



**The World Bank**

Gazetted Forests Management Project 2 (P508182)

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# Project Information Document (PID)

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Appraisal Stage | Date Prepared/Updated: 10-Mar-2025 | Report No: PIDIA01332



## BASIC INFORMATION

### A. Basic Project Data

Project Beneficiary(ies)	Region	Operation ID	Operation Name
Benin	WESTERN AND CENTRAL AFRICA	P508182	Gazetted Forests Management Project 2
Financing Instrument	Estimated Appraisal Date	Estimated Approval Date	Practice Area (Lead)
Investment Project Financing (IPF)	07-Mar-2025	05-May-2025	Environment, Natural Resources & the Blue Economy
Borrower(s)	Implementing Agency		
Ministry of Economy and Finance	Ministry of Environment and Transport		

### Proposed Development Objective(s)

To improve the integrated management of targeted Gazetted forests, increase sustainable production of fuelwood, and increase access to better jobs in selected value chains

### Components

Component 1: Support to Forests Governance

Component 2: Integrated Management of Gazetted Forests

Component 3: Development of Selected Non-Timber Forest Product (NTFP) Value Chains

Component 4: Project Management

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

### Maximizing Finance for Development

**Is this an MFD-Enabling Project (MFD-EP)?** No

**Is this project Private Capital Enabling (PCE)?** No

### SUMMARY

Total Operation Cost	74.00
Total Financing	74.00
of which IBRD/IDA	74.00
Financing Gap	0.00

**DETAILS****World Bank Group Financing**

International Development Association (IDA)	74.00
IDA Shorter Maturity Loan (SML)	74.00

Environmental And Social Risk Classification

Moderate

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

**B. Introduction and Context****Country Context**

1. In 2020, Benin officially transitioned from a low-income to a lower-middle income country. Despite growth volatility over the last decade, the country's performance has been above average for sub-Saharan Africa. Real gross domestic product growth averaged 5.2 percent over 2011-22, making it one of the region's most dynamic economies. The poverty incidence (share of population under the national poverty line) declined steadily – from 47 percent in 2010 to 42 percent in 2015, falling to 38.5 percent in 2018/19. However, high population growth (with one of the highest total fertility rates in the world, at 4.8 births per woman) and low levels of labor productivity have prevented the high growth trajectory from being translated into higher income per capita gains. The average per capita growth rate of 2.4 percent between 2011 and 2021 remains lower than its peers.
2. To lift people out of poverty more jobs are needed to be created in the formal economy and deepen the process of structural transformation. Underemployment stands at 72 percent, with more than 90 percent of rural women and people under 25 declared to be underemployed. Over 90 percent of the labor force is employed in the informal economy, and two-fifths of the population is still engaged in informal rural activities, predominantly smallholder agriculture often associated with high rates of poverty.
3. Worsening climate change impacts will make it harder to improve living standards equitably and sustainably. The number of people living below the poverty line could be up to 1 million higher by 2050 without any adaptation actions. Benin ranks 152 out of 181 countries exposed to extreme climate vulnerability. While its greenhouse gas (GHG) emissions are low, contributing to 0.05 percent of global emissions, GHG emissions are expected to increase alongside economic development, and the country's vulnerability to climate shocks remains a key challenge. Future dry and wet conditions



are likely to become more extreme, with more droughts and a higher risk of floods. Under a 2.7°C global warming scenario (i.e., business as usual), by 2070, 98 percent of Benin's territory is expected to be exposed to extreme temperatures – one of the most exposed countries by percentage of landmass worldwide. Natural wealth has also declined in recent decades, with deforestation amplifying the negative effects of climate change.

4. Gender gaps significantly reduce women's and girls' preparedness and resilience to climate change risks. In 2023, Benin ranked 148<sup>th</sup> out of 162 countries in gender equality. Currently only 8 percent of parliamentary seats are held by women, 35 percent of women are literate in comparison to 57 percent of men, and only 36 percent of women participate in major decisions in the household. Women's access to employment is also limited, in which 94 percent of women are self-employed versus 83 percent of men. In addition, women are less protected from shocks, including climate shocks, making women more vulnerable to losing their livelihood.<sup>1</sup> Women also continue to experience an increased burden of domestic work and family care, preventing them from devoting more time to paid work and/or education, that could alleviate them from poverty.<sup>2</sup> Addressing the underlying factors that create gender gaps and inequalities can help build women's and girls' resilience to climate change.<sup>3</sup>

#### Sectoral and Institutional Context

5. Forest governance presents a multilayered institutional arrangement for managing forests at the national level. Under the Ministry of the Environment and Transport (*Ministère du Cadre de Vie et des Transports en charge du Développement Durable – MCVT*), the Directorate General of Water, Forests, and Hunting (*Direction Générale d'Eaux et Forêts et Chasse (DGEFC)*) is the leading institution responsible for defining and implementing forest policies and regulations. It manages the major portion of the Classified Estate Domain (CED) (39 out of a total of 46 Gazetted Forests (GFs), and seven reforestation perimeters), which represents a national heritage belonging to the central state. The DGEFC (also called the Forestry Administration) oversees the Protected Estate Domain (PED) in the rural domain and managed by the Municipalities, covering 80 percent of the natural forests. Seven GFs are also under the management of the National Timber Company (*Société Nationale du Bois (SONAB)*) and producing mainly timber for export. In 2020, the Government entrusted the Pendjari and W national parks to African Parks Network, which were previously managed by the National Center for the Management of Wildlife Reserves (*Centre National de Gestion des Réserves de Faune*). Decentralized forestry units are set up through the technical forestry management unit staff (*Cellules Techniques d'Aménagement Forestier (CTAF)*) under the Forestry Administration. The CTAFs provide technical assistance to Community-based organizations, Municipalities, and forest-based entrepreneurs, and ensure monitoring and implementation of the forest management plans in the CED.

6. Forest governance at the local level presents a multitiered arrangement through co-management structures involving participatory approaches between the public sector and local populations. Communities collaborate with the Forestry Administration, nongovernmental organizations (NGOs), and the private sector for the development of forest inventories, studies, and management plans; villagers are key parts of the inventory teams providing indigenous knowledge and insights into sociocultural norms. There are several layers of local governance bodies<sup>4</sup> and the Village Forest Management Council (*Conseil Villageois de Gestion de la Forêt*) implements components from the forest management plans. The Participatory Forest Management Council is the apex body of the forest complex, formally

<sup>1</sup>World Bank Group. 2023. Benin Country Climate and Development Report. CCDR Series. © Washington, DC: World Bank.

http://hdl.handle.net/10986/40688 License: [CC BY-NC-ND 3.0 IGO](#).

<sup>2</sup> UN Women. 2019. World survey on the role of women in development 2019: why addressing women's income and time poverty matters for sustainable development.

<sup>3</sup> World Bank Group. 2023. Benin Country Climate and Development Report. CCDR Series. © Washington, DC: World Bank.  
http://hdl.handle.net/10986/40688 License: [CC BY-NC-ND 3.0 IGO](#).

<sup>4</sup>These include: (i) the Village Forest Management Organization (*Organisation Villageoise de Gestion de la Forêt* in French, ((OVGF); (ii) the Village Forest Management Council (*Conseil Villageois de Gestion de la Forêt*); (iii) the Managing Council of Planning Units (*Conseil de Gestion des Unités d'Aménagement*); (iv) the Coordinating Council of Management Units (*Conseil de Coordination des Unités d'Aménagement*) and; (v) Participatory Forest Management Council.



bringing together key actors from the villages, municipal governments, and the Forestry Administration to strategize and evaluate forest development.<sup>5</sup>

7. Forest cover continues to be highly exposed to deforestation and degradation at the national level. Despite efforts to sustainably manage forest resources, Benin is losing an average of 50,000 hectares (ha) of its forests per year, or 1.6 percent per year between 2015-2020. In 2021, forests covered 5.8 million ha of the territory, down from 7.89 million ha in 2005 – a 26 percent reduction over 16 years. Deforestation trends are driven by multiple direct and indirect factors. Main direct factors include expansion of subsistence agriculture, fuelwood production, illegal timber extraction, and urban sprawl. Indirect drivers of deforestation and forest degradation include high population pressure, poverty, and weak land governance. In the last 16 years forest cover decreased by over 2 million ha, while agricultural land increased by 1.9 million ha. For example, pervasive cotton cultivation causes encroachment on forests, mainly in the northern region, encouraged by fertilizer and pesticide subsidies available for its production. The loss of tree cover significantly impacts soil erosion, water regulation, and groundwater recharge, and enhances the effects of climate change with more carbon dioxide released into the atmosphere. Furthermore, tree cover loss worsens extreme weather events, such as increased flooding and droughts.

8. The government aims to reforest at least 150,000 ha of degraded lands with timber and fuelwood plantations by 2030 and enable 300,000 ha of forest regeneration by 2040. Other key aims include developing agroforestry systems in 15 percent of the country's GFs, under the management of DGEFC and promoting sources of income from non-timber forest products (NTFPs) of high economic potential (e.g., mushrooms, honey, shea and baobab) that also increase women's access to these economic opportunities. Enhancing opportunities to access verified carbon credits is also a priority for the Government of Benin and with support from the Scaling Climate Action by Lowering Emissions (SCALE) Trust Fund of the World Bank Group. The government will develop, generate, and monetize carbon credits with high environmental and social integrity through a jurisdictional integrated landscape management approach, enhancing synergies between improved agricultural management and forests to build resilience and support the reduction of deforestation and climate change mitigation. This SCALE support will be anchored to the Gazetted Forests Management project, phase 2 (GFM2). This would be aligned with the operationalization of Benin's Country Climate and Development Report (CCDR) as well as the agreement of Benin and the International Monetary Fund (IMF) on the IMF's Resilience Sustainability Fund implementation.

9. Benin's national forest policy (2023-2032) aims to promote the participatory management of forest resources in a sustainable manner. It recognizes that investing in sustainable forest management will contribute to enhancing carbon stocks and reducing GHG emissions. The policy will need to be accompanied by a program of priority actions. However, the forest sector's institutional framework is hampered by several constraints. These include frequent institutional changes in the forestry administration, weak coordination of the various actors involved in the sector, and challenges related to monitoring of compliance and performance. In addition, support to the forestry sector is fragmented, with one-third of resources coming from the national budget and two-thirds from external financing hindering the sector from performing efficiently.

10. The World Bank is financing a US\$90 million IDA Benin Gazetted Forests Management (GFM) Project (P167678) (2018-2026) targeting the integrated management of 11 out of the country's 46 Gazetted Forests (GFs), implemented under MCVT. As of today, key achievements include the development and implementation of 10 participatory forest management plans and over 26,000 ha of large-scale reforestation of timber and fuelwood plantations in targeted GFs (surpassing its original target by 118 percent), among other activities. The reforestation works led to the transfer of about US\$36 million to the communities involved in the reforestation works via mobile money. This participatory approach has

<sup>5</sup>World Bank. 2020. Benin Country Forest Note.



benefitted livelihoods of 50,660 people, of which 26 percent are women. Another important outcome of the GFM project is to increase access of the main consumption cities to fuelwood produced sustainably, with the fuelwood plantations established by the project. However, the timeframe of the GFM project is limited to ensure it follows the full cycle of the plantations from planting to harvest and achieve transformation of fuelwood. With this new second phase, the project aims to upscale the ambition by continuing supporting the integrated and sustainable forest management (i.e. development of agroforestry, sustainable agricultural intensification in the agro-zones, reforestation and maintenance works, harvesting). In addition to the 26,000 hectares (ha) planted under the GFM1, the GFM2 aims to reforest additional 20,000 ha on degraded GFs. The reforestation and maintenance works in the GFs will continue providing jobs to forest-dependent communities as well as other project activities. Furthermore, the GFM2 aims to follow the complete cycle of fuelwood plantations, with a portion of the plantations established under the GFM project that will be mature for harvest and to be transformed into sustainable fuelwood to meet energy demands. This could not be done under the GFM project, given that the fuelwood plantations will not be mature enough<sup>6</sup> to be harvested before the project closing date in November 2026.

### C. Proposed Development Objective(s)

#### Development Objective(s) (From PAD)

To improve the integrated management of targeted Gazetted forests, increase sustainable production of fuelwood, and increase access to better jobs in selected value chains.

#### Key Results

#### PDO Level Indicators :

- i.Gazetted Forest areas under sustainable management based on defined criteria <sup>7</sup>(ha);
- ii.Net greenhouse gas emissions (metric tons);
- iii.Processed volume of wood energy plantations supported by the project (cubic meter (m<sup>3</sup>));
- iv.New and better jobs for communities adjacent to targeted GFs (number).
- v.Satisfaction of beneficiaries (level of engagement, by gender and age) (percentage).

11. The project's direct beneficiaries are: (i) forest dependent communities in the project's target GFs, a population of about 705,622 people (88,202 households) of which 353,711 men and 356,349 women<sup>8</sup> who will benefit from revenues generated from the performance-based agroforestry and agricultural intensification, as well as from the implementation of the taungya system, and NTFP value chain development; and (ii) the Forestry Administration, whose capacity will be enhanced for improved forest governance. Indirect beneficiaries are segments of the populations of Cotonou, Abomey-Calavi, and Porto-Novo, whose fuelwood needs will partially be fulfilled thanks to the project's support to fuelwood production.

### D. Project Description

12. Selected Gazetted Forests (GFs): 11 forest reserves are being targeted for project interventions on the basis of their conservation, production, and NTFP development potential. Five are in the south (Dan, Dogo, Kétou, Logozohè and Toffo-Lama Sud), three in the center (Agoua, Ouémé-Boukou, and Tchaourou-Toui-Kilibo), and four in the north (Ouémé-Supérieur-Ndali, Alibori Supérieur, Trois Rivières, and Ouénou-Bénou). In addition, five other forest reserves

<sup>6</sup> First harvest for *Acacia auriculiformis* GFM is planned after 7 years, in 2027.

<sup>7</sup> The criteria include adoption and implementation of agroforestry schemes, taungya methods and agricultural intensification techniques defined in the project M&E manual

<sup>8</sup>Source: DGEFC



are being added, namely Tchatchou-Gokana, Sakarou, Nano, Birni and Belléfoungou. The total combined surface area of these 16 GFs is 950,958 hectares representing 65 percent of the total surface area (1,457,247 ha) of the country's 46 GFs.

**Component 1: Support to Forests Governance (US\$8 million)**

13. The objective of this sub-component is to improve the capacity of the Forestry Administration to effectively execute its mandate, including establishing, managing and monitoring implementation of management plans.

**Sub-component 1.1: Capacity enhancement of the Forestry Administration (US\$7.48 million):**

14. The sub-component will finance for the five additional GFs: (i) technical assistance to (a) take stock of the current degradation state of GFs to elaborate forest cover maps; (b) conduct a socio-economic study of forest-dependent communities in target zones; and (c) develop GF management plans; (ii) GF management plan consultation and validation workshops with key stakeholders. The sub-component will also finance for the all targeted GFs the acquisition of patrolling equipment, and renewal of vehicles and motorcycles<sup>9</sup>, to enhance the capacity of the decentralized technical forestry management unit staff (CTAF: *Cellules Techniques d'Aménagement Forestier*) and the National Timber Company (SONAB: *Société Nationale du Bois*) to effectively implement project activities in selected GFs; and (iii) building of additional two CTAF living quarters, and rehabilitation works and equipment for the two new CTAF offices and living quarters, including provision of electricity, water, and internet connection.

15. Support to the forest administration will include: (i) the operationalization of the national forest monitoring system through equipment (computer, drone, printer, software acquisition and capacity building), (ii) support for securing the land tenure status of Gazetted Forests through the registration of their coordinates defined in the forest management plans in the national cadaster, including physical demarcation of forest limits with boundary markers and tree planting. The sub-component will also finance: (i) planning and execution of targeted forest patrols; (ii) quality control measures that use GPS tracking to ensure forest rangers have comprehensively patrolled their assigned zones with use of the SMART<sup>10</sup> system.

16. The sub-component will also finance the capacity strengthening in climate financing and readiness in the forestry sector which includes the provision of key documents to achieve the SCALE emission reduction program approval. In addition, South-South exchanges with other Forest Carbon Partnership Facility or Initiative for Sustainable Forest Landscapes countries that already implement the SCALE program will be conducted, such as Zambia, Ethiopia or Côte d'Ivoire. Furthermore, to ensure a collective and concerted management of forest resources, an intersectoral consultation and participation framework of key stakeholders including but not limited to Ministries of Environment, Agriculture, Energy, Land, and Urban.

**Sub-component 1.2: Strategies and instruments for sustainable management of Gazetted Forests (US\$522,200):**

17. The objective of this sub-component is to identify ways of managing the country's GFs in a more effective, efficient and sustainable manner, after project closure. The sub-component will finance technical assistance to: (i) identify key opportunities and challenges of current organizational arrangements for GF management; (ii) investigate methods of GF management, evaluate and capitalize data of the different components of the implementation of the participatory forest management plans developed under the first GFM Project; and, (iii) make recommendations on strategies aimed at attaining transformational, sustainable impacts in management of GFs. Furthermore, given that the project will finance establishment of production forests (sub-component 2.4) that will yield, in the long run, revenues from the

<sup>9</sup>(the total depreciation of the motorcycle acquired for the CTAF in 2021 at the initial phase of the project is projected at the end of 2026 (i.e. after 6 years of use), and 2028 for vehicles (i.e. after 7 years of use)

<sup>10</sup> SMART: Spatial Monitoring and Reporting Tool



sale of wood products, an additional aim is to secure the use of these funds to finance the recurrent costs of managing the country's GFs, including long-term maintenance costs in the production forests themselves. The project will contribute to the dialogue to define the instruments and institutional arrangements to cover the recurrent costs of the sustainable management and support the recommendation (e.g. creation of a sequester fund, use of a national agency, exploring Public Private Partnership opportunities).

18. The GFs will generate revenues from the sales of wood generated from the 20,000 hectares of production forests (10,000 ha acacia and 10,000 ha teak). For acacia fuelwood this amount is estimated between US\$18 million and US\$54 million based on a total production of 120 m<sup>3</sup>/ha (1.8 million m<sup>3</sup>)<sup>11</sup>. For the 10,000 ha of teak, the revenues are estimated between US\$26.5 million and US\$59 million over a period of 20 years based on total production of 42 m<sup>3</sup>/ha (294,000 m<sup>3</sup>) and sold between US\$90/m<sup>3</sup> and US\$200/m<sup>3</sup>. Based on a conservative annual interest rate of 4 percent, the CTF would generate revenues estimated at US\$2.5 million per year to defray recurrent costs of managing Benin's GFs.

19. The project will also finance technical assistance to look into ways to collaborate further with the Private Sector to define institutional arrangements for the different stakeholders involved into the GF management, and exploring forest carbon generation opportunities with the support of the Scale Trust Fund and in collaboration with International Finance Corporation.

### **Component 2: Integrated Management of Gazetted Forests (US\$55 million)**

20. The objective of this component is to support management of selected GFs in the south (Dan, Dogo-Kétou, Logozohè, Toffo-Lama Sud) and in the center of the country (Agoua, Ouémé-Boukou, and Tchaourou-Toui-Kilibo), and in the central zone (Tchatchou-Gokana, Sakarou, Birni and Belléfoungou, Oueme Supérieur N'dali, Ouenou Benou, Trois rivières et Alibori Supérieur) in an integrated manner through the following four sub-components.

#### **Sub-component 2.1: Promotion of agricultural intensification and agroforestry methods (US\$6.65 million):**

21. The sub-component aims to promote agricultural intensification and agroforestry methods in project targeted GFs of the project with the goals of supporting sustainable agricultural development in dedicated agricultural areas to support the reduction of deforestation and forest degradation caused by agricultural encroachment in the GFs.

22. The sub-component will finance technical assistance to take stock of existing farmers in GFs in the five additional GFs and work with the farmers of all GFs to adopt agriculture intensification and agroforestry methods in dedicated agricultural zones in the project GFs. The sub-component will finance: (i) technical assistance in outlining and mapping dedicated agriculture and agroforestry zones in GFs, parceling the plots that will be given to farmers; (ii) participatory and inclusive stakeholder consultation workshops to ensure agreement on the siting of the dedicated agroforestry areas; (iii) provision of demarcation materials (posts, pillars, signs, panels, planting alignments) and their participatory installation with farmers to ensure ownership over the new zones.

23. The project will support the adoption of sustainable agricultural intensification and agroforestry methods adapted to the project's zones of intervention. The agroforestry methods will be piloted with a consulting firm. Training modules will also be disseminated by local Non-Governmental Organization (NGOs) to train farmers in the use of these improved techniques. The project will provide farmers with acquisition of seeds and seedlings of fertilizing species, e.g. Mucuna and Angolan nuts seeds as well as tree seeds adapted to the agro-ecological zones, proven to effectively increase productivity, including those of acacia and teak. Furthermore, the development of water points will aim to

<sup>11</sup>Acacia fuelwood will be converted into energy efficient charcoal. One hectare of acacia plantation provides 300 (60kg) bags of charcoal. These bags are sold in Benin's main consumption urban cities at the equivalent of US\$12.30/bag.



guarantee access to water for farming households located in agricultural series. To this end, the project will support (i) management of 66,000 ha of agricultural land in the GFs; (ii) 7,600 ha under taungya agroforestry system (iii) hydrogeological studies to identify accessible water tables, (v) the development of boreholes to supply water to farmers, and (iv) the construction of water storage devices (water tanks).

24. Furthermore, the project will: (i) establish agreements/MOUs with the Agriculture Department, and research institutions (e.g. the National Agricultural Research Institute of Benin (INRAB: *Institut National de Recherche Agricole du Benin*)) for the production of improved seeds (maize, peanuts, soya, etc.) and technical assistance to farmers for the adoption of agricultural intensification techniques; (ii) farmer training and awareness raising in the implementation of agricultural intensification techniques; and (iii) awareness raising against agricultural bushfires and on fire prevention measures.

**Sub-component 2.2: Sustainable management of transhumance (US\$614,000):**

25. Support for the management of transhumance of local and foreign herds in search of pasture and water remains key to attaining integrated forest management, as it also impacts significantly forest degradation. This mainly occurs through the grazing of livestock on herbaceous pastures, as well as livestock's pruning of and rumination on the low branches of trees ("aerial fodder") during the dry season, which compromises the trees' natural regeneration. These practices are widespread due to the importance of livestock farming<sup>12</sup>. Pastoral-related degradation of GFs has been exacerbated by the rent-seeking behavior of traditional authorities, in collaboration with previously settled herders, who facilitate the settlement of newcomers in the GFs, and the lack of physically demarcated transhumance corridors, secured grazing areas and agro-pastoral infrastructure. This results in agricultural encroachment into transhumance corridors as well as conflicts between transhumant herders and farmers. Project interventions will mostly focus on the development of; (i) transhumance corridors in Gazetted Forests; (ii) grazing areas (in buffer zones) by the technique of enriching natural pastures, and (iii) pastoral water points to ensure the effective development of transhumance corridors and grazing areas (in buffer zones).

**Sub-component 2.3: Establishment and management of production forests (US\$45 million)**

26. To reverse deforestation and degradation trends related to fuelwood collection from GFs, the sub-component will finance the establishment of sustainably managed fuelwood production forests, to contribute to alleviate the demand from Benin's major wood energy consumption cities--Cotonou, Abomey-Calavi, and Porto Novo. The sub-component will support: (i) management of 19,000 ha of fuelwood plantations, and 7,000 ha of timber plantations (managed under SONAB) already established under the first GFM project, including maintenance, protection, , thinning, harvesting, and assisted regeneration for the continuation of the wood production cycle; (ii) reforestation of 10,000 ha of additional fuelwood plantations in the project's 13 GFs (Agoua, Tchaourou Toui Kilibo, Kétou, Ouémé Boukou, Ouénou Bénou, Belléfoungou, Gokana-Tchatchou, Birni, Sakarou, Nano, and Ouémé Supérieur N'dali, Trois rivières, Alibori supérieur); and (iii) reforestation of 10,000 ha of timber plantations in degraded lands in the Agoua, Dogo, Ouémé Boukou, Dan, Logozohè, Ouénou Bénou, Ouémé supérieur Ndali (west and north zone), Alibori Supérieure (eastern zone) and Trois rivières (southern zone) GFs. The reforestation works will be implemented using an incentive-based mechanism governed by a performance-based contract between the Integrated Project Management Unit (IPMU) and the communities working in the plantations. Verification of the performance will be ensured by the CTAFs as well as an audit firm and will be reported to the IPU. Payments will be made in installments in the form of subgrants based on this dual verification protocol; a payment agency will be recruited prior to the disbursement of subgrants to the beneficiaries.

<sup>12</sup> With a herd estimated at around 2 million heads of cattle, sheep and goats, extensive and transhumant livestock farming, based on the exploitation of natural pastoral resources, is the second most important socio-economic activity of the rural population.



27. The establishment of the plantations will be supported by the following preparatory activities: (i) an analytical study to: (a) ascertain soil quality in potential plantation areas in selected GFs, (b) identify, survey, and map potential plantation sites and parcels for selected species; and (ii) establishment of community-led nurseries to produce the selected species. Given that *Acacia auriculiformis* is particularly sensitive to fire, especially during their first three years of development, the project will finance the establishment of fire breaks (manual and/or vegetative) around plantations and ensure close monitoring in the first three years of development. Viewing platforms near plantations and water tricycles will also be provided for quick intervention.

28. The project will rehabilitate an average of 10 km of forest tracks per targeted GFs, for enhanced access to plantation areas during and after the rainy season which will simultaneously contribute to the maintenance of the forest plantations and forest surveillance. The sub-component will also support the strengthening of rural wood markets (RWM)—the sale points for wood harvested from the plantations—through: (i) development of surveys on fuelwood supply flow to measure the share coming from the project's targeted gazetted forests; (ii) capacity building of GF co-management committees responsible for managing the RWM in best practices and business management principles and simplified accounting methods; and (iii) acquisition of equipment for the establishment and furnishing of offices in new RWM, including office supplies such as registers, receipts, notebooks, and other materials necessary for proper recordkeeping.

**Sub-component 2.4: Sustainable management of conservation forests (US\$2.58 million):**

29. Over time, a convergence of drivers has led to forest degradation and the destruction of natural habitats. One of the most significant is uncontrolled charcoal production, which has been concentrated for decades on a few rare natural forest species with high conservation value, jeopardizing their ability to provide ecosystem services such as carbon storage and sequestration. Many of these rare species are experiencing critical regeneration slowdowns, as they are exceedingly difficult to reproduce naturally. The objective of this sub-component is to put up to 40 percent of GFs under conservation to ensure natural assisted regeneration of tree species and concomitantly restore habitats conducive to increased biodiversity. The sub-component will finance the following activities:

**Establishment and sustainable management of conservation zones in GFs:**

30. (i) demarcation of conservation zones and delimiting borders, including through vegetative firebreaks (planting of multiple rows of fruiting trees, like mango or cashew, that prevents the growth of underbrush and limits/forestalls the spread of fire), placement of stone pillars, and hanging of signage; (ii) agreements with local forest co-management committees to complement the work of CTAFs through the conduct of regular ground patrols and lending of support for bushfire suppression—these agreements will include the acquisition of material sufficient to effectively carry out community patrols, including motorcycles (with provisions for gas and maintenance), boots and waterproof jackets, and other light equipment.

31. **Biodiversity monitoring:** (i) technical assistance to conduct a detailed inventory of biodiversity in GFs (flora and fauna) and to establish a baseline reference level for ecological monitoring; (ii) establishment of conservation and restoration measures for the 10 most endangered timber and fauna species (see Annex 4); and (iii) creation and implementation of a biodiversity monitoring system consisting of: (a) a well-designed geospatial database, (b) partnerships with universities and/or research centers to collect and analyze data and perform continuous monitoring on the status of targeted (e.g. threatened) flora and fauna species; (c) reporting and publication of case studies and successful actions in biodiversity restoration and (d) organize the translocation of species in certain GFs where reintroduction (natural repopulation) seems almost compromised.



32. Improving charcoal production efficiency from natural forests: traditional furnaces, which have less than 20 percent efficiency, is leading to large wood energy loss. The project aims to improve it through: (a) technical assistance to identify and develop efficient, affordable, and scalable technologies for charcoal production; (b) sensitization and training of local communities and charcoal producers in improved carbonization techniques and the use of higher performance furnaces; and (c) construction of improved charcoal furnaces at the outer limits of GFs to incentivize charcoal producers to do transformation outside of the boundaries of natural forests, hence reducing bushfires and forest degradation linked to charcoal production.

#### **Component 3: Development of Selected Non-Timber Forest Product (NTFP) Value Chains (US\$5.44 million)**

33. Traditionally, forest-dependent communities have harvested NTFP for household use, including *inter alia*, nutrition, medicine, and cosmetic purposes. However, their potential value is not fully known and often underestimated. Therefore, NTFP value chains are underdeveloped, and value addition is low. As a result, women, men, and youth, three population segments heavily involved in NTFP collection and processing—e.g. shea nut (women), apiculture (men and youth)—are not optimizing their earning potentials from these activities and heavily rely on wood products resources from GFs for their livelihoods, thereby increasing human pressure on GFs. In addition, shea trees, which are among the main species populating GFs in the North, are aging and becoming less productive. This could lead in the long run to a shortage of the commodity, impoverishing women who depend on shea nut collection and processing for their livelihoods. Given that traditional processing of shea nut to shea butter requires high wood consumption it contributes to deforestation<sup>16</sup>. The component is subdivided into the following two sub-components targeting strengthening selected NTFP value chains:

##### Sub-component 3.1: Development of shea value chain (US\$2.4 million):

34. The objective of this sub-component is to develop the shea value chain while promoting energy-efficient processing methods as well as establishing new plantations to replace the aging and less productive trees to sustain this NTFP. The sub-component will finance: (i) the establishment of 600 hectares of shea plantations to respond to market demand in the long-term; (ii) research on improvement of collection, conservation, and processing techniques; (iii) training of shea nuts collectors on those techniques; (iv) finance the acquisition of shea nut collection equipment; and (v) provide technical assistance to beneficiaries in alternative income generating activities (IGA) through: technical support, support entrepreneurial initiatives for the benefit of women and youth; implementation of the marketing strategy based on the marketing study developed under the first Gazetted Forests Management Project (GFMP) looking at sources of demand, packaging, labeling and certification options and providing recommendations to implement the best options which the project will finance. The project will continue working with the solicitation of the expertise of an international NGO, with proven experience in supporting value chain development and connection to the market.

35. The project will also finance shea nut processing units for the benefit of women organized in cooperatives; certification process of shea butter for export; and support for women's participation in national, regional, and international fairs (thereby connecting them with potential buyers). Given that the transformation of shea nut to butter necessitates high consumption of energy, the project will look into integrating energy-efficient technologies, i.e. solar energy to operate the processing units and provide improved energy-efficient stoves to women groups specializing in nut collection and transformation. The project will also finance the services of local NGOs, research institutions and universities to support implementation of the sub-component.

##### Sub-component 3.2: Development of honey value chain (US\$3 million):

36. This sub-component aims at promoting the development of the acacia honey value chain from the 19,571 ha of established acacia plantations under the GFM project, for the benefit of forest-dependent communities, especially the



youths living in those communities. The sub-component will finance: (i) provision of hives and capacity building of beneficiary farmers to make honey on acacia plantations; (ii) the implementation of a marketing strategy looking at sources of demand, packaging, labeling and certification options to support forest-dependent communities; and (iii) small honey processing units for beneficiaries organized in cooperatives with support from the project.

37. The sub-component will also finance the process of honey certification to facilitate its export regionally and internationally as well as the participation of producers in national, regional and international fairs to showcase their products to build demand. The implementation of the sub-component will continue to be supported by an international NGO with expertise in value chain development and international marketing.

#### **Component 4: Project Management (US\$5.6 million)**

38. This component will support the overall daily administration of the project, to ensure that regular monitoring and evaluation are carried out, and the results are fed back into decision-making on project implementation. The project has an IPMU General Project Coordinator, a technical specialist, as well as procurement, financial management, environmental and social safeguards, communication, Monitoring and Evaluation (M&E), and administrative support. In addition, to ensure smooth implementation and maintain management quality the IPMU will be expanded.

39. Four vehicles, office equipment, office supplies, office rental and related utilities as well as project supervision and operating costs are in place and will continue being financed under the component. In addition to routine administration activities, i.e. budgeting and planning, procurement and financial management, the costs for annual audits, annual and quarterly progress reports, development of mid-term and completion reports, and overall M&E, including implementation of safeguards instruments will be included under project management. Costs of the project launch, MTR and completion workshops, as well as project team participation in World Bank training on its operational policies and procedures and other technical knowledge acquisition training, will also be financed by this component.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No

#### Summary of Screening of Environmental and Social Risks and Impacts

At the design stage, the project is considered to present a moderate environmental and social risk. The environmental risk is rated moderate because the project aims to enhance the integrated management of 15 Classified Forests through actions with significant environmental and climate benefits, including reforestation, tree planting, biodiversity monitoring, and agroecological promotion. It also involves small infrastructure activities, such as the rehabilitation of forest administration buildings, development of boreholes, and rehabilitation of forest tracks. These activities will lead to localized, temporary environmental impacts but are not expected to pose critical, irreversible, or unprecedented risks to the gazetted forests. These impacts are manageable given that the existing PIU has skilled E&S specialists with experience in Safeguard Policies and ESF training. Benin's E&S regulations are also robust and capable of managing potential environmental risks from these activities. The main environmental risks and impacts include the destruction of wildlife habitat, vegetation loss, landscape alteration, soil erosion, waste production, potential water, soil, and air pollution, modification of soil structure, and the possible destruction of soil microorganisms from chemicals pesticides. Reforestation



and plantations in the dry season may lead to high water consumption, potentially straining local water resources. The social risk is also moderate but includes specific considerations. Due to the potential impacts on livelihoods from restricted land use in additional gazetted forests, the Borrower will prepare a Resettlement Framework (RF) to assess and address any risks of economic displacement. If necessary, Livelihood Restoration Plans (LRPs) and Resettlement Action Plans (RAPs) will be developed based on the results of the Environmental and Social Impact Assessments (ESIAs). Additionally, a Stakeholder Engagement Plan (SEP) will ensure inclusive, timely, and culturally appropriate information sharing with all stakeholders, including a Grievance Redress Mechanism (GRM) adapted from the existing GFM project framework. A Community Health and Safety Plan (CHSP) will address risks associated with construction and security, particularly in northern Benin, where additional security measures may be required. Given that the specific sites for planned investments are not yet determined. Once technical designs are finalized and specific sites are identified, ESIAs, including ESMPs and RAPs (if necessary), as well as specific plans such as a waste management plan, biodiversity management plan, cultural heritage management plan, emergency management plan, health and safety plan, atmospheric emissions management, water use impact plan, and pollution prevention measures, will be developed to avoid, mitigate, or compensate for the E&S risks and impacts. An ESCP will outline commitments, deadlines, and responsibilities for implementing E&S measures.



## E. Implementation

### Institutional and Implementation Arrangements

40. An Integrated Project Management Unit (IPMU) is already in place and responsible for the implementation of all World Bank-financed environment, forestry, and natural resource management projects, under the responsibility of the Ministry of Environment and Transport including West Africa Coastal Areas Resilience Investment Project (P162337) and GFMP. The IPMU is composed of the following shared units by all projects under its responsibility: (ii) Financial Management, (iii) Procurement, (iv) Safeguards, (v) Monitoring & Evaluation, (vi) Communication, and (vii) Administrative Support, as well as a shared Steering Committee chaired by the Minister of Environment and Transport. Each project under the IPMU has also a dedicated technical focal point under the responsibility of a General IPMU Coordinator. These units are strengthened as needed with fiduciary, safeguards, M&E, and communication staff to support the GFM 2 implementation. In addition, an international technical assistant will be recruited to support the coordinator and the technical focal point on project implementation. The selected candidate will sign their contract one (1) month after the Effective Date.

41. The Director General of DGEFC in his role as National Coordinator of the Government Forestry Program and a permanent member of the Steering Committee will ensure synergies between the project and that Program. The decentralized Technical Forests Management Units (CTAF) are based in the field and ensure technical execution of the project's activities. Headcounts of CTAF employees will be increased by the Government to include personnel fully dedicated to project implementation, especially for the timely establishment and management of fuelwood production forests activities.

42. The IPMU projects Steering Committee (SC) will be chaired by the Minister of Environment and Transport and composed of key Sectoral Ministries involved with the projects, the Director General of Forests (DGEFC), the Director General and Environment and Climate, as well as elected local representatives and community representatives, Conservation NGOs and CSOs. The SC will be established within one month after project launch. Its mandate includes: (i) approving policy guidelines and providing overall supervision for project implementation; (ii) approving the annual work plans and budget; (iii) approving the annual procurement plan; and (iv) reviewing the annual implementation performance report to be prepared by the IPMU, and overseeing the implementation of corrective actions, when necessary. The Steering Committee will have two ordinary meetings: (i) to review and approve annual work plans and; (ii) undertake a mid-term review of the annual work plans. Extraordinary meetings will also be organized on specific issues needed the Steering Committee's guidance

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