



The World Bank

Landscape Restoration and Resilience Project - Mali (P177041)

Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 14-Feb-2022 | Report No: PIDA33230



BASIC INFORMATION

A. Basic Project Data

Country Mali	Project ID P177041	Project Name Landscape Restoration and Resilience Project - Mali	Parent Project ID (if any)
Region AFRICA WEST	Estimated Appraisal Date 14-Mar-2022	Estimated Board Date 20-Jul-2022	Practice Area (Lead) Environment, Natural Resources & the Blue Economy
Financing Instrument Investment Project Financing	Borrower(s) Republic of Mali	Implementing Agency Agence de l'Environnement et Developpement Durable (AEDD)	

Proposed Development Objective(s)

To increase adoption of climate smart landscape restoration practices and enhance people's livelihoods in selected communes

Components

Institutional Support and Capacity Building for Landscape Restoration and Climate Resilience
Investments in Landscapes Restoration and Communities' Resilience to Climate Impacts
Coordination, Monitoring and Evaluation
Contingent Emergency Response

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	150.00
Total Financing	150.00
of which IBRD/IDA	150.00
Financing Gap	0.00



DETAILS

World Bank Group Financing

International Development Association (IDA)	150.00
IDA Credit	75.00
IDA Grant	75.00

Environmental and Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

Country Context

1. **Mali faces several challenges that hamper its progress toward inclusive and sustainable development.** Climate change, social conflicts, security risks, and the governance of natural resources are major concerns facing the country. A landlocked country with an area of 1.24 million km², Mali has a population of 20.8 million, a high average annual population growth rate of over 3 percent and a median age of 16 years. Most of the Malian population lives in the south of the country close to the Senegal and Niger rivers, 57 percent of the population resides in rural areas, and 12 percent in the capital city of Bamako. With a per capita gross domestic product (GDP) estimated at US\$879, Mali ranks as the 22nd poorest country in the world. The proportion of the Malian population living under the national poverty line was 42 percent in 2018/19 and is concentrated in rural areas¹. About 80 percent of Mali's poor population lives in four regions: Koulikoro, Mopti, Ségou, and Sikasso. The country is characterized by high regional disparities and access to basic services and infrastructure is low and highly unequal. Poverty rates were highest in Sikasso (63 percent in 2019), where households depend on cotton farming, and high in Ségou (53 percent) and Mopti (61 percent) where families mostly depend on rainfed sorghum and millet cultivation while in Kayes, where households depend on remittances and livestock rearing, poverty is

¹ West African Economic and Monetary Union [WAEMU] household survey



lower (33 percent).² Sikasso and Kayes were strongly hit by the economic impacts of the COVID-19 pandemic with the fall in cotton prices and remittances, respectively.³

2. **The country's economy is mainly based on agriculture and exploitation of natural resources.** High population growth rate and climatic constraints have led to overexploitation and degradation of these resources. Two-thirds of the country is arid and semiarid dominated by desertification. Natural risks have increased with the intensification of climate change: repeated droughts, floods, strong winds, bush fires, and changes in the rainfall regime. While the economy is heavily dependent on natural resources and agriculture, which employs nearly 80 percent of the country's labor force, only 14 percent of the country's land area is considered suitable for agriculture, making landscape restoration a central issue.

3. **Mali ranks 184th out of 189 on the Human Development Index,** which puts it in the low human development category.⁴ It also ranks low (158 out of 162) on the Gender Inequality Index, which measures three important aspects of human development—reproductive health, empowerment, and economic status.⁵ Gender-based violence (GBV) is highly prevalent, and it is estimated that 38.5 percent of women nationwide have experienced physical and/or sexual intimate partner violence at some point in their lives.⁶

4. **The political and security situation in Mali has been volatile since the 2012 coup d'état.** The peace agreement created minimum conditions for the Malian authorities to address challenges related to poverty reduction, including in the north. As identified in the **World Bank's 2020 Risk and Resilience Assessment (RRA)**, Mali's situation in terms of fragility, conflict, and violence (FCV) is driven by at least three main risk drivers: (a) low public confidence and trust in state institution accompanied by shortcomings in service delivery and lack of inclusive governance; (b) increasing competition over natural resources (land, water, forests, grazing areas, halieutic resources, and extractive resources), which has contributed to the escalation of all types of violence and is likely to increase due to demographic trends and the effects of climate change; and (c) subnational conflicts within large areas (mostly, Kidal, Gao, Menaka, Timbuktu, Mopti, and parts of Ségou), which result in endemic violence, drive local political fragmentation, and erode national cohesion and state authority (violence fueled by inter and intracommunal conflict has expanded from the north to the central region and much of the affected area remains outside the control of authorities).⁷ These drivers are exacerbated by climate change and population growth, which have exacerbated competition for water and land between user groups (fishing, agriculture, and pastoralists). Increased access to weapons and persistently high levels of youth

² For this entire paragraph, see United Nations estimate (July 2021). According to the results of the Agricultural Economic Survey integrated into household living conditions (ECA), the agricultural population stands at 16,833,767, of which 48.3 percent are women (EAC 2018); World Bank (2021) From Covid-19 Crisis response to resilient recovery. Saving lives and Livelihoods while Supporting Green, Resilient and Inclusive Development (GRID). Development Committee of the Boards of Governors of the Bank (The World Bank and IMF) and World Bank (2015) Geography of Poverty in Mali.

³ Mali Poverty Assessment 2020 (P171551).

⁴ United Nations Development Programme (UNDP) <http://hdr.undp.org/en/2020-report>, consulted in November 2021.

⁵ UNDP <http://hdr.undp.org/en/content/gender-inequality-index-gii>, consulted in November 2021.

⁶ Mali, Demographic and Health Survey, 2018.

⁷ World Bank (2019) Performance and Learning Review of the Country Partnership Framework for the Republic of Mali for the period of FY15 FY19.



unemployment also contribute to fragility. State institutions are also facing growing social unrest and discontent with the Central Government across the country. Rising discontent culminated in a first military coup in August 2020 and a second one in May 2021. The coups are likely to further undermine public trust in national institutions.

5. Mali's wealth is composed of natural capital, human capital, produced capital and net foreign assets⁸. Globally, natural capital comprises renewable assets—such as forests, mangroves, fisheries, and land—and nonrenewable assets, including fossil fuels, metals, and minerals. In 2018 Mali's natural capital reached US\$ 5,000 per capita (about 46 percent of its total wealth per capita). Unfortunately, renewable capital has been exploited to the point of diminishing returns. The result is most pronounced in increased communal tension between pastoralists, cultivators, and fishermen. It is further exacerbated by insufficiently inclusive land management and agribusiness policies. Lacking governance of the industrial and artisanal mining of extractive resources, particularly gold, creates financing opportunities for armed groups and contributes to communal conflict, and reduces government revenues.

6. The COVID-19 crisis has also brought severe economic losses and social pain. COVID-19 shocks to economic activity have affected the livelihoods and welfare of households due to multiple challenges. These include steep declines in labor incomes due to job and wage losses and non-labor income due to falling international and domestic remittances; disruptions in the functioning of markets leading to prices increases and/or rationing of basic consumption goods and food; and disruptions to service delivery, particularly health and education services. Impacts are likely to be longer lasting among the poor and vulnerable in the most marginal areas. Gender impacts of the COVID-19 crisis will be substantial as a disproportionate number of women derive their livelihoods from the informal economy. Mobility restrictions combined with economic stress and isolation could increase gender-based violence (GBV).

7. To recover from devastating landscape degradation, climate impacts, violence, and food insecurity, the country needs a coordinated approach, as a business-as-usual package recovery is no longer an option. The challenges faced by the country are highly interconnected and failing to address them in a simultaneous manner would result in loss of lives, unstable growth, and irreversible environmental degradation, even further exacerbated by climate change. Social development and economic growth will require simultaneous action to link the ‘security’ ‘climate’, and ‘development’ agendas and should prioritize an integrated territorial approach, social inclusion in service delivery, security, economic opportunity, and justice. It should also deal with the root causes of fragility including climate change, demographic growth, and institutional weakness. The link between ‘security’, ‘climate’ and ‘development’ should be strengthened by putting citizens and local sources of insecurity at the center. State efforts to deploy services outside capital cities should be reinforced with a focus on building trust through positive presence and fair practices.⁹

8. Through inclusive and participatory local development planning, the landscape restoration approach constitutes a promising, comprehensive, and multifunctional approach to tackle the issues presented above. It includes different horizontal and vertical entry points emphasizing the importance of

⁸ Mali | Country profile - Changing Wealth of Nations 2021 <https://www.worldbank.org/en/publication/changing-wealth-of-nations>

⁹ Regional Risk and Resilience Assessment for the Sahel Region (Sahel Alliance, February 2021).



interrelated strategies and agreements on a set of concrete objectives. Common denominators of these entry points include (a) a shared vision among stakeholders about multiple landscape benefits, (b) a package of practices that achieve economic growth, and (c) key strategies to manage spatial and seasonal interactions across different land users.

Sectoral and Institutional Context

9. **Malian landscapes are mostly flat to hilly, occasionally interrupted by high rising plateaus.** *The North* is covered by the Sahara Desert. *The East-West* is characterized by the open steppes of the Akle Azaouad plateau and rocky terrain of Adrar-Timetrines and of Tilemsi. *The Southern Sahara* transitions into the semiarid Sahel Region—the domain of pastoralists—and gets interrupted in central Mali by the seasonally flooded alluvial plain of the Inland Niger Delta. The southern strip of this large plain is bordered by the Koutiala and Bandiagara-Hombori plateaus, the latter rising to 1,155 m. *In the South*, the plains of the Sudanian Region account for most of the country's agricultural land.¹⁰ For more details, please see the technical background document.

Threatened Landscapes

10. **Malian landscapes are preliminary threatened by human actions, with climate change exacerbating degradation.** Rural communities rely on forest products such as fuel wood, medicinal plants, fishes from ponds that dot the villages, and wood for home construction. At the same time, forest and pastoral areas are being cleared for grazing land and farms, and fish production is decreasing. Large-scale consumption, coupled with little to no regeneration, threatens the ability of the country to satisfy the present and future generation's needs. Mali's vegetative cover diminishes by a minimum of 100,000 ha a year, and the forest degradation rate is extremely high at 8.3 percent for the past 10 years.¹¹ Continued depletion of its finite natural resources will compromise the nation's health, food security, and economic development. The impact of these factors is manifested by (a) the high degree of landscape degradation and biodiversity loss; (b) the reduction of *bourgoutières* (grazing areas) in the central Niger Delta; (c) the loss of animal and plant varieties; (d) and falling crop yields.¹²

Land Degradation

11. **Based on recent assessments, around 2 million people live on degraded landscapes and land degradation costs over 31 percent of GDP annually in Mali.**¹³ Land degradation threatens the livelihoods of numerous households, by reducing food production and water storage, negatively affecting biodiversity, soil organic carbon and ecosystem services. Underlying **drivers of land degradation** include soil mining, that is, removal of soil nutrients without replenishment,¹⁴ deforestation mainly due to overgrazing, wood trading, seasonal uncontrolled bushfires, and domestic energy demand; (almost 90

¹⁰ <https://eros.usgs.gov/westafrica/country/republic-mali>.

¹¹ National report on the state of the environment 2017.

¹² National report on the state of the environment 2017.

¹³ Findings of World Bank studies conducted in 2012 in Mali have showed annual losses as high as 6 percent of GDP due only to soil erosion and 5.35 percent due only to deforestation.

¹⁴ Hilhorst, T., and F. Muchena (eds). 2000. *Nutrients on the Move- Soil Fertility Dynamics in African Farming Systems*. International Institute for Environment and Development, London.



percent of household rely on fuelwood and charcoal for their energy needs). More than 100,000 ha of forest land is lost each year, much more than the annual reforestation rate of 10,000 ha per year.¹⁵ Thus, out of the 32 million ha of forests listed in Mali in 1985, there are currently around 17.4 million ha left. According to the Malian 2020 National Land Degradation Neutrality Commitment, croplands are increasingly affected by wind erosion, chemical degradation (especially loss of fertility due to nutrients loss and salinization), physical degradation of soils (due to compaction, asphyxiation and crusting), biological degradation (due to insufficient plant cover, the decline of mixed cropping systems), and by water degradation (runoff, pollution of surface water). **Land and climate change are a vicious circle:** Climate change affects land. When land is degraded, its capacity to take up carbon is reduced which in turns exacerbate climate change. Highlighting the need for a comprehensive intervention.

12. The disruption or even the collapse of functional ecosystems leads to ecosystem goods and services loss. In addition, the disappearance of the biological material (which allows human communities to feed, produce, and heal themselves) endangers economies, livelihoods, food security, and the quality of life of the most vulnerable people. Drought conditions have shifted suitable areas for rainfed agriculture and have reduced the growing period's length in Mali and in other Sahelian countries. Drier conditions for rangeland productivity and perennial grasses loss can lead to further land degradation, shrub encroachment, loss of biodiversity, and reduced system resilience.

Climate Change

13. Climate change both impacts natural resources and undermines people's livelihoods. The economic and social costs of extreme weather, such as floods, droughts, and heat waves, are already high and will increase competition for scarce land and water resources. Extreme weather events significantly erode poor people's assets, especially when occurring in a series, and further undermine their livelihoods in terms of labor productivity, housing, infrastructure, and social networks. Indirect impacts, such as increases in food prices due to climate-related disasters, can also harm poor people who are net buyers of food.¹⁶ Inability to deal with these stressors can lead to widespread famine, poverty, and population displacement and will eventually lead to grievances within society. Women and men face different vulnerabilities and risks from climate change and have limited opportunities and resources upon which to draw in their adaptation and mitigation strategies.

Civil Insecurity and Erosion of Local Livelihoods

14. In Mali, the security crisis has exacerbated the effects of climate change on local livelihoods and on the conditions of access to and use of natural resources. It has a significant impact on rural economies with numerous effects on actors and agricultural investments along the agricultural value chains, including (a) reduced access to inputs and markets; (b) expansion of agriculture into marginal areas; (c) shrinking and scattering of grazing areas; (d) increased soil degradation because of water and wind erosion and desertification due to human and animal factors (such as overgrazing, soil degradation by acidification, and removal of woody vegetation for firewood) (e) increased theft of various assets; (f) competition over natural resources; (g) links between changes in water availability, climate variation, and social conflicts

¹⁵ DNEF (*Direction Nationale des Eaux et Forêts*) 2012.

¹⁶ IPCC (Intergovernmental Panel on Climate Change) 2014.



and fragility; and (h) increased prices of inputs and products. All these drivers are worsened by the social contract breakdown, growing tensions between communities, weakened state institutions, poor governance and social inequalities, as well as the presence of terrorist groups.

Forests Resources

15. Forests (both timber and non-timber forests products) provide huge economic benefits to almost all households in Mali. *Timber*: The consumption of wood and charcoal is estimated at 459 kg per person per year,¹⁷ making the exploitation of wood forest products the larger forest economic activity in terms of volume and income. It generated approximately CFAF 1,1 billion income per year from 2014 to 2017.¹⁸ *Non-timber forest products (NTFPs)* make also significant contribution to the Malian households' economy estimated at 40 percent of their annual income,¹⁹ particularly for women who find a real opportunity for social and economic promotion. The production of *gum Arabic*, Shea nuts (*Vitellaria paradoxa*), 'zaban' (*Landolfia senegalensis*), the 'néré' (*Parkia biglobosa*) are other products used for local consumption and even marketed and processed by many economic operators. The production of NTFPs doubled from 2014 to 2017, from 2.4 million kg to almost 5 million kg (all products combined).²⁰ Forest and pastoral resources are also the main basis of pharmacopoeia in Mali in view of the low access to a large part of the population to pharmaceuticals drugs. The volume of produced medicinal plants reached about 61 tons in 2017 (DNEF 2017). However, the NTFP sector remains largely underexploited. They are undervalued at the local level and associations of producers, collectors, and transporters are poorly structured. The marketing of products also faces organizational and administrative problems. This limits their access to the international market.²¹ However, NTFP represent a huge economic opportunity that will be promoted through this project.

16. Private sector involvement in forest plantations for energy and timber remains weak due to overlapping land rights, the absence of incentives for planting of trees and to the fact that planting a tree is neither a cultural nor a traditional custom. The country lacks an industry to act as a lever for private sector plantations with the possibility of setting up contracts for wood plantations with small producers. Technical services at the decentralized level are also not equipped to provide technical assistance on the establishment of timber plantations.

Artisanal Fisheries

17. In Mali, artisanal fishing products contribute to improving food security, creating jobs, and sustaining economic growth. According to recent estimates, fishing employs around 70,000 direct workers and generates nearly 285,000 indirect jobs (in the processing value chain), or around 7 percent of the working population. Processed products represent about 50 percent of fish consumption in Mali, the remaining 50 percent being divided between fresh and frozen products. Imported frozen products are

¹⁷ FONABES 2017 : gestion des forêts naturelles et approvisionnement durable en bois-énergie des villes du sahel

¹⁸ DNEF 2014–2017.

¹⁹ Faye, M. D., J. C. Weber, B. Mounkoro, and J-M. Dakouo. 2010. "Contribution of Parkland Trees to Farmers Livelihoods : A Case Study from Mali." *Development in Practice* 20 (3): 428—434.

²⁰ DNEF 2014–2017.

²¹ Source: Sidibé, A.Y. in bamada.net (<http://bamada.net/exploitation-des-produits-forestiers-non-ligneux-au-mali-une-etude-dimpact-sur-les-redevances-percues-validee>).



thawed as they are sold to minimize losses due to unsold products. The average annual fish catch is 85,000 tons (it can reach 100,000 tons during years of high flow and 60,000 tons in the opposite case). Most of the fishing catch is made in the Niger Inner Delta (NID). More than 140 species of fish are recorded in Mali with five species accounting for about 70 percent of the catch. Most fishing takes place in rivers (85 percent of production), and about 15 percent takes place in river tributaries, flood plains and water reservoirs.²² However, many factors limit the development of the Malian artisanal fishing industry: heavy dependence on water levels in rivers and ponds; unsustainable practices; losses because of inadequate packaging/processing systems, inadequate infrastructure and equipment, isolation of fishing areas, absence of suitable financing credits (to finance post-capture equipment, such as fish processing, conservation, transport, or fish farming equipment; and lack of statistical data on the state of stocks.

Key National Development Plans and Strategies

18. In recent years, Mali has developed several development plans and strategies related to sustainable development, economic growth, and climate change resilience²³. All national strategies and action plans prioritize better management of land resource. They include the following key dimensions: (a) the need for large investments to combat land degradation, (b) effective transfer of natural resource management to decentralized entities, (c) improved capacity of local governments, and (d) more effective coordination of land management and environmental initiatives.

19. However, the implementation of these strategies/action plans is fragmented and characterized by a lack of synchronized objectives and a plethora of competing frameworks. The problem is not the lack of policies, but rather weak institutional coordination, overlapping mandates, conflicting objectives, and contradictory agendas. Sectoral ministries address issues such as climate change, climate-biodiversity interaction, and land management in a piecemeal fashion. Institutional, policy and governance responses to address these issues are often reactive through a fragmented and ad hoc approach, while failing to address the root cause.

20. In Mali, the decentralization policy is the result of a major political and strategic governance option. Since 1990, it was built around the following core principles: respect for national unity and integrity of the territory, respect for the free administration of local authorities, respect for local specificities in territorial reorganization, democratic and transparent management of local authorities, subsidiarity, progressiveness and concurrency in the transfer of skills and resources, and project management of regional and local development by local authorities. According to the *National*

²² The ponds in contact with the river are naturally seeded at the time of flooding. On the contrary, ponds that are not in contact with the river must be artificially seeded for extensive fish farming (community fish farming). According to the latest figures from the National Directorate for Fishery (, around 7 percent of national production comes from fish farming through either extensive community fish farming or through more intensive forms of private fish farming.

²³ The Strategic Framework for Economic Recovery and Sustainable Development (CREDD 2019–2023); The National Policy for the Protection of the Environment (PNPE), dated 1998; The National Forest Policy, approved in 2017, and its action plan; The Agricultural Orientation Law (LOA) (approved in 2005); The Country Strategic Investment Framework (CSIF) for Sustainable Land and Water Management (SLWM), adopted in July 2010; The National Policy/Strategy and an action plan for climate change, approved in 2011; The National Policy for the Development of Fisheries and Aquaculture; The new Malian Decentralization Framework; The Nationally Determined Contributions (NDC) revised in 2021, The National Food and Nutritional Security Policy; The National Wetlands Policy (2003); and the Program for Integrated Development and Adaptation to Climate Change in the Niger Basin.



Decentralization Policy Framework Document (2015–2024), decentralization is far from having achieved its objectives of entrenching the democratization process and the emergence of a sustainable development approach driven by local actors. Local governments and deconcentrated line departments face key constraints, mainly in terms of inadequate human resources; insufficient financial resources; heavy dependence on the Central Government's financial transfers; lack of clarity concerning roles and responsibilities of local institutions under the tutelage or guardianship (*tutelle*) of line ministries; poor governance (particularly for transparency, accountability, participation, and inclusiveness); and limited involvement in decision-making concerning NRM.²⁴

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

To increase adoption of climate smart landscape restoration practices and enhance people's livelihoods in selected communes

Key Results

- Land area under sustainable landscape management practices (CRI, Hectare [Ha])
- People with increased benefits from natural resources, disaggregated by sex (Male/female)
- Net greenhouse gas (GHG) emissions (CRI, Metric tons CO₂/year)
- Target beneficiaries with rating "Satisfied" or above on project interventions (sex / age).

D. Project Description

21. **The project is structured around three interdependent components that help achieve its development objective.** Component 1 focuses on strengthening capacities, planning, and conflict prevention strategy. Component 2 focuses on promoting sustainable investment in (a) degraded landscapes to restore their physical and social functions and increase climate resilience, and (b) improving market access of NTFPs and fishery products through productive alliances. Component 3 focuses on project coordination, communication, and M&E. A fourth Contingent Emergency Response Component (CERC) is added to immediately respond to a potential crisis following a man-made or natural disaster.

22. **The project will preliminary target 87 communes** selected based on criteria related to the consolidation / synergy with ongoing Bank projects (mainly PREEFN and PGRNCC); the Malian GGW interventions area; commune poverty profile;²⁵ and ecosystem vulnerability (see technical background document). Additional communes, including in other regions, may be added using the same criteria. Among the 87 targeted communes, 53 are in prevention zones (39 of them are at risk-of-conflict and 10 at medium intensity risk). The remaining 34 communes are in the consolidation and resilience area, which are zones under pressure with increasing security risk. The proposed project's approach and activities constitute important measures to mitigate the security risk in targeted communes. The project's participatory approach is expected to build a safe operating environment through the consent, approval, and cooperation of individuals and local communities, especially the most vulnerable (referred to as the

²⁴ On all these elements, see the Framework Document on Decentralization and Unites Cities and Local Governments (UCLG) Africa, 2020.

²⁵ based on the 2018-report of the Malian Observatory for Sustainable Human Development and Fight Against Poverty (l'Observatoire du Développement Humain Durable et de la Lutte Contre la Pauvreté)



'acceptance approach'). In addition to coordination with local authorities, activities in project areas, including supervision, will be supported by a partner institution with representative in any project location. Remote supervision through the Geo-Enabled Initiative for Monitoring and Supervision (GEMS) will be embedded in the project M&E framework, including a community monitoring mechanism to enhance transparency, accountability, and the voice of citizens. A security specialist embedded within the Project Implementation Unit will enable the constant update of security risk information and the application of risk mitigation measures, to be reported monthly to the World Bank.

23. The project will be implemented through a twofold approach combining implementation of identified investments in existing planning tools (PDESCs and forest and pastoral management plans [FMPs and PMPs]) and updating existing plans or elaborating new ones. Priority investments under component 2 have been identified from the analysis of the valid PDESCs (35 of the targeted 87 communes), 11 FMPs, and 7 PMPs. Implementation will use core principles of the Landscape restoration approach and multiple criteria related to socioeconomic, land and forest management, and institutional issues, and taking also into account the outcomes of the 2021 Prevention and Resilience Areas and the security risk assessment. During the first year of the project implementation, PDESCs of the remaining communes and the FMPs and PMPs will be developed, and actions/investments will be identified based on the same approach and criteria described earlier.

Component 1: Institutional Support and Capacity Building for Landscape Restoration and Climate Resilience (US\$14 million)

24. This component will support initiatives aimed at improving the capacities of all stakeholders in relation to the challenges of landscape restoration and resilience, improving the knowledge base about landscapes through specific studies, strengthening or updating integrated landscape development and forest and rangeland management plans, and sharing knowledge through an appropriate communication strategy. Activities will benefit preliminary targeted areas and related stakeholders but can also include additional areas and beneficiaries working on the same topics.

Subcomponent 1.1: Human and Institutional Capacity Strengthening (US\$5.5 million)

25. **1.1.1: Capacity development (US\$2 million)** of stakeholders involved at the national, regional, and communal levels, including members of the Project Management Unit (PMU). Capacity-building initiatives will be carried out through continuing education programs leading to a diploma/certificate. The rationale behind this choice is to promote professional integration, help create businesses, and develop social promotion. This activity will be implemented under the responsibility of the PMU, which will call for tenders to recruit a specialized consulting firm with the objective to (a) assess the capacities of existing vocational training and research institutions and propose a mechanism to enable them to integrate and deliver proposed programs; (b) assess stakeholders' needs and requirements; (c) establish training programs' objectives, related content, and evaluation process; (d) identify participants for each proposed educational program; (e) set a schedule and action plan to strengthen selected Malian vocational training and research institutions' capacities for implementing proposed programs; and (f) deliver, with support from the selected Malian vocational training and research institutions, the proposed educational programs. All these objectives will be introduced through a climate lens, to integrate climate considerations into education and training and to mainstream ways to mitigate climate impacts. These



programs will focus on several topics including: (i) NDC implementation at national, regional and local levels; (ii) Consultation and stakeholder mobilization and citizen engagement approaches; (iii) Integrating of climate change and NDC requirements into Local planning process; (iv) Conflict management and NRM governance; (v) Security, GBV and SEA/SH risks evaluation and mitigation measures; (vi) Natural Resources products valorization, marketing, and access to markets; (vii) M&E in an FCV and climate context and so on. In parallel, awareness-raising campaigns and study tours will be conducted to better inform the local population about the abovementioned topics. Furthermore, the project will also support capacity-building and outreach activities tailored to the characteristics and needs of women in communities and female-led businesses.

26. **1.1.2: Enabling environment for mobilizing climate finance (US\$3.5 million).** The proposed activities aim to support the implementation of Mali's NDC, mainly in the forest and land use sector (climate mitigation and adaption measures). The project is well-placed to support AEDD's efforts on climate change as they are the institution responsible for Mali's NDC. Activities will include (a) Strengthening governance of the implementation of the NDC, communication and the capacity of actors, the establishment of vulnerability indexes/reference threshold of GHG reduction levels in the 4 sectors of the NDC and the development of the long-term low-carbon strategy; (b) Consolidation and operationalization of the National Environmental Information Management System (SNGIE); (c) Support the elaboration of REDD+ Readiness Preparation Proposal (R-PP); (d) Operationalization of the forest information system (SIFOR) to ensure the monitoring of the Mali NDC as part of the implementation of the Paris Agreement; (e) Strengthening the links between existing information systems and their evolution toward a monitoring, reporting, and verification (MRV) system by adopting a data sharing charter and acquiring IT and logistical equipment, setting up of an MRV thematic group, building the capacities of MRV stakeholders on GHG inventories, reporting on adaptation, designing and implementing a benefit-sharing plan for carbon revenues, and establishing institutional arrangements and capacity building of relevant stakeholders. The PMU will establish an agreement with the AEDD and DNEF to lead the implementation of MRV-related activities. To perform these activities, the PMU will launch a call for tenders to hire a specialized firm that will support the conception, establishment, and operationalization of the above proposed systems. Additional call for tenders will be also launched by the PMU to perform proposed studies.

27. **Climate co-benefits of Subcomponent 1.1 activities.** The proposed human and institutional capacity strengthening activities will help build broad expertise on climate change and landscape development issues and support the efficient implementation of the NDC. Strengthening national awareness of and commitment to reducing the impact of climate change is the only viable option to ensure the sustainability of life. Through proposed activities, the project will help ensure that key stakeholders, including local communities, businesses, and other organizations, are able to cope with the current climate variability and adapt to future climate change, preserving development gains and minimizing damage. Supporting a coordination mechanism ensures effectiveness and efficiency while avoiding overlaps in the NDC enhancement or implementation processes. The development of the MRV system is a significant component in effectively tracking and improving the implementation of mitigation goals and policies articulated under the Malian NDC.



Subcomponent 1.2: Territorial Planning and Development (US\$7 million)

28. **1.2.1: Updating/developing cultural environment and social development programs (PDESCs) at communal level (US\$3 million).** Among the project's 87 targeted communes, 35 communes have valid PDESCs (a PDESC is valid for 5 years) and 52 communes need new PDESC. Through this subcomponent, the project will help prepare PDESCs for 52 communes. Each PDESC will incorporate climate issues and NDC requirements at local level to ensure better involvement of local governments in NDC implementation. Pro-poor and gender participatory methodology will be enhanced to ensure that all stakeholders including women, youth, and vulnerable and marginalized groups, are involved in the decision-making process. The implementation of these activities will be done with the support of local partner institutions which will be selected on a competitive basis.

29. In each targeted commune, the selected partner institution will work in close collaboration with local stakeholders, including customary authorities, to develop their PDESC and make it more inclusive. Conflicts, climate change, security, and gender-sensitive principles will be embedded in this process to consider vulnerable population groups, women, and youth specificities and help build trust and collaboration between communities to rebuild and restore peace. The PDSEC development process will distinguish and respect the greater vulnerability of women to the impacts of climate change as well as the difference in the way they are affected in comparison to men and will therefore propose adaptation / mitigation activities that can be implemented by women and that are more tolerant and/or less vulnerable for them including those related to NTFPs collection and processing. Partner institutions will also work with communities and project beneficiaries to elaborate technical specifications for subprojects aiming to adapt / mitigate climate change issues and reduce vulnerability to droughts, preserve soil moisture, and protect water catchment. The PMU will publish a call for tenders to recruit four partner institutions (one in each targeted region) to support this process throughout the project implementation period by providing guidance to local communities, CSOs, NGOs, and micro, small, and medium enterprises (MSMEs), in close collaboration with communes and deconcentrated line departments including CLOCsADS and CCOCsADS, religious and traditional authorities, and villages chiefs. Elaborated PDESCs will be approved through the Government-dedicated process. The implementation of this activity will be coordinated by the National Directorate for Territorial Collectivities (DGCT), Ministry of Territorial Administration and Decentralization (MTAD) (which will sign an agreement with the PMU). The DGCT will monitor the activities of the partner institutions, validate their reports, and authorize payments and report back to the PMU.

30. **1.2.2: Updating and developing forest and pastoral management plans (FMP and PMP) (US\$4 million).** The majority of forests and pastoral areas in Mali require either an update or the development of the management plan. These plans are the legal instruments necessary to preserve the production potential of these ecosystems and ensure their sustainable management. They are essential to achieve a balance between production, social, and environmental objectives. The analysis conducted during project preparation (by the DNEF) established that 48 FMPs need to be elaborated, 11 need to be updated, and 11 need to be implemented (see table 3). A similar analysis (conducted with support from the National Directorate for Industrial and Animal Productions (DNPIA)) established that 7 PMPs need to be elaborated in project targeted areas. These PMPs have been selected in separate geographic locations in complementarity with the Mali Regional Sahel Pastoralism Support Project II (P173197) locations. Synergy with this project will also be strengthened on the methodological approach to develop pastoral plans and



related institutional management mechanisms. All FMPs and PMPs to be elaborated will be geo-referenced and linked to the MRV system. The estimated cost for the elaboration and update of identified FMPs and PMPs at preparation phase is around US\$2 million (Table 3). The remaining budget will support the identification and elaboration of other FMPs and PMPs. The PMU will establish an agreement with the DNEF to lead the implementation of activities related to FMPs and with the DNPIA to lead the implementation of activities related to PMPs.

31. Due to the high number of repeated activities and the FCV context of targeted communes and to minimize procurement process management and shorten lead times, a Framework Agreements procurement method will be applied to select qualified firms to elaborate expected plans. Under the respective lead of the DNEF and DNPIA, selected firms will (a) work closely with key stakeholders to agree on a concerted action plan and inclusive methodology to elaborate the plans, (b) provide technical support and guidance for the elaboration of expected plans, (c) elaborate the plans in close collaboration and consultation with all stakeholders, and (d) ensure the incorporation of developed plans in the SIFOR. The DNEF and DNPIA will monitor the activities of the firms, validate their reports, authorize payments and report back to the PMU.

Table 1. List of FMPs and PMPs to be prepared /updated

	#FMPs to elaborate	#FMPs to update	#PMPs to elaborate
Kayes	21	4	3
Koulikoro	10	1	4
Segou	8	4	
Mopti	9	4	
	48	13	7
Cost (FCFA)	930,000,000	120,000,000	35,000,000
Total Costs	FCFA 1,085,000,000 (approx. US\$ 2 million)		

32. **Climate Co-Benefits of Subcomponent 1.2 activities.** Improvement of territorial planning tools will help integrate climate change issues and NDC commitments into local development planning and ensure involvement of local stakeholders in the implementation of the NDC. Proposed activities will help decentralize NDC and develop local NDC implementation plans, including mapping investment opportunities which can drive policy frameworks to unlock available private and public finance and make it easier for the state and its partners to mobilize resources. The development & update of FMPs and PMPs will take into consideration climate change projections to identify management activities such as planting drought-resistant trees, forest conservation, assisted natural regeneration and agroforestry that not only enhance the outcomes of both adaptation and mitigation (by protecting forest and pastoral areas and ensuring sustainable management of their goods and services; and by storing carbon) but also help reduce vulnerabilities of local communities.



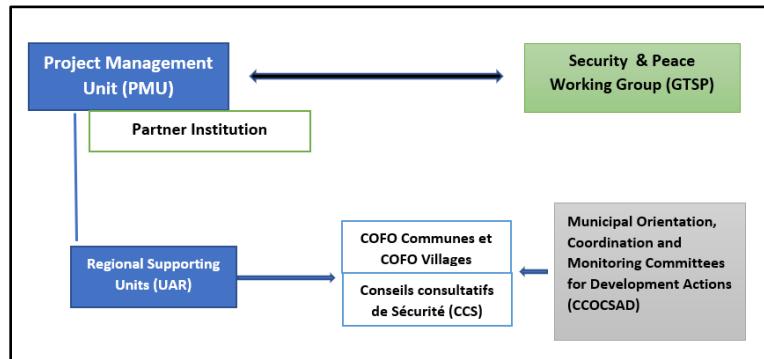
Subcomponent 1.3: Conflict reduction strategy (US\$1.5 million)

33. **The project will support the implementation of a social conflict risk management strategy.** It is imperative that the activities financed by the Project not only avoid directly or indirectly causing conflicts and negative human impacts, but also contribute to creating the conditions for greater peace, security, and resilience. To this end, the project developed a social conflict risk management strategy to create the right conditions to encourage project beneficiaries to avoid the use of violence and weapons (in accordance with the principle of "**Do no harm**") and to find other means to solve the problems at the root of the conflicts instead of fueling and aggravating them. It is a strategy for managing the risks associated with social conflicts which is eminently **participatory**, as it emphasizes the involvement of all actors and the strengthening of their capacities, and **cross-cutting**, as it does not necessarily involve specific activities, but by being at the heart of all project activities, improves their impact and reach. The strategy is built around a set of guiding principles that provide specific guidance on how to plan and implement all project activities by taking risks into account (including those related to climate change). It involves specific operational measures, such as: conducting integrated, holistic and iterative diagnoses of situations of fragility; analysis of the links between climate change, conflict and development; supporting a flexible planning system for all activities taking into account current and potential situations of fragility; the establishment of a grid of indicators to assess conflict dynamics in real time through the participation of all stakeholders; expanding partnerships with state and non-state actors operating in humanitarian, development and research/peacekeeping; and communication initiatives, through the implementation of sensitization, information and training initiatives for all stakeholders (including members of the Project Management Unit) about fragilities and conflicts, in emphasizing local social capital, i.e. forms of solidarity, mutual aid and intra- and inter-community collaboration.

34. **To ensure the implementation of this strategy at both central and local levels,** throughout the duration of the project, the *Project Management Unit* (PMU), together with the *Regional Support Units* (RAU), will be able to rely on the recommendations and support of a Security and Peace Working Group (GTSP) made up of representatives of the *Ministry of National Reconciliation* (MRN), the *National Security Council* (CSN) and the *Sector Reform Commission of Security* (CRSS), and will benefit from the technical assistance services of a specialized partner institution (such as a consulting firm, an NGO or an association), recruited on a competitive basis. All these institutional arrangements will make it possible to build a real "community of practice" aimed at guiding apolitical authorities, decisionmakers and representatives of local institutions on issues related to the sustainable development of landscapes in a context of social tension. Figure 1 schematically shows the essential elements of the implementation of the strategy, highlighting the role of the municipal *Committees for Orientation, Coordination and Monitoring of Development Actions* (CCOCSAD), in order to promote synergy between the various actors at the local level and create bridges between all of the project's activities at the local level. It has been also agreed to use the same strategy in the new World Bank project under preparation, in this regard the PUR



Figure 1. Implementation of the Conflict Reduction Management Strategy



Climate co-benefit of CP1.3: Climate change does not directly cause armed conflict, but that it may indirectly increase the risk of conflict by exacerbating existing social, economic, and environmental factors. People living in conflict zones are therefore among the most vulnerable to the climate crisis and most neglected by climate action. In this regard, the proposed conflict management strategy will support local stakeholders to better understand climate change impact, agree on climate action plan and better cope with these issues.

Component 2: Investments in Landscapes Restoration and Communities' Resilience to Climate Impacts (US\$122 million)

35. **This component will finance investments aimed at restoring land and ecosystem services and improving livelihood and climate resilience.** The rationale is that conservation and restoration of land and the pursuant efforts to manage that land sustainably can increase soil fertility, fodder, water, and ecosystem services and contribute to climate change mitigation and adaptation through carbon sequestration in vegetation and soil, which in turn can increase land, resource, and livestock productivity and protect biodiversity. Landscape restoration will use environmental improvements as drivers for socioeconomic regeneration. It will enhance and diversify local livelihoods, improve food security, create climate-smart jobs, and increase resilience to the impact of climate change.

Subcomponent 2.1: Restoring Landscapes and Ecosystem Services (US\$70 million)

36. While protecting pastoral and forest landscapes is important, **restoring them** where they have been lost and degraded is also necessary. Without those landscapes, soil, water, and the goods and services provided by forests and pastoral resources are lost or impaired. Restoring these landscapes in the fragile and vulnerable context of targeted areas is about much more than returning trees to the landscape. It is about meeting both development and environmental priorities and addressing climate impacts in a context that is primarily rural and predominantly low in terms of human development.

37. **Implementation of this subcomponent** will be contracted by the PMU to service providers, who will be selected using a transparent and inclusive process taking into due account demonstrable experience and institutional capacity in the targeted area of concern. Service providers will include local civil works contractors and experienced NGOs. Labor will be supplied by the local workforce to be hired



from the project area with focus on vulnerable groups, women, and youth (community labor-intensive works program). The outcome is expected to strengthen resilience to climate change risks, reduce river sedimentation and flood risks, and enable recovery of agricultural lands. Under this subcomponent, the project will support restoration of key landscapes of the following ecosystems crossed by the GGW belt in Mali.

38. **2.1.1: Restoration of the Niger Inner Delta (NID) landscapes (US\$30 million).** The proposed NID restoration activities have the dual benefit of restoring ecosystem services upon which NID economic activities depend on and stimulating commerce to support the generation of income thanks to improved fluvial transport. Activities funded by this sub-component²⁶ will consist of (a) rehabilitation and construction of riverbanks; (b) construction and rehabilitation of quays; (c) rehabilitation of lateral canals; (d) dredging of critical sandbanks; (e) reforestation of community forests for the production of gum Arabic and timber (1100 ha); (d) bourgouculture for animal feed (2,051 ha); (e) development of ponds and water bodies; and (f) creation or rehabilitation of small landing sites and related infrastructure. The technical background document presents all activities identified at this stage, and that amount around US\$29 million. For some investments, technical studies have been elaborated in 2017, they will be updated upon project effectiveness then related ESIA and other ESF needed instruments elaborated. The subcomponent activities will use systems which utilize the dynamics of nature and ecosystems as the jumping off point to design each infrastructure (green infrastructure) taking into account climate change issues from the design and will offer preventative measures such as: (i) maintaining the safety of navigation at ports and access channels; (ii) constructing infrastructure that manages flood and erosion risks; (iii) managing and adapting wetland and habitat adaptations; and (iv) regulating sedimentation, also in some cases, of contaminated soils from agriculture or urbanization.

39. **Implementation of this sub-component.** The PMU will establish an agreement with the *Agence du Bassin du Fleuve Niger* (ABFN) to lead the implementation of these activities with support from the partner institutions. Due to the diversity and number of activities to be implemented and the FCV context of targeted communes, and to minimize procurement process management and shorten lead times, a Framework Agreements procurement method will be applied to select qualified firms to realize proposed activities.

40. **2.1.2: Restoration of other landscapes crossed by the GGW belt (US\$30 million).** Priority investments to restore degraded landscapes have been identified from the developed 35 PDESCs, 11 FMPs, and 7 PMPs. Additional investments will be identified following the preparation of additional PDESCs, FMPs and PMPs in different communes. The identified investments total cost is approximatively US\$ 10 million summarized in table 3 below and presented in detail in the technical background document. Key eligible investments are as follows: (i) Physical soil amendment works that support a large range of techniques to improve soil fertility and microbiology; (ii) Agro-sylvo-pastoral techniques including permaculture and deferred grazing/protection of plant cover that restore soil fertility; control soil erosion and desertification; improve microclimate; provide fruits, fodder, wood, and other useful products; and preserve both agricultural diversity and biodiversity while improving the food security, resilience, and livelihoods; (iii) Climate-smart forestry techniques to manage forest areas and woodlands such as natural

²⁶ These activities were mainly identified following the preparation of the PREEFN but that could not be funded as the project was downsized before approval.



regeneration, tree planting, harvesting of NTFPs; afforestation and reforestation through intensive community-based reforestation initiatives and plantations.

Table 2. List of identified Landscape restoration investments at preparation stage

	# / Ha/	Cost (FCFA)
Soil and water conservation / Soil protection and restoration	40,000 (ha)	97 620 000
Reforestation/plantation	50,000 (ha)	437,750,000
Assisted Natural Regeneration	1,250 (ha)	60,780,000
Development of pastoral perimeters		571,200,000
Deepening of ponds	50 ponds	1,800,000,000
Consolidation of former pastoral perimeters	-	195,000,000
Creation of fodder perimeters	100 (ha)	1,500,000,000
Creation/rehabilitation of transhumance tracks	500 km	175,000,000
Total	91,750 (ha)	4,739,730,000

41. **The identified and expected investments under this category will enhance the contribution to climate change mitigation and adaptation..** Expected outputs are related to (i) increasing forest areas through planting tree, the creation of communal and private forests and the promotion of afforestation with mixed species; (ii) the restoration of surface water to increase water storage during dry periods and restore fish habitats threatened by the climate changes; (iii) the promotion of integrated farming systems that are resilient to climate change; (iv) the safeguard of protected areas for carbon conservation, and (v) the substitution of energy-intensive materials such as steel, cement or plastic with wooden products.

42. The PMU will establish an agreement with the DNEF and the *Agence Nationale de la Grande Muraille Verte* (ANGMV) to co-lead the implementation of these activities with support from the partner institutions. Due to the diversity and number of activities to be implemented and the FCV context of targeted communes, and to minimize procurement process management and shorten lead times, a Framework Agreements procurement method will be applied to select qualified public works firms to realize proposed activities.

43. **2.1.3: Community integrated agro-sylvo-pastoral farms (FACI) (US\$10 million).** Integrated community agro-sylvopastoral farms (FACIs) are innovative models of economic development in the regions of the GGW and have been deployed since 2016.²⁷ FACI is a community space intended to strengthen the capacities of beneficiaries in agro-sylvopastoral productions for their socioeconomic development. The concept integrates a variety of agro-sylvopastoral production systems (forestry and pastoral management, beekeeping, market gardening, fish farming, and small livestock) as well as community shops, which allow the creation of income for vulnerable populations. SLM practices and the use of renewable energies are the key foundations of FACI. These initiatives contribute to increasing local incomes, improving food and nutritional security for beneficiaries, and reducing migration of young people to urban centers. The preliminary beneficiaries of FACIs are women and youth. The assessment of the impacts of 26 FACIs located in six countries (Mali, Chad, Niger, Mauritania, Burkina Faso, and Nigeria)

²⁷ See technical background document for the five FACIs created in Mali between 2017 and 2019.



has proven the relevance and efficiency of this mechanism in accelerating and sustaining endogenous development processes; reducing poverty, food insecurity, and malnutrition; and empowering women and encouraging young people to return to the land. In addition to the net and direct income to the populations, fixed and seasonal jobs are generated.

44. The ANGMV strategy for 2016–2020 provides the creation of 10 FACIs, but due to lack of financing, only 5 have been created to date. The project will strengthen ongoing activities in the 5 existing FACIs (for an estimated budget of US\$1 million), the realization of the 5 additional expected FACIs (estimated cost is around US\$3 million), and the identification and realization of 10 additional ones (total estimated cost for identified investments at this stage is around US\$6 million). The technical background document describes FACIs' locations, characteristics and proposed activities / investments that will be supported by the project.

45. The PMU will establish an agreement with the ANGMV to lead the implementation of these activities with support from the partner institutions. Due to the diversity and number of activities to be implemented, a Framework Agreements procurement method will be applied to select qualified public works firms to realize proposed activities.

46. **Climate co-benefits.** The activities of Subcomponent 2.1 will include measures aimed at improving carbon pools, preventing soil degradation, increasing the use of renewable energy sources, increasing carbon stock, and restoring lands, favoring biodiversity conservation and biodynamic agriculture through Faci (with high potential for mitigation co-benefits).²⁸ Drought-resistant products will be developed and specific techniques (such as 'no tillage' techniques) will reduce water evaporation adaptation co-benefits. Beyond carbon mitigation, investments in landscape restoration, such as tree planting and reforestation, will build adaptive capacity against extreme weather by increasing water availability; supporting food security; and strengthening natural resistance against droughts, floods, wildfires, and other climate-induced natural disasters. Provisioning and regulating ecosystem services also improve public health by supplying vulnerable communities with clean air and water and fertile soil. The promotion of SLM technologies methods will help conserve and enrich the soil while giving crops the nutrient they need to grow. This subcomponent seeks to enhance the provision of landscapes environmental goods and services. Thriving, dynamic landscapes are best placed to cope with climate change, not only by contributing to sequestration of carbon in soils and biomass, absorption of water through shelter belts of trees, and hedgerows restoration of the traditional agroecosystems and agrobiodiversity but also through wild habitats in the wider landscapes supporting threatened wild biodiversity. These measures will support the wide range of other ecosystem services provide by targeted landscapes, which have become fragile due to recent pressure—contributing to enhancing the ability of these landscapes to accommodate change. In all these activities, the project will safeguard the equal participation of women and men, as necessary, timing capacity-building, awareness-raising to ensure full participation of women.

²⁸ As identified in the list of eligible mitigation activities of the Multilateral Development Banks group.



Subcomponent 2.2: Improving Local Livelihoods resilience (US\$50 millions)

47. This subcomponent aims to enable rural dwellers active in the NTFP and fisheries sectors to become more competitive producers, capable of meeting market demands, establishing sustainable linkages with buyers, while adapting to climate change and reducing GHG emissions. Diversification of income and nutrition is a key adaptation strategy in the face of climate shocks. The design of the sub-component is informed by the ‘Matching Grants’ and ‘Productive Alliance’ models which have been implemented in numerous World bank financed projects. Considering the capacity constraints of Malian financial institutions in rural areas, the project will use matching grants as the main financing instrument for productive investments “sub-projects”. Investment support will be granted on a competitive basis following calls for proposals. Special focus will be paid to promoting access to matching grants for women and youth, adaptation to climate change and reduction of GHG emissions. The Sub-components will finance three specific groups of activities to make Productive Alliances successful mainly in the NTFP, and fisheries sectors: (a) Matching Grant investments (approximately US\$25 million); (b) facilitation of and capacity building in POs and PAs (approximately US\$10 million), and (c) last mile economic infrastructures to unlock more Matching Grants and Productive Alliances (approximately US\$15 million). The combination of grant financing with the provision of technical support as well as critical economic infrastructures will facilitate the evolution of productive partnerships between aggregated NTFPs or Fish producers and anchor enterprises.

48. In term of operating modalities, the sub-component will finance the costs related to traditional Matching Grants as well as Productive Alliances subprojects, through Grants to the Producer Organization that cover up to 80 percent of the total subproject costs. The Matching Grants/Productive Alliance participants can match the remaining 20 percent of the total cost of the subproject through a mix of own resources and commercial loans. The Grants will be provided through a competitive allocation to the winning business plans coproduced by the Producer Organization, buyers (in the case of a Productive Alliance), and the technical assistance services financed by the project. The business plans will be evaluated by the PMU with support from the technical assistance firm. Specific terms and conditions will be further detailed in a Matching Grants and Productive Alliances Project Implementation Manual to be prepared by the client and acceptable to the Bank before the effectiveness of these activities.

49. **2.2.1: Sustainable development of Non-Timber Forest Products (NTFPs) (US\$35 million).** A comprehensive study of the NTPFs’ potential in the project area was conducted under PGRNCC²⁹ and deep discussions with counterparts allowed the identification of the following NTPFs products to be supported by the project: Arabic gum issued from Acacia Senegal, Cayara gum, and the subproducts derived from Adansonia digitata (baobab), Balanites aegyptiaca, and Ziziphus mauritiana. This sub-component will also support the development of other products like medicinal plants, honey mushrooms, termites, and bark upon the achievement of related analytical studies establishing their development potential. Proposed activities to valorize these products will contribute to climate mitigation and resilience by reducing deforestation, improving soil productivity, and sequestering or avoiding carbon emissions.

50. Specific activities under this subcomponent will provide necessary support to improve the professional organizational structure of targeted NTFPs products, provide adequate knowledge of

²⁹ AEDD. 2017. *NTPF Potential and Opportunities in Mali*.



marketing channels, enhance communication channels among stakeholders, and provide a more stable status for most practices. Key operators include the DNEF, which manages large areas; local populations (mainly women associations); local intermediaries; and individual entrepreneurs and existing MSMEs involved in purchasing raw material, collecting and storing products, and transforming them into various marketable products to be sold to best markets. The project will also provide support services to individual entrepreneurs and existing MSMEs to strengthen their management and processing of NTFPs products in targeted communes. Support will focus on the development of microenterprise business plans, organization of key partners in productive alliances, training and coaching of entrepreneurs, facilitation of access to finance and incentives, and technical support. Eligible activities will include (a) the purchase of equipment (such as tools and machines needed for collecting or processing NTFPs products and the building of packing houses, grading centers, warehouses, and cold chain facilities); (b) advisory services regarding access to financial services, business management, market and marketing skills, quality and standard certification services, and so on; (c) training in technical and/or managerial skills; and (d) revolving funds for a one- to two-year period when this proves to be difficult to obtain from commercial or public banks. Eligible entrepreneurs will contribute to the funding of their subprojects and co-payments will depend on their size. Table 4 below, and the technical background document present identified investments at this stage that will help initiate and develop NTFPs productive alliances. The total amount of identified investments is around US\$9 million.

51. The project will also support scientific research for the improvement of the productivity and production of selected NTFPs: collaboration will be established with specialized institutions, such as the Malian Institute of Rural Economy (IER) and the National Center for Scientific and Technical Research (whose studies address, among other things, the therapeutic virtues of some NTFPs).

Table 3. List of investments to initiate NTFPs PAs

NTFPs	Activities	Cost (USD million)
Baobab	Elaboration of plans for the reasoned exploitation; modern equipment's for harvesting; support development processing units; access to credit and creating a point of sale; supporting the establishment of wholesale cooperative; development of business plans	4
Gum arabic	Strengthening the organization of existing producers; building producers capacities on bleeding, harvesting, and sorting techniques; supporting the identification of market niches and development of business plans; and increasing processing capacities at the local level	1.5
Caraya gum		1.5
Zaban	Elaboration of plans for the reasoned exploitation; modern equipment's for harvesting; access to credit; supporting the establishment of wholesale cooperative; development of business plans	0.7
Jujube tree		0.7
Desert date		0.7
Total		9

52. The PMU will establish an agreement with the DNEF to lead the implementation of these activities with support from the partner institutions. To this end, the PMU will launch a call for tenders to hire a productive alliance specialized firm that will work closely with key stakeholders to establish several NTFPs productive alliances.



53. **2.2.2: Community fishery (US\$15 million).** The project will focus its support on traditional fishing from water reservoirs and community ponds by addressing the main constraints faced by the sector: (a) inadequate fishing infrastructures (small landing sites) and water bodies, (b) fry production, (c) fish feed production, and (d) fish products transport. Project support will be provided through the normative principles of productive alliances with the aim to strengthen collaboration between the public and the private sector and facilitate the access of associated artisanal fishermen to markets. The technical background document presents all the activities identified at this stage, and that amount around US\$6 million to boost community fishery and initiate the development of Fishery PAs. In particular, the project will conduct the following activities: (i) establishment of a bar ice maker unit, construction of five fish feed factory units, and rehabilitation of community water bodies; (ii) provision of transport material, fish processing equipment kits, fresh fish, and preservation kits and improvement of fishery products' storage and transport with the acquisition of equipment; and (iii) the development of local fishing conventions and PAs and support for consultation frameworks for fishing in six communes and so on.

54. The PMU will establish an agreement with the DNP to lead the implementation of these activities with support from the partner institutions. To this end, the PMU will launch a call for tenders to hire a productive alliance specialized firm that will work closely with key stakeholders to establish several artisanal fishery productive alliances.

55. **2.2.3: Strengthening local social and non-tangible capital of targeted communes (US\$2 million).** Knowledge of non-tangible capital is a major determinant of innovation, growth, employment, reconciliation, and mitigation of conflicts between communities. The project will strengthen the body of knowledge, skills, practices, and representations that communities have accumulated, the result of a long history of interaction between their cultural and natural environments. Indeed, if these customs disappear or undergo significant changes, it is the cultural identity and heritage of local communities that will be in great danger. The microprojects that will be supported will highlight the rich cultural heritage of the Malian landscapes/communes and will include mechanisms for preventing, managing, and resolving conflicts within communities and between different communities; uses and/or customs related to the management and protection of water resources; uses and/or customs related to agriculture; and production of handicraft products. Finally, other activities could concern the protection and promotion of popular songs, dances, proverbs, sayings, and legends linked to historic landscapes and customs, by virtue of their importance for sustainable development. Identified activities at this stage that will be supported include:

- ***Support to the organization of the events of the cultural space of the Yaaral and Degal :*** Inscribed in 2008 on the Representative List of the Intangible Cultural Heritage of Humanity, the cultural space of the Yaaral and the Degal encompasses the vast pastoral lands of the Peul of the inner Niger Delta. Because they bring together representatives of all the ethnic and occupational groups in the Delta – Peul cattle-breeders, Marka or Nono rice-growers, Bambara millet-growers and Bozo fishermen – the Yaaral and the Degal continue to renew inter-community pacts and reinforce social cohesion. The strong attachment of the communities in the region to these festivities ensures their continuity, although they may be weakened by the rural exodus of the young and recurring droughts affecting the pastureland and the herds.
- ***The manifestations and cultural expressions of canoe races with masks.***



- ***Inventory and documentation of the cultural heritage*** linked to the river with a view to their protection and promotion.
- ***The promotion and enhancement of Sanké mon***, collective fishing rite in the Sanké, inscribed on the UNESCO List of Intangible Cultural Heritage in 2009, Region of San;
- ***Activities for the promotion of sacred ponds*** and the development of annual collective cultural fisheries

56. The PMU will establish an agreement with the Ministry of Crafts, Culture, Hotel Industry, and Tourism to lead the identification and implementation of these activities with support from the partner institutions.

57. **Climate co-benefits of Subcomponent 2.2.** The valorization and the promotion of NTFPs and fish products will help create several green jobs and enable vulnerable communities to diversify their income and increase their capacities to cope with extreme weather shocks by increasing their resiliency capacities. Poor rural populations in these areas are more exposed to climate change impacts with less resources to recover quickly and adapt. The proposed activities provide households a source of income generation and build their resilience capacities to respond to climate impacts and increment their economic power. Traditional subsistence farming and livestock raising, for example, are vulnerable to variable precipitation and higher temperatures. Income security has a knock-on effect in terms of adaptive capacity. When households have financial resources, their access to nutrition, WASH³⁰, and health care services improves and can be sustained amidst disruption.

Component 3: Coordination, Monitoring and Evaluation (US\$14 million)

58. This component seeks to provide necessary support for the daily management of the project and M&E of the field activities.

Subcomponent 3.1: Coordination, Project Management and Communication (US\$10 million)

59. This subcomponent includes project administrative activities such as budgeting and planning, procurement and financial management (FM), annual audits, and social and environmental risks management. It will finance (a) the purchase of vehicles, equipment, and office supplies; (b) the PMU office rental; (c) the PMU experts' salary; (d) the cost of technical assistance firm and the partner institutions; and (e) operating costs. For Institutional arrangements see annex 1.

60. The sub-component includes also the development and implementation of a project communication strategy and action plan.

Subcomponent 3.2: Monitoring and Evaluation (M&E) (US\$4 million)

61. This subcomponent will finance (a) meetings of the review/piloting committees; (b) implementation of the M&E framework, including preparation of a detailed M&E manual, which will be

³⁰ WASH = Water, sanitation, and hygiene.



incorporated into the Project Implementation Manual, and development of indicator tracking sheets; (c) conceptualization, in close collaboration with the Statistics and Planning Unit (CPS), development and operationalization of the project M&E system to serve as model to develop the MEADD' M&E system implemented by the CPS; (d) planning and dissemination workshops and M&E capacity-building workshops; and (e) impact/beneficiary assessment and midterm review (MTR), including undertaking an internal MTR assessment by the PMU and ensuring readiness for Implementation Completion and Results Report (ICR).

62. M&E processes will take place in a participatory manner with inputs from beneficiaries and stakeholders to enable adaptive and results-oriented project management from project design through implementation and closure. In this regard, a project M&E system will be established comprising an M&E manual and an M&E information system will be established and made operational. The project M&E information system will consist of tracking and reporting templates, which will help to meet the challenge of remote monitoring of project activities in crisis and conflict situations by leveraging the power of mobile data collection tools (such as Kobo Collect Toolbox) to create a portfolio of high-frequency surveys. Local M&E focal persons will be equipped with smartphones and trained to fill in pre-coded weekly questionnaires about the progress of the works, well-being of beneficiaries, and perceptions of communities. Data will then be uploaded to a secured server for remote access and analysis. The design and development of these tools will benefit from the piloted tools developed under PREEFN and will be supported by the GEMS initiative.

Component 4: Contingent Emergency Response

63. A CERC will be included under the project in accordance with World Bank IPF Policy paragraph 12 on 'Projects in Situations of Urgent Need of Assistance or Capacity Constraints'. This will allow for rapid reallocation of project proceeds in the event of a natural or man-made disaster or crisis that has caused, or is likely to imminently cause, a major adverse economic and/or social impact. A CERC operations manual will be prepared to support crisis management.

Budget Breakdown Per Component, Subcomponents, and Sources of Funds (US\$)

64. The total cost of the project is US\$150,000,000 and include taxes. The Government contribution relate mainly to the payment of per diems for civilian staff estimated at US\$3.5 million (table 4).

Table 4. Project Cost (US\$, millions)

Components and Subcomponents		IDA
Component 1	Institutional Support and Capacity Building	14.00
Subcomponent 1.1	Human and Institutional Capacity Strengthening	5.50
1.1.1	<i>Support capacity development</i>	2.00
1.1.2	<i>Enabling environment for mobilizing climate finance</i>	3.50



Components and Subcomponents		IDA
Subcomponent 1.2	Territorial Planning and Development	7.00
1.2.1	<i>Updating/developing PDESCs</i>	3.00
1.2.2	<i>Updating and developing forest and rangeland management plans</i>	4.00
Subcomponent 1.3	Conflict reduction strategy	1.50
Component 2	Investments in Landscapes Restoration and Communities' Resilience	122.00
Subcomponent 2.1	Restoring Landscapes and Ecosystem Services	70.00
2.1.1	<i>Restoration of the Niger Inner Delta (NID) landscapes</i>	30.00
2.1.2	<i>Restoration of other landscapes crossed by the GGW belt in Mali</i>	30.00
2.1.3	<i>Community integrated agro-sylvo-pastoral farms (FACI)</i>	10.00
Subcomponent 2.2	Improving Local Livelihoods	52.00
2.2.1	<i>Sustainable development of Non-Timber Forest Products (NTFPs)</i>	35.00
2.2.2	<i>Community fishery</i>	15.00
2.2.3	<i>Strengthening local social and non-tangible capital of targeted communes</i>	2.00
Component 3	Coordination, and Monitoring and Evaluation	14.00
Subcomponent 3.1	Coordination, Project Management and Communication	1.00
Subcomponent 3.2	Monitoring and Evaluation (M&E)	4.00
Total		150.00

Note: GoM = Government of Mali.



Legal Operational Policies

Triggered?

Projects on International Waterways OP 7.50	TBD
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

The environmental proposed risk classification is Substantial under the World Bank ESF. From an environmental point of view, the project is expected to have a positive impact on landscapes by strengthening sustainable management of their natural resources (land, water, grazing and fishing areas) and by supporting the development of more sustainable landscape-based livelihoods. The project approach is participatory, all sub-projects will be initiated by the beneficiaries. Agricultural resource users and producers (including women and youth) will benefit directly from a variety of investments aimed at rehabilitating their natural resources, creating new economic opportunities and growth, and strengthening their technical and management capacities. There will be limited risks and impacts on the human and biophysical environment (including the risks of water, air and noise pollution during the construction of some facilities, generation of liquid and solid waste, etc.), and the sustainable use of energy will be promoted through the development of new sources of renewable energy. Other project sub-activities and associated facilities - such as the implementation of new farming methods, the development of agricultural value chains - may create potential risks / impacts on water resources. However, the ESMF will assess all these risks / impacts and identify adequate mitigating measures (such as sensitization and capacity building initiatives for key stakeholders, accompanying technical surveys, fight of different forms of air and water pollution, waste management, and protection of vegetation, etc.). The environmental proposed risk classification is Substantial under the World Bank ESF. From a social point of view, the project is expected to have a positive impact on all members of poor rural communities, by strengthening their capacity to manage natural resources, encouraging better sharing of benefits from different types of activities and diversifying local livelihoods. Small and medium scale physical investments (including local utilities) will have a very limited negative impact on Project Affected People (PAPs) in terms of physical relocation, land acquisition or economic displacement (i.e., income, livelihoods or businesses). Forms of physical displacement are unlikely, but some forms of economic displacement cannot be excluded (with loss of land, assets or more or less temporary access to these assets, which notably would give rise to a loss of income or other means of subsistence). However, Mali faces a high threat of terrorism, including armed attacks and kidnappings. Militant Islamist cells from various terrorist groups are active in different parties of the country, including the zone which will be potentially covered by the project, marked by an upsurge in violence by armed terrorists' groups, manifested in attacks against the defense and security forces, attacks against villages, targeted assassinations, and kidnappings.



E. Implementation

Institutional and Implementation Arrangements

65. **The proposed implementation arrangements are kept simple** and are elaborated based on a comparative analysis of those under PGRNCC, PREEFN, PAAR, and PRRE.

66. **The implementing agency for the project is MEADD** which will ensure fiduciary management for overall project activities. Day-to-day implementation of the project's activities will be carried out through a PMU directly attached to the General Secretary of the Ministry. The PMU will be responsible for project implementation, management, coordination, and M&E.

67. **A project steering Committee (COPIL)**, chaired by the Minister of MEADD, will comprise key stakeholders working on natural management and climate change³¹. COPIL is the body supervising and validating project activities. It will provide validation of the updated versions of the PIM, annual work plans, budgets, and progress reports and will ensure that the project adheres to national strategies and policies and the requirements for government programs. It will meet at least twice a year and whenever deemed necessary by the Chair. The costs of committee meetings will be covered by the project (Component 3). COPIL will be created before project effectiveness by the Minister of MEADD.

68. **A Multisectoral Technical Committee**, comprising members of the PMU and a focal point at the level of the ministerial departments of MEADD, the MTAD, MRD, MET, MSCP, and MEF, will provide advisory services and support the PMU in implementation of the project, ensuring the adherence of each stakeholder to project activities and facilitating the regular exchange of information. The Multisectoral Technical Committee will meet each trimester and, if necessary, representatives of other institutions—including regional institutions—may be invited to participate in the work of this committee. The Multisectoral Technical Committee will act as a multisectoral technical ‘think tank’ and advisory body aimed at fostering concrete cooperation between the project team and different technical departments.

69. **PMU.** The PMU will be responsible for overall project management and coordination, as well as the M&E of project activities, including through delegating execution to “delegated contracting parties” (MODs) or contracting partner institutions such as NGOs, national agencies, private/local contractors, and United Nations agencies, and so on. The PMU will comprise qualified specialists, recruited based on terms of references (TORs) agreed upon with the World Bank. They will include a project coordinator; a procurement specialist; a financial management specialist; an accountant and his assistant, an internal auditor, and an M&E specialist (see annex 1). At the regional level, a **regional support team (RST)** composed of three hired specialists (an environmental specialist, a paralegal specialist, and a social specialist) (see annex 1) recruited based on TORs agreed upon with the World Bank, will be established and housed under regional directions of the DNEF to strengthen field implementation capacity and institutional coordination. In addition, technical support firm and partners institutions will mobilize at request qualified experts as such gender, VBG, climate change experts.

³¹ including from MEADD (the DNEF, National Directorate for Sanitation and Pollution Control [DNACPN], National Agency of the Great Green Wall Agency [ANGMV], and ABFN); the MTAD (the DGCT and National Agency for the Investment of Territorial Collectivities); the Ministry of Rural Development (MRD) (National Directorate of Agriculture [DNA] and DNPIA); the Ministry of Energy and Water (DNH); the Ministry of Equipment and Transport, MET (MALI-METEO); the Ministry of Security and Civil Protection (MSCP) (the Directorate General of Civil Protection [DGPC]); and the Ministry of Economy and Finance (MEF). COPIL will also include targeted regions' governors and representatives of NGOs and the private sector.



70. **The project will provide the necessary support to each targeted commune** to (a) strengthen consultations with all stakeholders, (b) validate the eligible subprojects, and (c) monitor implementation of these subprojects. To this end, collaboration with CLOCSADs will be strengthened to promote ownership and synergy of activities between the various stakeholders at the local level.

71. **Project Implementation Manual.** A PIM, acceptable to the World Bank, will be completed before project effectiveness. It will describe all implementation and M&E arrangements, cash transfer management, FM procedures, GRM, and procurement procedures for the PMU and under MOD arrangements. The PIM will provide actors with clear guidelines and procedures for planning, budgeting, procurement, contract management, and FM arrangements.

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The World Bank

Landscape Restoration and Resilience Project - Mali (P177041)

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