. **Global benefits.** In addition to the benefits mentioned above, the project generates global benefits in terms of the reduced greenhouse gas (GHG) emissions. The EX-ACT model estimated the net GHG emission **reductions at about 17.9 million tCO<sub>2</sub>eq** over a period of seven years (see annex 3 and 4 for more details). The economic value of emissions reductions is calculated following methodology of the World Bank (2017) guidance, which suggests a shadow price of carbon of US\$42/tCO<sub>2</sub> (low scenario) and US\$82/tCO<sub>2</sub> (high scenario) for 2022, with an annual increase of 2.25 percent.

114. Considering project costs and benefits, under 6 percent discount rate the net present value (NPV) is estimated to be US\$508 million, Internal Rate of Return 28 percent and the benefit-cost ratio 4.9 (without accounting for carbon and ecosystem net benefits). When shadow price of carbon and ecosystem net benefits are considered, the project NPV varies between \$575-1,249 million (6 and 10 percent discount rate accordingly), and benefit-cost ratio between 6-11 (Table 5). Methodology and assumptions are described in annex 3. To test the robustness of the initial results, the economic benefits were reduced by 50 percent; conservative yield scenario was applied to estimate benefits from cocoa agroforestry, timber, and fuelwood plantations.

115. **Non-quantifiable benefits.** The proposed project will generate a wide range of important environmental benefits from reduced deforestation, ecosystem degradation, promoting carbon sequestration, improved sustainability, and long-term climate resilience of cocoa agroforestry production, leading to diversified income of rural population and overall system resilience to climate change impacts. These benefits were not quantified in the economic analysis due to data limitation. Hence the real benefits of the project are much higher.

**Table 5. Summary of Cost Benefit Analysis**

	Benefits (High Shadow Price of Carbon)		Benefits (Low Shadow Price of Carbon)		Benefits (No carbon)		Benefits (No carbon, no ecosystem benefits)	
	6	10	6	10	6	10	6	10
Discount rate (%)	6	10	6	10	6	10	6	10
NPV (US\$ mln)	1,249	865	995	575	514	306	<b>508</b>	301
B/C ratio	10.6	8.8	7.7	6.2	5.0	3.8	<b>4.9</b>	3.7
IRR (%)	> 100%	> 100%	> 100%	> 100%	28	24	28	23

## B. Fiduciary

116. The FM system established under the original FIP-1 managed by the UIAP, and associated FM performance, are considered acceptable to the World Bank. UIAP is familiar with the World Bank FM requirements as it is currently managing three other World Bank-financed projects in addition to the FIP (P131778, P149810, and P162337). As such, the FM arrangements for FIP-2 will follow the same approach as those in place for the ongoing FIP-1—under the responsibility of the UIAP, which remains the World Bank's focal point. The current FM staffing complement is adequate, consisting of one financial controller (assigned to the project from the Ministry of Budget) and one public accountant (*Agent comptable du projet*) (assigned to the project from the Ministry of Finance). However, the observed ineffectiveness of the internal audit function for FIP-1 and the weak mechanism for managing operating costs among the various projects administered by UIAP call for immediate attention. For FIP-2, the fiduciary risk has been assessed as Substantial for the following reasons: (a) a multitude of actors, resulting in a large number of transactions expected; (b) beneficiaries based in geographically remote areas and scattered across the country; (c) fund





transfers to implementing agencies for direct management; and (d) the lack of effective internal audit function during the first phase of the project.

117. **Internal control:** to mitigate the identified risks, the Inspector General (*Inspection Générale des Finances*, IGF) of the Ministry of Finance should include the project in its annual work program and allocate budget to the government institution of control to help fulfill its mandate effectively. The IGF will be required to conduct and submit to the World Bank, at a minimum on a quarterly basis as required by Arrêté 106, a detailed report of the internal audit missions covering procurement, FM, and operational aspects of the project (physical inspections). The configuration of the current accounting software 'TOM2PRO' will be updated. The existing FM procedures manual (prepared during the FIP1) has been adapted to FIP-2, with updates relevant to the new project objectives. The ToR of the external auditor will be revised to include the expanded scope and new activities added to the project.

118. **AWPB.** UIAP will be responsible for preparing the project's AWPB based upon the agreed program to be financed. The AWPB will provide detailed information on the amount allocated to each implementing entity per activity, with per-unit costs and quantities. The project will submit the AWPB, approved by a COPIL, to the World Bank for 'no objection' no later than November 30 of the year preceding the year when the work plan should be implemented.

119. **Reporting.** The format and content as well as the frequency of the preparation and submission of unaudited interim financial reports (IFRs) to the World Bank will remain unchanged. Under the ongoing phase of the project, IFRs are prepared every quarter and submitted to the World Bank regularly on time (within 45 days following the end of each quarter) and deemed acceptable to the World Bank. There is no overdue IFR.

120. **Internal audit.** The capacity of the IGF, a government institution of control in charge of the internal audit function of World Bank-financed projects in Côte d'Ivoire, will be strengthened. To address the limitation observed during the first phase of the project, sufficient budget will be allocated to the IGF to strengthen its capacity to fulfill its responsibilities as internal auditor in a satisfactory manner. The budget allocated to the IGF would increase its staffing and it would conduct at least two full review missions per year covering procurement, FM, and operational aspects of the project. According to Arrêté 106 of February 2018, the reports of such missions would be communicated to the coordinator, the COPIL, and the World Bank.

121. **Audits.** There is no overdue audit report for FIP-1 or the sector nor at UIAP. The project accounts will be audited on an annual basis and the external audit report will be submitted to the World Bank no later than six months after the end of each calendar year—similar to FIP-1. The ToR of the current external auditing firm will be updated to reflect the scope of FIP-2. The project will comply with the World Bank disclosure policy of audit reports and place the information provided on the official website within one month of the report being accepted as final by the team.

122. **Disbursements.** Upon credit effectiveness, transaction-based disbursements will be used. The credit will finance 100 percent of eligible expenditures, inclusive of taxes. A new Designated Account (DA) will be opened at the Central Bank of West African States (*Banque centrale des États de l'Afrique de l'Ouest*, BCEAO) and a project account will be set up in a commercial bank under terms and conditions acceptable to the World Bank. The ceiling of the DA will be indicated in the Disbursement and Financial Information Letter. An initial advance up to the ceiling of the DA will be made and subsequent disbursements will be made against submission of statements of expenditures (SOEs) reporting on the use of the initial/previous advance. The option to disburse against submission of quarterly unaudited IFRs (also known as report-based



disbursements) will be considered during implementation based on FM performance. Other methods of disbursing the funds (reimbursement, direct payment, and special commitment) will also be available to the project. The minimum value of applications for these methods is 20 percent of the DA ceiling. The project will sign and submit withdrawal applications electronically using the eSignatures module accessible from the World Bank's Client Connection website. Funds will be disbursed to decentralized or specialized implementing entities on the basis of a three-month budget depicted under a work plan.

123. **Based on the residual FM risk deemed to be Substantial, the project will be supervised biannually.** The objective of these supervision missions is to ensure that the project FM arrangements still operate well and that funds are used for the intended purposes and in an efficient, economic, and transparent way.

### C. Procurement

124. **General.** Procurement for the proposed project will be carried out in accordance with Procurement Regulations for Investment Project Financing (IPF) Borrowers of November 2020, and the Guidelines on Preventing and Combatting Fraud and Corruption in Projects financed by IBRD Loans and IDA Credits and Grants (revised as of July 1, 2016)

125. A new Procurement Code (Order N°2019-679 dated July 24, 2019) has been adopted in Cote d'Ivoire, in line with the West African Economic and Monetary Union (WAEMU)'s Procurement Directives and international good practices, along with key implementing regulations and documentation. An electronic system for collecting and disseminating procurement information and for monitoring procurement statistics has been set up and needs to be mainstreamed in the work of all contracting authorities.

126. **Publication of Procurement Opportunities.** The publication of procurement notices including General Procurement Notices (GPN) and Specific Procurement Notices (SPN) will be in line with para 5.22, 5.23, and 5.24 of the Regulations. A GPN would be published on UNDB Online and World Bank's external website as soon as the project is approved. SPN Requests for Expression of Interest and results of the evaluation and contracts award will be published in accordance with advertising provisions in the Procurement Regulations mentioned above.

127. The Procurement Project Strategy for Development (PPSD) was finalized prior to negotiations to analyze the key features of the project and related procurement risks and opportunities, building on the lessons learned from similar projects. The FIP 2 financing is US\$148 million, of which 25.59 percent is for procurement activities by the fiduciary team of the UIAP. The project will approach the international market (international competitive procurement), as appropriate when the participation of foreign firms will increase competition and may assure the achievement of best value for money and fit-for-purpose results. This is the preferred approach for complex, high-risk, and/or high-value contracts. The World Bank has set specific thresholds for this purpose.

- **Goods:** mainly concern standard goods and equipment, similar to those purchased for the implementation of the FIP1. They are available in the local environment. However, for vehicles, water navigation equipment and drones, due to their security nature, they will be subject to an agreement with UNOPS for their delivery. In addition, these goods could be subject to supplier speculation due to the ongoing crises (Ukraine crisis and COVID-19 pandemic). Goods are valued at US\$5.86 million i.e., approximatively 3.96 percent of the financing amount.
- **Non-consulting Services:** These activities are related mainly to agreements with local radio stations, OIREN and MTN. These activities relate to the operation and coordination of the project, are repetitive





in nature, and are already mastered by the teams in charge of project management. Non-consulting services are valued at US\$1.53 million or 1.04 percent of the financing.

- **Consultant services:** These are approximately 16.46 percent of the financing amount, i.e., US\$24.36 million (including key personnel). They mainly concern the recruitment of locally available firms or agreements with specialized public institutions. Recruitment of key personnel estimated at US\$7.63 million, or 5.16 percent of the funding, will be done in accordance with national procedures, with the major change from FIP-1 being the recruitment of a community development specialist, six Community Development Officers, experienced Resettlement Specialists and a gender Specialist. Several agreements will be signed with various public entities specialized in specific areas such as the depollution of gold panning sites and others.
- **Works:** are approximately US\$6.1 million or 4.13 percent of the financing, and mainly concerns the rehabilitation of access roads and living quarters in protected areas and the rehabilitation of access roads and creation of firebreaks in targeted Gazetted Forests. For all of these procurement activities, the World Bank's Standard Procurement Documents will be used for all selection processes for international competitions. National competition selections will follow paragraphs 5.3 through 5.6 of the Regulations.
- **Risk assessment.** The project risk is assessed as Moderate. The table below establishes risk analysis along with mitigation measures and of responsibilities:

Table 6. Risk analysis, mitigation measures and allocation of responsibilities

Description of the risk	Mitigation measures	Risk owner
Lack of capacity in the elaboration of the Terms of Reference	Strengthen the capacities of the staff in charge of drafting the ToRs	SODEFOR
Lack of capacity in procurement according to World Bank procedures at the level of the executing structures	Training on World Bank procedures for staff involved or dedicated to the procurement process	Client
Inefficiencies and delay in the design of the bidding documents (poor description of goods, works and Terms of Reference during the elaboration of bidding documents or request for proposals / quotations	Involve, each time, the technical services and the beneficiaries in the elaboration of these document packages. For technically complex packages, solicit experts for their support in the development of Terms of Reference or Technical Specifications Involve the supervision firm in the development of the Terms of Reference and the DAO and the technical specifications.	Client
Delay in the evaluation of offers/proposals: Failure to respect the 5-day deadline imposed by decree 475 for the evaluation of offers. Difficulties in scheduling sessions due to the immediate unavailability of the Head of the Procurement Unit of the Ministry and the General	Organize residential evaluation sessions for major markets Imposing deadline performance objectives on the actors concerned Strictly comply with the procurement deadlines set out in the Procurement Plan Sensitize the members of the evaluation commission (COJO) to the ownership of the objectives set for the project in order to facilitate	Client



Description of the risk	Mitigation measures	Risk owner
Directorate of Public Procurement	the work during the phases of evaluation and decision/ruling of the offers.	
Delay in respecting the deadline for signing and approving contracts	Follow up on the packages sent for approval Report difficulties or impediments to the Portfolio Coordination at the Ministry of Economy and Finance if possible, to benefit from its support	Client
Delay in delivery time	Regularly monitor the progress of the execution of contracts through meetings between the service provider, the project coordination unit and the other stakeholders in the implementation/procurement process Provide for and strictly apply late payment penalties.	Supplier
Delay in the payment of the invoice of the supplier/provider	Process the financial packages in time and the accountant in charge of the project will regularly monitor the processing channels. Imposing performance objectives for invoice processing timelines on the actors concerned	Client
Decreased productivity due to impacts of COVID and war in Ukraine	Ensure the availability of supplies or the period of availability before the start of consultations	Client

128. **Procurement from UN agencies.** There may be situations where direct procurement from UN agencies may be the most appropriate method. In such circumstances, the project would make specific arrangements with the respective UN agencies through a single-source selection; in turn, the agencies would then follow their own procurement procedures to purchase and deliver the goods and services needed.

129. **Care International:** There is (a) an agreement (protocol) between Care, OIPR, and UIAP project implementation to specify duties and remunerations, and (b) an IGA manual that has been developed by the Government to support implementation. Both the agreement and the manual will be reviewed and approved by the World Bank and signed during the first year of project implementation. The manual and agreements will include all procedures and forms for community projects.

130. **Assessment of the procurement capacity of the implementing agency.** Implementation of the project will be entrusted to UIAP along with the associated fiduciary responsibilities (procurement and FM). A capacity assessment of UIAP—which is currently implementing the initial financing of FIP-1 and WACA—was carried out, with a focus on (a) the person in charge of the procurement process within UIAP; (b) the procedure manual of UIAP; and (c) the expertise of UIAP in terms of the procurement process. The capacity assessment has shown that UIAP has the required experience, skills, knowledge, personnel, and procedures manual according to World Bank standards for implementation of the project on time. Although UIAP has the fiduciary management of many projects financed by the World Bank, some problems appear in the daily management of the procurement activities. The assessment revealed that UIAP has a procurement specialist and an assistant who are both familiar with and recently trained on World Bank procedures. The procurement specialist received training on the new procurement framework and specifically on the PPSD. He has also been trained on contract management to cope with the challenges anticipated with the new project.



According to the new procurement framework, the procurement specialist is now responsible for contract management of the project. Thus, the procurement team needs to adapt their procedures.

131. **Procedure manual.** Given the UIAP's previous involvement in the execution of World Bank projects, there is an established procedures manual in place that is aligned with World Bank requirements. That manual has been updated to meet the requirements of this new project.

132. **Strengthening of procurement capacity.** Despite the UIAP's experience in World Bank FM and procurement procedures through its involvement in several projects, the quality of the procurement documents and contract management could be improved. In this context, to minimize the risks identified, it is suggested that one qualified procurement specialist be dedicated to the project's implementation. Training in procurement and contract management before the implementation will also be conducted to improve the skills of the UIAP team, including the technical agencies such as SEP-REDD, SODEFOR, and OIPR. The CV of the appointed specialist will require submission for review by the World Bank. If the specialist needs to be recruited, the selection should be done through a competitive process according to World Bank procedures.

133. Project coordination will be transferred to the Ministry of Water Resources which will establish a Project Directorate within six months to one year after project effectiveness. The procurement capacity of this Directorate will be assessed in due course and its procurement capacity will be strengthened as needed for the smooth transfer of the project.

#### D. Environmental and Social

134. This project has the potential to substantially reduce deforestation in Cote d'Ivoire and to transform and improve the lives and livelihoods of thousands of farmers, forest dwellers and vulnerable people in the project area. Project activities will contribute to increase and conserve forest cover in 16 GF and 4 Natural Reserves and Parks [covering a surface area of over 1.1 million ha (Table 1.1)]. It will also contribute to implement agroforestry as a win-win solution to restore forest cover and enable sustainable cocoa production in 3 GF [(covering a surface area of 0.5 million ha (Table 1.1)] that are already heavily degraded. Project activities will improve the livelihood of 800,000 people (Table 4) and provide support to the poorest so they can increase their incomes and support for their families, provide protections and incentives to reduce the risk of child labor. The project will also eliminate the threat of forced evictions from the targeted Gazetted Forests. However, the nature, characteristics, and scope of activities may also pose complex and multidimensional environmental and social risks and impacts. At approval, the project has been categorized as '**High**' per the Environmental and Social Framework (ESF)

135. The Government has prepared the following environmental and social management instruments to support project implementation which were disclosed in country on May 13, 2022 and on WB website on May 28, 2022 (a) an Environmental and Social Management Framework (ESMF) incorporating provisions for integrated pest management and cultural heritage management; (b) a Resettlement Framework with an annexed Livelihoods Restoration Strategy (LRS); (c) an Environmental and Social Commitment Plan (ESCP); (d) a Stakeholders Engagement Plan (SEP); and (e) Labor Management Procedures (LMP), including child labor risk management, and (f) a Social Conflict Study to mitigate potential environmental and social risks and impacts associated with the project activities. The necessary costs for environmental and social sustainability as described in the ESMF are included in the project budget.



## Environmental Standards

136. **Participatory Forest Management Plans.** The implementation of PFMPs could result in environmental, economic and social risks and impacts. To mitigate those risks, the Government and the World Bank clarified the sequencing between the preparation and implementation of a PFMP as follow: (a) preparation of a PFMP; (b) adoption of the PFMP by the MINEF through a Ministerial *Arrêté*; (c) preparation for each PFMP a detailed census, ESIA, RP and LRP, satisfactory to the World Bank and (d) implementation of the RP and LRP. Above activities (a), (b) and (c) have to be completed before starting agroforestry implementation.

137. **Agroforestry.** The project will introduce agroforestry in 3 GF already highly degraded. This activity could necessitate the use of pesticides with negative impacts on the environment. To mitigate this risk, project beneficiaries, including cocoa farmers and forest-dependent communities involved with this activity, will be required to apply good pest management approaches in line with the ESMF and the integrated pests and pesticides management plan, in addition to adopting, as much as possible, alternatives to chemical pesticides (that is, approved biopesticides).

138. **Establishment of production forests for timber and fuelwood.** These activities could take place in areas containing tangible and intangible cultural heritage, important to local communities (holy/secret sites such as sacred groves, sacred forests, and so on). The implementation of these activities will be guided by the ESMF. If any intangible and tangible cultural heritage is identified or determined to be affected during implementation, a 'chance find' procedure will be followed. This procedure sets out how chance finds associated with the project will be effectively dealt with, in compliance with ESS8 requirements. It will be included in all contracts relating to the project's activities. All works in and around the cultural heritage site will cease until the case is declared resolved by an expert, and in accordance with relevant authorities.

139. The **environmental management of FIP-2** in Côte d'Ivoire will be based on the implementation of the safeguards instruments: the project's ESMF and site specific ESIA as well as other safeguard instruments to be prepared during project implementation

## Social Standards

140. **At approval, the social risk rating is considered High.** This reflects concerns related to potential economic and/or physical displacement, limited capacity of the UIAP to manage this scale of impact and other factors such as history of social conflict relating to land tenure and use rights, and the fact that the project intervenes in an area with a large migrant population. During project preparation, a *Social Conflict Study* was done and helped identify the various types of potential conflicts and associated mitigation measures. In addition, the PFMPs will clarify land use in Gazetted forests. It is estimated that approximately 4,000 households will be economically and/or physically displaced in HCV and HCS zones of the 3 GFs Category 3 (Haute-Dodo, Scio, and Rapides Grah). A RF with an annexed LRS have been prepared to address these impacts. The priority will be to offer the displaced persons an option for replacement equivalent land (productive potential and locational advantages). The LRS provides a framework for the preparation of Livelihood Restoration Plans (LRPs) that will provide economically displaced persons with tailored options for alternative income earning opportunities, such as credit facilities, skills training, business start-up assistance, employment opportunities, or cash assistance additional to compensation.



141. **Child Labor:** At the national level, more than 3 million children live in cocoa growing communities. In 2018/19 it was estimated that about 790,000 children were engaged in child labor in cocoa production with a third of them engaging in hazardous work in cocoa production. Child trafficking and forced labor have also been identified in cocoa plantations and are often hidden and therefore difficult to adequately address. Mitigation measures that focus on key inclusion strategies that have been proven to work in other countries have been integrated into the project design and cross referenced with the work that will be undertaken in the PDIC project currently under preparation. These include improving access to education, incentives for parents to ensure children are enrolled in and attending school, improving the surveillance and monitoring structures and a strict age and type of work prohibition.

142. **Grievance Mechanism.** The design and operationalization of an effective, transparent, and accessible GM before project effectiveness will be central to ensure that complaints are duly dealt with and to prevent the escalation of social conflicts. The grievance mechanism will ensure that complaints are systematically recorded and effectively resolved. The FIP-2 grievance mechanism should be functional and have the necessary technical and financial resources in the UIAP. Local stakeholders should be kept regularly informed of the handling of preexisting or ongoing complaints. There will be separate access channels and components in the GM to address resettlement, SEA/SH, and labor and child labor grievances.

143. **Clear communication, information, and inclusion of stakeholders** is essential, so that all potential beneficiaries have the same access to information and understand the system to be put in place. The project prepared a SEP, which outlines how all stakeholders will be engaged with, but it is equally as important for the project to design an effective communication and awareness raising strategy for the project at the field level to ensure that all project participants have the same knowledge. This strategy needs to consider people's ability to read and write the local languages and cultural appropriateness. It is also important that the project includes women in these sessions and provides the necessary conditions for them to be able to participate. Community liaison officers will be deployed to conduct these sessions and the grievance mechanism will be made available to all project participants to be able to request more information. Its implementation will be monitored by a third party and project staff to ensure that all grievances are registered and treated accurately. Furthermore, the Government developed a Labor Management Plan in June 2022, which includes potential child labor risks and forced labor mitigation measures.

144. **Safeguards implementation.** Responsibility and oversight of FIP-2 overall compliance with national and World Bank ESSs will be the responsibility of the Coordinator and the environmental and social specialists of the UIAP. They will work in close collaboration with ANDE, which is responsible for ensuring compliance of FIP-2 activities in line with the national legislation. The UIAP will have a social specialist, a gender specialist, and a stakeholder engagement specialist. It will also include a social expert, specialized in involuntary resettlement, and three local social experts (one per GF) to support resettlement implementation. The UIAP will also be supported by the highly qualified supervision firm that will monitor and oversee resettlement and social safeguards' compliance with ESS5. The World Bank will review the TOR and the selected candidate and provide a non-objection.

145. **ANDE will conduct periodic monitoring** of project's compliance with proposed mitigation measures using the National Safeguards Information System prepared under the FCPF-Readiness. ANDE will also receive guidance and technical support from the World Bank environmental and social safeguards specialists based in the Abidjan country office.



146. **Capacity-building** efforts to support project implementation will be done by adopting recommendations contained in the E&S instruments prepared for the project, disclosed in-country on May 13 and on WB site on May 28, 2022. UIAP and ANDE will receive training from the World Bank environmental and social specialists based in the Abidjan country office, for the implementation of ESS1, ESS2, ESS3, ESS4, ESS5, ESS6, ESS8 and ESS10. In addition, community liaison officers will be mobilized at the local level to support the implementation and monitoring of the SEP and the communication strategy. The effectiveness of these community liaison officers will be reviewed periodically by ANDE with support from the safeguards unit of the UIAP.

## E. Citizen Engagement

147. The project has been designed in a participatory and inclusive manner with all stakeholders at the national and local levels. All activities have been designed with inputs from key stakeholders including forest-dependent communities; NGOs; civil society organizations (CSOs); SODEFOR; OIPR; the Ministries in charge of Water and Forests, Agriculture, Environment, and Mining; and CFI. These stakeholders will also be involved in project implementation.

148. For Components 2 and 3, a light gender-disaggregated survey (SWIFT<sup>15</sup> type) will be undertaken at the beginning of the project to assess poverty levels in the target areas. Furthermore, an iterative beneficiary monitoring system will be set up with a specific emphasis on gender issues, which will contribute to measuring results, improving operations, and ensuring inclusiveness. The project will also work on providing training to women's associations on technical themes related to the project activities they participate in, as well as, on individual/small and enterprise (SME) business management and literacy, and simple accounting and FM systems.

149. Component 4 will further enhance citizen engagement in project implementation as local communities, including farmers, will be involved in agroforestry and plantation works and will receive incomes based on their performance. Subcomponent 3.2 (Support to Enhance Park Communities' Livelihoods) will also enhance citizen engagement as communities' livelihoods will be improved through alternative IGAs to reduce human pressure on the park. Furthermore, citizen engagement dimensions will also be monitored and measured through the PDO-level indicator 'Satisfaction of beneficiaries (level of engagement, by gender and age by target area)'.

150. The following three approaches will be used to further strengthen citizen engagement and participation in overall project implementation:

- (a) **Collaboration.** Representatives of CSOs will be members of the project COPIL where they can represent beneficiaries' viewpoints and participate in the decision-making related to the implementation of project activities.
- (b) **Collecting, recording, and reporting on inputs from citizens.** Beneficiary feedback on project implementation (effectiveness, inclusiveness, quality, delivery, and targeting) will be collected during implementation support and supervision missions and during evaluation of project achievements using focus group discussions and satisfaction surveys. During supervision missions, the CE mechanisms that will be used and implemented by the client throughout implementation include: consultations, community monitoring, citizens report cards among others. These mechanisms will also be used for the

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<sup>15</sup> SWIFT = Survey of Well-Being via Instant and Frequent Tracking. This is a rapid poverty assessment tool that can produce accurate household data in a timely, cost-effective, and user-friendly manner.





development of a web-based citizen engagement platform/portal. An IT platform will be employed by creating an Android application that the members of the platform can use to share information related to distribution of forestry seedlings for production forests, biopesticides for the *taungya* system, smart agriculture techniques, number of *taungya*-based agroforestry trainings, market prices for crops, farming techniques, income generation, and project achievements. NGOs will be identified to monitor and collect data on achievements and write reports to disseminate results of the project. The information gathered can then be used to improve project implementation and address issues raised by the beneficiaries.

- (c) **Citizen-led monitoring.** CSOs and communities will be involved in World Bank implementation support and supervision missions as well as in joint evaluation of project results upon completion of the project.

## F. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

## V. GRIEVANCE REDRESS SERVICES

151. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance mechanism or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns.

152. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## VI. KEY RISKS

153. **The risks associated with FIP-2 have been assessed as high.** The following paragraphs provide an explanation of the most relevant risks and mitigation measures:

154. **Political and governance - Moderate.** The risk of lack of political commitment to the FIP is considered moderate. The Government demonstrated its strong commitment to reverse the trend of deforestation and forest degradation through: (a) its commitment to the national REDD+ process embodied in Decree No. 2012-1049 of October 24, 2012 adopted by the Council of Ministers; (b) the preparation of new forest sector policy (*Déclaration de Politique Forestière* 2017) focused on a zero-deforestation agriculture and enhanced forest governance and its adoption in 2017; (c) the preparation of its *Forest Preservation, Rehabilitation, and*



*Extension Strategy* (SPREF, 2018); and (d) the adoption of a new Forest Code in July 2019. However, the 2017 audit of SODEFOR by KPMG revealed weak governance by SODEFOR and lack of internal control. To mitigate this governance risk, SODEFOR will not be responsible for fiduciary management of activities under its components. Project funds management will be ensured by the UIAP which has FM and procurement units led by Senior FM and Procurement Specialists experienced with World Bank financed projects. Furthermore, a supervision firm will have oversight on all project activities.

155. **Macroeconomic - Moderate.** Côte d'Ivoire continues to be vulnerable to price shocks in the international commodity markets, including cocoa and other agricultural products, as evidenced by the recent drop in international cocoa prices. Given that the agricultural sector is a main driver for economic growth in the country, employing about half of the active population, and producing approximately 20 percent of its GDP and over 50 percent of its export earnings, this situation could have an impact on the country's fiscal situation and public spending. The World Bank will continue working closely with the Government to diversify its economy and adjust spending and investment levels.

156. **Sector Strategies and Policy – Moderate.** The regulatory and institutional landscape in Côte d'Ivoire presents numerous advantages for successful FIP-2 implementation. The Government has passed several regulatory reforms and policies to create a framework favorable to the sustainable management of the nation forests, including the decree No. 2019-828 of October 9, 2019, on the terms and conditions for the creation of agroforests. The risk is assessed as moderate because subsequent decrees converting the status of category 3 GFs from Gazetted-forests to agro-forests to legalize agroforestry implementation in GFs remain to be adopted. The Government is committed to accelerate the adoption process of the PFMPs by *arrêté* to be taken by MINEF, thereby paving the way for the swift adoption of the decrees changing the status of the FIP-2 targeted GFs to agroforests (Rapides Grah, Haute Dodo and Scio).

157. **Technical design of project - Moderate.** Given the wide range of proposed project interventions, as described under the components section, the design of the project might appear too ambitious. Although OIPR has the required technical capacity and organization for national parks and natural reserves management, SODEFOR lacks personnel to implement the PFMPs of targeted C3 GFs, that is, its ratio for GF management is one forester for 15,000 to 20,000 ha against the international ratio of one to 10,000 ha. There is therefore a risk of slow implementation of field activities in Rapides Grah, Hautes-Dodo, and Scio, which represent the bulk of project activities, and to a lesser extent in C4 GFs. This could affect disbursement rates.

158. To mitigate this risk, the project will support recruitment and services of a seasoned technical assistance agroforestry firm, which will be housed at SODEFOR and support it with execution of agroforestry in C3 GFs and establishment of production forests in C4 GFs including support to silviculture activities to ensure sustainability of reforestation activities. Field-level community development agents will also be recruited and trained in agroforestry by the technical assistance firm and will be based at the village level for close monitoring and supervision of agroforestry activities. The project will also support the establishment of partnership agreements between SODEFOR decentralized agencies, local NGOs, regional councils, and local administrative entities to conduct stakeholder engagement activities throughout project implementation. Furthermore, a **supervising/implementation support firm** will be recruited at the onset of project implementation and will have upstream and downstream oversight of all project activities, including supervision of SODEFOR-led components to ensure that activities are implemented in a timely manner and that disbursements remain on track throughout implementation.





159. **Institutional capacity for implementation and sustainability - High.** Institutional capacity for implementation is assessed as high because of the large number of agro-forestry contracts expected to be signed between farmers and the Government possibly exceeding the capacity of the implementing agency and because knowledge of agroforestry schemes remains very limited among farmers.

160. To mitigate this risk, the World Bank through the Carbon Fund has financed a technical assistance and South-South knowledge exchange between Cocoa Producers in West Africa and Latin America on agroforestry methods development of a guide for implementation (P171856). The main output of this technical assistance is a Global Agroforestry Guide, which will support agroforestry implementation (the technical agroforestry itinerary developed by the technical assistance is attached in annex 6 of this PAD). SODEFOR, CCC, and all key stakeholders will be trained by the international agroforestry firm, which will be recruited and housed at SODEFOR. Furthermore, the project will finance services of agroforestry researchers such as the International Center for Research in Agroforestry, which is headquartered in Abidjan for institutional capacity building in agroforestry.

161. **Fiduciary - Substantial.** Fiduciary risks related to project funds are Substantial, considering the country context, the multiplicity of actors and beneficiaries who are located in remote and dispersed areas around the country combined with the nature of activities supported by the project, and utilization of relatively new fund transfer mechanisms through mobile payment.

162. This risk will be mitigated through close implementation support and supervision by the World Bank's FM and procurement specialists based in the field. The objective of these supervision missions is to ensure that the project procurement and FM arrangements continue to operate well and that funds are used for the intended purposes and in an efficient, economic, and transparent way.

163. **Stakeholders - High.** The project aims to support the Government in implementing the SPREF. Despite the lands of the GFs having been Gazetted for decades, many heads of local communities still rely on customary law and consider themselves and their communities as the chiefs/owners of the land (*chefs de terre*). On this basis, these *chefs de terre* allocated lands decades ago in the GFs to immigrant farmers and Ivorian migrants thereby creating strong social ties with them. In recognition, immigrant and migrant farmers who consider the *chefs de terre* as their landlords provide them with financial support especially during events conducted around rites such as weddings, births, deaths, or sickness in the family, or with gifts to celebrate national holidays and religious celebrations. There is a tacit social contract between these parties leading to the empowerment of the *chefs de terre*.

164. There is risk that: (a) the *chefs de terre* might continue to allocate lands for sustained establishment of their power in the community, thereby inhibiting forest restoration efforts and; (b) farmers with plantations on mountain slopes who have to implement high-density agroforestry may find it unfair that farmers in the flat zones are allowed lower-density and may lead to conflicts between the two groups.

165. To mitigate the first risk of potential continued allocation of lands by *chefs de terre* to newcomers, the exhaustive census that will be conducted at the onset of project implementation, will make it possible to have a detailed baseline of farmlands and number of farmers. The MINEF will also define a cut-off date through a Ministerial *Arrêté* at the start of the census, after which date new incoming farmers will not be allowed to produce cocoa in the GFs. SODEFOR's capacity will be enhanced to ensure regular GF surveillance jointly with CLCGs to prevent potential new encroachments. Furthermore, local NGOs will be contracted for



communication, education, and information at the local level and will work in partnership with the *chef de terre* and Local Community Development Agents for the protection of the GF. In addition, the project will support dialogue between the Government and the Communities on land ownership as proposed under components 1, 2 and 5. The agroforestry contracts also include a clause that makes the farmers accountable for preventing new encroachments.

166. Regarding the second risk related to conflicts between the two groups, a consultative and participatory SCA was conducted during project preparation to identify potential areas of social risk, and the outcome indicates that the two groups live in harmony and are supportive to each other, and there exists local mechanism for conflicts resolution should any arises during project implementation. Both groups indicated that they are eager to start the differentiated contract-based agroforestry which is beneficial to them as it provides them with a legal status and long-term land security, thereby protecting them from forced displacements by the Government as was the case in the recent past.

167. Nevertheless, in addition to the results of this first phase of the SCA, a second phase will be carried out using a higher participatory, inclusive approach before implementing the two agroforestry schemes. The report will clearly identify all social risks, including points of social conflict, which are likely to arise during project implementation as well as other factors that might contribute to these risks and impacts. This will include an assessment of whether the different levels of support and compensation proposed for the different categories of PAPs might initiate and/or exacerbate possible covert social conflicts not detected through the first phase of the SCA. In addition, the analysis will assess any potential conflicts that might be generated by encroachers who may continue to arrive in the GFs and identify possible governmental/administrative/legislative measures that should be put in place to handle such challenges in a way that respects the rights and integrity of informal dwellers. Finally, the report will include an assessment of the effectiveness of the existing FIP-1 grievance mechanism and indicate whether additional measures should be integrated into the FIP-2 during its implementation. The report will provide an action plan that will be implemented throughout project execution.

168. **Social risks - High.** The project aims to support the Government's efforts to rehabilitate highly degraded GFs due to agriculture, through implementation of cocoa-based agroforestry contractual agreements directly with cocoa farmers in targeted C3 GFs. Given that the *chefs de terre* consider themselves to be the GF landowners, they have expressed the opinion that agroforestry contracts will be signed with them. While the immigrant farmers have expressed agreement with the *chefs de terre* and have stated that the *chef de terre* may sign the contract on their behalf, Ivorian migrant farmers prefer to sign the contract directly with the Government. There is risk that the current social structure could be weakened if the *chefs de terre* are excluded from the contracting system and impede on the implementation of the proposed cocoa-based agroforestry schemes.

169. To mitigate this risk and not dismantle the existing social structure, the contract signing will be conducted between the Government, and farmers during a public ceremony in which the *chefs de terre*, will participate. The minutes of the signing ceremony will be co-signed by all parties and annexed to the contract, which will be signed by the farmer. This was discussed and agreed upon by the three parties during project preparation. The advantage of this option is that the three parties would be accountable for contract implementation, and the *chef de terre* would not feel disempowered.



170. **Environmental risks - Substantial.** The project is expected to have an overall positive impact on the environment, including biodiversity. Habitats that once existed in GFs have, in most cases, either disappeared or been severely degraded, thereby negatively affecting biodiversity of both flora and fauna. The project aims to restore and conserve forest vegetation cover by (a) developing participatory management plans for GFs; (b) establishing production forests in C4 GFs that are expected to contribute positively to biodiversity conservation and climate change through reduction of GHG emissions; and (c) developing and implementing alternative IGAs involving animal husbandry, fish farming, aquaculture, and crops. However, the project activities may generate environmental risks and impacts related to the potential use of agrochemicals, water pollution, occupational health and safety issues, poaching, encroachment for panning gold, temporary disruption of forest ecosystems and nuisances related to air and noise emissions. Those risks and impacts are medium in magnitude, temporary, site specific, predictable, and reversible and can be mitigated. The environmental risk is rated substantial because of (a) the limited safeguard capacity of the UIAP and the (b) the large area of intervention (many fold larger than FIP-1). The project takes the following measures to mitigate these risks (a) about US\$8 million from project financing under subcomponent 5.2 is dedicated to ESF capacity building at the national level and to support UIAP with projects safeguards implementation, (b) a supervision firm will be hired by the project to ensure environmental compliance of project activities with ESSs.



## VII. RESULTS FRAMEWORK AND MONITORING

## Results Framework

COUNTRY: Cote d'Ivoire

Forest Investment Project, phase 2

## Project Development Objectives(s)

The Development Objective is to conserve and increase the forest stock and improve access to sources of income from sustainable forest management for selected communities in target zones.

## Project Development Objective Indicators

Indicator Name	PBC	Baseline	End Target
<b>Conserve &amp; increase forest stock, improve access to sources of income from SFM for communities</b>			
PDO Indicator 1. Targeted GF Forest areas under sustainable management based on defined criteria (Hectare(Ha))		8,797.00	1,053,447.00
PDO Indicator 2. Greenhouse gas emissions reduced (Metric ton)		0.00	17,920,000.00
PDO Indicator 3. Targeted forests dependent communities with increased access to income sources derived from sustainable GF management (Number)		0.00	776,000.00
PDO Indicator 4. Satisfaction of target beneficiaries (level of engagement by gender and age per target area) (Percentage)		0.00	90.00

## Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets							End Target
			1	2	3	4	5	6	7	
Component 1.Support the Development of Participatory Forests Management Plans (PFMP)										



Indicator Name	PBC	Baseline	Intermediate Targets							End Target
			1	2	3	4	5	6	7	
Intermediate Indicator 1. Forest area brought under management plans (Number)		7.00	7.00	10.00	13.00	15.00	17.00	17.00	17.00	17.00
<b>Component 2.Support the Implementation of PFMP in Category 3 GFs in the Cocoa Belt</b>										
Intermediate Indicator 2. Surface areas of cocoa agroforestry established by the project in C3 disaggregated by GF (Hectare(Ha))		20,570.00	20,570.00	20,570.00	127,370.00	198,340.00	269,310.00	354,280.00	354,280.00	354,280.00
Scio (Hectare(Ha))		287.00	287.00	287.00	22,287.00	44,574.00	66,861.00	89,148.00	89,148.00	89,148.00
Rapides Grah (Hectare(Ha))		14,000.00	14,000.00	14,000.00	56,400.00	77,600.00	98,800.00	134,000.00	134,000.00	134,000.00
Haute Dodo (Hectare(Ha))		6,283.00	6,283.00	6,283.00	48,683.00	76,166.00	103,649.00	131,132.00	131,132.00	131,132.00
Intermediate Indicator 3. Number of cocoa producers who have improved their livelihoods through income generated through agroforestry in category 3 GFs (Number)		3,000.00	3,000.00	3,000.00	39,000.00	53,000.00	63,000.00	73,000.00	81,660.00	81,660.00
Intermediate Indicator 4. Number of targeted project beneficiaries trained in agroforestry schemes, of which women and youth (Number)		0.00	10,000.00	20,000.00	40,000.00	50,000.00	60,000.00	70,000.00	80,000.00	80,000.00



Indicator Name	PBC	Baseline	Intermediate Targets							End Target
			1	2	3	4	5	6	7	
Women (Number)		0.00	1,000.00	2,000.00	4,000.00	5,000.00	6,000.00	7,000.00	8,000.00	8,000.00
Intermediate Indicator 5. Number of people benefiting from alternative income-generating activities (Number)		0.00	0.00	5,000.00	20,000.00	50,000.00	75,000.00	100,000.00	116,000.00	116,000.00
Intermediate Indicator 6. Reduction of deforestation and degradation rate through enhanced surveillance (Percentage)		95.00	95.00	90.00	90.00	85.00	80.00	70.00	60.00	60.00
<b>Component 3. Support Sustainable Management of National Parks and Nature Reserves</b>										
Intermediate indicator 7. Surface areas brought under enhanced biodiversity conservation (Hectare(Ha))		76,000.00	100,000.00	200,000.00	400,000.00	450,000.00	500,000.00	600,298.00	631,298.00	631,298.00
Intermediate Indicator 8. Areas with signs of illegal activities inside the protected areas (Hectare(Ha))		44,500.00	44,500.00	37,000.00	29,500.00	23,000.00	14,500.00	9,000.00	5,000.00	5,000.00
Intermediate Indicator 9. Number of beneficiaries of microprojects with improved livelihoods, of which women (Number)		2,200.00	2,200.00	10,000.00	30,000.00	50,000.00	75,000.00	85,000.00	108,000.00	108,000.00



Indicator Name	PBC	Baseline	Intermediate Targets							End Target
			1	2	3	4	5	6	7	
Women (Number)		0.00	0.00	5,000.00	15,000.00	25,000.00	54,000.00	54,000.00	54,000.00	54,000.00
Intermediate Indicator 10. Riparian communities adherence to sustainable management of protected areas as a results of IGAs (Number)		0.00	0.00	20,000.00	50,000.00	80,000.00	115,000.00	115,000.00	115,000.00	115,000.00
<b>Component 4. Support the Implementation of PFMP of Category 4 GFs in the Savanna</b>										
Intermediate indicator 11. Surface areas of timber plantations, disaggregated by GF (Hectare(Ha))		2,137.00	2,237.00	3,837.00	7,437.00	10,437.00	12,737.00	16,637.00	20,137.00	20,137.00
Intermediate Indicator 12. Surface areas of fuelwood plantation forests (Hectare(Ha))		960.00	960.00	1,200.00	1,600.00	2,000.00	2,500.00	3,500.00	3,960.00	3,960.00
Intermediate Indicator 13. Community members benefiting from the performance-based contracts (disaggregated by men and women) (Number)		500.00	500.00	2,000.00	3,000.00	6,000.00	7,000.00	8,000.00	8,000.00	8,000.00
Women (Number)		200.00	200.00	750.00	1,500.00	2,000.00	2,500.00	3,000.00	4,000.00	4,000.00
Intermediate Indicator 14. Number of C4 GFs granted to women's associations for taungya based		1.00	1.00	2.00	3.00	4.00	4.00	4.00	4.00	4.00





Indicator Name	PBC	Baseline	Intermediate Targets							End Target
			1	2	3	4	5	6	7	
agroforestry (Number)										
Intermediate Indicator 15. Number of boreholes allocated to women's associations (Number)		0.00	0.00	5.00	10.00	15.00	20.00	25.00	25.00	25.00
Intermediate Indicator 16. Number of tricycles for women to facilitate access to GFs and markets (Number)		0.00	0.00	0.00	10.00	10.00	10.00	10.00	10.00	10.00

## Monitoring &amp; Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
PDO Indicator 1. Targeted GF Forest areas under sustainable management based on defined criteria	This indicator measures the number of hectares of sustainable land management established by the project. The criteria include: (i) the number of GF management plans developed; (ii) adoption and implementation of agroforestry schemes and taungya methods; establishment of	Annual	Project progress reports	Field observations MRV system	SODEFOR and SEP-REDD



	conservation areas in GFs for natural regeneration of degraded lands, establishment of areas dedicated to production forests for timber and fuelwood.				
PDO Indicator 2. Greenhouse gas emissions reduced	This indicator measures emission reductions generated by the project in the project intervention areas	Mid-term and project end	National MRV System, online forest cover change system supported by FAO		SODEFOR and SEP-REDD
PDO Indicator 3. Targeted forests dependent communities with increased access to income sources derived from sustainable GF management	This indicator measures the extent to which farmers adjacent to targeted GF have improved livelihoods as a result of project interventions through performance -payments, and income generating activities.	Annual or bi-annual	Review of Qualitative and quantitative data resulting from beneficiary surveys		SODEFOR and SEP-REDD
PDO Indicator 4. Satisfaction of target beneficiaries (level of engagement by gender and age per target area)	Satisfaction with project interventions focuses on GF co-management associations and farmers benefiting from performance-based	Bi-annual	Review of Qualitative and quantitative data resulting		SODEFOR



	payments with SODEFOR, including the perception whether interventions are effective and meet the demand of project beneficiaries. This will be solicited through a semi-structured questionnaire.		from beneficiary surveys ( the survey needs to have equal numbers of men and women)		
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#### Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Intermediate Indicator 1. Forest area brought under management plans	This indicator measures the total surface areas of GFs with management plans, elaborated in a participatory and inclusive manner with forest dependent communities	Annual	SODEFOR	Consultant and SODEFOR reports	SODEFOR
Intermediate Indicator 2. Surface areas of cocoa agroforestry established by the project in C3 disaggregated by GF	This indicator assesses the total hectares of cocoa under agroforestry in project targeted C3 GFs.	Annual			SODEFOR, SEP-REDD
Scio					
Rapides Grah					
Haute Dodo					
Intermediate Indicator 3. Number of cocoa producers who have improved their	This indicator assesses the effectiveness of	Annual	Review of concession		SODEFOR



livelihoods through income generated through agroforestry in category 3 GFs	reforestation and agroforestry performance based payments to farmers.		contracts		
Intermediate Indicator 4. Number of targeted project beneficiaries trained in agroforestry schemes, of which women and youth	This indicator assesses the effectiveness of trainings in agroforestry techniques (including the number of knowledge-sharing events and communication products).	Annual	Training reports		SODEFOR
Women	The percentage of women is 10% of the total beneficiaries who will receive agroforestry training given the low percentage of women in the cocoa-sector in the South West.				
Intermediate Indicator 5. Number of people benefiting from alternative income-generating activities	This indicator assesses the effectiveness of implementation of NTFPs as alternative income generation for forest dependent communities.	Mid-term and project end.	UIAP SODEFOR	progress reports	UIAP SODEFOR
Intermediate Indicator 6. Reduction of deforestation and degradation rate through enhanced surveillance	This indicator measures the effectiveness of forest surveillance as measured by annual GF surveillance plan reports.	Annual	Annual GF surveillance plan reports	Field-level observations using ecological monitoring systems and village monitoring committees managed under SODEFOR	PIU and SODEFOR
Intermediate indicator 7. Surface areas brought under enhanced biodiversity conservation	This indicator is a WBG core indicator and will assess level of improvement of	Annual	Review of SMART (Spatial		OIPR



	conservation of human pressure hotspots in the TNP, the Nzo Natural Fauna Reserve, Mont Péko and Mabi Yaya National Park: the conservation measures focus on : (a) Monitoring over 508,186 ha in TNP, to be extended to 61,282 (Mabi Yaya) and Mount Peko (34,000 ha) and N'Zo natural reserves (27,830 ha) for a total of 631,298 ha; (b) Ecological monitoring to ensure biological recovery		Monitoring and Reporting Tool) report		
Intermediate Indicator 8. Areas with signs of illegal activities inside the protected areas	This indicator measures the surveillance efforts by park rangers in targeted National Parks leading to reduced agricultural and gold panning pressures on protected areas.	Annual	Review of SMART (Spatial Monitoring and Reporting Tool) report		OIPR
Intermediate Indicator 9. Number of beneficiaries of microprojects with improved livelihoods, of which women	This indicator measures effectiveness of Income Generating Activities (IGAs) on the beneficiaries' livelihoods, i.e. increased revenues, increased food security, access to health, improved education of dependents, improved habitat.	Annual	Project reports		OIPR



Women					
Intermediate Indicator 10. Riparian communities adherence to sustainable management of protected areas as a results of IGAs	This indicator measures the extent to which IGAs' beneficiaries have adhered to parks conservation leading to reduced human pressure on protected areas. This will be done through surveys by independent evaluators.	Annual	Field Surveys		OIPR
Intermediate indicator 11. Surface areas of timber plantations, disaggregated by GF	This indicator assesses the total hectares of timber plantations (Teck, Gmelina) established.	Annual	Project progress reports	Field observations MRV system	SODEFOR and SEP-REDD
Intermediate Indicator 12. Surface areas of fuelwood plantation forests	This indicator assesses the total hectares of fuelwood plantations (cassia siamea) established in the targeted C4 GF to provide the use of natural forests for cooking needs for the three consumption hubs of Bouaké, Yamoussoukro, Abidjan	Annual	Project progress reports	Field observations MRV system	SODEFOR and SEP-REDD
Intermediate Indicator 13. Community members benefiting from the performance-based contracts (disaggregated by men and women)	This indicator measures the engagement of forest-dependent communities and the establishment of performance-based contracts to encourage their participation in plantation works.	Annual	Review of the concession contracts.	Field level observation reports.	SODEFOR



Women					
Intermediate Indicator 14. Number of C4 GFs granted to women's associations for taungya based agroforestry	This indicator measures the effectiveness of concessions of portions of degraded C4 forests, Loho (53,460 ha), Pyerrhé (89,150 ha), Kobo (16,000 ha) and Ahua (4,652ha), to women's associations to practice the taungya system. The taungya system is the intercropping with organically produced agricultural crops such as maize, peanut, cassava and soy interspersed among forest plantations.	Annual	Review of project progress reports.	Field level observation.	SODEFOR and SEP-REDD
Intermediate Indicator 15. Number of boreholes allocated to women's associations	This indicator addresses the gender gap assessment on women's poor access to water.	Annual		Field surveys	SODEFOR
Intermediate Indicator 16. Number of tricycles for women to facilitate access to GFs and markets	This indicator addresses the gap identified in the gender assessment related to women's transport constraints to access to GFs and markets.	Annual	SODEFOR	Field Surveys	SODEFOR





**The World Bank**

Forest Investment Project, phase 2 (P175982)



## Annex 1: Detailed Project description

### COUNTRY: Côte d'Ivoire Forest Investment Project, phase 2

1. This project builds on the trust-funded FIP-1 (P162789), which has been under implementation since 2018 and is scheduled to close at the end of May 2023. It is designed to support the 2017 CFI and the 2018 SPREF in cooperation with the PDIC (P168499) to address cocoa-based deforestation (cocoa production is responsible for 38 percent of deforestation in Côte d'Ivoire and 40 percent of cocoa production is sourced from GFs and protected areas<sup>16</sup>). The project also aims to support reforestation in drier areas.

2. **Project sites.** The project adopts a landscape approach and intervenes in the **Southwest/east** (in C3 GFs and national parks) and in the **Savanna zone** (in C4 GFs). Table 1.1 presents the targeted sites and their surface areas while annex 7 depicts project geographic location.

- a) **In the southwest/southeast**, the project will intervene in (a) three of the four most deforested C3 GFs (91 percent average deforestation) located in four landscapes in the southwest region, also referred to as the cocoa belt and (b) four national parks and natural reserves including the Tai National Park (TNP). These landscapes are the priority sites identified by the Government for implementing the CFI and are located in the following regions: La Mé; Cavally, Guémon; and San-Pédro, Nawa. These four landscapes also constitute the carbon accounting area of the results-based Emissions Reductions Payment (ERP) Project.<sup>17</sup> The concentration of investments in cocoa-based agroforestry creates a dual benefit, addressing the drivers of deforestation related particularly to cocoa agriculture while enhancing the emission reduction potential and contributing to climate change mitigation.
- b) **In the Savanna**, the project targets 16 of the 112 C4 GFs for the following reasons: (a) the ability to provide for the country's needs for timber and sustainably produced fuelwood as an alternative to natural forests and (b) the ability to create jobs in reforestation, especially for youth in the currently politically unstable northern regions bordering Burkina Faso and Mali. The economic opportunities that the project will create through reforestation works are also expected to support youth empowerment and potentially deter them from engaging in precarious and dangerous activities. The Savanna landscape has been identified by the Government for implementation of large-scale reforestation program under the SPREF given their high production value and minimal to no human presence in the GFs. The Savanna landscape also provides opportunities for women to be involved in the sustainable management of GFs with degraded forest lands being granted to women associations for farming and reforestation (*taungya* method), thereby providing women directly with improved land access and food security and enabling them to access a long-term source of revenue. Women currently have little to no access to lands and cocoa revenues in the CFI-priority landscapes as reflected in the gender assessment conducted during project preparation and summarized in the following paragraphs.

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<sup>16</sup> Source: BNETD 2016.

<sup>17</sup> The ERP is the first jurisdictional large-scale REDD+ program which spans five contiguous regions in the cocoa belt in the southwest of Côte d'Ivoire (Cavally, Nawa, San Pedro, Guémon, and Gboklè) across 4.6 million ha (more than 14 percent of the country), representing the emissions reduction accounting area.



Table 1.1. Project Sites and Surface Areas

Zones	Region/Landscapes	Project Sites	Surface (ha)
Southwest	Guémon/Cavally	GF (C3) Scio	88,000
	San Pedro/Nawa	GF (C3) Rapides Grah	263,900
		GF (C3) Haute Dodo	196,733
	Total 3 GFs (C3)		548,633
	Guémon/Cavally/San Pedro/Nawa	Tai National Park	508,186
		N'zo natural reserve	27,830
		Mont Péko natural park	34,000
Southeast	La Mé	Mabi-Yaya natural reserve	61,282
	Total 4 Natural Reserves/Parks		631,298
Center and North (Savanna)	Hambol	GF (C4) Haut Bandama	60,579
		GF (C4) Loho	53,460
		GF (C4) Pyerrhé	89,150
		GF (C4) Kobo	16,000
	Gbèkè	GF (C4) Matiemba	7,000
		GF (C4) Soungourou	19,112
		GF (C4) Kouabo-Boka	
		GF (C4) Boka-Go	
		GF (C4) Laka	5,800
		GF (C4) Fètèkro	2,900
		N'Zi	GF (C4) Ahua
	Tchologo	GF (C4) Bandama Supérieur	60,882
		GF (C4) Léraba	23,500
		GF (C4) Nzi Supérieur	89,958
	Bagoué	GF (C4) Boundiali	80,933
		GF (C4) Pouniakélé	10,000
	Total 16 GFs (C4)		523,926
		Grand Total	1.703.857

Source: SODEFOR, OIPR

## B. Project Components

3. The project is articulated around four components to support implementation of the CFI and the SPREF as follows: Component 1 establishes the foundation for sustainable forest management through the development of Participatory Forest Management Plans (PFMPs) of targeted C3 and C4 GFs; Component 2 addresses deforestation due to agriculture through implementation of cocoa-based agroforestry in targeted C3 GFs and enhanced GFs surveillance and monitoring; Component 3 supports the sustainable management of National Parks and Natural Reserves, and Component 4 addresses deforestation due to harvest of natural forests for timber and fuelwood through establishment of alternative production forests in targeted C4 GFs.

### Component 1: Support the development of Participatory Forests Management Plans (PFMPs) (US\$5 million equivalent)

4. The objective of this component is to build on FIP-1 to continue laying the foundation for implementing the SPREF through two subcomponents: (a) support elaboration of PFMPs of targeted C3 GFs in the southwest and (b) support elaboration of PFMPs of targeted C4 GFs in the savanna area.

**Subcomponent 1.1: Support elaboration of PFMPs of targeted C3 GFs in the southwest (US\$4 million)**

5. Since July 2021, the FIP-1 started the development of PFMPs for four C3 GFs (Goin-Débé, Rapides Grah, Haute-Dodo, and Scio) located in the southwest, under the supervision of SODEFOR. For each PFMP, a consortium of international and national firms<sup>18</sup> was recruited to work in close collaboration with local communities to conduct socioeconomic diagnostics of the GFs before the development of the PFMPs in a participatory and inclusive manner. For Goin-Débé, FIP-1 only financed a diagnostic study as the MINEF developed its own forest management options with the objective to address a 2018 conflict related to land use between forest-dependent communities. The Gazetted Forest of Goin-Débé was therefore not retained for financing under FIP-2. The elaboration of the PFMPs for three targeted FIP-2 GFs (Rapides Grah, Haute-Dodo, and Scio) is under way and will be completed by June/July 2022. Table 1.2 presents the results of the diagnostic studies of the targeted GFs.

6. Table 1.2. PFMPs Diagnostic Studies Results

GF	Surface (ha)	Surface of Cocoa farms (ha)	Degradation Rate (%)	Cocoa production (tons) <sup>a</sup>	Contribution to National Cocoa Production (%)	Number of Farmers	Total Population <sup>b</sup>	Number of inhabitants/km <sup>2c</sup>
Rapides Grah	269,350	216,555	95	108,000	5.4	50,506	252,530	93.76
Haute Dodo	174,415	143,140	97	66,000	3.3	22,000	110,000	63.07
Scio	88,000	30,770	88	18,461	.9	6,154	39,600	45.00
<b>Total</b>	<b>531,765</b>	<b>390,465</b>	<b>91</b>	<b>192,461</b>	<b>12.6</b>	<b>78,660</b>	<b>402,130</b>	<b>99.1</b>

Note: a. Average yield is 510 kg per ha.

b. Based on 5 persons per family.

7. c. This density is higher than the national average (70 inhabitants per km<sup>2</sup>)

8. After finalization of the three PFMPs, FIP-2, this subcomponent will finance additional technical assistance to conduct an exhaustive census of farms (including geo-referencing) to establish the exact number of farmers and the surface areas of their plots to support implementation of Component 2.

9. **The approach.** As presented in Table 3, the three targeted GFs have experienced a very high agricultural and human encroachment rate and are severely degraded. It is therefore extremely difficult to fully restore these areas to their 'pre-encroachment' state. Taking this reality into account, the approach agreed with the MINEF is the following: (a) in areas already very degraded (mostly flat area) gradually restore part of the forest cover while enabling farmers to continue producing cocoa (through renewable Agroforestry contracts) and (b) in areas with high conservation potential (mainly remnant natural forest located on mountain tops, riverbanks and wetlands) restore full forest cover (through either protection and nonrenewable Agroforestry contracts) (more details is provided under Component 2). This approach minimizes the social impacts of restoring the forest cover.

10. **Consultations on the two agroforestry schemes.** FIP-1 will continue supporting large consultations at the grassroots level on the proposed two contract-based agroforestry schemes, including exchange visits to agroforestry demonstration farms in the country. The exchange will include visits to (a) a farm of a cocoa producer who has increased his production from 500 kg per ha with full-sun cocoa production to 1.5 to 2 tons per ha combining organic and agroforestry schemes; and (b) a GF in the southeast (GF of Béki) where

<sup>18</sup> The following firms have been recruited competitively in June 2021: Proforest for Goin Débé, AETS for Haute-Dodo, and Terea for Rapides Grah. ONFI was recruited in November 2021 for Scio.



SODEFOR has been piloting conventional cocoa-based agroforestry for more than 15 years with cocoa farmers whose yields have increased to up to 700 kg per ha. In addition to the exchange visits, this sub-component will support agroforestry capacity-building to be delivered to targeted cocoa producers, by experienced agroforestry consultants to ensure that this novel system for the majority of cocoa producers is well understood and implemented with success. Stakeholders' engagement and consultations will also continue throughout FIP-2 implementation in line with the Stakeholder Engagement Plan (SEP).

11. **Studies supporting finalization of the PFMPs.** In addition to the consultations, a *Social Conflict Study* has been prepared by a qualified consortium of international and national specialists. At the onset of the FIP-2 implementation, a second phase of the *Social Conflict Study* will be financed by this subcomponent, which will inform the implementation of the PFMPs. This sub-component will also finance technical assistance to elaborate an Environmental and Social Impact Assessment (ESIA) for the PFMPs to evaluate potential environmental and social impacts of the PFMPs so that adequate social and environmental management plans and Resettlement Plans (RPs) and Livelihoods' Restoration Plans (LRPs) can be elaborated to support implementation of the PFMPs.

12. *Participatory Forest Management Plans* will be adopted by the MINEF through a Ministerial *Arrêté*. An exhaustive census will complement the PFMPs. Final versions of the PFMPs will be approved by the MINEF and implementation of PFMP will not start, until after the PFMP and its supporting studies including the RPs and LRPs are completed. This will be a condition for the financing of the C3 PFMPs. The resettlement process, including livelihoods' restoration, will be carried out until the end of the project implementation.

***Subcomponent 1.2: Support elaboration of PFMPs of targeted C4 GFs in the savanna areas (US\$1 million)***

13. FIP-1 financed the development of six PFMPs for Category 4 GFs in the center region (Soungourou, Kouabo-Boka, Boka-Go, Laka, Fêtékro, and Ahua). Unlike Category 3 GFs, that are highly encroached by cocoa production and human settlements, Savanna GFs (or C4) offer large surface areas for reforestation with no human settlements. These GFs are degraded mostly by bushfires during dry seasons and seasonal agriculture (maize, sorghum, and cotton), which have left old fallows suitable for reforestation.

14. This subcomponent will finance consultancy services to support SODEFOR with the development of 11 additional PFMPs of C4 GFs (Haut Bandama, Kobo, Matiemba, Loho, Pyerrhé, Bandama Supérieur, Léraba, N'zi Supérieur, Boundiali, and Pouniakélé) for 491,462 ha. Before the development of the PFMPs, socioeconomic analysis of riparian communities will be conducted, and fauna and flora maps established.

15. The subcomponent will first finance: (a) workshops and consultations led by SODEFOR and local NGOs for the establishment, where nonexistent, of local co-management committees (*Comités Locaux de Co-Gestion*, CLCGs) in villages adjacent to targeted C4 GFs; (b) operating costs of CLCGs' participation in the elaboration process of the PFMPs; and (c) validation and dissemination workshops before the Government's adoption of the PFMPs.

16. Communication to women will be reinforced to ensure that women are: (a) fully informed of the objectives; (b) encouraged to participate in the process; (c) encouraged to take leadership positions in CLCGs; and (d) ensure that the PFMPs are gender specific.

17. The subcomponent will also finance consulting services to support SODEFOR with the elaboration of an ESIA for the PFMPs under the supervision of the National Environment Agency (*Agence Nationale de l'Environnement*, ANDE).



## Component 2: Support the Implementation of Participatory Forests Management Plans in Category 3 GFs in the Cocoa Belt (US\$68 million equivalent)

18. The objective of this component is to tackle the challenging reality of gradually restoring highly degraded Gazetted Forests while avoiding displacing large numbers of farmers and enabling them to draw a livelihood from a more sustainable cocoa production. As such, this component will finance (a) the implementation of PFMPs prepared under Component 1; (b) capacity enhancement of SODEFOR and local institutions for sustainable GF management; (c) income generating activities for riparian communities; and (d) compensation and livelihoods restoration activities for project-affected persons (PAPs).

### ***Subcomponent 2.1: Support cocoa-based agroforestry through contracting system with GF cocoa farmers (US\$35 million)***

19. The subcomponent supports the gradual and partial recovery of GFs cover by minimizing social impacts, through an agroforestry contractual system between SODEFOR and GF farmers. As per the decree No. 2019-977 of November 27, 2019, agroforests will be created thereby legalizing cocoa production through agroforestry. For the three targeted C3 GFs where the project will support cocoa-based agroforestry, site-specific decrees changing the status of these GFs to Agroforests will be taken prior to the start of agroforestry implementation.

20. Based on consultations conducted by the firms in charge of the elaboration of participatory management plans underway since July 2021 (under FIP-1) and field missions during preparation (of FIP-2), farmers expressed strong interest in participating in the implementation of the PFMPs through the following agroforestry and restoration schemes as a means to legalize their presence in the GFs:

- Cocoa-based agroforestry through the introduction of 50 to 100 trees per ha in highly degraded areas (flat zones of the GF) and 100 to 250 trees per ha in cocoa plantations located in steep slopes of mountain chains. This will be based on a 10-year renewable agroforestry contractual agreement throughout the duration of the PFMPs (10 years), between the farmer and SODEFOR. As indicated in the agroforestry technical itinerary (Annex 6), agroforestry is expected to improve cocoa productivity versus full sun cocoa farming, and,

21.

- Full restoration of High Conservation Value (HCV)/High Carbon Stock (HCS) zones (mountain tops, riverbanks and wetlands) through conservation of remnant forests and natural or assisted regeneration with the introduction of native tree species up to 400 trees per ha. Farmers with portions of their plots in these areas will be invited to sign a 5-year non-renewal contract and will have to stop cocoa agriculture at the contract expiration to enable full restoration of these sensitive areas in the medium to long term.

22. The contract will be annexed to the PFMPs which will be adopted by the MINEF by *arrêté* at the onset of project implementation (i.e., year 1). Once adopted, the PFMPs including its annexes, become binding instruments. Should the farmers fully respect the clauses of the contract, it will be continuously renewed when the PFMPs are evaluated and reconducted for additional 10-year cycles.

23. **Consultations.** The project will finance additional consultations that will be led by local NGOs (with whom a partnership agreement for agroforestry consultations and awareness raising at the grassroots level will be signed). Regional councils, local administrative institutions, and the regional ombudsman have all



committed to support consultations at the local level to ensure farmers' ownership of the contracting system thereby easing implementation. Their operating costs (transportation costs to project sites and per diems) will be supported by the subcomponent.

24. **Project Affected Persons (PAPs).** In GFs, farmers live in formally Government demarcated villages named "enclaves". Farmers will continue living in the enclaves. The main type of impact expected is the loss of informally occupied agricultural plots within the GFs after the expiration of the 5-year non-renewal contracts for farmers dwelling in HCV/HCS zones. This is consequently an economic impact on farmers' livelihoods. However, the risk of physical displacement cannot be excluded. The scoping done in the Livelihood Restoration Strategy (LRS), accompanying the RF, has established that there is no replacement land available in the GFs and enclaves while indicating that land may be found in adjacent rural areas. The number of household farmers potentially economically affected due to the implementation of high-density agroforestry and full restoration of HCV/HCS zones is estimated at 3,850 (of which 1,900 in Rapides Grah, 1,050 in Haute-Dodo, and 900 in Scio). In addition to these PAPs, there are approximately 300 farmers, according to SODEFOR's estimates, who might not be interested in signing agroforestry contracts. This is the other category of PAPs. All PAPs will be compensated by the project through sub-component 2.3 as proposed in the RF, and as will be set forth in the respective Resettlement Plans (RPs) and Livelihoods' Restoration Plans (LRPs).

#### **Agroforestry contractual obligations.**

25. The Farmer's main obligations: (a) implement cocoa-based agroforestry by planting up to 100 trees/ha in highly degraded flat areas; 250/ha in mountain slopes or up to 400/ha in HCV/HCS zones throughout the duration of the contractual agreement; (b) paying an annual rental fee (around FCFA 30,000<sup>19</sup> US\$60 equivalent per ha); (c) not undertaking expansion/development of new farming operations; (d) not clearing, mutilating, or cutting down trees; and (e) not engaging child labor.

26. The Government's main obligations are to (a) renew the Agroforestry Contract of farmers if contract clauses have been fully respected; (b) allow farmers to renew their cocoa plantations as long as they do not clear remnant forests to extend their farms; (c) provide farmers with forest seedlings free of charge as well as training and supervision in agroforestry work; (d) raise awareness on legal definitions of child labor, labor conditions for children ages 16 and above, and conditions for engaging children ages 14 and above in socializing work, in line with international conventions to combat child labor ratified by the country<sup>20</sup>; and (e) address any complaints in accordance with the project grievance mechanism (GM). Further details on the contract clauses are found in the contract template in annex 5.

27. Farmers will be allowed a grace period of up to 18 months to enter or opt out of the contracting system. This period will begin at the start of awareness raising on agroforestry contracts, trainings and the exchange visits on demonstration fields which will be conducted during the first year of project implementation. Farmers not interested in contracting will have to stop farming in the GFs six months after that year's harvests but will continue to live in the enclaves or in the established compounds (for Scio). It is

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<sup>19</sup> This fee is based on the fee applied in the pilot agroforestry contracting system implemented by SODEFOR in the years 2000s in the FC of Béki.<sup>20</sup> The country has ratified all key international conventions concerning child labor, and its legislative and regulatory framework is globally satisfactory. The Government has also implemented a series of *National Plans of Action to combat child labor (NPAs 2012-14, 2015-17 and 2018-21)*.

<sup>20</sup> The country has ratified all key international conventions concerning child labor, and its legislative and regulatory framework is globally satisfactory. The Government has also implemented a series of *National Plans of Action to combat child labor (NPAs 2012-14, 2015-17 and 2018-21)*.





expected that agroforestry contracts will be signed by year 2 of project implementation after the delivery of the PFMPs' associated studies (detailed census/ plot survey and the ESIA). The estimated 3,850 farmers in HCV/HCS areas with a five-year non-renewal contract and the estimated 300 farmers who might opt out after the grace period, will be compensated in accordance with the resettlement framework and associated RAPs and LRPs to be elaborated by year 1 or 2 of project implementation.

28. For farmers opting in, the project will support cocoa-based agroforestry on 300,000 ha within the three targeted C3 GFs in the southwest: Scio, Rapides Grah, and Haute-Dodo. Table 1.3 presents the proposed tree species to be introduced in cocoa farms. These species have been selected based on research and international experience with implementing cocoa-based agroforestry within GFs. These relatively slow-growing species are valued both for their timber quality and their high canopy, which allows the needed sunlight through to the cocoa plantations for better productivity.

**Table 1.3. Proposed Tree Species for Agroforestry in Highly Degraded Zones**

Local Name	Scientific Name
Makoré	<i>Tieghemella heckelii</i>
Bété	<i>Mansonia altissima</i>
Niangon	<i>Heritiera utilis</i>
Fraké	<i>Terminalia superba</i>
Framiré	<i>Terminalia ivorensis</i>
Akpi	<i>Ricinodendron heudelotii</i>
Acajou	<i>Kaya ivorensis</i>
Tiama	<i>Entandrophragma engolense</i>
Samba	<i>Triplochyton scleroxylon</i>
Sipo	<i>Entandrophragma utile</i>
Aboudikro	<i>Entandrophragma cylindricum</i>
Boborou	<i>Irvingia gabonensis</i>

Source: PFMPs firms and SODEFOR.

29. Farmers will be incentivized through agroforestry performance-based payment for their participation in plantation works, from nursery establishment to planting and maintenance of trees planted. In addition, for food security, farmers will be authorized to implement the *taungya* system. This integrated and participatory 'win-win' situation for farmers is designed to not only provide alternative income streams, but also to make the farmers key players in sustainable management of the GFs. Farmers' payments will be triggered by (a) tree seedlings produced by ha; (b) trees planted per ha and the percentage of success; and (c) the effective maintenance of trees planted. The project will ensure that performance-based contracts are signed equally by men and women depending on their areas of interests.

30. The proposed payment, as shown in table 1.4, will be paid to the farmers for performance-based agroforestry implementation, in line with national standard rates for forestry works:

**Table 1.4. Proposed Payment Rates for Agroforestry**

Activities	Proposed Payment
Nursery development for 100 plants/ha	US\$50/ha
Nursery development for 400 plants/ha	US\$125/ha
Field preparation and planting	US\$30–75/ ha
Plantation maintenance	US\$25/ha/year



31. Performance verification will be carried out by decentralized SODEFOR GF management centers, followed by verification by an independent firm which will be competitively by year 2 of project implementation. The verification firm will report to the UIAP. The UIAP was formally created by Ministerial Arrêté in 2020 to implement WB financed environment, forestry and natural resources management projects, under the umbrella of the Ministry of Environment and Sustainable Development.

32. Payments to beneficiaries will be made by a payment agency through mobile money transfer. Mobile provider, MTN, was selected competitively for mobile payment under FIP-1 and its contract will be extended under FIP-2. A specific manual governing the performance-based payment mechanism related to plantation works cycle (from nurseries development to planting and periodic maintenance for protection against bushfires) was developed by UIAP and is currently in use under FIP-1. This will be extended and adapted to FIP-2. It includes the mechanism to ensure regular transfer of payment to beneficiaries in line with their performance. Despite some initial delays in transfers due to the novelty of this method, which have now been resolved, both the performance verification methodology and the payment transfers are now effectively working under FIP-1 and provide a strong basis for continuing the approach under FIP-2.

While FIP-2 provide tree seedlings and technical assistance for tree planting and maintenance on 300,000 ha of degraded lands, PDIC will (a) support the establishment and operation of a national cocoa traceability system to provide evidence of deforestation and child labor-free cocoa production, and (b) provide compensation to farmers affected by the swollen shoot disease, which is a viral disease that attacks cocoa farms.

33. Subcomponent 2.2: Strengthening the capacity of SODEFOR, MINEF and local Institutions for sustainable GF management (US\$3 million)

34. The subcomponent aims to enhance the capacity of SODEFOR and MINEF to ensure successful implementation of cocoa-based agroforestry, reforestation as well as overall sustainable GF management. It will finance services of a seasoned agroforestry firm, which will be recruited at the onset of project implementation and housed at SODEFOR for capacity enhancement in agroforestry and reforestation activities. Field level Local Community Development Agents (LCDA) will also be recruited, trained in agroforestry by the firm, equipped with motorcycles, and based at the village level to facilitate daily monitoring and supervision of agroforestry implementation at the farm level. The sub-component will also finance LDCA's operating costs for their participation in consultations and awareness raising activities along with local NGOs in support to decentralized SODEFOR GF management centers.

35. The subcomponent will also finance (a) acquisition of equipment, including IT equipment, vehicles, motorcycles, and drones to enhance the capacity of MINEF and the decentralized SODEFOR management centers of targeted GFs for efficient forest surveillance and (b) rehabilitation of site-specific control posts where patrolling agents will be posted on a rotational basis for close GF surveillance, operating costs for communication (cell phone and internet services) among patrollers for timely coordination of the GF surveillance activities.

36. Village monitoring committees (watchdog committees) formed within the CLCG will also be set up to support SODEFOR in its surveillance efforts, to ensure HCV/HCS and remnant natural forests areas enhanced protection and conservation and prevent new clearing of lands for agriculture in the targeted GFs. They will participate in GF surveillance jointly with SODEFOR. The project will support the operating costs of the CLCGs, including regular meetings, and provision of communications technology (for example, cell phones) and



motorcycles for patrolling of GFs. Regional councils will be involved in awareness raising activities at the local level focused on communication, education, and information on agroforestry and its economic, social, and environmental benefits to the communities. Operating costs related to activities conducted by the regional councils will be supported by the project.

***Subcomponent 2.3: Support livelihoods restoration for PAPs and income generating activities for GF riparian communities (US\$30 million, of which US\$25 million for PAPs and US\$5 million for riparian communities through IGAs).***

37. This subcomponent is designed to provide financial and technical support to (a) PAPs who would potentially opt out of the contracting system and would therefore have to leave their plots; (b) PAPs implementing high-density agroforestry in HCV/HCS areas who will sign a five-year non-renewable agroforestry contract; and (c) other GF riparian communities interested in undertaking activities other than agriculture to improve their living conditions.

38. As indicated in the Livelihoods Restoration Strategy (LRS), the following five options of LRS have been explored in a participatory manner with local communities: (i) establishment of a sharecropping system whereby the PAP can work on a landowner plot, and in return obtain a mutually agreed share of the harvests; (ii) land leasing for agriculture in the rural domain; (iii) professional reconversion of non-agricultural activities in the rural domain; (iv) land allocation for continuation of agriculture in the enclaves or adjacent rural areas; and (v) reconversion for the development and implementation of alternative Income Generating Activities in the rural domain.

39. However, the LRS indicates the apparent non-availability of Lands either in the GF, the enclaves, or in adjacent rural area. Therefore, activities that will lead to economic displacement of farmers with agricultural plots will be conditional on the availability of replacement lands as required in the approved LRPs and RAPs, and the commitment of the government to relocate these farmers on clearly designated lands. This commitment, as well as the availability of such land will be clearly outlined in the LRPs and RAPs to be submitted to the World Bank for non-objection. If replacement lands were not available at the time of the detailed census of PAPs, the Government will have to make such replacement lands available, either through land purchases or other means acceptable to the World Bank.

40. In terms of IGAs, special emphasis will be given to non-timber forest products (NTFPs) IGAs such as beekeeping and mushroom production and commercialization, which are currently under way with demonstrated success among the forest-dependent communities in the GFs of Béki (cocoa belt) and Kobo (center region). An evaluation of the value chains of these ongoing NTFPs will be conducted at project start and lessons learned will be used in the development of the new NTFPs to be financed with project support.

41. For beekeeping and honey production, the subcomponent will finance (a) capacity building and acquisition of high productivity hives for targeted forest-dependent communities; (b) a marketing study looking at sources of demand, packaging, labeling, and certification options; and (c) small honey processing units for beneficiaries to be organized in cooperatives with support from the project.

42. For mushrooms production and commercialization—an activity mostly run by women—the project will work with potential beneficiaries to identify their needs and support them with small equipment to facilitate mushrooms production, processing, storage, and packaging.



43. Other eligible IGAs may include (a) transformation of agricultural products (that is, cassava into a national dish ‘attiéké’); (b) small livestock production (local poultry, pork, and small ruminants); (c) non-conventional breeding (rabbit, snails, and aulacode); (d) vegetable gardening; (e) organic rice production; and (f) conversion including training to undertake other tertiary jobs.

44. Care International, the NGO selected competitively to implement the DGM IGAs and microprojects, will support implementation of the subcomponent, as a service provider. A tripartite agreement will be signed between Care, SODEFOR, and UIAP at the onset of project implementation. Care will liaise with local institutions including SODEFOR decentralized GF management centers, regional councils, local NGOs, Local Community Development Agent, PAPs, and riparian communities for the participatory selection and implementation of IGAs in line with the RAPs and the IGA manual developed by the project.

### **Component 3: Support Sustainable Management of National Parks and Nature Reserves (US\$12 million equivalent)**

45. The objective of this component is to scale up FIP-1 interventions to support sustainable management of national parks located in the cocoa belt that are under threat of cocoa agriculture and illegal artisanal gold panning encroachments.

46. The following are target sites for this component:

- (a) The Tai National Park, which, together with the Mont Peko National Park and N’zo Natural Fauna Reserve, constitute the largest remaining West African primary tropical forest under protection. TNP is one of the only remaining dense rainforests in West Africa and the most indispensable area for conserving unique West African biodiversity. (These sites are included in the ERP sites.)
- (b) The Mabi-Yaya Natural Reserve constitutes the largest forest in the southeast and is currently under threat of encroachment by cocoa agriculture. Its enhanced conservation will help maintain an ecological balance that is beneficial to improved cocoa productivity in the farms in its vicinity.

#### ***Subcomponent 3.1: Capacity enhancement for surveillance and ecological monitoring of national parks and natural reserves (US\$7 million)***

47. This subcomponent aims at enhancing the surveillance capacity of OIPR and awareness raising within communities to sustain the integrity of the TNP and adjacent N’zo Natural Reserve and enhance the preservation of Mabi-Yaya Natural Reserve and Mont Peko National Park.

48. The subcomponent will finance (a) provision of drones and training for their effective use to enhance aerial surveillance of the parks; (b) works to restore highly degraded access roads (approximately 200 km) to ease ground surveillance in the northeast and western areas of the TNP and its adjacent Nzo Fauna Reserve, which are under encroachment threat of illegal artisanal gold panning; (c) rehabilitation of degraded rangers’ quarters; (d) provision of patrolling vehicles and technical equipment to enhance ground surveillance; and (e) operating costs related to annual surveillance plans of the targeted protected areas.

49. In addition to surveillance efforts, information, communication, and education activities focused on communities bordering the protected areas are essential to creating behavior change and increasing the



potential for community participation in the sustainable management of the parks and their resources. Programs on environmental awareness and on natural resources management and sustainable use will be supported by the project. These programs will revolve around awareness campaigns along with environmental education sessions in primary and high schools located in communities bordering the targeted parks.

50. The subcomponent will finance (a) production and dissemination of communication and awareness raising materials on themes related to illegal artisanal gold mining and its impacts on the environment and human health; (b) agreements with local radio to disseminate awareness raising messages on the sustainable management of protected areas; (c) awareness raising workshops in schools for environmental education led by local environment NGOs to be recruited and financed by the project; and (d) technical assistance for the scientific monitoring and piloting approaches to natural regeneration of old gold panning sites at the vicinities of the Parks which are hazardous for park rangers and riparian communities.

***Subcomponent 3.2: Support enhanced livelihoods of park adjacent communities (US\$5 million)***

51. The objective of this subcomponent is to reduce human pressure on the targeted national parks and reserves through development and implementation of alternative IGAs to benefit riparian communities. The subcomponent will target park riparian communities of the TNP, the Nzo Fauna Reserve, Mont Péko National Park and Mabi Yaya Natural Reserve.

52. The development of IGAs will target women for food security and providing them with incomes given that they have limited access to cocoa cash crop revenues. Based on consultation with local communities, eligible activities will include (a) organic vegetable gardening; (b) organic rice production; (c) animal husbandry as an alternative to bush meat hunting; (d) fish farming and aquaculture; (e) community-based reforestation and agroforestry; and (f) bee keeping.

53. Two categories of beneficiaries will be eligible to receive subgrants for the development and implementation of IGAs: (a) community associations (average 20 people per association) and (b) individuals. The proposed financing thresholds per community association and individual is as follows:

- (a) Threshold per community associations: US\$20,000 to US\$60,000
- (b) Threshold for an individual microproject: US\$5,000 to US\$10,000

54. It is expected that the subcomponent will fund the development and implementation of about 270 microprojects, of which 77 are community associations and 193 are individuals, with direct and indirect impacts on 177,000 community members through job creation and food security.

55. Subgrants will be provided to recipients in tranches through mobile transfer to recipients in three installments (40 percent advance payment, 40 percent at midterm, and 20 percent on completion of IGA development). For community-based reforestation and agroforestry IGAs around the TNP, payments will be made using a result-based payment approach through mobile money transfer.

56. Recipients must satisfy the following criteria: (a) be a resident of a village adjacent to the parks or the natural reserve; (b) have proven operational experience in the IGAs being submitted for financing; and (c) provide proof of personal contribution (10 percent in cash or in-kind). Community associations must show proof of official recognition and be functional. Individuals must provide a certificate of residency. To expand



opportunities and facilitate capacity building among community members, community associations can apply for financing even if only a few members of the association have experience in the IGA being submitted for funding.

57. The subcomponent will also finance works for the establishment of boreholes (identified as a need in the gender gap assessment) for park riparian communities to increase access to potable water (for both women and men) and for establishment of nurseries by women to support vegetable gardening. 'Tricycles' (motorized cargo transport) will also be financed to facilitate women's access to production sites and to the markets for the sale of their agriculture and agroforestry products—given that lack of means of transportation was also identified as a gender gap between men and women.

58. Care International will support implementation of this subcomponent as a service provider under joint supervision by OIPR and the UIAP, and oversight by the supervision firm. An agreement between Care, OIPR, and UIAP will be signed at the onset of project implementation. An IGA manual has been developed by the Government to support implementation of this subcomponent.

#### **Component 4: Support implementation of Participatory Forest Management Plans of Category 4 GFs in the Savanna (US\$44 million equivalent, of which IDA US\$36 million and SCF FIP trust fund US\$8 million)**

59. The objective of this component is to support the implementation of C4 GFs through (a) large-scale reforestation program to contribute to the SPREF objective of restoring the country's forest cover to 20 percent by 2040 and (b) support partnership with the private sector and local communities initiated under FIP-1.

60. The component is articulated around two subcomponents: (a) establishment and management of production forests through performance-based payment and (b) promotion of partnership with women associations and local private sector for sustainable forest management.

##### ***Subcomponent 4.1: Support establishment and sustainable management of production forests (US\$29 million)***

61. This subcomponent aims at addressing the drivers of deforestation and forest degradation due to harvesting of natural forests for timber and fuelwood, through the development of forest plantations managed sustainably to provide for the country's needs for wood energy and timber.

62. The following 16 Category 4 GFs have been targeted, given their high production potential: Haut Bandama, Loho, Pyerrhé, Kobo, Matiemba, Soungourou, Kouabo-Boka, Boka-Go, Laka, Fêtékro, Ahua, Bandama Supérieur, Léraba, Nzi Supérieur, Boundialy, and Pouniakélé.

63. The subcomponent will support SODEFOR in establishing a total of 20,000 ha of production forests, including 17,000 ha of timber plantations with teak and gmelina species and 3,000 ha of fuelwood plantations with *Cassia siamea*, a fast-growing fuelwood species commonly used in Côte d'Ivoire for wood-energy.

64. Establishing production forests in highly degraded areas in the GFs will be supported by the following preparatory activities: (a) an analytical study to ascertain soil quality and identify, survey, and map potential plantation sites; (b) field-level works and posts to demarcate areas to be allocated for plantation





establishment; and (c) support to established community-led nurseries in the enclaves or adjacent rural lands, for the production of selected adaptive tree species.

65. SODEFOR will develop technical itineraries for the establishment of the plantations as well as for their sustainable management. The subcomponent will finance works for plantation development and for the establishment of fire breaks (manual and/or vegetative) around plantations, which will be closely monitored against potential bushfires (a driver of deforestation and forest degradation) throughout the first four years of growth (when new plantations are most vulnerable to bushfires in the dry season).

66. Plantation works will be conducted manually in a participatory and inclusive manner with local communities. Local communities will be incentivized through a payment-for-results mechanism to encourage their active participation in plantation works, including, supporting already established nurseries in enclaves or rural lands adjacent to the GFs, for tree seedlings by women; transporting plants to plantation sites in GFs; and ensuring maintenance of plantations through establishment of fire breaks, removal of weeds, and overall plantations surveillance. Implementation thus far under FIP-1 has shown a strong level of success with over 240 performance-based reforestation contracts signed, reaching over 500 beneficiaries, about 42 percent of whom are women.

67. Performance-based contracts will be established between farmers, SODEFOR, and UIAP. The project will ensure that performance-based contracts are signed by both men, especially youth, and women as done under FIP-1.

68. Payments will be triggered by (a) the number of seedlings developed in the nurseries by women; (b) stage of field preparation; (c) the number of tree seedlings transported to plantation sites; (d) the number of tree seedlings planted and the percentage of success (that is, well-established seedlings over a grace period); and (e) effective maintenance of planted trees. Performance verification will be carried out by decentralized SODEFOR GF management centers, and independently re-verified by a verification firm and reported to UIAP. Mobile payment transfer will be made by MTN based on the verification report to be submitted to it by UIAP. It is expected that through this performance-based system, 4,000 jobs will be created based on an average of 5 ha of reforestation area per farmer, that is, 20,000 ha of degraded GFs that will be reforested through the subcomponent.

69. The performance-based manual for reforestation and agroforestry established for FIP-1 has been revised to support implementation of this subcomponent.

70. The subcomponent will also finance (a) acquisition of patrolling equipment, including vehicles and motorcycles, to enhance the capacity of the decentralized SODEFOR management centers of targeted GFs for efficient surveillance of plantations and (b) operating costs for forest plantations' monitoring and surveillance.

71. Subcomponent 4.2: Promotion of partnership with women associations and local private sector for sustainable forest management (US\$15 million of which IDA US\$7 million and SCF FIP trust fund US\$8 million)

72. The objective of this subcomponent is to enhance women participation and local private sector in sustainable forest management.



73. **Women participation in forest management.** To rehabilitate degraded GFs in the savanna area, SODEFOR is promoting partnership with women-led associations. The associations are granted blocks of degraded GF areas where they are allowed to farm by implementing *taungya*-based agroforestry. The *taungya* system consists of intercropping, that is, planting agricultural crops such as maize, peanut, cassava, yam, and soya interspersed among forest plantations, and has been successfully implemented under FIP-1.

74. SODEFOR provides the tree seedlings and capacity building in the *taungya* method and the associations have the responsibility of tree planting and maintenance. The wood products deriving from trimming of the plantations belong to the associations, which can be used for fuelwood. This win-win approach for both SODEFOR and the communities provides labor force to SODEFOR on one hand and on the other hand, provides land use security to communities through *taungya*-based agroforestry contractual agreements, in addition to food security and improved livelihoods through the sale of trimmed wood and sale of agricultural products derived from the *taungya* system.

75. An ongoing example is a contractual agreement between SODEFOR and a well-organized women's association (Malébi) that is rehabilitating and managing a C4 GF (Ahua, 4,652 ha) located in Dimbokro, in the center region. FIP-1 is supporting this association through SODEFOR with (a) provision of tree seedlings; (b) capacity building in *taungya* method; (c) establishment of boreholes to facilitate access to water in the vicinity of the GF to water their *taungya* plots; and (d) transportation means (tricycles and their maintenance) to access the GF and markets. Furthermore, under FIP-1, SODEFOR extended Malébi's contractual agreement to 15 years given the successful management of the GF by the association.

76. The subcomponent will work with SODEFOR to establish additional partnership agreements with women for the management of C4 GFs of Loho, Pyerrhé, and Kobo. The project will also support capacity building in *taungya*; provide women with tree seedlings and agricultural inputs packages; establish boreholes and water points; and provide means of transportation and technical assistance to the women's associations for nurseries development, planting, and tree maintenance. The targeted women have also expressed interest in developing animal husbandry activities as part of their *taungya*-based agricultural package. The subcomponent will therefore provide small grants to women associations for the development and implementation of animal breeding microprojects to further enhance women's access to income through the sale of their agricultural harvest and animal products, as well as for improved food security.

77. Care International will support this activity as part of the partnership agreement with the project.

78. **Partnership with the local private sector for sustainable GF management.** FIP-1 is currently partnering with a local private investor (Nzi River Lodge) who has an agreement with SODEFOR to upgrade the GFs' network of Laka-Mafa, Besse-Boka, Fetekro (41,000 ha) as a fauna reserve for biodiversity conservation. The private investor is responsible for ensuring sustainable management of this network of GFs, including ecotourism activities. As part of the reserve development, 30 eco-guards have been recruited from the villages adjacent to the targeted forests. Youth from adjacent communities have also been trained and hired as game viewing guides. The partner program also supports adjacent communities by developing IGAs, such as vegetable gardening, to enhance livelihoods. FIP-1 financed a 'long fence' to support the demarcation of the Laka-Mafa, Besse-Boka, Fetekro complex from the Rural Domain. FIP-2 will support electrification of the fence to contain the wildlife within the GF complex thereby protecting riparian communities from destruction of their farms by wildlife.





## **Component 5: Project Administration, Coordination, and Safeguards (US\$19 million equivalent)**

79. The objective of this component is to support overall daily administration of the project to ensure that regular monitoring and evaluation (M&E) is carried out and there is a feedback loop of findings to inform decision-making on project implementation. The component is implemented through the following two subcomponents.

### ***Subcomponent 5.1: Administration and coordination (US\$11 million)***

80. The subcomponent will support administrative, fiduciary and technical coordination of the project.

81. Technical execution will sit with SODEFOR for (component 1, 2 and 4) and with OIPR for component 3. The Director General of the respective agencies will establish within their agency a technical project execution unit staffed with: (a) a designated technical coordinator recruited competitively; (b) designated field-based personnel for the execution of agroforestry, reforestation and conservation activities; (c) community development agents to be competitively recruited and based at the village level and under the responsibility of SODEFOR decentralized GF management centers in San-Pédro for Rapides Grah and Haute-Dodo, and in Man for Scio, to support agroforestry activities at the grassroots level.

82. Administrative and fiduciary support will be ensured by the Integrated Unit for WB financed Environmental projects (UIAP) created in 2020. The UIAP encompasses the following Support Service units and related specialists: (a) financial management; (b) procurement; (c) Monitoring and Evaluation; (d) environmental and social safeguards which will be reinforced with a gender specialist with adequate knowledge on SEA/SH; and (e) communication and stakeholder engagement. The General Coordinator of UIAP will be responsible for supervising these units; and a technical person responsible for ensuring the liaison between UIAP and the technical project execution units (SODEFOR and OIPR) and to support them with the annual workplan development.

83. Furthermore, sufficient resettlement expertise will be recruited to enhance the capacity of UIAP throughout project implementation. This expertise will include: (a) at least one full time, highly qualified resettlement expert and up to three local resettlement specialists. The seasoned resettlement expert will participate in the validation and adoption process of the detailed census reports complementing the management plans and other consultations with possible PAPs. The hiring of the local resettlement specialists can be staggered during implementation of the various RAPs and LRPs. The Terms of Reference for the seasoned resettlement expert and local experts will be reviewed and given the non-objection by the World Bank prior to contracting; and (b) adequate resources to support this work including equipment, travel/transportation and associated expenses and office administrative support. These will be adequately planned, and budget assigned in the annual work plans for the project.

84. **Communication.** The subcomponent will finance at the onset of project implementation, services of a seasoned communication agency which will develop a strong communication strategy with well-designed strategic messages tailored to the project targeted audiences, especially local communities at the grassroots level which may be project affected persons. The communication agency will also develop annual communication plans and campaigns to be deployed throughout project life span to ensure continued stakeholders' engagement. Local NGOs, regional councils and local administrative authorities will also participate in awareness raising campaigns and their operating costs will be supported by the subcomponent.



85. This subcomponent will also finance (a) salaries of employees (except for civil servants) dedicated to the project; (b) operating costs (workshops) for the establishment and monitoring of annual budgeted work plans and associated Procurement Plans; (c) operating costs for M&E missions; (d) technical assistance and operating costs for the implementation of annual communication plans derived from the communication strategy; (g) stakeholder engagement and consultation workshops in a participatory and inclusive manner with local NGOs, regional councils, and local administrative institutions at the grassroots level. Details on the implementation arrangements between UIAP, SODEFOR, OIPR as well as the project Steering Committee (*Comité de Pilotage*, COPIL) anchorage and role is presented in section III (Institutional and Implementation Arrangements); and (f) the costs of project annual audits and supervision costs associated with project implementation and meetings such as stakeholder engagement workshops, technical trainings, project launching, midterm review, and completion workshops.

86. To guide execution and management of project activities, the FIP-1 Project Implementation Manuals (PIMs) have been revised by the Government to factor in FIP-2. The PIMs also provide details on (a) the actions and indicators aimed at addressing gender gaps identified during project preparation; (b) potential gender-based violence (GBV) risks related to project implementation and measures to mitigate them; and (c) a Grievance Mechanism (GM).

87. Supervision firm: The subcomponent will also finance the services of a supervision firm to oversee overall project implementation. The firm will, among other things, (a) review all project outputs and provide inputs both in substance and form before their submission to the World Bank task team for review and ‘no objection’; (b) carry out field missions to supervise activities’ execution at the local level; (c) oversee activities led by project technical implementing agencies (SODEFOR and OIPR); (d) ensure compliance with ESSs, including ESS 5; and (e) provide upstream guidance as necessary to prevent bottlenecks that could hinder timely implementation.

88. Monitoring will be conducted quarterly to ensure that lessons learnt can be incorporated during project implementation. This is particularly important given previous concerns expressed by national and international environmental organizations and other civil society entities on the role of the private sector and concessions, as delineated in the SPREF and CFI, and on child labor issues in Côte d’Ivoire.

89. Independent evaluation: To ensure an independent evaluation of the project’s results, the sub-component will finance services of civil society organizations to carry out independent monitoring of the implementation of several aspects of the project including: (i) payment-for-results mechanism; (ii) production forests establishment and management; (iii) agroforestry implementation in GFs in line with GFs management plans; and (iv) monitoring project activities to prevent potential use of child labor on forest plantation sites. The civil society report will make it possible to verify that the activities implemented have respected the commitments made and that the results presented are consistent with the reality on the ground. The civil society team will: (i) develop a clear methodology for independent oversight focused on a set of issues to be agreed upon with the World Bank; (ii) receive all information necessary for oversight; (iii) carry out field missions to collect data; and (iv) produce observation reports.

90. The subcomponent will also finance technical assistance to provide a web-based and publicly accessible digital platform, including GIS imagery to automatize the monitoring and verification of contracts implementation.



***Subcomponent 5.2: Support national capacity building in World Bank environment and social safeguards (US\$8 million)***

91. The objective of this subcomponent is to improve the country's systems for the adoption and implementation of World Bank ESF instruments. The subcomponent will finance services of a consortium of international and national safeguards firms with experience and knowledge of World Bank ESF to enhance national capacity in safeguards, including supporting UIAP with project safeguards instruments implementation. The firm will undertake (a) capacity assessment and needs assessment of all the key stakeholders to establish what capacity already exists and where further training is required; (b) development and implementation of an ESF training plan; and (c) capacity-building support to national institutions, especially ANDE for its decentralization at the local level, SODEFOR, OIPR, CCC, MINEDD, MINEF as well as other ministerial entities or agencies in charge of implementation of World Bank-financed projects. This will include technical assistance for the development of environmental and social terms of reference, environmental and social safeguards instruments, environmental and social studies (that is, environmental and social impact assessments), and workshops or forums on the ESF contents and procedure.

92. Furthermore, institutions from the public sector, private sector, and civil society will benefit from ESF trainings organized by the World Bank on a regular basis to strengthen their capacity in the design, application, and implementation of ESF instruments.

93. The subcomponent will also establish a partnership with national universities for the inclusion of ESF in the study programs to build the capacity of students in environment and social development faculties. The aim of this partnership is to enhance the universities' capacities with the support of environmental and social safeguards experts who would provide trainings to the students based on a capacity-building plan, to be agreed upon between the universities and the World Bank ESF specialists.

94. The overall aim of the capacity-building efforts is (a) improve the quality of ESF products; (b) improve understanding and oversight of social and environmental issues among local actors; and (c) identify and set up a network of professionals in the environmental and social safeguards area that can increase the availability of competent specialists in the labor market in Côte d'Ivoire.



## Annex 2: Implementation Arrangements and Support Plan

### COUNTRY: Côte d'Ivoire Forest Investment Project, phase 2

#### Strategy and Approach for Implementation Support

1. The strategy for implementation support has been developed based on the nature of the project and its risk profile. It will aim at making implementation support to the client more flexible and efficient and will focus on implementation of risk mitigation measures defined in the Systematic Operations Risk-Rating Tool (SORT).
2. **Procurement.** Implementation support will include (a) reviewing procurement documents and providing timely feedback to UIAP; (b) providing detailed guidance on the World Bank's Procurement Guidelines to the UIAP; (c) monitoring procurement progress against the detailed Procurement Plan; and (d) providing procurement training as needed to UIAP for continued procurement capacity strengthening.
3. **FM.** Supervision will review the project's FM system at the UIAP, including, but not limited to, accounting, reporting, and internal controls.
4. **Environmental and social safeguards.** The World Bank Environmental and Social Standards specialists are based in the World Bank's country office in Abidjan and will provide technical support and guidance to the UIAP for the implementation of the project environmental and social safeguards instruments. They will work closely with the safeguards specialists hired by the project and participate in supervision missions as required. Furthermore, a specialized safeguards firm will support the project with safeguards implementation, including capacity building at the national level. Sufficient resettlement expertise will be recruited to support implementation and supervision of economic or physical resettlements.
5. **Anti-corruption.** The World Bank team will supervise the implementation of the agreed Governance and Accountability Framework and provide guidance in resolving any issues identified.
6. **Technical inputs.** Most of the World Bank team members are based in Abidjan, including the Task Team Leader (TTL), to ensure timely, efficient, and effective technical implementation support to the client. Formal implementation support missions and field visits will be carried out quarterly. Technical inputs will also be provided by an experienced expert which will be recruited at the onset of project implementation and housed at SODEFOR to support it with coaching/mentoring cocoa farmers for the introduction of tree species in their plots as well as tree maintenance to balance the ratio of sun-to-shade in cocoa farms. A supervision firm will also be recruited to have oversight of all project activities. The firm will, among other things; (a) review all project outputs and provide inputs both in substance and form before their submission to the World Bank task team for review and 'no objection'; (b) carry out field missions to supervise the execution of activities at the local level; (c) oversee activities led by project technical implementing agencies (SODEFOR and OIPR); and (d) provide upstream guidance as necessary to prevent bottlenecks that could hinder timely implementation.
7. **Fiduciary requirements and inputs.** Training will be provided by the World Bank's FM specialist and procurement specialist as needed to project staff. Both the FM and the procurement specialists are based in



the World Bank's country office in Abidjan and can provide timely support. Formal supervision of FM and procurement will be carried out semiannually.

## **Financial Management and Disbursement Arrangements**

### ***Implementation Support Plan and Resource Requirements***

8. In line with the guidelines as stated in the Financial Management Manual for World Bank IPF Operations that became effective on March 1, 2010, and was last revised on February 10, 2017, an FM assessment was conducted within UIAP, which will have overall responsibility for FM of the project. The assessment of the FM capacity of UIAP was conducted by the Côte d'Ivoire country office FM specialist. The objectives of the assessment were to determine the following: (a) whether this entity has adequate FM arrangements in place (planning, budgeting, accounting, internal control, funds flow, financial reporting, and auditing arrangements) to ensure that project funds will be used for purposes they are intended for and in an efficient and economical way; (b) that project financial reports will be prepared in an accurate, reliable and timely manner; and (c) that the project's assets will be safeguarded.

9. UIAP has experience working on projects financed by the World Bank. UIAP is currently managing three World Bank-financed projects: (a) West Africa Coastal Areas Resilience Investment Project (P162337, IDA 62120: US\$30.0 million), which will close on December 31, 2023; (b) Forest Investment Program (P162789, TFA6248: US\$9.44 million, TFA6861: US\$5.560 million), which will close on May 31, 2023; and (c) the ERP. UIAP was also the implementing unit for two projects (a) Obsolete Pesticides Management Project (P131778, TFA0742: US\$7.00 million), which closed on June 30, 2021, and (b) REDD+ Readiness Preparation in RCI (P149801, TFA5414: US\$5.00 million), which closed on June 30, 2021. The fiduciary compliance was deemed satisfactory for the above projects. Furthermore, in general, the unaudited IFRs were submitted on time and were found acceptable, and there are no overdue audit reports under the responsibility of UIAP at the time of the Financial Management Assessment. However, the assessment concluded that the current arrangements would need to be strengthened to meet the World Bank's minimum requirements under the World Bank Policy on Investment Project Financing.

10. The overall FM residual risk for UIAP is rated Substantial, mainly because of the project design involving multiple actors, including local communities. The conclusion of the assessment was that UIAP would be in a position to manage World Bank's funds once the following measures are implemented before and after project effectiveness: (a) hire or appoint on a competitive basis, an accountant for FIP-1 and FIP-2 and an accounting assistant solely dedicated to FIP-2, with qualifications and experiences satisfactory to the World Bank (before effectiveness); (b) configure the existing accounting software parameters to reflect FIP-2 activities (three months after effectiveness); (c) revise the MTN mobile-money provider contract to include payments under FIP-2 (six months after effectiveness); (d) revise the internal audit agreement with the IGF to reflect the audit of FIP-2 (three months after effectiveness); and (e) recruit an external auditor with experience and qualifications acceptable to the World Bank to audit FIP-2 annual financial statements (six months after effectiveness).



Table 2.1. Project FM Risk and Mitigation Measures

Type of Risk	FM Risk Rating		Brief Explanation of Changes and any New Mitigation Measures
	Risk Rating	Residual Risk Rating	
Inherent Risk			
Country level	H	H	
Entity level Although the UIAP is created, there are potential risks related to the coordination between the different projects’ coordinators under a general coordinator. The design of the project involves several entities and is subject to difficulties in activities’ coordination.	S	M	<ul style="list-style-type: none"><li>• The line ministry and the World Bank will agree on the revised organizational chart of UIAP with detailed roles and responsibility of the key staff of UIAP.</li><li>• Hire or appoint the following staff fully dedicated to the accounting FM, and disbursements tasks: (a) an accountant and (b) an accounting assistant to be dedicated to the project.</li><li>• A PIM, including the FM procedures manual, will be prepared and submitted for approval three months after effectiveness.</li></ul>
Project level Project activities prone to irregularities (workshop for several actors including NGOs and communities in remote areas) - all budget related to these activities subject to the World Bank prior review.	H	S	<ul style="list-style-type: none"><li>• All budgets related to some project activities (workshops, conferences, and training) will be subject to World Bank prior review.</li><li>• Supervision mission will include reviews of expenditures.</li><li>• The PIM, including FM procedures, will be submitted for approval to actors involved in the project.</li></ul>
Overall Inherent Risk	H	S	
Control Risk			
Budgeting Delays in budget planning and execution	H	S	<ul style="list-style-type: none"><li>• A detailed AWPB required each year and proclaimed.</li><li>• AWPB reviewed and approved by the project COPIL and the World Bank.</li><li>• The project FM procedures manual will define the arrangements for budgeting, budgetary control, and the requirements for budgeting revisions.</li><li>• IFRs will provide information on budgetary execution and analysis of variances between actual and budget expenses.</li></ul>
Accounting Although UIAP has robust experience with the World Bank’s FM procedures, there are not yet FM staff dedicated to the project. The accounting system is in place but could not fit the project’s needs.	S	M	<ul style="list-style-type: none"><li>• Strengthening of the FM team with selection of a dedicated accountant and an accounting assistant to perform the project’s activities.</li><li>• The Ministry of Budget and Ministry of Finance will assign to the project dedicated financial controllers and public accountants in line with Decree 475 issued by the Government of Côte d’Ivoire.</li></ul>
Internal controls Internal audit functions performed by IGF are not found satisfactory to the World Bank due to the lack of effective internal audit function during the first phase of the project.	H	S	<ul style="list-style-type: none"><li>• The signing of the protocol between the IGF and UIAP will allow the IGF to include this project in its scope of work. The implication of IGF will be assessed during the project— revision of the FM manual to clarify policies applicable to workshops and per diem. Prior review by the World Bank of all budgets related to workshops, missions, and seminar;</li></ul>



Type of Risk	FM Risk Rating		Brief Explanation of Changes and any New Mitigation Measures
	Risk Rating	Residual Risk Rating	
			increasing of the size of sample of expenditures reviewed during supervision missions.
<b>Funds Flow</b> Delay in justification of funds transferred to implementing agencies due to the fact that beneficiaries are based in geographically remote areas and scattered across the country.  Delays in funds transfers which could impede the implementation of project activities.  Lost of track of money due to multiple actors, resulting in a large number of transactions expected.	S	M	<ul style="list-style-type: none"> <li>• A DA in XOF will be opened at BCEAO.</li> <li>• A project account will be opened in a commercial bank under terms and conditions acceptable to the World Bank. This project account will be used to pay for all the expenditures related to the project.</li> <li>• Terms and conditions for justification of World Bank's funds transferred to other entities involved in the implementation of the project activities for them to make payments of expenditures will be detailed in the PIM. Interest incomes on the project account will be deposited into a sub-account opened in a commercial bank and used according to the FM manual.</li> <li>• Prior reviews of documents by the Financial Controller and the Public Accountant (Agent Compatible) assigned to the project by the Ministry of Budget and the Ministry of Finance.</li> <li>• Advance payments will be made to multitude actors. The advance will be renewed on the basis of documentation submitted.</li> <li>• An operator of mobile money MTN will be used to send money to the local communities. Procedures will be used by this operator to ensure that money will be received by indicated beneficiary or community through inter alia, verification of identity cards and mobile phone number.</li> </ul>
<b>Financial Reporting</b> Delays in financial reporting	S	M	<ul style="list-style-type: none"> <li>• The existing accounting software used under FIP-1 will be migrated to take into consideration the new project's needs.</li> <li>• Submit IFRs on a semiannual basis to the World Bank, no later than 45 days after the end of each calendar semester.</li> <li>• Submit annual financial statements annually, no later than six months after the end of the Government fiscal year.</li> </ul>
<b>Auditing</b> Delays in submission of audit report The scope of the mission may not cover expenditures incurred by implementing entities.	H	S	<ul style="list-style-type: none"> <li>• A private external auditor will be appointed to conduct the audit of the financial statements of the project.</li> <li>• The ToRs of the external auditor (to be reviewed by the World Bank) will include, if needed, field visits and specific reports on findings of physical controls of goods, services, and works acquired by the project.</li> <li>• The scope of the audit will cover the activities implemented by the project and any partner implementing agencies.</li> </ul>
<b>Fraud and Corruption</b> Possibility of circumventing the internal control system with colluding practices such as bribes, abuse of administrative positions, and mis procurement	S	M	<ul style="list-style-type: none"> <li>• The ToRs of the external auditor will comprise a specific chapter on corruption auditing</li> <li>• The IGF will review project activities. Copy of the IGF reports will be submitted to the World Bank.</li> <li>• Measures to improve transparency such as providing information on the project status to the public and public</li> </ul>





Type of Risk	FM Risk Rating		Brief Explanation of Changes and any New Mitigation Measures
	Risk Rating	Residual Risk Rating	
			disclosure of audit reports on project annual financial statements are built into the project design
<b>Overall control risk</b>	H	S	
<b>Overall FM risk</b>	H	S	<ul style="list-style-type: none"> <li>Once the remaining key actions considered at the time of the assessment as dated covenants are implemented, the project FM risk rating could be downgraded to Moderate.</li> </ul>

Note: M = Moderate; S = Satisfactory; H = High.

### Budgeting Arrangements

11. The project budget process (elaboration, implementation, and monitoring) will be clearly stipulated in the project's FM procedures manual that shall include detailed accounting financial and administrative procedures. The AWPB will be prepared by UIAP in coordination with all the implementing entities and submitted to the project COPIL for approval and submitted to the World Bank not later than November 30 of each calendar year throughout implementation of the project. The project COPIL and the World Bank will also approve any changes in the budget and revised action plans.

12. UIAP will monitor the project's budget execution with the project accounting software in accordance with the budgeting procedures specified in the FM procedures manual and will report on variances along with submitting the semiannual unaudited IFRs. The budgeting system will need to forecast the origin and use of funds under this project, for each fiscal year. Only budgeted expenditures will be committed and incurred to ensure that resources are used within the agreed upon allocations and for the intended purposes. The semiannual IFRs will be used to monitor the execution of the AWPB.

### Accounting Arrangements

13. **Accounting policies and procedures, and information system.** Overall, accounting procedures are adequate for UIAP. UIAP will use a multi-site license of the existing accounting software used for the four ongoing World Bank-financed projects it is managing, to reflect the needs of the proposed project. The new accounting software license will be acquired, and the existing accounting systems will be customized within three months of project effectiveness. The project FM team will maintain records on an Excel spreadsheet until then. Any new FM and accounting staff recruited for the proposed project will be trained to be conversant with the accounting software.

14. **Accounting staff.** The current FM team within UIAP, in charge of the four projects financed by the World Bank comprises one FM specialist and six accounting assistants. The FM specialist and accounting assistants ensure day-to-day transactions process, accounting, and reporting of the project. Only the FM specialist and one accounting assistant are paid from the World Bank financing, while the other five accounting assistants are paid from counterpart funds. In addition, and in line with the use of country systems, as stipulated in the new Decree No. 475 governing the modalities of donors-financed project implementation in Côte d'Ivoire, three financial controllers from the Ministry of Budget and four public accountants from the Ministry of Finance have been assigned to the World Bank-financed projects, which are currently being managed by UIAP. The financial controllers' teams comprise 18 staff, while the teams of the public accountants comprise 16 staff, all paid from counterpart funds. The FM arrangements of this project will be based on the arrangements that are in place under the FIP-1. The following actions will be taken to reduce the large number of civil servants FM staff at the UIAP: (a) agree with the Ministry of Budget and the Ministry of Finance to use the same financial controllers and public accountants teams under FIP-1 to handle





FIP-2 activities and (b) recruit or appoint one accountant for WACA, one accountant for both FIP-1 and FIP-2, one accounting assistant for WACA, one accounting assistant for FIP-1, one assistant for FIP-2, and one accounting assistant for the specific activities of UIAP organization.

15. **Accounting standards and basis.** The prevailing accounting policies and procedures in line with accounting standards for West African Francophone countries (SYSCOHADA) in use in Côte d'Ivoire for ongoing World Bank-financed operations will apply. The accounting systems and policies and financial procedures used by the proposed project will be documented in the project's FM procedures manual.

### **Internal Control and Internal Auditing Arrangements**

16. **Internal control systems.** The existing FM procedures manual, which was prepared during the first phase of the project, will be used for FIP-2. The FM procedures manual was updated to reflect any additional arrangements or aspects required for the new project.

17. To guide execution and management of project activities, the FIP-1 PIM has been revised by the Government to align it with FIP-2, encompassing the IGAs, M&E, and social and environmental safeguards procedures. It will include detailed ToRs for all UIAP staff.

18. In addition to the abovementioned manuals, a specific manual governing the performance-based payment mechanism related to plantation works cycle (from nurseries development to planting and periodic maintenance for protection against bushfires) was developed by SODEFOR and is currently in use under FIP-1. This manual was revised to extend and adapt it to FIP-2. It includes the mechanism to ensure regular transfer of payment to beneficiaries in line with their performance.

19. **Internal auditing.** In line with Decree No. 475 governing the modalities of donor-financed projects implementation in Côte d'Ivoire, the IGF will oversee the internal audit function of the projects managed by UIAP. The FM procedures manual contained a description of the roles and responsibilities of the internal auditors and the arrangements that guarantee the necessary level of independency. UIAP shall ensure that the proposed project's audit is included in the annual workplan of the IGF. To this end, UIAP and the IGF will amend the current internal audit agreement under the four World Bank-financed projects, no later than three months after project effectiveness date. The internal audit of FIP-2 shall be conducted using a risk-based approach.

### **Funds Flow and Disbursement Arrangements**

20. The proposed operation is estimated at US\$148 million to be allocated to the borrower in the form of IDA credit. Proceeds of the financing will be used by the project for payments of eligible expenditures as defined in the Financing Agreement and further detailed in the AWPBs and Procurement Plans. Disbursement arrangements have been designed in consultation with the Borrower after considering the assessment of the implementing agency's FM capacities and anticipated cash flow needs of the operation.

21. **Local taxes.** Funds will be disbursed in accordance with project categories of expenditures and components, as shown in the Financing Agreement. Financing of each category of expenditure/component will be authorized as indicated in the Financing Agreement and will be inclusive of taxes according to the current country financing parameters approved for Côte d'Ivoire.

22. **Disbursement arrangements.** The disbursement methods that would be used under this project will be based on the Disbursement Guidelines for Investment Project Financing, dated February 2017.



Disbursement methods that are commonly used could be (a) direct payments to a third party for works, goods, and services upon the borrower's request; (b) special commitments and letters of credit; and (c) reimbursements for expenditures incurred under the project and so on. Further details about disbursements to the project will be included in the disbursement procedures described in the DFIL and the FM procedures manual. As the implementing agency of the project, UIAP will maintain the project DA managed by the Accountant General of the Public Debts (*Payeur Général de la Dette Publique*) and the project account managed by the public accountant (*Agent Comptable*). If ineligible expenditures are found to have been made from the project's accounts (DA and project account), the Borrower will be obligated to refund the same. If the DA remains inactive for more than six months, the borrower may be requested to refund to IDA amounts advanced to the DA and project account. IDA will have the right, as reflected in the Financing Agreement, to suspend disbursement of funds if reporting requirements are not complied with.

23. **Banking arrangements for DA.** The Department of Public Debt (*Direction de la Dette Publique*) will open one segregated DA denominated in XOF at BCEAO on terms and conditions acceptable to the World Bank. The project's DA will function under the signature of the Accountant General of Public Debts (*Payeur Général de la Dette Publique*).

24. **Banking arrangements for project account.** The Ministry of Finance, through the public accountant (*Agent Comptable*) will open a project account denominated in XOF in a commercial bank on terms and conditions acceptable to the World Bank. The funds from the project account will be used for the overall project's eligible expenditures. The project account will function under the unique signature of the public accountant deployed by the Ministry of Finance and dedicated to FIP-1 and FIP-2 (see arrangements proposed under accounting staffing section).

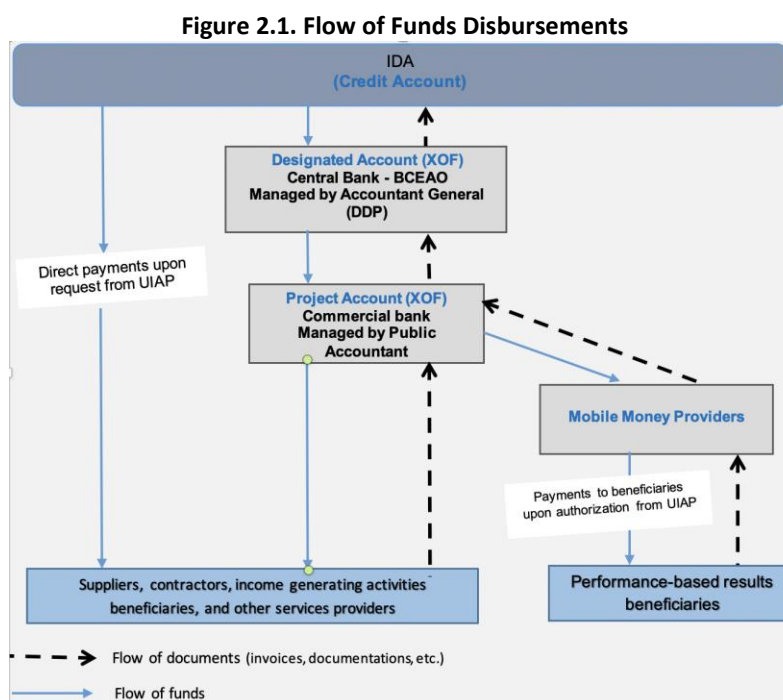
25. **Flow of funds arrangements.** Funds flow arrangements for the project through the DA and Project Accounts are as follows:

- IDA will make an initial advance disbursement into the DA for FIP-2 in XOF, upon receiving a withdrawal application from UIAP.
- The Accountant General will make an advance disbursement from the project's DA into the project account for the eligible expenditures agreed on and following the country budgetary legislation.
- Replenishment of funds from IDA to the DA and from the DA to the project account will be made upon evidence of satisfactory utilization of the advance, reflected in SOEs and/or on full documentation for payments above SOEs thresholds. Replenishment applications would be required to be submitted regularly on a monthly basis. Further details about disbursements to the project will be included in the disbursement procedures described in the DFIL and the project FM procedures manual. Specific procedures governing the performance-based contracts and the IGAs will be detailed in the related manuals.

26. **Specific flow of funds arrangements for results-based agroforestry and reforestation program.** Performance verification will be carried out by decentralized SODEFOR units and OIREN and will be reported to SODEFOR headquarters. Based on this double verification protocol, payments to beneficiaries will be made by a payment agency through mobile money transfer. Mobile provider MTN was selected competitively for mobile payment under FIP-1 and its contract will be extended under FIP-2. MTN contract for mobile-money payments will be amended to include FIP-2, no later than six months after project effectiveness.



27. Figure 2.1 depicts the funds flow mechanism that will be deployed for the project.



28. Table 2.2 sets out the expenditure categories to be financed by the IDA credit and FIP SCF loan. This table considers the prevailing Country Financing Parameter for Côte d'Ivoire in setting out the financing levels. In accordance with World Bank standard procurement requirements, contracts will continue to be approved 'all taxes included' for local expenditures.

**Table 2.2. Expenditure categories financed by IDA credit and FIP SCF loan**

Category	Amount of the Credit Allocated (expressed in EUR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, non-consulting services, consulting services, Training and Operating Costs for the Project, except Parts 2.1 (a) (v), 3.2 (a), 4.1 (b) and 4.2	46,428,000	100%
(2) Performance-based payments under Parts 2.1 (a) (v) and 4.1 (b)	51,181,000	100%
(3) Subgrants under Parts 2.3 and 3.2 (a) of the Project	28,361,000	100%
(4) Goods, works, non-consulting services, consulting services, Training and Operating Costs under Parts 4.2 (a) and 4.2 (c) of the Project	5,683,000	0% until TF0B8829 is fully disbursed, 100% thereafter
(5) Small Grants under Part 4.2 (b) of the Project	947,000	100%
<b>TOTAL AMOUNT</b>	<b>132,600,000</b>	



### **Financial Reporting Arrangements**

29. In line with the World Bank's FM guidelines, UIAP will be required to prepare and submit semiannual unaudited IFRs to account for activities funded under this project. The project FM specialist and accountant within UIAP are responsible for preparing and submitting acceptable unaudited IFRs to the World Bank, no later than 45 days after the end of the semester. The IFRs will be designed to provide relevant and timely information to the project's management on all project-related activities implemented by UIAP.

30. These reports should as a minimum include

- (a) A statement of sources and uses of funds and opening and closing balances for the semester and cumulative;
- (b) A statement of uses of fund that shows actual expenditures appropriately classified by main project activities (categories and subcomponents) according to the PAD, including comparison with budget for the semester and cumulative;
- (c) A statement on movements (inflows and outflows) of the project DA and project account, including opening and closing balances;
- (d) A statement of expenditure forecast for the next semester together with the cash requirement; and
- (e) Notes and explanations.

31. UIAP will also produce the project's annual financial statements, and these statements will comply with SYSCOHADA and World Bank requirements.

### **Auditing and Performance-Based Results Verification Arrangements**

32. Project's annual financial statements will be audited by an external auditor acceptable to the World Bank following International Standards for Auditing issued by the International Federation of Accountants and specific ToR acceptable to the World Bank. Annual audits will cover all project funding and expenditures. Audit reports together with management letters must be submitted to the World Bank within six months after the end of the Government's fiscal year. In accordance with the World Bank Policy on Access to Information, the Borrower is required to make its audited financial statements publicly available in a manner acceptable to the World Bank. Following the World Bank's formal receipt of these statements from the borrower, the World Bank also makes them available to the public. The scope of audit will be detailed in the ToR. Opinions will be required on DA, SOEs, Project financial statements, and compliance and internal controls. It is required that the firm is recruited in line with World Bank Procurement Guidelines to ensure competitive selection. In this regard, the ToR will be reviewed and cleared by the World Bank. External auditors will be appointed within six months after project effectiveness.

33. Performance verification will be carried out by decentralized SODEFOR units and OIREN according to the verification protocol detailed in the PIM and will be reported to SODEFOR headquarters. Based on this double verification protocol, payments to beneficiaries will be made by a payment agency through mobile money transfer. SODEFOR will then submit the final report to UIAP for payments. UIAP will retain the right to make the final decision on whether a performance-based result has been achieved and may undertake independent quality assurance checks of selected performance-based results to ensure continued robustness of the system. Performance verification agreement will be revised within six months after project effectiveness date.

**Table 2.3. Audit Completion Timetable**

Audit Report	Due Date
Project's specific financial statements and management letter to be submitted by UIAP	Submitted within six months after the end of each financial year

### Financial Management Action Plan

34. Following the FM assessment for UIAP, which identified some weaknesses and areas of improvement, the FM action plan (table 1.3) is recommended as a means of mitigating any risk and helping improve the fiduciary environment during implementation.

**Table 2.42. FM Action Plan**

Issue/Topic	Action Recommended	Responsible Body/Person	Completion Status/Date
Staffing	Appoint or recruit one accountant to be dedicated to FIP-2.	UIAP	Three months after the Effective Date
Information system accounting software	Configure FIP-1 accounting software parameters to take into consideration the specificity of FIP-2.	UIAP	Three months of effectiveness
Administrative, accounting, financial procedures manual	Update the FM procedures manual under FIP-1 to take into consideration the specificity of FIP-2.	UIAP	Three months after effectiveness
Performance-based results payments	Revise the MTN mobile-money provider contract to take into consideration the specificity of FIP-2.	UIAP/MTN	Six months after effectiveness
Internal auditing	Include in the IGF internal auditors' annual work plan and activities of FIP-2. IGF will have the required resources to perform the internal audit. The decree 475 noted that IGF can appoint consultants to help with internal audit missions.	IGF/UIAP	Three months of effectiveness
External auditing	Recruit and appoint an external auditor.	UIAP	Six months of effectiveness
Performance verification	Performance verification agreement under FIP-1 will be revised to reflect FIP-2 activities.	UIAP	Six months of effectiveness

### *Financial Covenants*

35. Financial covenants related to standard FM requirements are covered under Section 5.09 of the IDA General Conditions and specific FM aspects are included in the DFIL. Further, additional covenants will be added to the Financing Agreements to reflect actions outlined in the FM action plan.

### **Conclusion of the Assessment**

36. A description of the project's FM arrangements as documented in the preceding paragraphs indicates that they satisfy the World Bank's minimum requirements according to World Bank Policy. Overall, the FM residual risk is assessed and rated substantial. The substantial risk rating is because of the project design involving multiple actors, including local communities.

### **Supervision Plan**

37. Based on the risk rating of the project and the current FM arrangements, it is expected that in the first year of implementation, there will be four quarterly on-site visits to ascertain adequacy of systems supplemented by desk reviews of IFRs and audit reports. The FM supervision mission's objectives will include ensuring that adequate FM systems are maintained for the project throughout project life. In adopting a risk-based approach to FM supervision, the key risk areas of focus will include assessing the accuracy and



reasonableness of budgets, their predictability and budget execution, and compliance with payment and fund disbursement arrangements and the ability of the systems to generate reliable financial reports.

**Table 2.5. Implementation Support Plan**

FM Activity	Frequency
<b>Desk reviews</b>	
IFRs review	Semiannually
Audit reports review of the project	Annually
Review of other relevant information such as interim internal control systems reports	Continuous as they become available
On-site visits	
Review of overall operation of the FM system	Annual with field visits at the local level (Implementation Support Mission)
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, and internal audit and other reports	As needed
Transaction reviews (if needed)	As needed
<b>Capacity-building support</b>	
FM training sessions	During implementation and when needed

38. **Safeguards.** Inputs from an environment specialist and a social specialist are required, as the project's social and environmental impacts are substantial and client capacity is generally low. Capacity building will be required on environment monitoring and reporting. On the social side, supervision will focus on the implementation of the social safeguard instruments and on the environmental side, on dedicated environmental instruments prepared to support implementation. Field visits are required on a semiannual basis. The social and environmental specialists are based in the Abidjan country office.

39. **Operation.** The TTL will provide timely supervision of all operational aspects through field missions, as well as coordinating with the client and World Bank team members. The TTL will lead four formal field supervisions a year and, as needed, conduct punctual missions to resolve operational issues.

40. The main focus areas for implementation support are summarized in table 2.4.

**Table 2.6. Implementation Support Focus Areas**

Time	Focus	Resource Estimate	Partner Role
First 12 months	FM training and supervision	FM specialist, 4 SWs	n.a.
	Procurement training and supervision	Procurement specialist, 4 SWs	n.a.
	E&S Standards, training and supervision	Social specialist, 2 SWs	n.a.
	Environmental training and supervision	Environmental specialist(s), 2 SWs	n.a.
	Project implementation support/coordination	TTL 12 SWs	n.a.
	Natural resource management (NRM)	2 NRM specialists, 4 SWs each	
	Agriculture	Senior agriculture specialist, 2 SWs	n.a.
12 months to project end	Gender	Senior gender specialist, 4 SWs	n.a.
	Operations	Operations analyst, 2 SWs	
	NRM	2 NRM specialists, 4 SWs each	n.a.
	Agriculture	Senior agricultural specialist, 16 SWs	n.a.
	Gender	Senior gender specialist, 16 SWs	n.a.
	Environment and social monitoring and reporting	Environmental specialist (s), 16 SWs Social specialist, 16 SWs	n.a.
	FM disbursement and reporting	FM specialist, 16 SWs	n.a.
	Procurement supervision	Procurement specialist, 16 SWs	n.a.
	Project implementation support and supervision coordination	TTL/Senior NRM specialist, 16 SWs	n.a.



Note: SW = Staff week.

41. The staff skill mix required is summarized in table 2.5.

**Table 2.7. Staff Skill Matrix**

Skills Needed	Number of Staff Weeks	Number of field Trips	Comments
3 NRM specialists	4 SWs each	Two annually	Washington, DC based
Agriculture specialist	2 SWs annually	Four annually	Country office based
Gender specialist	4 SWs annually	Two annually	Washington, DC based
Procurement specialist	4 SWs annually	Two annually	Country office based
Social standards specialist	4 SWs annually	Four annually	Country office based
Environment standards specialist	4 SWs annually	Four annually	Country office based
FM specialist	4 SWs annually	Two annually	Country office based
TTL/Senior NRM) specialist	12 SWs annually	Four annually	Country office based



## Annex 3: Economic Analysis

COUNTRY: Côte d'Ivoire  
Forest Investment Project, phase 2

1. The project's direct measurable benefits will be delivered through the following components and subcomponents:

- **Component 2: Support the Implementation of Participatory Forests Management Plans in Category 3 GFs in the Cocoa Belt.** Direct benefits accounted in the economic analysis will be delivered in the following subcomponents:
  - **Subcomponent 2.1:** Support cocoa-based agroforestry on 300,000 ha within the three C3 GFs.
  - **Subcomponent 2.3:** Support to income generating activities (IGA) for forest riparian communities, with the emphasis on NTFPs IGAs, such as beekeeping and mushrooms production and commercialization, which are currently underway with demonstrated success among the forest-dependent communities in the GFs of Béki (cocoa belt) and Kobo (Center region).
- **Component 3, Subcomponent 3.2 Support enhanced livelihoods of park adjacent communities.** The development of IGAs will target women<sup>21</sup> to strengthen food security and providing them with alternative incomes<sup>22</sup>. It is expected that the sub-component will fund the development and implementation of about 270 microprojects, of which are 77 community associations and 193 are individuals, with direct and indirect impact on 177,000 community members through job creation and food security.
- **Component 4: Support the Implementation of Participatory Forests Management Plans of Category 4 GFs in the Savanna.** Benefits accounted in the economic analysis will be delivered via:
  - **Subcomponent 4.1:** the sub-component will support SODEFOR with the establishment of 16,500 ha of timber plantations with teak and gmelina species and 3,500 ha of fuelwood plantations with cassia siamea.
  - **Sub-component 4.2:** to rehabilitate degraded GFs in the savanna area, SODEFOR is promoting partnership with women-led associations. The associations are granted blocks of degraded GF areas where they are allowed to farm by implementing taungya-based agroforestry.

2. Table 3.1 indicates all the potential benefits that can be derived from the project. Due to data limitation, only direct tangible benefits were quantified in this economic analysis. As such, the results grossly underestimate the overall benefits of the project.





Table 3.1. All Potential Economic Benefits Generated by the Project

	Tangible	Intangible
<b>Direct</b>	<ul style="list-style-type: none"> <li>• <b>Cocoa Agroforestry.</b> 300,000 ha under reforestation on cocoa farms and degraded lands.</li> <li>• <b>Timber.</b> Timber and fuelwood production (revenues from high quality timber on 16,500 ha and 3,500 ha of fuelwood acacia siamea plantations). While the project does not support any harvesting interventions, it is important to include the economic value of the timber in the project economic analysis.</li> <li>• <b>IGA.</b> Development of 270 microprojects for national park-adjacent communities Increased income for farmers beneficiaries of the performance-based program. Increased income for farmers involved in the production forests plantations.</li> <li>• <b>Climate benefits.</b> Reduction of GHG emissions and increased carbon sequestration capacity</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Soil.</b> Reduction in soil erosion and improvement of soil quality because of agroforestry applications in agricultural landscapes</li> <li>• <b>Water.</b> Regulation of water cycle.</li> <li>• <b>Biodiversity</b> conservation</li> <li>• <b>Air.</b> Improvement in air quality due to reforestation</li> <li>• Poverty reduction</li> <li>• Enhanced policy and regulations in GF management</li> <li>• <b>Improved management of the GFs.</b> Reduced illegal harvesting, reduced bush fires, reduced uncontrolled production of firewood and charcoal, and sustainable use of fertilizers and pesticides because of agroforestry techniques</li> </ul>
<b>Indirect</b>	<ul style="list-style-type: none"> <li>• Reduced pressure on the GFs/improved watershed value resulting from sustainable forestry management and agroforestry</li> <li>• Increased income of other indirect beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthened resilience to climate change</li> </ul>

### Main Assumptions and Assessment

3. **A benefit-cost analysis** was conducted to assess the economic efficiency of selected interventions that deliver measurable benefits from the project in a time horizon of 20 years. In addition, sensitivity analysis was carried out for the main parameters including discount rate (the discount rate applied rates of 6 percent and 10 percent<sup>23</sup>). While the project generates a wide range of benefits, only some of them - mostly the tangible ones – could be estimated in monetary terms. They are explained below:

4. **Support cocoa-based agroforestry through contracting system with GF cocoa farmers.** There are two main benefits streams expected as a result of these interventions:

- (i) Additional income from introduction of low-density agroforestry (50 to 100 trees per ha) in cocoa plantation located in flat zones and of high-density agroforestry (100 to 250 trees per ha) in cocoa plantations located in steep slopes of mountain chains.
- (ii) Ecosystem and climate resilience benefits resulting from both cocoa agroforestry and restoration of HCV/HCS zones through conservation of remnant forests and natural or assisted regeneration through enrichment with the introduction of native tree species up to 400 trees/ha (discussed in qualitative assessment).

<sup>21</sup> due to their limited access to cocoa cash crops revenues

<sup>22</sup> Eligible activities will include: (a) organic vegetable gardening; (b) organic rice production; (c) animal husbandry as an alternative to bush meat hunting; (d) fish farming and aquaculture; (e) community-based reforestation and agroforestry; and (f) beekeeping.

<sup>23</sup> Technical Note on Discounting Costs and Benefits in Economic Analysis of World Bank Projects



5. Based on the productivity data of cocoa agroforestry systems in GFs (Table 3.2), cocoa farm gate price as FCFA 1,000 per kg<sup>24</sup>, and gradual increase of cocoa production from year 7 of the project, up to 60 percent of the potential production in year 20, the NPV for these interventions is estimated at US\$276 million.

**Table 3.2 Summary of Cocoa Agroforestry Systems Productivity**

	Cocoa plants density, trees/ha	Potential cocoa production, kg/ha	Stored carbon, tCO <sub>2</sub> eq	Other trees and plants, trees/ha
<b>Agroforestry systems in rural areas</b>				
R1 system Traditional Agroforestry Plantation	1,300	800-850 to 2,000	23-70	25 (mainly forest)
R2 system: "Carbon Friendly" or Complex Agroforestry Plantation	984-1024	1,000-1,500	142	80 (forest, leguminous, fruit and medicinal plants)
<b>Agroforestry systems in GFs</b>				
F1 system: Conventional Agroforestry Co-Plantation	1200–1250	1,000-1,500	146.71	100 (carbon/timber)
F2 system: Accelerated agroforestry co-plantation	1100-1200	Up to 750	>171	200 (primarily timber)

Source: Project Appraisal Document, Annex 6: Agroforestry Technical Itinerary

6. **Income Generating Activities.** The experience of similar interventions in Côte d'Ivoire<sup>25</sup> and Benin has shown an average increase in beneficiary income between 20 and 40 percent after the second year, depending on the type of activity undertaken. Applying a conservative 10 percent income increase for the 10,346 participants targeted by this activity and average monthly rural agricultural income in Cote d'Ivoire in 2017 as FCFA 53,340<sup>26</sup>, the present value of the additional benefits is estimated at US\$7.7 million.

7. **Production Forest: Timber and Fuelwood Plantations.** *Tectona grandis* (teak) is a deciduous hardwood tree which originated from South Asia but is widespread in plantations all over the world. It is in high demand for its qualities: (a) weather and pest-resistant due to naturally occurring oils contained in its fibers, and (b) sought after for furniture making due to its durability, color and grain. The environmental impact of sustainable teak production is low due to low susceptibility to diseases.

8. The analysis considered benefits flow during 20 years of project life (three thinning cycles, sales mostly for local processing)<sup>27</sup> and value of the standing timber. The main inputs for the analysis were as follows: (a) new teak plantations of 16,500 ha; (b) conservative assessment of the yield<sup>28</sup> (Table 3.3.); and (c) pricing based on regional data and interviews.

<sup>24</sup> <https://www.swissinfo.ch/eng/has-a-new-price-premium-on-cocoa-really-helped-struggling-african-farmers-/46797948#:~:text=The%20new%20policy%20came%20into,higher%20than%20the%20previous%20year.>

<sup>25</sup> USAID. 2014. Etude de capitalisation des expériences en matière d'activités génératrices de revenus en faveur des enfants vulnérables en Côte d'Ivoire; Bertrand, M., Crépon, B. A. Marguerie et P. Premand. Youth Employment and Skills Development in Côte d'Ivoire.

<sup>26</sup> Global Living Wage Coalition 2017. Anker Living Wage Reference Value for Rural Côte d'Ivoire

<sup>27</sup> Regional data, interviews.

<sup>28</sup> Average yield, based on assessment of teak yield from various fertility classes (1999. *Première partie La silviculture du teck. Bois Et Forêts Des Tropiques*, 1999, No. 261 [3]).

**Table 3.3. Timber Plantation, Summary Input Data**

	Years 6-7	Years 13-14	Year 20
Yield, conservative scenario m <sup>3</sup> /ha <sup>29</sup>	10.4	19.5	27.0
Yield, high productivity scenario m <sup>3</sup> /ha <sup>30</sup>	30.0	41.0	46.0
Price US\$ per m <sup>3</sup>	124.0	203.0	271.0

9. For *cassia siamea* plantations the input included: (a) planting density 1,111 trees per hectare; and (b) rotation length 5-6 years, and yield 80 m<sup>3</sup>. Summary analysis of production forests investment resulted in NPV between US\$6-72 million and IRR between 2-16 percent under different discount rates and productivity levels (Table 3.4).

**Table 3.4. Sensitivity Analysis, Production Forests Investment (Teak and Acacia Siamea)**

	Conservative Scenario		High Productivity Scenario	
Discount rate, %	6	10	6	10
NPV, US\$ millions	22	6	72	36
IRR, %	7	2	16	12
B/C ratio	2.0	1.3	4.4	2.9

10. **Biodiversity and Watershed Values.** Forests provide valuable benefits in terms of habitats for biodiversity, water protection, erosion control, and soil preservation. Project interventions will directly contribute to the reduction of soil loss and erosion prevention. The economic analysis for FIP1 referred to several assessment studies on accounting forests value, including a study on the Economics of Ecosystems and Biodiversity (TEEB 2009) valuing intact tropical forests as US\$6,120 ha per year<sup>31</sup> and Pearce<sup>32</sup> (2001) watershed value at a range between US\$15 ha per year and US\$850 ha per year with the higher value for tropical forests. The World Bank estimates watershed values at US\$129 per hectare for developed countries and US\$27 per ha per year in developing countries.

11. It is estimated that the total area of 96,000 ha will be under OIPR surveillance and awareness raising initiatives. If 50 percent of this area, or 39,500 ha of the areas with signs of illegal activities inside the protected areas will be fully restored and OIPR will continue surveillance of the national parks and reforested GF beyond project closure and during the project life, the present value of the additional benefits resulted from these interventions is valued as US\$0.7 million.

12. **Results.** The economic analysis shows positive outcomes for the project. **The project cost-benefit analysis yields positive results across scenarios and data assumptions** (Table 3.5.). This analysis compares the project cost US\$148 million and operations and maintenance costs (suggested as 1 percent of the capital costs during years 7-20 of the project life) with the project benefits, all discounted to 2022 (the baseline year).

<sup>29</sup> 1999. Regional Seminar 'Site, Technology, and Productivity of Teak Plantations'. Thailand.

<sup>30</sup> 1999. Première partie La silviculture du teck. Bois Et Forêts Des Tropiques, 1999, No. 261 [3].

<sup>31</sup> TEEB. 2009. The Economics of Ecosystems and Biodiversity for National and International Policy Makers – Summary: Responding to the Value of Nature.

<sup>32</sup> Pearce, D.W. 2011. The Economic Value of Forest Ecosystems. Ecosystem Health, 7, 284-296.



13. Additionally, the project generates global benefits in terms of the reduced greenhouse gas (GHG) emissions. The EX-ACT model estimated the net GHG emission reductions at about 17.9 million tCO<sub>2</sub>eq over a period of seven years (discussed in Annex 4). The economic value of emissions reductions is calculated based on the World Bank (2017<sup>33</sup>) guidance, which suggests a shadow price of carbon of US\$42/tCO<sub>2</sub> (low scenario) and US\$82/tCO<sub>2</sub> (high scenario) for 2022, with an annual increase of 2.25 percent.

14. Considering all assumptions discussed above, the net present value of the project is estimated to be \$508 million, IRR 28 percent and the benefit-cost ratio 4.9<sup>34</sup>. The benefits exceed the costs throughout most of the scenarios. When shadow price of carbon and ecosystem net benefits are considered, the project NPV varies between US\$429-1,248 million (6 and 10 percent discount rate accordingly), and benefit-cost ratio between 5-11 percent (Table 3.5).

**Table 3.5. Summary of Cost Benefit Analysis**

	Benefits, with high SPC		Benefits, with low SPC		No Carbon		No Carbon and Ecosystem Benefits	
Discount rate, %	6	10	6	10	6	10	6	10
NPV, US\$ mln	1,249	865	995	575	514	306	508	301
B/C ratio	10.6	8.8	7.7	6.2	5.0	3.8	4.9	3.7
				> 100	28	24	28	23

15. The economic benefits generated by the project are likely to have significant development impacts given the broader economic framework within which the project will be implemented. The potential for the project to catalyze important development momentum in natural resources management is very high, with possibility for replication and continuity beyond the lifetime of the project. Providing additional livelihood opportunities in rural areas can yield important secondary effects, for example, with respect to improving agriculture production, access to education, and health services. The project can serve as an important catalyst for generating changes with impacts beyond the immediate project boundaries.

16. **With and without (counterfactual) project scenario.** Deforestation in GFs accounted for 21 percent, more than 16,000 hectares of forest loss in Côte d'Ivoire between 2019 and 2020. 2019 IMAGES land use inventory<sup>35</sup> detects illegal cocoa plantations as major drivers of deforestation in GF de la Téné and Sangoué. Other drivers of deforestation are teak logging for timber and cashew plantations<sup>36</sup>. Without the project (a) cocoa based deforestation rates will continue to grow, with significant impact and pressure on GFs and protected areas; (b) degradation of natural forests will intensify, as the demand for timber and wood fuel continues to progress; (c) without performance-based payments there is no immediate incentive to beneficiaries to take active part in preparatory and maintenance works under agroforestry program (nurseries work, field preparation, planting and maintenance work); and (d) there is no additional sustainable income source for over 177,000 direct and indirect beneficiaries of the agroforestry program and IGAs.

<sup>33</sup> World Bank. 2017. Guidance note on shadow price of carbon in economic analysis

(<https://documents1.worldbank.org/curated/en/621721519940107694/pdf/2017-Shadow-Price-of-Carbon-Guidance-Note.pdf>)

<sup>34</sup> without accounting for carbon and ecosystem net benefits, discount rate 6 percent.

<sup>35</sup> Vivid Economics and RSAC, IMAGES (2020), <https://www.vivideconomics.com/images>

<sup>36</sup> Vivid Economics. 2021. State and Trends of Deforestation in Côte d'Ivoire (2019-2020). UK Space Agency. <https://www.vivideconomics.com/wp-content/uploads/2020/07/State-and-Trends-of-Deforestation-in-Cdi-1.pdf>



17. **Cocoa agroforestry and climate resilience.** Existing studies predict spatially differentiated climate impacts for cocoa in West African region (especially in Côte d'Ivoire and Ghana), with losses of climatic suitability near the forest-savanna transition, and smaller negative or positive changes in other areas. A decrease in climatic suitability for cocoa in these two key cocoa producing countries is expected by 2050, that, if not addressed, could impact future world cocoa supplies (Läderach et al., 2013<sup>37</sup>). Forests and natural habitat will also be at risk, as cocoa growing regions expand, shrink or shift.

18. The most negative effects are projected for the countries on either side of the Dahomey gap (Togo and Nigeria, respectively) as well as Guinea and the northeastern part of the cocoa belt of Côte d'Ivoire, while changes in most of the cocoa belt of Cameroon and Ghana with the exception of their northern fringes, southern Côte d'Ivoire and Liberia with the exception of its northern counties are projected to be more modest and locally positive.

19. The opportunity is to stabilize regional cocoa output as countries with more favorable climate trajectories could gradually take over market space as other countries may be forced to reduce production and switch to crops with different climatic requirements. The threat is that a shift in cocoa production towards the south, west and east of the current WA cocoa belt could cause a wave of deforestation, unless it is accompanied by effective agricultural and forest conservation policies emphasizing the intensification of existing cocoa farms and channeling future cocoa expansion on already deforested land<sup>38</sup>.

20. A key conclusion of several regional studies<sup>39 40</sup> is that adaptation measures for cocoa in the WA cocoa belt are needed at several levels: at the crop level by selecting cocoa varieties and companion trees and crops that are tolerant to high maximum temperatures in addition to drought and diseases; at the farm level by increasing shade to protect the sensitive cocoa trees against increasing dry season temperatures and to diversify farmers' incomes as a buffer against market and environmental risks; and at the national and regional policy level by implementing agricultural and forest policies that encourage the intensification of existing cocoa farms where climatic conditions permit and the siting of new cocoa plantings on previously deforested land, and that create incentives for farmers to retain and plant native trees in their farms<sup>41</sup>.

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<sup>37</sup> Läderach, P., Martinez, A., Schroth, G., Castro, N., 2013. Predicting the future climatic suitability for cocoa farming of the world's leading producer countries, Ghana and Côte d'Ivoire. *Clim. Chang.* 119, 841–854. <http://dx.doi.org/10.1007/s10584-013-0774-8>.

<sup>38</sup> Ruf, F., Schroth, G., Doffangui, K., 2015. Climate change, cocoa migrations and deforestation in West Africa — what does the past tell us about the future? *Sustain. Sci.* 10, 101–111. <http://dx.doi.org/10.1007/s11625-014-0282-4>.

<sup>39</sup> Schroth, G., Läderach, P., Armando, I. 2016. Vulnerability to climate change of cocoa in West Africa: Patterns, opportunities and limits to adaptation (<https://www.sciencedirect.com/science/article/pii/S0048969716304508?via%3Dihub>)

<sup>40</sup> F. Ruf, G. Schroth, K. Doffangui. 2015. Climate change, cocoa migrations and deforestation in West Africa — what does the past tell us about the future? *Sustain. Sci.*, 10 (2015), pp. 101–111, [10.1007/s11625-014-0282-4](http://dx.doi.org/10.1007/s11625-014-0282-4)

<sup>41</sup> Kosoe, E.A., Ahmed, A. 2022. Climate change adaptation strategies of cocoa farmers in the Wassa East District: Implications for climate services in Ghana



## Annex 4: Greenhouse Gas Assessment

### COUNTRY: Côte d'Ivoire Forest Investment Project, phase 2

1. The Republic of Côte d'Ivoire's NDC (2016) measured total national GHG emissions of 0.81 tCO<sub>2</sub> per capita (excluding forestry) which is considered low. In 2012, emissions were mainly generated from agriculture (38 percent), energy (21.5 percent), and transport (15 percent) sectors. Although it is considered a country with low GHG emissions in comparison to industrialized countries, Côte d'Ivoire is highly vulnerable to the impacts of climate change showing low readiness, ranking 145 out of 188 in the Notre Dame Global Adaptation Index (ND-GAIN)<sup>42</sup> for climate vulnerability, meaning there is urgent need for investment and innovations to improve readiness at the national level.
2. The country hosts the last primary tropical rainforest in West Africa, located in the TNP, a UNESCO<sup>43</sup> designated world heritage park, and thus represents a key natural resource of global significance for its high biodiversity value and for regulating climate due to its high carbon reservoir, capable of storing 188 tCO<sub>2</sub> per hectare of carbon in the above ground biomass alone. Although well preserved, the TNP faces aggravating deforestation threats, mainly due to extensive agriculture for cocoa production, artisanal gold panning, and poaching activities.
3. Côte d'Ivoire is the world's largest cocoa producer, and over the past 22 years, cocoa areas increased by 50 percent, from 2.05 million ha in 1996 to 2.8 million ha in 2019. The rapid expansion of cocoa areas has been observed at the cost of forest loss, responsible for 23 percent of total forest loss. With the inclusion of all drivers of deforestation and degradation, forest cover was recorded to drop from 7.8 million ha in 1990 to 2.9 million ha in 2020, or a 64 percent decrease.<sup>44</sup>
4. The country hosts the last primary tropical rainforest in West Africa, located in the TNP, a UNESCO designated world heritage park, and thus represents a key natural resource of global significance for its high biodiversity value and for regulating climate due to its high carbon reservoir, capable of storing 188 tCO<sub>2</sub> per hectare of carbon in the above ground biomass alone. Although well preserved, the TNP faces aggravating deforestation threats, mainly due to extensive agriculture for cocoa production, artisanal gold panning, and poaching activities.
5. Cocoa plantations in Côte d'Ivoire are characterized mainly by being grown under 'direct sunlight' or slight permanent shade. A mature cocoa is usually over 20 years old planted through conversion of forests, phytosanitary treatments and fertilizers are not applied or almost non-existent, and mean cocoa yields are low reaching about 500 kg per ha per year.<sup>45</sup> Projections show that cocoa's suitability<sup>46</sup> will be affected by climate change mainly through increasing temperatures during the dry season. Areas suitable for cocoa production are also predicted to change: by 2050 Lagunes and Sud-Comoé regions will become less suitable

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<sup>42</sup> ND-GAIN Index measures a country's vulnerability toward climate change including other global challenges. It also measures readiness to improve resilience. Higher scores are better. <https://gain.nd.edu/our-work/country-index/>.

<sup>43</sup> United Nations Educational, Scientific, and Cultural Organization (UNESCO).

<sup>44</sup> FAO. 2020. Global Forest Resource Assessment. <https://fra-data.fao.org/CIV/fra2020/home/>.

<sup>45</sup> UNREDD+ 2018. Economic and Financial Challenges to Scaling Up Sustainable Cocoa Production in Côte d'Ivoire.

<sup>46</sup> A study based on climate projections of 19 Global Circulation Models under the Intergovernmental Panel on Climate Change (IPCC) intermediate emissions scenario RCP 6.0 and World Climate data (Hijmans et al. 2005).



or unsuitable for cocoa production, whereas the southwest region will become more suitable.<sup>47</sup> Failure to adapt in time to the risk of decreasing cocoa yields in the affected regions will subsequently lead to shortfall of income for millions of farmers and can trigger increased migration of rural populations overflowing the cities, including possible increased conflicts over land in the southwest of Côte d'Ivoire.<sup>48</sup> This may also place higher deforestation pressure in the southwest, including the highly valued TNP protected area. Increasing adjacent forest cover in cocoa farms with the use of shade trees brings a set of benefits including protection of cocoa trees from high temperature, soil moisture preservation, higher household income from timber, increased pollination potential, and reduced pressure for firewood over other forest remnants. Planting fast-growing shade trees is also considered a viable short-term adaptation strategy to the increasing climate variability such as extreme heat during dry seasons or more intensive rainfall during rainy seasons.<sup>49</sup> With the introduction of shade cocoa agroforestry along with sustainable practices, yields have demonstrated to reach up to 2,400 kg per ha per year for plantations between 8 and 18 years.<sup>50</sup> Besides, along with yield boost, cocoa agroforestry helps store soil organic carbon, and increase carbon storage, contributing to climate change mitigation.

6. This annex presents an ex-ante assessment of the net emissions reduction calculations for the FIP-2 with use of the Ex-Ante Carbon-Balance Tool (EX-ACT) tool.<sup>51</sup> Carbon stock estimation changes was done based on Intergovernmental Panel on Climate Change Tier 1 default values; Tier 2 values were also applied where data was available. For the calculation of the net carbon balance, the lifetime of the project was applied, totaling a six-year period.

## Summary of Results

7. **The project will generate total net emissions reductions of 17.9 million tons CO<sub>2</sub>eq during the project's lifetime** (see table 3.2). The project activities that provide highest emission reductions are the establishment of cocoa agroforestry plantations generating a sequestration of 11.25 million tons CO<sub>2</sub>eq, because of its large target area (300,000 ha). Activities for the protection of targeted national parks, reserves and gazetted forests will help avoid 5.36 million tons CO<sub>2</sub>eq of emission reductions. Reforestation of targeted GFs will also help sequester 1.3 million tons CO<sub>2</sub>eq.

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<sup>47</sup> Schroth, G., P. Läderach, A. I. Martinez-Valle, and C. Bunn. 2017. "From Site-Level to Regional Adaptation Planning for Tropical Commodities: Cocoa in West Africa." *Mitigation and Adaptation Strategies for Global Change* 22 (6): 903–927. <https://doi.org/10.1007/s11027-016-9707-y>.

<sup>48</sup> Läderach, P., A. Martinez, G. Schroth, and N. Castro. 2013. "Predicting the Future Climatic Suitability for Cocoa Farming of the World's Leading Producer Countries, Ghana and Côte d'Ivoire." *Climate Change* 119: 841–854. DOI: <http://dx.doi.org/10.1007/s10584-013-0774-8>.

<sup>49</sup> Hutchins, A., A. Tamargo, C. Bailey, and K. Yeongmi. 2015. *Assessment of Climate Change Impacts on Cocoa Production and Approaches to Adaptation and Mitigation: A Contextual View of Ghana and Costa Rica*. International Development Studies.

<sup>50</sup> UNREDD+. 2018. Economic and Financial Challenges to Scaling Up Sustainable Cocoa Production in Côte d'Ivoire.

<sup>51</sup> The World Bank applies the EX-ACT developed by the FAO in 2010, to assess a project's net carbon balance. The EX-ACT calculation consists of the net balance of tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>eq) emitted or sequestered GHG because of project implementation compared to the 'baseline' and 'without project' scenario. EX-ACT thus estimates the carbon stock changes and GHG emissions per unit of land, expressed in tCO<sub>2</sub>eq per hectare and year.





## Description of Project Activities

8. **Enhancement of forest and biodiversity conservation.** The project will support activities that will enhance the protection of remnant natural forests and of HCV in the targeted GFs and the national parks. These include the development and implementation of forest management plans, strengthened monitoring and surveillance of the targeted GFs and national parks, development of livelihood alternatives aimed to reduce deforestation due to gold panning and agriculture interventions inside the parks and reserves, demarcation of HCV/HCS areas in GFs, and enrichment or measures for natural regeneration of the most endangered natural forest species. The mean national deforestation rate since 1986 is 2.8 percent per year.<sup>52</sup> In national parks, the deforestation rate was 0.3 percent per year between 2019 and 2020. In 2019, GFs lost six to seven times higher percentage of forested area than national parks and Reserves.<sup>53</sup> With the implementation of the project, it is assumed that the deforestation rate will be reduced by one quarter in the areas of intervention during the project implementation period.

9. **Establishment of cocoa agroforestry and reforestation.** The project will support reforestation program through cocoa-agroforestry on 548,655 ha of degraded land. The project will support a results-based reforestation program which includes the establishment of 300,000 ha, or 54 percent, of cocoa-based agroforestry within the three targeted C3 GFs in the southwest, of which; 88,000 ha in Scio GF; 106,000 ha in Rapides Grah; and 106,000 ha in Haute-Dodo

10. **Reforestation with timber and fuelwood species.** The project will support the establishment of 20,000 ha of timber and fuelwood plantations in 16 C4 GFs degraded lands (see table 7 in PAD), out of which 16,500 ha of mainly teak and gmelina species of high economic value. Enrichment planting based on teak for reforestation on degraded land showed to have a greater mean carbon storage capacity than secondary forests and cocoa plantations in Oumé region.<sup>54</sup> In addition, 3,500 ha of fuelwood plantations with *Cacia siamea* species will be established.

11. **Other activities.** Road rehabilitation; rehabilitation of rangers' quarters; provision of vehicles and planned microprojects, such as organic vegetable gardening, small-scale rice production, and animal husbandry, fish farming and aquaculture will contribute to GHG emissions. Specific data at this early stage of the project design has not been ascertained and therefore these activities are not included in the assessment. Although some of the income generating activities contribute to greenhouse gas emissions, it will contribute to increase income generation among communities which depend on illegal activities causing severe deforestation and forest degradation in or around targeted national parks and reserves. It is assumed that the generated emissions are low and compensated with the large-scale reforestation and agroforestry programs, including protection of forests, to be implemented by the project.

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<sup>52</sup> Inventaire forestier et faunique national, Rapport final de l'inventaire forestier – Livrable no 54, Juin 2021.

<sup>53</sup> Vivid Economics 2020. State and Trends of Deforestation in Côte d'Ivoire (2019-2020): a report provided to the UK Space Agency. Vivid Economics, London, UK.

<sup>54</sup> Guessa FN, Gbala N, Martinez A, Ebagnerin J (2017) Carbon stocks in selected tree plantations, as compared with semi-deciduous forests in centre-west Côte d'Ivoire. Agric Ecosyst Environ 239:30–37. <https://doi.org/10.1016/j.agee.2017.01.015>

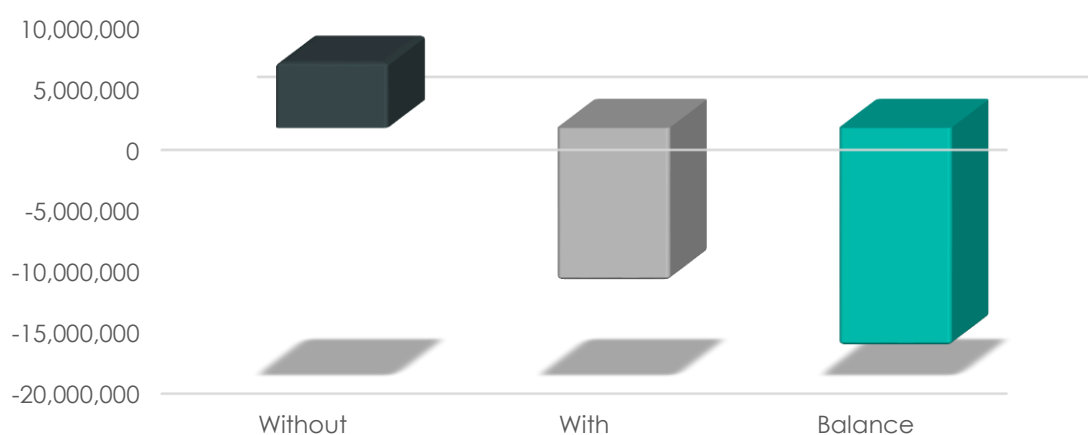


**Table 4.1. Project Activities Included in the Ex Ante GHG Assessment**

Activities	Baseline (ha)	Land Surface (ha)
Strengthening conservation of national parks and nature reserves: TNP, Mont Péko, Mabi Yaya, and N'Zo	771,635	780,503
Establishment of cocoa agroforestry plantations on degraded lands in C3 GFs in the cocoa belt (Rapides Grah, Haute Dodo, and Scio)	20,570	320,570
Establishment of timber plantations in C4 GFs	13,755	30,255
Establishment of fuelwood plantations in C4 GFs	960	4,460

**Table 4.2. Results of Gross and Net Emissions in tCO<sub>2</sub>eq up to the Project's Lifetime**

Components of the Project	Gross Fluxes		Balance
	Without	With	
Land use changes	Positive = source / negative = sink		
Deforestation	7,143,218	1,785,804	<b>-5,357,413</b>
Reforestation	-987,004	-2,297,855	<b>-1,310,851</b>
Other Land Use Change	-396,350	-6,176,850	<b>-5,780,500</b>
Perennial	-412,368	-5,882,775	<b>-5,470,407</b>
<b>Total</b>	5,347,497	-12,571,675	<b>-17,919,171</b>
Per hectare	4.7	-11.1	<b>-15.9</b>
Per hectare per year	0.9	-2.2	<b>-3.2</b>

**Figure 4.1. Total without and with project and balance, tCO<sub>2</sub>eq**



## Annex 5: Draft Agroforestry Contract

COUNTRY: Côte d'Ivoire  
Forest Investment Project, phase 2

REPUBLIQUE DE CÔTE D'IVOIRE  
Union – Discipline -Travail

MINISTERE DES EAUX ET FORÊTS



N/Réf :

CONTRAT N° (code forêt-ordre séquentiel-année)  
PORTANT CONTRACTUALISATION D'OCCUPATION AGRICOLE DANS LA FORET CLASSEE DE.....

*Mois année*

ENTRE

Le MINEF.....

Siège social.....Capital.....

N° d'enregistrement.....

BP .....Téléphone.....Email.....

Représenté par la SODEFOR.....,

Ci-après dénommé « **le Gestionnaire** »

D'UNE PART,  
ET

Madame / Monsieur..... ,

Titulaire de ..... Délivrée par .....

Exploitant agricole résidant à .....

BP ....., téléphone portable +225 ....., téléphone domicile +225 .....,

[Situation matrimoniale.....nombre d'enfants] .....,

Ci-après dénommé « **l'occupant** »

D'AUTRE PART

Collectivement appelés les « PARTIES »

Il a été préalablement exposé que :



La Côte d'Ivoire a perdu près de 90% de sa superficie forestière depuis le début du 20ème siècle faisant passer sa couverture forestière de 16 millions d'ha au début des années 60 à 3,5 millions d'ha en 2015 (BNETD, 2015), de sorte que si rien n'est fait, l'on devrait assister à la disparition totale de la forêt ivoirienne dans quelques décennies.

Pour faire face à cette situation, le Gouvernement a adopté en mai 2018, la Politique de Préservation, de Réhabilitation et d'Extension des Forêts.

Sur cette base, le Ministère des Eaux et Forêts a défini, la même année, la Stratégie de Préservation, de Réhabilitation et d'Extension des Forêts (SPREF). Cette stratégie a pour principaux objectifs (i) l'amélioration de la gouvernance forestière (ii) le renforcement de la protection des massifs forestiers résiduels, leur extension et leur gestion durable (iii) la reconstitution des zones forestières dégradées et l'adaptation aux changements climatiques.

Par ailleurs, la politique forestière a adopté l'agroforesterie comme outil principal de reconstitution des zones forestières dégradées, notamment celles des forêts classées.

En outre, selon l'article 8 du Code Forestier « la protection et la reconstitution des ressources forestières incombent à l'Etat, aux collectivités territoriales, aux communautés et aux populations riveraines des forêts de l'Etat, aux personnes morales de droit privé (...) ».

Dans ce contexte, le Groupe de la Banque mondiale accompagne l'Etat de Côte d'Ivoire à travers le financement du Programme d'Investissement Forestier qui vise à reconstituer certaines forêts classées fortement dégradées.

Afin de tenir compte du mode de reconstitution de ces forêts par l'agroforesterie promue par l'Etat et au regard du respect des normes sociales et environnementales de la Banque mondiale, les populations infiltrées ne seront pas déplacées. Ces Chefs d'exploitation, régulièrement identifiés dans ces forêts, contribueront à leur reconstitution à travers des conventions portant contractualisation de leurs occupations agricoles.

Par ailleurs, eu égard à la réglementation de l'Union Européenne relative à la « déforestation importée », les récoltes des parcelles agricoles créées postérieurement à 2020 ne pourront pas exportées dans les pays de l'UE.

C'est dans ce cadre que la présente convention est établie entre [Gestionnaire] et l'exploitant agricole installée en Forêt Classée de ..... [Sous-préfecture] ..... depuis.....

Il reste cependant entendu entre les parties que la présente convention n'a pas pour effet de créer au profit de l'exploitant, un droit réel immobilier opposable à l'Etat ou au Gestionnaire pendant et au-delà de la durée prévue par le présent acte.

Les parties affirment solennellement la primauté de la gestion forestière, notamment l'introduction de plants forestiers dans les parcelles de cultures, sur toute autre utilisation de la forêt dans leur consentement pour la signature de la présente convention et décident de ce qui suit :

- *Condition générale du contrat*



- Les contrats feront l'objet d'un numéro unique et seront inclus dans la base de données du système de gestion environnementale et sociale (SGES) est accessible seulement aux personnes autorisées
- Le non-respect du contrat peut être dénoncé par les parties. Le mécanisme de gestion des plaintes du PIF-2 permettra à toute personne se sentant lésée d'appeler le numéro unique, de déposer sa plainte auprès d'un des membres du Comité de Cogestion qui aura été identifié, ou par tout autre moyen identifié par le projet
- Aucun signataire de contrat ne pourra être évincé de force de sa parcelle, logement inclus dans la Forêt Classée dans la mesure du respect des clause de ce dernier.

#### **ARTICLE 1 : VALEUR JURIDIQUE DU PREAMBULE ET DES ANNEXES**

Le préambule ci-dessus et les annexes jointes ont la même valeur juridique que la présente convention, dont ils font partie intégrante.

#### **ARTICLE 2 : OBJET DU CONTRAT**

La présente convention a pour objet de fixer les conditions de mise œuvre de la contractualisation d'occupation agricole en forêt classée de ..... entre [Gestionnaire] et [Exploitant agricole].

#### **ARTICLE 3 : DESIGNATION ET SITUATION DES EXPLOITATIONS AGRICOLES CONCERNEES**

Les exploitations concernées sont décrites brièvement ci-après :

Désignation exploitation	Cultures	Superficies (ha)	Date de création	Coordonnées du centre de l'exploitation
Exploitation A	.			X : Y :
Exploitation B	.			X : Y :
....	..			X : Y :
Exploitation n	..			X : Y :
<b>TOTAL</b>				

Les cartes des exploitations concernées sont annexées à la présente convention.

#### **ARTICLE 4 : INTRODUCTION DE PLANTS FORESTIERS**

Les exploitations agricoles concernées feront l'objet d'introduction de plants forestiers selon un itinéraire technique joint en annexe 6 de ce PAD.

#### **ARTICLE 5 : DUREE DU CONTRAT**

La présente convention est conclue jusqu'au terme de la mise en œuvre du plan d'aménagement (indiquez la date). Elle prend effet à compter de la date de signature par les parties.

Cette convention pourra être renouvelée à l'occasion de la révision du plan d'aménagement de la forêt classée, si les clauses sont respectées par le producteur.



## **ARTICLE 6 : ENGAGEMENTS DES PARTIES**

### **6.1. Engagements communs des parties**

Les Parties s'engagent à :

- Respecter les termes de la présente convention ;
- Œuvrer pour la reconstitution du couvert forestier par l'agroforesterie selon les deux options suivantes : (i) 50 à 100 tiges/ha dans les zones à non-valeur de conservation ; (ii) 100 à 250 tiges/ha dans les flancs des chaînes de montagne ; (iii) à respecter la mise en défens des berges de rivières représentant des zones à haute valeur de conservation et à haut stock de carbone ; (iv) à conserver les lambeaux de forêts naturels restant dans les FCs;
- Assurer la surveillance de la forêt contre les nouveaux défrichements et les feux de brousse ;
- Observer les règles d'éthique (corruption, extorsion de fonds, harcèlement, violence basée sur le genre et toute autre forme d'harcèlement physique ou moral à autrui)

### **6.2. Engagements du Gestionnaire**

Le Gestionnaire s'engage à :

- Respecter les clauses contractuelles ;
- Ne pas déguerpier les producteurs infiltrés;
- Renouveler le contrat d'agroforesterie des agriculteurs si les clauses du contrat ont été pleinement respectées
- Permettre aux agriculteurs de renouveler leurs cacaoyères vieillissantes sans extension de parcelles
- Fournir gratuitement aux agriculteurs des plants forestiers ainsi qu'une formation et un encadrement sur les travaux d'agroforesterie
- Sensibiliser à la définition juridique du travail des enfants, aux conditions de travail des enfants âgés de 16 ans et plus et aux conditions d'engagement des enfants âgés de 14 ans et plus dans le travail de socialisation, et s'assurer du non-recours des exploitants au travail des enfants
- Déclarer sur la plateforme les plaintes, les non-conformités et les griefs liées à la mise en œuvre du contrat ;
- Traiter les plaintes potentielles des agriculteurs conformément au mécanisme de gestion des plaintes du projet.
- Formellement identifier ses agents œuvrant sur le terrain
- Assurer les formations en agroforesterie et la communication nécessaire à ses fonctions
- Autoriser l'exploitant agricole à commercialiser sa production ;
- Ne pas contraindre l'exploitant à toute autre action ou paiement non prévus au contrat
- Ne pas disposer des productions agricoles de l'exploitant ;
- Réaliser des formations sur l'utilisation des transferts de fonds par téléphone mobile ;
- Répondre des actes commis par ses agents ;
- Faire et rapporter le suivi de performances sur la plateforme dédiée.
- S'assurer que les normes de sauvegardes environnementales et sociales applicables au projet sont respectées par les exploitants et documenter dans la base de données du système de gestion environnementales et sociales avec un suivi-évaluation régulier.
- Signer une convention avec le Ministère de Tutelle (Ministère des Eaux et Forêts) portant obligation du respect de tous les instruments de sauvegarde encadrant la mise en œuvre des plans d'aménagement.



### 6.3. Engagements de l'Exploitant agricole

L'Exploitant agricole s'engage à :

- Ne pas défricher de nouvelles portions de forêts ;
- Informer le Gestionnaire de tout nouveau défrichement constaté autour de son exploitation
- Informer le Gestionnaire des activités illicites observées sur son exploitation et qui pourraient concourir à la destruction de la forêt ;
- Ne rien construire sur l'exploitation, même en matériaux précaires ;
- Ne pas mutiler, dévitaliser ou abattre les arbres ;
- Payer régulièrement la redevance locative selon les indications de l'article 8 ci-dessous ;
- Répondre des actes commis par ses travailleurs ;
- Entretenir les plants forestiers introduits dans l'exploitation ;
- Déclarer sur la plateforme les plaintes, les non-conformités et les griefs liés à la mise en œuvre du contrat ;
- Ne louer ni céder à un tiers aucune partie de son exploitation.
- Disposer en permanence d'un téléphone portable fonctionnel
- Respecter le code de conduite joint au présent contrat
- Ne pas recourir au travail des enfants conformément à la définition juridique du travail des enfants, aux conditions de travail des enfants âgés de 16 ans et plus et aux conditions d'engagement des enfants âgés de 14 ans et plus.

### **ARTICLE 7 : TRANSFERT DES DROITS**

En cas d'indisponibilité de l'Exploitant agricole (décès, invalidité, départ volontaire) son ayant-droit pourra, après avoir été identifié auprès des services du Gestionnaire, être autorisé à poursuivre l'exploitation dans le respect des dispositions de la présente convention.

### **ARTICLE 8 : DISPOSITIONS FINANCIERES**

#### **8.1 : Montant à verser pour les droits d'utilisation de terres**

Afin d'assurer une surveillance efficace de la forêt contre les défrichements et les feux de brousse, l'Exploitant est soumis au paiement d'une redevance locative annuelle.

##### **\* Montant de la redevance**

Le montant annuel de la redevance est de **trente mille francs (30 000 FCFA) l'hectare**.

Le montant total annuel à payer par l'Exploitant est de..... ..... **FCFA (montant en lettres)**.

##### **\* Période de paiement**

Les paiements seront effectués durant la période allant du 1er septembre au 31 décembre de l'année en cours. Durant cette période, tout le montant à payer sera entièrement dû quelle que soit la culture mise en place, conformément aux modalités de paiement ci-dessous.

#### **8.2 Montant recevoir en échange des arbres plantés**

Sous réserve du respect des spécifications de l'itinéraire technique annexé au présent contrat, l'Exploitant pourra recevoir les paiements suivants pour les travaux de plantations forestières dans leurs vergers de cacao (agroforesterie) selon les tarifs nationaux :



Activités	Paielement
Développement de pépinières pour 100 pieds à l'hectare	USD50/ha
Développement de pépinières pour 250 pieds à l'hectare	USD125/ha
Préparation de terrain et plantation	USD30/75 ha
Entretien de la plantation	USD25/ha/an

### Modalités de paiement

Le règlement de la redevance et le transfert des paiements seront effectués individuellement par les moyens de paiements électroniques "mobile money".

S'il le désire l'Exploitant pourra utiliser le montant à recevoir en paiement pour s'acquitter de sa redevance, le bilan des montants lui sera communiqué puis exécuté.

### ARTICLE 9: RESILIATION

#### \* Résiliation de plein droit

La présente convention peut être résiliée en cas :

- D'abandon de la parcelle avant l'expiration du terme convenu, la présente convention sera résiliée de plein droit ;
- De force majeure désignant tout acte irrésistible, imprévisible et indépendant de la volonté des parties.

#### \* Clause résolutoire

Le non-respect des termes de la convention entraînera sa résiliation. Cette résiliation interviendra après notification faite par tous moyens à l'occupant d'avoir à se justifier sans délai sur le fait qui lui est reproché.

L'exploitant aura accès à un panel d'arbitrage indépendant pour exposer son cas avant toute éviction et résiliation.

### ARTICLE 10 : REGLEMENT DES LITIGES

Tout litige ou différend pouvant survenir de la mise en œuvre de la présente convention sera traité conformément au Mécanisme de Gestion des Plaintes (MGP) du Projet. Tout litige sera enregistré et documenté dans la plateforme web développé à cet effet. Ces litiges sont traités conformément au MGP

### ARTICLE 11 : ELECTION DE DOMICILE

Pour l'exécution de la présente convention et notamment pour la notification de tout acte, chaque partie fait élection de domicile en son adresse ci-dessus indiquée.

*La présente convention est établie en deux exemplaires originaux remis à chacune des parties.*

Fait à ..... .., le.....

**L'Exploitant**

**Le Gestionnaire**





## Annex 6: Agroforestry Technical Itinerary

### COUNTRY: Côte d'Ivoire Forest Investment Project, phase 2

#### Structuring of technical arrangements for forest ecosystems restoration gazette forests and the agroforestry transition of cocoa cultivation

#### A. Background and rationale for the agroforestry approach

1. Producing more than 40 percent of the world's cocoa, Côte d'Ivoire is clearly positioned as the world leader in cocoa bean production. This production supposed that the surface of the national orchard has increased steadily to reach more than 3.2 million ha in 2015 (Ministry of Agriculture) and probably 4 million ha in 2019 (BNETD, 2019). This size extension has come at the expense of forest (including GFs) which have been for long the main land providers for the cocoa sector in Côte d'Ivoire.

2. Cocoa (*Theobroma cocoa* L.) is grown in forest areas and requires rainfall superior to 1100 mm or even 1200 mm/year. (However, it can adapt itself to a wide variety of environments and conditions, with different levels of productivity and durability. In West Africa, cocoa is mainly cultivated in the country's forest areas..Most cocoa farms are established by removing the forest understory and thinning the forest canopy so that cocoa seedling can grow into productive trees by utilizing the 'forest rent' of the newly cleared area and the shade provided by the remaining treesThis practice has led to the degradation of forest ecosystems and associated biodiversity. In areas where climatic and forest conditions are not entirely met, its success is attributed to the presence of various agroforestry systems, in which local and exotic species are associated with cocoa trees for fertilization, protection against hydric stress and sun radiation, and so on. Although agroforestry systems have become quite scarce in the Ivorian cocoa landscape,these systems continue to support a modest portion of the cocoa production from west-central Côte d'Ivoire<sup>55</sup>.

<sup>55</sup> Abdulai, I, Vaast, P, Hoffmann, MP, et al. Cocoa agroforestry is less resilient to sub-optimal and extreme climate than cocoa in full sun. *Glob Change Biol.* 2018; 24: 273– 286. <https://doi.org/10.1111/gcb.13885>

Assiri A.A., Yoro G.R., Deheuvels O., Kébé B.I., Keli Z.J., Adiko A., Assa A. 2009. *Journal of Animal and Plant Sciences*, Jagoret, Patrick & Isabelle, Michel & Malézieux, Eric. 2011. Long-term dynamics of cocoa agroforests: A case study in central Cameroon. *Agroforestry Systems.* 81. 267-278. 10.1007/s10457-010-9368-x.

Hanak Freud, E., Richard, J. and Petithuguenin, P. 2000. *Les champs du cacao: un défi de compétitivité Afrique-Asie. Les champs du cacao*

Kpangui, Bruno & Vroh, Bi Tra Aimé & GONE BI, Zoro Bertin & Adou Yao, Yves. 2015. *Diversité Floristique Et Structurale Des Cacaoyères Du « V Baoulé » : Cas De La Sous-Préfecture De Kokumbo Centre, Côte D'ivoire.* European Scientific Research. 11. 1857 – 7881 Print e - ISSN 1857.

Ruf, François & Schroth, Götz. 2004. *Chocolate forests and monocultures - an historical review of cocoa growing and its conflicting role in tropical deforestation and forest conservation.*

Madountsap TN, Zapfack L, Chimi DC, Kabelong BL-P, Tsopmejo TI, Forbi PF, Ntonmen YAF, Nasang JM. 2019. Carbon storage potential of cacao agroforestry systems of different age and management intensity. *Climate and Development* 117:543-554.

Temgoua L, Marie Caroline Momo Solefack, Vianny Nguimdo Voufo, Chrétien Tagne Belibi & Armand Tanougong. 2018. Spatial and temporal dynamic of land-cover/land-use and carbon stocks in Eastern Cameroon: a case study of the teaching and research forest of the University of Dschang. *Forest Science and Technology*, 14:4, 181-191, DOI: 10.1080/21580103.2018.1520743

Bi, Vroh & Vroh, Bi Tra Aimé & Adou Yao, Yves & Djaha, Kouamé & Kpangui, Kouassi & Kpangui, Bruno & GONE BI, Zoro Bertin & Bertin, Zoro & Kouakou, Edouard. 2015. Trees species diversity and above ground biomass in three tropical forest types in Azaguié area, Côte d'Ivoire. 1. 30-38.

Wongnaa, Camillus Abawiera; and Babu, Suresh Chandra. 2020. Building resilience to shocks of climate change in Ghana's cocoa production and its effect on productivity and incomes. *Technology in Society* 62August 2020: 101288.



3. Cocoa agroforestry is one of the most promising options allowing to reduce the impact of the agricultural sector on the forest sector, restoring the country's forest cover and contributing to the country's commitments in relation with climate change alleviation. Beyond these climate and biodiversity targets, the transition to agroforestry can bring considerable and assured benefits for the sustainability of Ivorian cocoa production. These benefits are summarized as follows:

- A relative basal area (aggregate of stem sections) of cocoa trees of about 40-55 percent relative to all trees in the field is a good compromise between cocoa bean return and cocoa durability objectives. Tree cover growth can be advantageous for cocoa return in marginal production areas.
- Cocoa-based agroforestry systems are more resilient to climate change than cocoa systems undertaken under full sun because of the protective role of associated trees against climatic extremes, evapotranspiration, fast soil depletion and spread of vegetation fires.
- Cocoa agroforests are less prone to parasite attacks and cocoa diseases, provided that some forest species are avoided, as they can provide a shelter for pathogens and shade is correctly regulated.
- Cocoa-based agroforestry allows farmers to vary and increase their income levels owing to fruits, spices, vegetables, indirect products such as honey and mushrooms, firewood and eventually lumber when it comes that the plantation is at end of cycle.
- Thanks to the carbon stored by agroforestry trees, cocoa agroforestry is a reliable and sustainable approach to fight against global warming through carbon storage. Moreover, depending on these agroforests complexity, their average carbon storage capacity can reach up to 138 tons per hectare, which represents more than half the capacity of the forests they replaced.
- Cocoa agroforestry is a good compromise for the conservation of both vegetal and animal biodiversity. This potential is even greater in complex agroforestry systems that focus on local species. These systems can shelter a diversity corresponding to 26-45 percent of the one that can be found in primary forests of Côte d'Ivoire.

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<https://doi.org/10.1016/j.techsoc.2020.101288>

Vos J.G.M., Ritchie B.J. 2003. Discovery learning about cocoa. An inspirational guide for training facilitators. CABI Bioscience. UK..

Herzog, F. 2004. Multipurpose shade trees in coffee and cocoa plantations in Côte d'Ivoire. *Agroforestry Systems*, 27, 259-267.

Vaast, Philippe & Harmand, Jean-Michel & Rapidel, Bruno & Jagoret, Patrick & Deheuvels, Olivier. 2016. Coffee and Cocoa Production in Agroforestry—A Climate-Smart Agriculture Model. 10.1007/978-94-017-7462-8\_16.

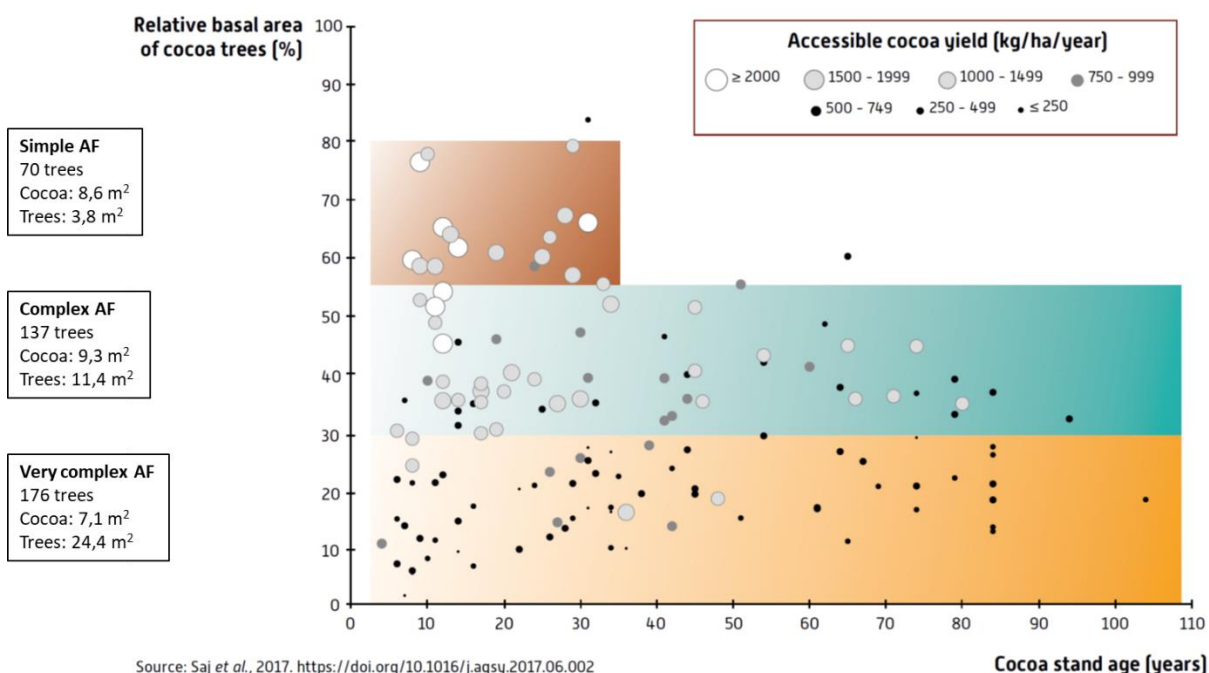
Deheuvels O., 2011. Compromis entre productivité et biodiversité dans un gradient d'intensité de gestion de systèmes agroforestiers à base de cacaoyers de Talamanca, Costa-Rica. PhD Thesis, Montpellier Supagro, France, 185 p. <http://agritrop.cirad.fr/587332/>

Asare, Richard & Markussen, Bo & Asare, Rebecca & Anim-Kwapong, Gilbert & Ræbild, Anders. 2018. On-farm cocoa yields increase with canopy cover of shade trees in two agro-ecological zones in Ghana. *Climate and Development*. 11. 1-11. 10.1080/17565529.2018.1442805.

Sanial, Elsa & Ruf, François. 2014. Is kola Tree the Enemy of Cocoa? A Critical Analysis of Agroforestry Recommendations Made to Ivorian Cocoa Farmers. *Human Ecology*. 46. 10.1007/s10745-018-9975-0.

Kouadio AC, Kouassi K, Assi-Kaudjhis JP. 2018. Orpaillage, disponibilité alimentaire et compétition foncière dans les zones aurifères du département de Bouaflé. *Tropicultura*, 36 (2): 369-379.

Piba S C, Koulibaly A, Goetze D, Porembski S & Traoré D. 2008. Diversité et importance sociale des espèces médicinales conservées dans les agrosystèmes cacaoyers au Centre-Ouest de la Côte d'Ivoire. *Annales de Botanique de l'Afrique de l'Ouest* 7: 80-96.

**Figure 6.1. Evolution of Cocoa Returns Depending on the Density of Forest Trees Associated with Cocoa Trees**

Source: Saj et al., 2017.

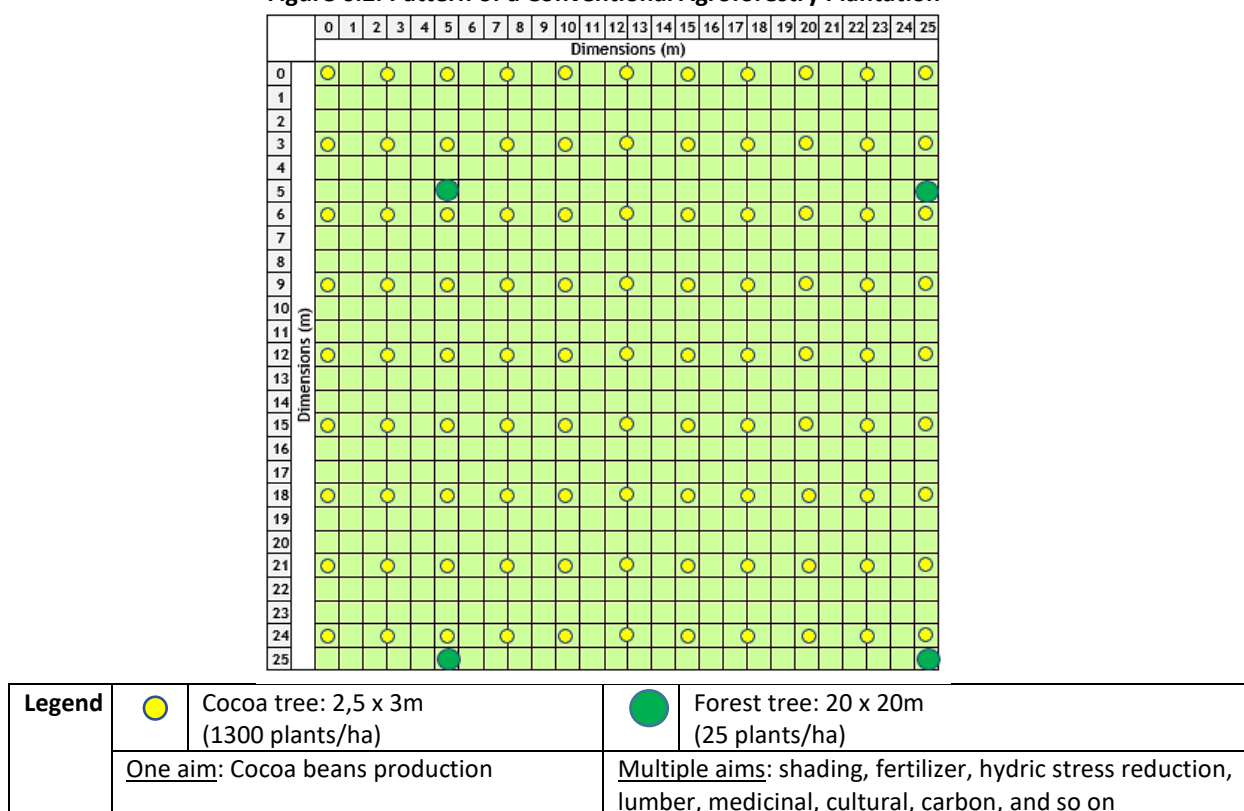
**B. Agroforestry Systems in Rural Areas and in Gazetted Forests.****Agroforestry Systems in Rural Areas*****R1 system: Traditional Agroforestry Plantation***

- *Plantation Layout*

4. The R1 system corresponds to the conventional agroforestry plantation practiced in most agroforestry systems in rural areas. Cocoa plants, of about 1,300 per hectare, are planted with 2.5 m spacing on the same line and 3 m between the lines. These systems are characterized by a high proportion of exotic species, including banana trees, a low proportion of local species, under an open canopy. Forest trees are planted more or less regularly on the field, with 20 m spacing between plants, totalizing an average of 25 forest trees per hectare. These trees are mainly used for their shading, fertilization and timber-providing potentials. The cocoa variety most commonly used in this system is the "Ghana" (upper Amazon) variety or hybrid varieties. Depending on the choice of species associated with cocoa trees, this system can be classified as either "simple" (in majority of composed exotic species such as banana and avocado trees) or "mixed" (relatively moderate share of exotic species, mixed with local species).



**Figure 6.2. Pattern of a Conventional Agroforestry Plantation**



**Potential cocoa production:** an average of 800-850 Kg of beans per hectare but up to 2,000 kg/ha of beans under optimum conditions.

**Quantity of stored carbon:** 23 to 70 tons equivalent carbon per hectare.

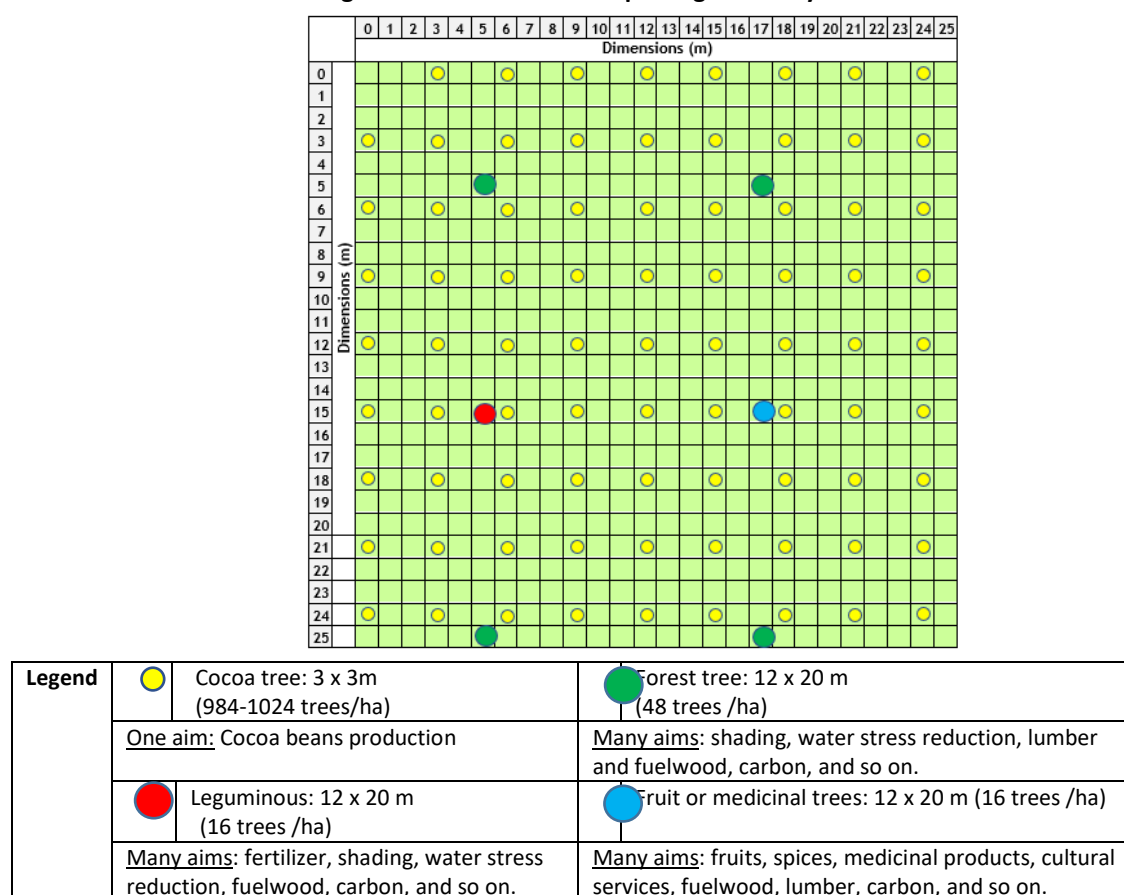
### ***R2 system: “Carbon Friendly” or Complex Agroforestry Plantation***

- Plantation Layout***

5. The R2 system is the longest-practiced complex agroforestry plantation in rural areas. It relies on the use of cocoa varieties particularly suitable for higher and persistent shading conditions. The main variety used in these systems is the “Amelonado” or “French cocoa” variety. The cocoa plants, of about 984-1000 per hectare, are established with 3x3 m spacing on and between the lines. Forest trees are planted more or less evenly on the field, with 10 to 12 m spacing between plants, an average total of 80 trees per hectare. As a whole, 3 types of trees are planted on the field according to the farmer’s needs. These are (i) forest trees (primarily for timber, shading and hydric stress reduction); (ii) tree-structure leguminous (mainly for their fertilizer, shading and potentially fuelwood roles); and (iii) fruit and medicinal plants (fruits, spices, medicines, and so on.).



**Figure 6.3 Pattern of a Complex Agroforestry Plantation**



**Potential cocoa production:** an average of about 1,000 Kg of beans per hectare and up to 1,500 Kg/ha under optimal conditions.

**Quantity of carbon stored:** up to about 142 tons equivalent carbon per hectare.

### Agroforestry Systems in Gazetted Forests

#### **F1 system: Conventional Agroforestry Co-Plantation**

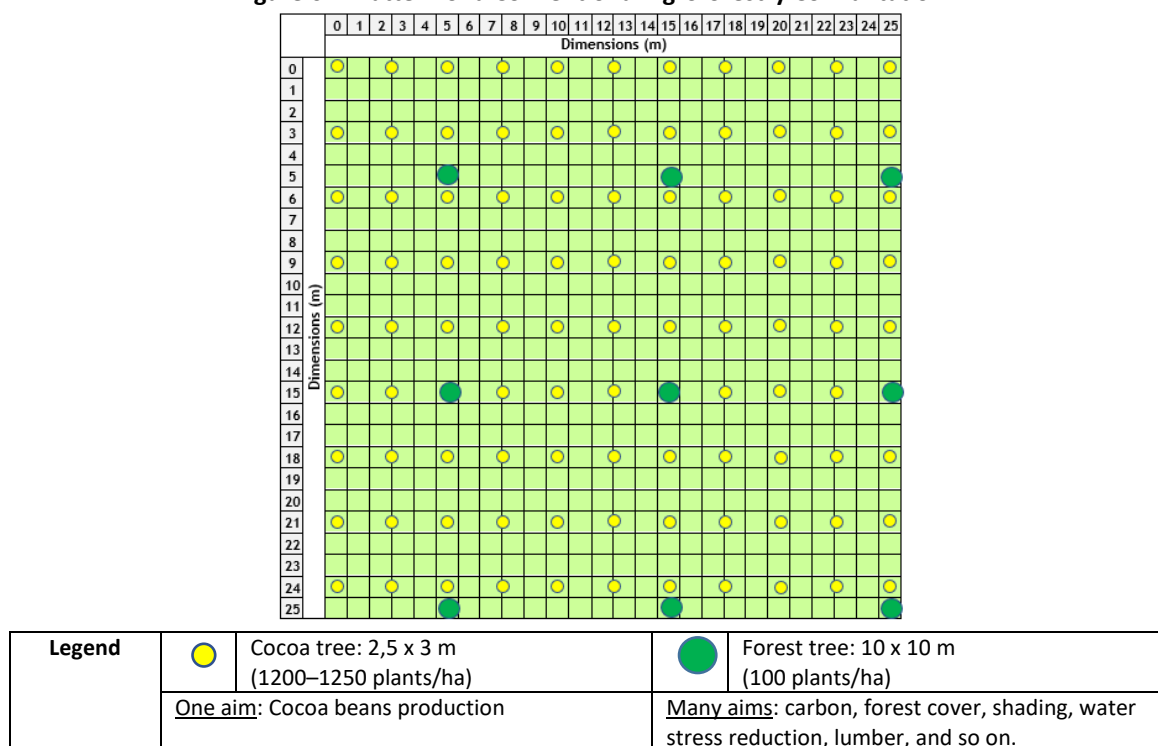
- *Plantation Layout*

6. The F1 system corresponds to the conventional layout adopted by SODEFOR to restore forest ecosystems in agricultural rights-of-way of GFs in Côte d'Ivoire. It pertains to full-sun cocoa plantations in medium to highly impacted areas and outside the rights-of-way of major rivers in the GFs areas. Initially originating from full-sun cocoa trees with an initial density of about 1,300 plants/ha, this system allows keeping at least 1,200 cocoa plants per hectare, with an addition of a total of 100 forest trees established at 10 m intervals in the field. Forest trees are mainly used for carbon storage or for timber potential, allowing for efficient and sustainable restoration of the basic forest ecosystem. A set of 5-8 native forest species are primarily used in these systems.



7. As trees are added to the field *a posteriori*, considerable losses in returns can be observed when cocoa trees have already reached the maximum production level about 5-7 years after the introduction of forest trees, unless the cocoa trees removed are moribund cocoa trees.

**Figure 6. 4 Pattern of a Conventional Agroforestry Co-Plantation**



**Potential cocoa production:** between 1,000 Kg and 1,500 kg of beans per hectare under optimal conditions.

**Quantity of carbon stored:** about 146.71 tons equivalent carbon per hectare.

### ***F2 system: Accelerated agroforestry co-plantation***

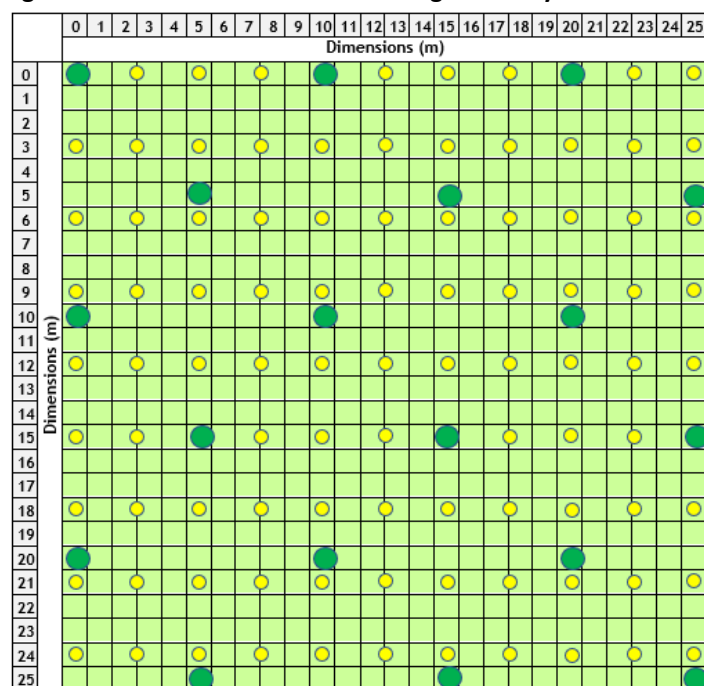
#### • *Plantation Layout*



8. The F2 system corresponds to a more aggressive variant of the conventional layout adopted by SODEFOR to restore forest ecosystems in agricultural rights-of-way of classified forests in Côte d'Ivoire. It applies to full-sun cocoa plantations in the most preserved forest areas and on the right-of-way of major rivers in classified forests area. Initially originating from full-sun cocoa trees with an initial density of approximately 1,300 plants/ha, the system allows maintaining between 1,000 and 1,100 cocoa plants approximately per hectare, with the addition in the field of a total of 200 forest trees planted in a nested way of 20 rows of 10 trees with 10 m intervals within the same row and 5 m between rows. Forest trees are primarily timber trees (source of significant carbon storage) that provide a rapid, efficient and sustainable restoration of the basic forest ecosystem. A set of 5-8 forest species are used primarily in these systems.

9. As trees are added to the field *a posteriori*, considerable losses in returns can be observed when cocoa trees have already reached the maximum production level about 3-5 years after the introduction of forest trees, unless the cocoa trees removed are moribund trees.



Figure 6.5. Pattern of an Accelerated Agroforestry Co-Plantation



Legend		Cocoa tree: 2,5 x 3 m (1100-1200 trees/ha)		Forest tree: 10 x 5 m nested (200 trees/ha)
		<u>One aim</u> : Cocoa beans production		<u>Many aims</u> : carbon, forest cover, shading, water stress reduction, lumber, and so on.

**Potential cocoa production:** up to 750 Kg/ha of beans under optimum conditions.

**Quantity of carbon stored:** potentially more than 171 tons equivalent carbon per ha.



## Annex 7: Map

