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Report No: PAD00198

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT

IN THE AMOUNT OF SDR 52.6 MILLION
(US\$70 MILLION EQUIVALENT)

AND A

TRUST FUND GRANT

IN THE AMOUNT OF US\$18.3 MILLION

FROM THE GLOBAL ENVIRONMENT FACILITY

TO THE

REPUBLIC OF BURUNDI

FOR A

BURUNDI COLLINE CLIMATE RESILIENCE PROJECT

November 26, 2024

Environment, Natural Resources and the Blue Economy Global Practice
Eastern and Southern Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective {October 31, 2024})

Currency Unit = Burundi Franc (FBu)

BIF 2,852 = US\$1

SDR 0.75 = US\$1

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

BBN	<i>Bureau Burundais de Normalisation et Contrôle de la Qualité</i> (Burundi Bureau of Standards and Quality Control)
BLRRP	Burundi Landscape Restoration and Resilience Project
BRB	<i>Banque de Republique du Burundi</i> (Bank of the Republic of Burundi)
BCCRP	Burundi Colline Climate Resilience Project
CCAP	Colline Climate Resilience Action Priorities
CERC	Contingency Emergency Response Component
CPF	Country Partnership Framework
CPSD	Country Private Sector Diagnostic
E&S	Environmental and Social
ERR	Economic Rate of Return
ESMF	Environmental and Social Management Framework
ESF	Environmental and Social Framework
ESS	Environmental and Social Standards
EWS	Early Warning System
FFS	Farmer Field School
FM	Financial Management
FPIC	Free, Prior, and Informed Consent
FCV	Fragility, Conflict and Violence
GBV/ SEA/SH	Gender-based Violence / Sexual Exploitation and Abuse / Sexual Harassment
GDP	Gross Domestic Product
GEF	Global Environment Facility
GHG	Greenhouse Gases
GoB	Government of Burundi
IBRD	International Bank for Reconstruction and Development
IGEUBU	<i>Institut Geographique du Burundi</i> (Burundi Geographic Institute)
ICT	Information and Communication Technology
IDA	International Development Association
IDPs	Internally Displaced Populations
IGA	Income-Generating Activities
IFC	International Finance Corporation
IFR	Interim Financial Report
IMF	International Monetary Fund
IPF	Investment Project Financing
IP/ SSAHUTLC	Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities
IPPF	Indigenous Peoples Planning Framework
JET	Jobs and Economic Transformation
LDCF	Least Developed Countries Fund

LMP	Labor Management Procedure
MINEAGRIE	<i>Ministere de l'Environnement, Agriculture et Elevage du Burundi</i> (Ministry of Environment, Agriculture and Livestock)
M&E	Monitoring and Evaluation
MSME	Micro, Small and Medium Enterprise
NBS	Nature-Based Solutions
NGO	Non-Governmental Organization
NPV	Net Present Value
PCDC	<i>Plan Communal de Développement Communautaire</i> (Communal Development Plans)
PCE	Private Capital Enabled
PCM	Private Capital Mobilization
PDO	Project Development Objective
PEFA	Public Expenditure and Financial Accountability Assessment
PFM	Public Financial Management
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PND	<i>Plan National de Développement du Burundi</i> (National Développement Plan of Burundi) 2018-2027
PPA	Project Preparation Advance
PPSD	Project Procurement Strategy for Development
RPA	Refugees Protection Assessment
RPF	Resettlement Policy Framework
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
SME	Small and Medium Enterprise
TA	Technical Assistance
ToR	Terms of Reference
WBG	World Bank Group



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DATASHEET

BASIC INFORMATION

Project Beneficiary(ies) Burundi	Operation Name Burundi Colline Climate Resilience Project		
Operation ID P180864	Financing Instrument Investment Project Financing (IPF)	Environmental and Social Risk Classification Substantial	
GEF Focal Area Climate Change			

Financing & Implementation Modalities

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

Expected Approval Date 19-Dec-2024	Expected Closing Date
Bank/IFC Collaboration No	

Proposed Development Objective(s)

To increase land productivity and climate resilience of fragile communities in targeted collines.

**Components**

Component Name	Cost (US\$)
Enabling environment for climate resilience	7,900,000.00
Sustainable landscape management	44,000,000.00
Community livelihood resilience	26,200,000.00
Project Implementation Support	10,200,000.00
CERC	0.00

Organizations

Borrower:	Republic of Burundi		
Contact	Title	Telephone No.	Email
Audace Niyonzima	Minister of Finance	257699365800	finances@finances.gov.bi
Implementing Agency:	Ministry of Environment, Agriculture and Livestock of Burundi (MINEAGRIE)		
Contact	Title	Telephone No.	Email
Prosper Dodiko	Minister of Environment, Agriculture and Livestock	25771509242	doprospers2002@yahoo.fr

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	88.30
Total Financing	88.30
of which IBRD/IDA	70.00
Financing Gap	0.00

DETAILS



World Bank Group Financing

International Development Association (IDA)	70.00
IDA Grant	70.00

Non-World Bank Group Financing

Trust Funds	18.30
Global Environment Facility (GEF)	18.30

IDA Resources (US\$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
National Performance-Based Allocations (PBA)	0.00	70.00	0.00	0.00	70.00
Total	0.00	70.00	0.00	0.00	70.00

Expected Disbursements (US\$, Millions)

WB Fiscal Year	2025	2026	2027	2028	2029	2030	Total
IDA	4.9	10.5	14	15.4	14	11.2	70
GEF	1.4	3.0	3.0	3.7	4.0	3.2	18.3
Annual	6.3	13.5	17.0	19.1	18.0	14.4	88.3
Cumulative	7.1%	15.3%	19.3%	21.6%	20.4%	16.3%	100%

PRACTICE AREA(S)

Practice Area (Lead)

Environment, Natural Resources & the Blue Economy

Contributing Practice Areas

Agriculture and Food; Water; Social Sustainability and Inclusion

CLIMATE



Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

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

POLICY COMPLIANCE

Policy

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

Yes No

Does the project require any waivers of Bank policies?

Yes No

ENVIRONMENTAL AND SOCIAL

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

E & S Standards	Relevance
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10: Stakeholder Engagement and Information Disclosure	Relevant



ESS 2: Labor and Working Conditions	Relevant
ESS 3: Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4: Community Health and Safety	Relevant
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant
ESS 8: Cultural Heritage	Relevant
ESS 9: Financial Intermediaries	Not Currently Relevant

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

LEGAL

Legal Covenants

Sections and Description

Conditions

Type	Citation	Description	Financing Source
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I. STRATEGIC CONTEXT

A. Project Strategic Context

1. **Burundi is a low-income country whose economic growth is recovering, but where 87 percent of the population of 11.9 million live below the poverty line.**¹ It is the third most densely populated country in Sub-Saharan Africa, with an estimated 463 inhabitants per square kilometer. Burundi has the seventh highest fertility rate in the world (5.5 children per mother) and its population is expected to double by 2040.² A growing and young population can be a dynamic force, but the economy is currently characterized by limited opportunities; high underemployment (51 to 65 percent depending on the sector); limited wage jobs, with nearly 90 percent of non-agricultural workers employed in the informal sector; and low levels of foreign investment. On the supply side, 15,000 young Burundians enter the labor market each year, but private firms are hampered by a lack of low- and medium-level technical and professional skills across all industries.³

2. **Burundi's multidimensional fragility results in political, economic, and security risks for the economy.**⁴ The political crisis of 2015 halted 11 years of growth, and Burundi's real GDP per capita—in decline since 2016—was only US\$268 in 2023, the lowest in Sub-Saharan Africa.⁵ A peaceful transfer of power in June 2020 to the new government, led by H.E. President Evariste Ndayishimiye, marked a turn toward peace and stability, but many challenges remain. Burundi's exports—mainly gold, coffee, and tea—are limited, valued at just US\$218 million in 2020, against US\$912 million in imports.⁶

3. **The key development challenges faced by Burundi are fragility, high population growth, low-equilibrium economic growth, and political and institutional weaknesses.** These interconnected challenges fuel poverty and conflict (Figure 1).⁷ Successfully tackling any of these interconnected challenges or negative feedback loops offers opportunities to improve development outcomes for the small landlocked country. The proposed project focuses primarily on reducing fragility, contributing to economic growth, while strengthening institutions for service delivery in rural areas.

4. **Burundi is overwhelmingly rural, and income inequality is highlighted in the profound rural-urban divide, with 69 percent of the nation's poor residing in rural areas, compared to 31 percent in urban areas, mainly in the economic capital, Bujumbura.** Only about 14 percent of the population live in urban centers, such as Bujumbura, while the remaining 86 percent are spread across the country's 2,692 rural *collines* (or hills, also the country's smallest administrative unit).

¹ World Bank Burundi Country Economic Memorandum. 2022. Republic of Burundi - Country Economic Memorandum (CEM): the challenge of achieving stable and shared growth (English). Washington, D.C.: World Bank.

² USAID. Burundi Nutrition Profile. 2022. https://www.usaid.gov/sites/default/files/2022-05/Burundi-Nutrition-Profile_1.pdf

³ International Finance Corporation. 2022. Country Private Sector Diagnostic. <https://www.ifc.org/content/dam/ifc/doc/mgrt/cpsd-burundi-summary-en.pdf>

⁴ According to the Country Economic Memorandum (CEM), Burundi's fragility is multidimensional: economic (limited economic diversification and growth); demographic (high population growth and density); geographic and environmental (landlocked, land scarce, and subject to climatic shocks); and political and institutional (political instability, poor governance, and inadequate institutions). These factors sustain high poverty rates and low levels of human capital. World Bank Burundi Country Economic Memorandum (2022). Republic of Burundi - Country Economic Memorandum (CEM): the challenge of achieving stable and shared growth (English). Washington, D.C.: World Bank.

⁵ For comparison, the average GDP per capita for Sub-Saharan Africa was US\$1,502 in 2020. Burundi's real GDP per capita was higher in 2015: US\$305.50. In purchasing power parity (PPP) terms, or current international dollars, Burundi's per capita GDP in 2020 was US\$771, while the regional average was US\$3,909—a roughly fivefold difference.

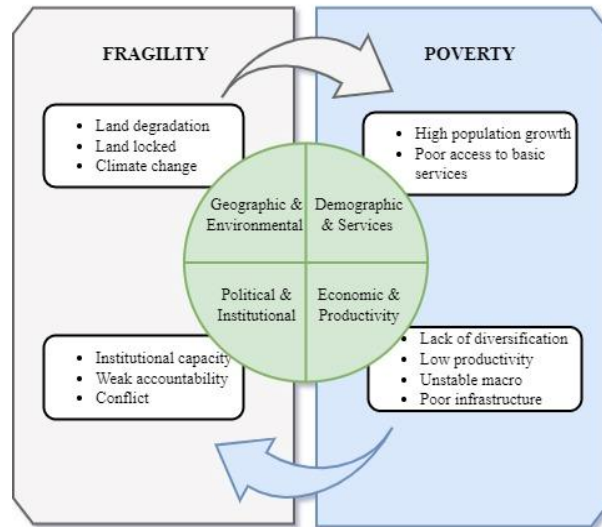
⁶ UNCTAD. 2022. "General Profile: Burundi." General Information for 2020. Geneva: United Nations Conference on Trade and Development. <https://unctadstat.unctad.org/CountryProfile/GeneralProfile/en-GB/108/GeneralProfile108.pdf>.

⁷ AfDB (African Development Bank). 2020. African Economic Outlook (AEO) 2020: Developing Africa's Workforce for the Future. Abidjan, Côte d'Ivoire: AfDB.



Many of these *collines* are hubs of vulnerability, with 90 percent of *colline* inhabitants being women and youth who depend on rainfed agriculture on increasingly degraded hill slopes.⁸ Rural-urban disparities are mainly driven by significant differences in livelihood assets and economic opportunities. Most non-poor are themselves close to the poverty line—but most of

Figure 1. Burundi's cycle of fragility and poverty (Source: adapted from Burundi Systematic Country Diagnostic, 2018)



5. **Burundi's economic and social development has been constrained by the dominance of low productivity agriculture and limited economic diversification.** Agriculture contributes up to 40 percent of GDP but continues to employ 84 percent of the population. Commercial agricultural production (tea, coffee, palm oil, and cotton) is critical for the country's economic competitiveness and generates more than 40 percent of export revenues. However, the bulk of the population is engaged in subsistence farming, where livelihoods are increasingly difficult to sustain because of high population growth and increasing land degradation. While 49 percent of Burundi's surface is rainfed cropland (13.2 million ha), only 0.2 million ha is estimated to be under irrigation.⁹

6. **The intersection of legal, cultural and social factors severely restricts women's access to land and property rights.** In the absence of a law on inheritance, the legal system of land tenure in Burundi is deeply rooted in patriarchal traditions, where male-dominated inheritance is the norm. This leaves women in a vulnerable position, with little to no legal standing to claim ownership or inheritance of land. This gap is exacerbated by women's limited educational opportunities and a lack of targeted dissemination of information. As a result, women are frequently sidelined in land transactions and may not be aware of their rights or the procedures necessary to secure land certificates, with less than 15 percent of land rights registered under women's names.¹⁰

⁸ DESA. 2018. "World Urbanization Prospects 2018." New York: United Nations Department of Economic and Social Affairs, Population Division. <http://esa.un.org/unpd/wup/>.

⁹ FAO Water Productivity through Open-access of Remotely sensed derived data (WaPOR) LCC, 2022. <https://www.fao.org/in-action/wapor-uses-applications-catalogue/en/>

¹⁰ According to the Land Governance Assessment Framework (LGAF) conducted in 2017, less than 15 percent of the land rights that are recorded in the Ministry of Justice's Land Registry are under the name of women, while as little as 6 percent of the land certificates recently delivered were issued under the names of women. See World Bank. 2021. Burundi Urbanization Review: Investing in Resilient and Inclusive Growth. Washington, D.C.: World Bank Group. <https://documentsinternal.worldbank.org/search/33158555>



B. Sectoral and Institutional Context

7. **An important driver of Burundi's fragility stems from climate change risks, which are already a reality.** Burundi emits less than 0.02 percent of the world's total greenhouse gases (GHGs) but is being hit disproportionately hard by climate change. The 2021 Notre Dame Global Adaptation Initiative (ND-GAIN) Index ranked Burundi as the 7th most vulnerable country to climate change in East Africa and the 19th globally, and 172nd in terms of readiness to cope with and adapt to climate impacts.¹¹ Key impacts of climate change are already being felt through an increase in landslides, flooding, extreme rainfall, pest and disease outbreaks, and weather variability, with alternating floods and droughts. The intensity and frequency of climate-related disasters have increased, especially in the eastern part of the country. Over 2018-2022 alone, 575 climate-related disasters were recorded, affecting 430,000 people, and displacing another 125,000.¹² The recent floods in Bujumbura offer a reminder of the consequences that climate-related disasters can bring. In April 2024, El Niño driven rainfall anomalies hit Burundi, leading to flooding of Lake Tanganyika and throughout the country. The torrential rains resulted in floods and landslides that affected over 237,000 people, displaced 42,000 (57 percent of whom were women), killed 29 people and injured 175, and obliterated more than 19,250 houses, 209 classrooms and 40,000 hectares of arable land.¹³

8. **Over recent decades, Burundi's economic growth has been at the expense of a steady depletion of its natural capital.** The country's natural resource base has been substantially degraded. For example, human-driven deforestation rates are increasing due to *colline* households' heavy dependence on forest products for fuelwood, timber, and other uses.¹⁴ Lack of economic diversification and heavy natural resource dependence increase conflict over land and forest resources in Burundi.

9. **Climate change impacts on land degradation represent a significant economic and human cost to Burundi's growth.** Recent World Bank analysis shows severe and worsening land degradation. A PROGREEN-funded World Bank Advisory Services and Analytics (ASA) report, "Diagnosing Drivers of Climate and Environmental Fragility in Burundi's Colline Landscapes" (P176820), analyzed recent climate-induced land degradation trends.¹⁵ From 2017 to 2020 alone, the analysis finds that an additional 33,000 ha—1.2 percent of Burundi's land area—experienced acute degradation. This includes 10,800 ha of productive lands. Other World Bank analysis estimated the cost of soil erosion alone at US\$120 million in 2014, or 3.9 percent of Burundi's GDP.¹⁶ Soil erosion is getting worse: if projected soil erosion trends continue, sediment loss could increase by 69 percent by 2030 from 2020 levels, and by as much as 200 percent by 2050 (Figure 2). Land cover has shifted significantly over the past two decades; large areas have been urbanized or stripped of any vegetation cover, which makes them more prone to soil erosion. The analysis showed that *collines* in Makamba, Bubanza, Bujumbura Mairie, Bujumbura, Cibitoke, and Rumonge communes are at particularly high risk of land degradation caused by landslides.¹⁷

¹¹ ND-Gain Index. Burundi. <https://gain.nd.edu/our-work/country-index/rankings/>

¹² The World Bank. 2022. "Tackling Climate Change, Land Degradation and Fragility – Diagnosing Drivers of Climate and Environmental Fragility in Burundi's Colline Watersheds: Towards a Multi-Sector Investment Plan to Scale up Climate Resilience. A World Bank Advisory Services and Analytics (ASA) Report.

¹³ UNOCHA April 26th Burundi Flash Update.

¹⁴ *Collines* or hills – the smallest administrative unit in Burundi – are both a geographical unit and a third-level administrative subdivision as defined under Law No. 1/05 of March 16, 2023.

¹⁵ The World Bank. 2023. "Diagnosing Drivers of Climate and Environmental Fragility in Burundi's Colline Landscapes - Towards a Multi-Sector Investment Plan to Scale up Climate Resilience". Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/099930006302237433>.

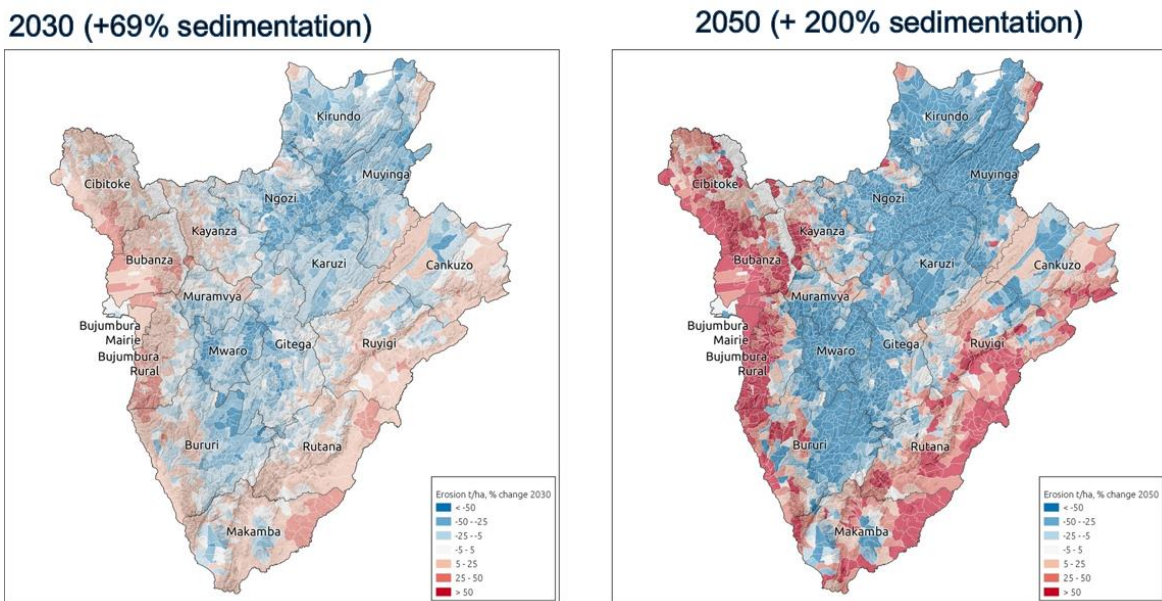
¹⁶ World Bank Group. 2017. "Burundi Country Environmental Analysis: Understanding the Environment within the Dynamics of a Complex World—Linkages to Fragility, Conflict, and Climate Change." <https://documents1.worldbank.org/curated/en/244311510936931800/pdf/121464-CEA-P156727-PUBLIC-BurundiCEAFrenchWebFinal.pdf>

¹⁷ The World Bank. 2022. "Tackling Climate Change, Land Degradation and Fragility – Diagnosing Drivers of Climate and Environmental Fragility in



10. **Burundi’s rapidly changing climate poses immediate and growing threats to agriculture, making it crucial to intensify efforts to improve climate resilience for food and nutrition security.** Poor agricultural practices and pollution have affected soil integrity and fertility and caused the degradation of land and water resources. Considering the predominance of the primary sector in Burundi’s economy, and the high dependency on natural resources, the country’s vulnerability to environmental hazards and climate change is extremely high. Both crop and livestock production can be made more resilient to rising temperatures and unreliable (and sometimes extreme) precipitation by expanding supplementary irrigation. Much of Burundi is at high risk of landslides (see Annex 2), and there is significant overlap between communes and *collines* that are at high risk of soil erosion and those at high risk of landslides. Nature-based solutions (NBS) could help protect some of the most imperiled watersheds through progressive terracing, afforestation, and integrated watershed management. Increasing vegetation cover uphill could provide crucial protection from landslides during heavy rains and is also essential for preventing erosion and protecting bare soils in low rain episodes.¹⁸

Figure 2. Current state and trends in land loss in Burundi (2030 and 2050) in tons/ha by colline



Source: World Bank. 2022. “Tackling Climate Change, Land Degradation and Fragility – Diagnosing Drivers of Climate and Environmental Fragility in Burundi’s Colline Watersheds: Towards a Multi-Sector Investment Plan to Scale up Climate Resilience”.

11. **Leveraging the opportunity presented by nature-based solutions would require consolidation of policies and better coordinated institutional actions to manage climate and land risks at the national, watershed, and colline levels.** National institutions are fragmented, and their agendas relevant to climate change and managing its risks and effects often overlap (see Box A1 in Annex 2). At the same time, local communities and other stakeholders need more knowledge, support, capacity, and resources to address land degradation amid acute poverty. Very few sectors have climate action plans in place, and those that exist are not systematically aligned with sectoral plans and strategies, or with existing regulations (e.g., zoning), projects and programs, or monitoring and reporting systems.

12. **To tackle the challenge of climate change in Burundi more effectively, the cross-sectoral and long-term dimensions of adaptation must be considered.** These dimensions include the loss of arable land, competing demands for

Burundi’s Colline Watersheds: Towards a Multi-Sector Investment Plan to Scale up Climate Resilience. A World Bank Advisory Services and Analytics (ASA) Report.

¹⁸The World Bank 2022. “Tackling Climate Change, Land Degradation and Fragility – Diagnosing Drivers of Climate and Environmental Fragility in Burundi’s Colline Watersheds: Towards a Multi-Sector Investment Plan to Scale up Climate Resilience. A World Bank Advisory Services and Analytics (ASA) Report.



existing land, and the need to shift from a reactive to a proactive approach in managing climate-related disaster risks. There is also a broad need for raising awareness and building capacity on these issues at the national, provincial, communal, and *colline* scales.

13. **The Government of Burundi (GoB) acknowledges structural challenges in addressing climate change and land degradation and prioritizes the agenda in several national and sectoral strategies.** It recognizes the importance of effective policy implementation and the need to strengthen institutional capacity, dialogue, integrated planning, and accountability to derive the full benefits from ongoing and future reforms. Burundi's Intended Nationally Determined Contribution¹⁹ and its update²⁰ offer an entry point for enhancing climate ambition. Land degradation and climate disaster risk management policies are set out in the government's National Development Plan (2018) and Vision 2025. Watersheds, land management, and agriculture policies were updated in the National Water Strategy 2011–2020, Strategic Guidance Document for Watershed Management and Erosion Control,²¹ National Drought Control Plan,²² Environmental, Agricultural and Livestock Policy Document,²³ and Integrated Farming Plan.²⁴ The 2012 Water Law governs integrated water resources management at a river basin level (covering watersheds and sub-watersheds).

14. **The government has taken many steps to address climate change and land degradation, but the current obstacle is one of policy fragmentation, weak capacity within the Ministry of Environment, Agriculture, and Livestock (MINEAGRIE), and limited programmatic planning, which hampers an effective and whole-of-government response to climate.** These obstacles also limit the delivery and mobilization of finance at scale for tackling the double climate and development crisis in Burundi's *collines*. Despite government efforts, limited access to finance hinders poverty alleviation in rural areas and restoration of the land and natural resource base. It also limits the scale of sustainable management and restoration of watersheds. Investments are urgently needed at the national scale to restore fast-degrading watersheds amid climate change, to secure land rights, and to restore social cohesion in rural areas.

15. **The World Bank has been supporting watershed-approach interventions to build resilience in rural Burundi since 2018, with interventions reaching 31 *collines* in 2024.** Investments include the US\$30 million Burundi Landscape Restoration and Resilience Project (P160613, 2018-2024), covering 22 *collines*;²⁵ and US\$6 million in additional financing through the Global Environment Facility (2021-2024) to cover another 9 *collines*.²⁶ There is a clear need to scale up activities to reach the country's remaining 2,608 *collines*, building on lessons learned from the BLRRP (see Box 1 for summary of its achievements). However, significant knowledge and data gaps concerning climate hazards, interactions, and sector-specific impacts, particularly at the local level, along with a lack of finance, are thwarting action. An important lesson learned from the BLRRP is that it is more effective to plan for land restoration and conservation activities at (sub) watershed level than at the *colline* level. The PROGREEN-funded ASA closed those gaps, built consensus on priority

¹⁹ Burundi's Intended Nationally Determined Contribution (INDC). 2015. https://unfccc.int/sites/default/files/NDC/2022-06/Burundi_INDC-english%20version.pdf

²⁰ Burundi's Nationally Determined Contribution (NDC). July 2021. <https://unfccc.int/documents/497263>

²¹ Strategic Guidance Document for Watershed Management and Erosion Control (DOSBVLA). March 2022. Publication pending.

²² National Drought Control Plan (PNS). July 2020. <https://bi.chm-cbd.net/fr/implementation/strategies-plans-nationaux/plan-lut-contresecheresse-bi>

²³ Environmental, Agricultural and Livestock Policy Guidance Document (DOPEAE). July 2020.

<https://www.ifad.org/documents/38714182/42083598/Doc+orientation+ESPP+Burundi1.5.9.2020.pdf/027ec64a-ac8e-ddd8-f279-cc3e6081d110>

²⁴ Integrated Farming Plan (PIP). 2014. <https://www.wur.nl/en/Research-Results/ResearchInstitutes/Environmental-Research/Programmes/Sustainable-Land-Use/Sustainable-agricultural-productionsystems/The-PIP-approach-building-a-foundation-for-sustainable-change.htm>

²⁵ World Bank Group. "Burundi Landscape Restoration and Resilience Project". <https://projects.worldbank.org/en/projects-operations/project-detail/P160613>.

²⁶ World Bank Group. "Additional Financing for the Burundi Landscape Restoration and Resilience Project". <https://projects.worldbank.org/en/projects-operations/project-detail/P171745>.



interventions, and prepared client engagement for a scaled-up investment in climate resilience and watershed restoration nationwide.²⁷

16. **Building on previous World Bank engagement in the sector**, this project targets the resilience of rural *colline* populations. Their development challenges must be seen in the context of intersecting vulnerabilities and multi-dimensional fragility, as described above. The situation for *colline* communities is worsening through intensifying climate impacts, which are already taking their toll, and which are predicted to increase as global climate change continues. The project will focus on delivering urgently needed resilience-building livelihood support to alleviate the suffering of these communities, while sustainably restoring the most at-risk watersheds nationwide, and strengthening the underpinning policy and institutional capacity needed to maintain long-term climate risk management and resilience in Burundi.

Box 1. Summary of the BLRRP’s key achievements

- Five sector guidance manuals developed on landscape restoration and watershed management, flood risks and conservation.
- Targeted degraded areas restored through progressive terracing: 3,356 ha in Isare and Buhinyuza (22 *collines*) and 7,857.7 ha in Matongo (9 *collines*).
- Protected areas under restoration: 90,800 ha.
- Distribution of over 1,300 cattles and 3,000 tons of agricultural inputs over an area of 1,579 ha to improve food security at *colline*-level.
- 15,000+ new jobs provided through the Labor-Intensive Public Works approach through cash transfers targeting the *Batwa* communities to conduct maintenance work on tourist trails and demarcation of the boundaries of protected areas.
- Data collection training for managers of the Burundi Office for Environmental Protection to quantify mitigated greenhouse gas emissions in protected areas.
- Production of 103,525 land certificates, of which 78,717 bear the woman's name, a rate of 76 percent.
- Systematic certification of lands through the Grouped Reconnaissance Operations (*Operations Groupées de Reconnaissance - OGRs*).
- Training in 10 alternative revenue-generating livelihoods (honey beekeeping, mushroom cultivation, garden farming, etc.).

C. Relevance to Higher Level Objectives

17. **The project is aligned with the World Bank Group (WBG) Burundi Country Partnership Framework (CPF) (FY19-FY23), and the WBG Strategy for Africa to create sustainable and inclusive growth, strengthen human capital, and build resilience to fragility and climate change.** The project is also aligned with the objectives and priorities of the Least Development Countries Fund (LDCF) of the Global Environment Facility (GEF), as laid out in the GEF Programming Strategy on Adaptation to Climate Change 2022-2026.²⁸ The project furthermore supports the achievement of the World Bank’s vision to create a world free of poverty on a livable planet and is aligned with the World Bank Evolution priorities. The project is aligned with the World Bank’s sectoral, regional, country, and gender strategies and will directly contribute to:

- **The Burundi Country Partnership Framework (CPF FY19-FY23)**, particularly to **Focus Area I**, in its objective to expand social protection and economic inclusion for the poor, women, and other vulnerable groups; and to **Focus Area II**, in its objective to build sustainable food systems for nutrition and jobs.
- **The Systematic Country Diagnostic of the Republic of Burundi 2018**, addressing the country’s core constraints identified by the diagnostic: institutional fragility, the demographic challenge, environmental degradation, and climate change. The project will improve the resilience of individuals, households and, and landscapes, through interventions that mitigate the impact of poverty and risks; increase household productivity; and improve community and productive infrastructure.

²⁷ The World Bank. 2022. “Tackling Climate Change, Land Degradation and Fragility – Diagnosing Drivers of Climate and Environmental Fragility in Burundi’s Colline Watersheds: Towards a Multi-Sector Investment Plan to Scale up Climate Resilience. A World Bank Advisory Services and Analytics (ASA) Report

²⁸ Global Environment Facility. 2022. https://www.thegef.org/sites/default/files/documents/2022-06/EN_GEF.LDCF_SCCF_32.04.Rev_.01_GEF%20Programming_Strategy_Adaptation_Climate_Change_LDCF_SCCF_GEF8_July_2022_June%202026_Operational_Improvements.pdf



- **The WBG’s Climate Change Action Plan 2021-25** as well as the **Africa Climate Business Plan**, which aim to advance low-carbon and climate-resilient development planning. The project makes a direct contribution to the implementation of these plans in Burundi through its focus on institutional capacity support for climate-resilient development planning, and through direct investments in local climate resilience.
- **The WBG’s Gender Strategy 2024-30** through the project focus on: (i) stronger and more resilient human capital; (ii) more and better jobs; (iii) greater ownership and use of economic assets; and (iv) advancing women’s participation in decision-making.
- **The Jobs and Economic Transformation (JET)** agenda via job creation and income diversification in rural Burundi.

18. **In addition, the design of the project is informed by Burundi’s Country Economic Memorandum (CEM)²⁹ and Country Private Sector Diagnostic (CPSD)³⁰**, which identify structural reforms required to improve drivers of private sector growth (in the areas of state-owned enterprises, foreign direct investments, and small and medium enterprises) and sectoral reforms in several agribusiness value chains, especially cash crops (coffee, tea, cotton, and palm oil), horticulture, cereals, sugar cane, and animal proteins. It thus supports the International Finance Corporation’s (IFC) re-engagement in Burundi in the areas of food security, market-based approaches in agribusiness, land management improvement, responsible use of natural resources and technology, and strengthening property rights. The project’s design builds on lessons from the BLRRP (P160613), while paving the way for operationalizing the forthcoming Burundi Country Climate Development Report (CCDR, P180994).

19. **The project is aligned with Burundi’s national strategies to address climate change.** The project will help Burundi achieve its updated Nationally Determined Contribution³¹ and will contribute to its climate change adaptation efforts as outlined in the National Adaptation Plan (NAP).³² Burundi’s NAP calls for several specific measures, including (i) increase irrigation and diversify climate-resilient, high-yield crop varieties in agriculture; (ii) reforest degraded lands and floodplain protection for ecosystems and watersheds; (iii) expand integrated watershed management and rainwater harvesting; (iv) invest in hydroelectric and solar power, biogas and improved cooking stoves in the energy area; (v) rehabilitate existing road networks; and (vi) collect environmental health data. The project is consistent with Burundi’s mitigation and adaptation goals in its national policies as it aims to enhance the enabling environment for climate resilience action, strengthen integrated watershed management, and improve community-level climate resilience.

20. **The project is also aligned with the GoB’s National Development Plan (NDP) and Vision 2040-2060.³³** It aligns with the NDP’s priority of tackling land degradation and climate disaster risks. It will directly support Strategic Direction 3 “Protecting the Environment, Adapting to Climate Change and Improving Land Use Planning”, which is one of the three Strategic Directions of Challenge 1: Sustained and inclusive growth for economic resilience and sustainable development of the NDP.³⁴ As per the NDP, the GoB aims at promoting climate-resilient development through structural, sectoral and institutional reforms that the Government will undertake over the 2018-2027 decade in terms of environmental protection, water security, adaptation to climate change and the improvement of land use planning. The project’s focus on empowering women, including through land tenure, will also contribute to Burundi’s National Gender Policy.

²⁹ World Bank Burundi Country Economic Memorandum. 2022. Republic of Burundi - Country Economic Memorandum (CEM): the challenge of achieving stable and shared growth. Washington, D.C.: World Bank.

³⁰ International Finance Corporation. 2022. Country Private Sector Diagnostic. <https://www.ifc.org/content/dam/ifc/doc/mgrt/cpsd-burundi-summary-en.pdf>

³¹ Burundi Nationally Determined Contribution, 2021. Available at: <https://unfccc.int/documents/497263>

³² Burundi National Adaptation Plan, 2023. Available at : <https://unfccc.int/documents/635430>

³³ République du Burundi. 2018. Plan National de Développement 2018-2027 (National Development Plan of Burundi). The NDP is being updated to align it with the Vision 2040-2060.

³⁴ République du Burundi. 2018. Plan National de Développement 2018-2027 (National Development Plan of Burundi).



II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

21. **The project development objective (PDO) is to increase the land productivity and climate resilience of fragile communities in targeted collines.** To achieve the PDO, the project will scale up best practices in integrated watershed management³⁵ piloted under the BLRRP (P160613), which will be critical for halting and reversing ongoing alarming rates of land degradation and conserving the county's land area. Equally important, the project will innovate approaches for community-led climate adaptation and resilience in Burundi based on global practice, by engaging climate vulnerable communities to formulate climate action priorities to inform local development plans. Climate resilience is defined for the purposes of the project as strengthened capacity of communities and ecosystems to prepare, withstand, recover from, and adapt to the impacts of climate change, including floods, landslides, droughts, and other key climate threats in Burundi. Through these two interconnected development objectives (increasing land productivity and climate resilience), the project will address the following critical constraints to the government's response to climate change, fragility, and land degradation:

- a. **Lack of integrated policy and coordinated institutional response:** to be addressed by strengthening the enabling environment for climate resilience through key policy and regulatory reforms; improving inter-agency coordination; and modernizing the key national/local institutions in charge of climate response, including their human resources, capacity, and infrastructure.
- b. **Fragmentation and degradation of watersheds:** to be addressed by planning and developing integrated watershed management plans, building preparedness for climate shocks, restoring degraded land areas through participatory community efforts, engaging *colline* communities in water user associations, diversifying land-use rights, and promoting gender-responsive investments.
- c. **Limited community-led climate action and access to finance:** to be addressed by improving inclusive access to finance for local institutions—especially *colline* development committees and *colline* communities—in order to scale up sustainable watershed management and restoration of degraded lands, and to support community livelihood resilience.

B. Theory of Change and PDO Indicators

22. The proposed PDO-level corporate results indicators are:

- a. Land productivity in targeted degraded landscapes (percent)
- b. Millions of hectares of terrestrial lands under enhanced conservation and management (hectares)
- c. Millions of people with enhanced resilience to climate risks (number, disaggregated by gender).

C. Project Components

23. **The project activities will be organized into three complementary components:** strengthening the enabling environment for climate resilience (Component 1); improving sustainable management of priority at-risk watersheds

³⁵ Integrated watershed management is defined as coordinated planning and implementation of land-use interventions within a particular watershed. Examples of interventions include land-use practices, maintenance of vegetation cover, enhanced soil health, management of surface water and groundwater resources, and socio-economic practices, among others.



(Component 2); and enhancing the livelihood resilience of targeted communities (Component 3).³⁶ The design also includes a project management component (Component 4) and a Contingency Emergency Response Component (CERC) (Component 5). The outcomes of these components will include a stronger enabling environment for climate resilience; institutional setting for integrated watershed management planning and management at national and local scales of action; and enhanced livelihood resilience of communities vulnerable to climate change with productivity gains through climate-smart agriculture (Figure 3).

Component 1. Enabling environment for climate resilience (US\$ 7.9 million, of which US\$5.6 million IDA and US\$2.3 million GEF).

24. **This component will tackle constraints related to the lack of an integrated policy and coordinated institutional response to land degradation and livelihood resilience.** This will be achieved through establishing the enabling environment needed and increasing support for building capacity at national, sub-watershed and *colline* levels for effective climate risk management, sustainable watershed management, climate resilience, and integrated water resource management. It will also offer related extension support, including in protected areas, to strengthen the capacity of national, local and community-level institutions, and equip them to deal with increasing climate and land degradation risks. This component's activities will be structured around two sub-components as follows:

Sub-component 1.1. Strengthening policy and regulatory framework (US\$0.5 million, of which US\$0.4million IDA and US\$0.1 million GEF)

25. **This sub-component will provide support to policies and capacity at national and local levels for planning and implementing integrated watershed management and for climate resilient practices benefitting socially vulnerable groups (women and youth).** The project will support the provision of technical assistance, training, goods and operating costs for: (i) developing a national program and action plan at MINEAGRIE to scale up watershed management and climate resilience in all *collines* in Burundi; (ii) develop and implement a strategic plan for ecotourism; (iii) review and update national laws, policies, regulations, and by-laws to address gaps in climate action and integrated land and water resources management in order to improve policy coherence and coordination. Under the Least Development Countries Fund (LDCF) of the Global Environment Facility, the project will (iv) establish and support effective inter-ministerial coordination mechanisms for one-government action on climate; (v) establish a national platform to bring together the public sector, civil society and private sector for climate action; (vi) develop and disseminate gender-responsive guidelines for implementing the policies on integrated approaches for land use and watershed management, ensuring the recognition of women's roles in resource management and climate resilience; and (vii) organize donor roundtables to present financing priorities emerging from the project and mobilize development partners and bilateral donors around Burundi's priority climate resilience investment needs. At project mid-term, following delivery of the project watershed management plans and CCAPs, and establishment of the watershed management committees, the project will assess sustainable financing options for funding CCAPs and Watershed Plans, and sustain project realizations towards a nationwide scale up of project interventions for watersheds and *collines* across the country.

Sub-component 1.2. Institutional capacity strengthening at national, watershed, and community levels (US\$7.4 million, of which US\$5.2 million IDA and US\$2.2 million GEF).

26. **This sub-component will directly support national agencies, and provincial and communal administrations, to implement and manage climate and land risks.** The component will start with a baseline capacity assessment to evaluate current capacities and gaps for addressing land degradation and climate risks. It will then finance institutional capacity strengthening of key institutions at national and local levels mandated to manage climate and environment risks, including

³⁶ Table A3.1 in Annex 3



MINEAGRIE and its departments, the National Land Commission, the relevant departments of the Interior Ministry and Justice Ministry, as well as several other line ministries relevant to the climate change agenda.³⁷

27. **Under LDCF, the project will support the University of Burundi**, using goods, consulting services, training, and operating costs to: (i) establish a new national/regional center for excellence on climate change and environmental risk management, bringing together expertise and training opportunities in climate, agronomy, health, energy, and economics; (ii) create new professional certificates, a Master's degree core curriculum, and programs on climate and environment risk management and related fields; (iii) modernize existing research and training capacities for improved climate science research, Geographic Information Services (GIS) and environmental risk monitoring within the University of Burundi and other academic research institutions in Burundi; (iv) collaborate with international universities and research centers, and participate in relevant regional/global fora to develop innovations in climate-related training and climate-resilient agricultural practices for *colline* resilience. It will also finance a range of important and necessary environmental and social (E&S) management capacity-building activities to improve and increase the knowledge and skills of staff, government officials, and environmental & social analysis professionals in Burundi, training a critical mass of new E&S specialists to conduct E&S studies across development-partner financed projects.

28. **National capacities for early warning service delivery at *colline*-level will also be enhanced** by establishing a hitherto missing link between national technical institutions in charge of early warning IGEBU (*Institut Géographique du Burundi*, Burundi's Geographic Institute); also ISABU (*Institut des Sciences Agronomiques du Burundi*, the National Institute for Agronomic Research), and the National Platform for Disaster Risk Management, as well as local leaders responsible for early action (communal/*colline*-level administrators, extension service, traditional leaders, Red Cross, NGOs/Community-Based Organizations). The first step will be a baseline capacity needs assessment, followed by investments supporting early warning systems (EWS) in Burundi in close coordination with other World-Bank financed projects (Urban Resilience Project and PRETE). Project activities would include: (i) revitalizing community radio and community relays to improve last mile communication of early warning alerts of key climate risks (landslides, flooding, droughts and storms) to last mile users at *colline* level; (ii) supporting early action and post-disaster reconstruction for affected households at community-level; (iii) establishing an Early Warning desk for rural *collines* at IGEBU and a risk monitoring map room at the National Platform for Disaster Risk Management in accordance with the Sendai Agreement; and (iv) establishing technical sector working groups (*groupes de travail pluridisciplinaires*, GTPs) bringing together climate forecasters/early warning providers and sector technical experts/early warning users across all key climate-sensitive ministries convened by the project.

29. **Capacity-strengthening activities at the local level (watershed and *colline* levels) will benefit communal administrations in charge of local development planning, extension officers, community-based organizations, and vulnerable communities.** The financed activities include: (i) building capacity at national, communal and *colline* level to manage and facilitate the scaling up of Farmer-Field Schools (through the national extension service—BPEAEs—and community-based facilitators); (ii) improving the technical capacity of local commune and provincial leaders in community-led climate action planning, through developing the next-generation commune development plans which include *collines'* climate action priorities.

30. **In addition, to secure investment in activities related to community resilience, and to reduce land conflicts, this sub-component will (i) support the implementation of a Land Information System and (ii) the strengthening of local land administration**, including the acquisition of various equipment and community offices.

³⁷ Ministry of Energy, Ministry of Infrastructure and Equipment, Ministry of Transport, Ministry of Education, Ministry of Health, and Ministry of National Solidarity



Component 2. Adaptive capacity for sustainable watershed management (US\$44 million, of which US\$29.3 IDA and US\$14.7 GEF)

31. **This component will address the constraints of fragmented and degraded watersheds and limited access to sustainable finance.** It aims to reduce the risks of soil erosion, restore degraded lands and natural resources, and improve the longer-term resilience of the watersheds to climate shocks. It will achieve this through supporting sub-watershed level planning, scaling up landscape restoration, and promoting integrated watershed management (IWM), including management of vulnerable slopes and protected areas. Specifically, project activities will support 87 sub-watersheds targeted by the project, covering 80 *collines*, and restore 38,639 ha of degraded lands. The component is structured as follows:

Sub-component 2.1. Watershed management planning (US\$3.8 million, of which US\$ 1.2 million IDA and US\$2.6 million GEF)

32. **This sub-component will address gaps in coordinated planning of land management interventions.** The sub-component will finance technical assistance, goods, consulting services, training, and operating costs for: (i) preparing feasibility studies, plans and guidelines for the development of 87 integrated sub-watershed management plans and for identifying suitable nature-based solutions to be implemented in each targeted sub-watershed; and (ii) supporting the creation and operationalization of sub-watershed management committees as key local convening and coordination bodies for sub-watershed planning, and promoting women's leadership in the committees. A transparent selection process for recruiting technical firms in charge of developing the sub-watershed management plans will be based on: (a) potential to create cost-effective technical solutions; (b) integration of restoration, soil erosion control, climate-smart agriculture, watersheds management, and biodiversity conservation approaches; (c) financial and environmental sustainability; and (d) promotion of public goods, such as inclusion and climate resilience. GEF resources, provided through the LDCF, will be specifically dedicated to supporting the establishment of sub-watershed management committees.

Sub-component 2.2. Sustainable watershed management (US\$ 36.7 million, of which US\$ 24.6 million IDA and US\$ 12.1 million GEF)

33. **This sub-component will implement the watershed management plans prepared under sub-component 2.1.** It will ensure restoration of degraded watersheds and help *colline* communities transition their farming and land-use practices towards integrated sustainable land management practices. This sub-component's activities will: support the implementation of on-the-ground sustainable land management practices in each target project sub-watershed; stabilize and restore vegetation on slopes to alleviate landslides and soil erosion; reduce flood risks; increase food production; stabilize river banks; correct gullies and ravines; improve management of protected areas and reserves; and improve communities' access to basic services through local ownership. LDCF resources will be focusing on piloting and scaling up nature-based solutions (NBS) in targeted sub-watersheds. This sub-component will finance works, goods, non-consulting and consulting services, training, and operating costs for: (i) technical assistance and inclusive community engagement, with a gender-sensitive approach to enable women's participation; (ii) constructing progressive terraces and augmenting the vegetation cover on degraded hillsides; and (iii) acquiring equipment, goods and works required for implementing the integrated watershed management plans. Such works may include restoration activities on degraded lands, leveraging nature-based solutions, tree planting, biophysical and soil bioengineering in gully treatment to reduce soil degradation and hazards related to water erosion, buffer zone protection along rivers and streams, soil fertility enhancement, agroforestry, production of cover and fodder crops, wildlife conservation programs.

34. **This sub-component will benefit from LDCF resources dedicated to supporting the application of innovative NBS,** co-designed with the involvement of local communities, including women and socially vulnerable groups, to enhance the climate resilience of ecosystems and livelihoods, and ensure sustainable land management. The approach may involve deploying innovative financial instruments, and full community engagement and participation, including by youth and women. LDCF resources will enable the project sub-component to take advantage of the potential of NBS for providing



socio-economic benefits, while mitigating climate change and improving ecosystem resilience. It will do so through a participatory approach to identify and address financial constraints and barriers facing rural community, and especially rural women.

Sub-component 2.3. Improved management of protected areas (PAs) and Reserves (US\$ 3.4 million IDA)

35. **The activities of this sub-component will support the effective and sustainable development of Burundi's protected area system to conserve biodiversity**, including chimpanzees and other wildlife species, and ecosystem services on which the well-being of the population depends. There will be a particular focus on the *Batwa* communities, who depend on forests for their livelihoods. The project aims to finance four PAs (see Annex 1). This sub-component will finance goods, works, non-consulting and consulting services, training, and operating costs for (i) the sustainable management and wildlife conservation programs in PAs and reserves; (ii) promoting community-based ecotourism in and around PAs; (iii) improving employment and alternative livelihoods for communities living around PAs through the development of income-generating activities and employment in the rehabilitation of park tourist tracks (through the intensive labor-works approach); (iv) integrating *Batwa* communities into PA management activities through culturally-appropriated communication, education and information on biodiversity, community conservation and PA restoration, and the provision of equipment (such as goggles and booths) for monitoring and surveillance purposes and to facilitate ecotourism.

Component 3. Community livelihood resilience support (US\$ 26.3 million IDA)

36. **This component will address constraints related to limited access to finance and the lack of an integrated response to communities' needs for resilient livelihoods in the face of rising climate and land risks.** The activities under this component will be structured around three sub-components as follows:

Sub-component 3.1. Climate-resilience planning (US\$ 0.6 million IDA)

37. **This sub-component will support the development of Colline-level Climate Action Priorities (or CCAPs).** Leveraging global good practice in community-led climate action, CCAPs will be developed by the project to define with communities priority climate-resilient investment packages with the aim to strengthen vulnerable communities' livelihood resilience and income diversification. Using consulting services and operating costs, the sub-component will contract a firm to implement a pre-developed detailed methodology for defining the CCAPs in every target *colline* in the project, identifying the *colline* action investment priorities through an extensive process of community mobilization using best practice participatory approaches for community-led climate adaptation planning. The project will also support the integration of the CCAPs into the communal development plans (*Plans Communales de Developpement Communautaire, PCDCs*) to ensure successful locally-led climate adaptation planning that takes into consideration the needs of the most vulnerable, including women, *Batwa*, Internally Displaced Populations (IDPs) and other socially vulnerable groups in Burundi.

38. **The project will work closely with the communal authorities (*Administrateur and Conseil communal*)** to ensure the CCAPs are integrated into the PCDC. The project will also collaborate with the Ministry of Interior to enhance the existing PCDC methodology by strengthening its climate change module so that in the future CCAPs can become an integral part of the PCDC process (without the need to adopt an ad hoc methodology for the CCAPs' purpose only).

Sub-component 3.2. Climate-resilient agriculture and livelihoods (US\$ 17.8 million IDA)

39. **This sub-component will support implementation of the CCAPs' identified priorities and interventions with the aim of enhancing climate-resilient livelihoods and climate-smart agriculture for the most fragile collines**, using goods, small works, consulting services, community works, training, technical assistance, and operating costs. The livelihood interventions envisaged (to be further defined within the CCAPs) would include: (i) financial inclusion and improvement of household incomes by supporting the development of climate-resilient income-generating value chains as alternatives



to agriculture (such as garden farming, mushroom cultivation and beekeeping). This would prioritize women beneficiaries and other socially vulnerable groups, and beneficiaries would receive training to sustain their new livelihoods; (ii) giving access to financing and vouchers to 93,600 women-led households across 80 *collines* to purchase improved cookstoves using recycled charcoal products as an alternative to tree-cutting; and (iii) supporting development and incubation of local social entrepreneurs to produce improved cookstove-adapted charcoal products³⁸ for commercialization within target *collines*, working in close collaboration with the World Bank-financed Burundi Jobs and Economic Transformation project (PRETE, P177688) and Solar Energy in Local Communities Project (SOLEIL-Nyakiriza, P164435).

40. **The climate-resilient agriculture-related interventions envisaged include:** (i) design and construction of micro-irrigation systems that promote farmer-led irrigation development, including gravity and solar-based pumping systems for high-value crop production; (ii) support to establish and train water user associations in the sustainable management of irrigation systems, use of irrigation practices and market production of crops; (iii) distribution of livestock through community solidarity chain support and establishment of a farrowing center at the *Direction Generale de l'Elevage* in collaboration with ISABU; (iv) disseminate climate-resilient seeds and accompanying agricultural inputs, including fertilizers, agricultural tools and equipment; and (v) introduce innovations in climate-resilient agricultural, irrigation and livestock techniques through Farmer Field and Business School facilities run by local extension officers and community-based facilitators trained by the project. Finally, as not all the support needed can be envisaged at this stage, additional financial resources (a minimum of US\$15,000 per target *colline*) will be availed in uncommitted financing to support climate actions identified in the CCAPs by priority *collines*.

Sub-component 3.3. Land certification (US\$ 7.9 million IDA)

This sub-component will improve land security through systematic land certification in each target *colline*, as an enabling condition for land security, access to financing, and climate-resilient livelihood investments. This sub-component will use technical assistance, goods, works, consulting services, training, and operating costs to finance: (i) Systematic land certification operations in each target *colline* to deliver a total of new 240,000 land certificates by 2030. It will include outreach, land identification services, and specific support to women and marginalized groups to access land certificates with the aim of enhancing social inclusion. It will provide a safe and inclusive space for community dialogue for addressing conflict-related land grievances, of particular importance for enhancing social cohesion and defusing land-related conflicts in target rural *collines*; and (ii) Inventory of state-owned lands, including measuring, demarcating and registering state-owned lands across project target sites.

41. **To support women's access to land certificates, the project will use targeted activities focusing on both procedural support and outreach.** Specialized programs will be established to educate and help vulnerable women—including single mothers, household heads, widows, the disabled, and those from indigenous communities—understand their rights and the steps needed to obtain land certificates. Legal aid and support services will be provided to ease the complexities of land registration. The land information system will be used to gather gender-disaggregated data. Outreach strategies will be guided by the Stakeholder Engagement Plan (SEP), which includes collaboration with traditional and community leaders, local women-led NGOs, and the recruitment of local women for outreach activities. Tailored approaches for single mothers and female-headed households will involve flexible scheduling and focus groups, among others. To change societal attitudes, a communications campaign will target men, highlighting the family-wide benefits of women's land rights, and key stakeholders such as judges and land professionals will be educated on women's land rights.

Component 4. Project management (US\$ 10.2 million of which US\$8.9 IDA and US\$1.3 GEF)

42. **This component will finance the project management, coordination, communication, monitoring and evaluation (M&E) activities, as well as the environmental and social framework (ESF).** The project will be managed through a project implementation unit (PIU) hosted by MINEAGRIE. The PIU selected is the same one that managed the

³⁸ Such as the innovative recycled briquette products developed by KAGE in Burundi.



Burundi Landscape Restoration and Resilience Project (P160613) to ensure continuity and build on existing fiduciary capacities. This arrangement is aligned with MINEAGRIE's mandate to improve the sustainability and cost-effectiveness of project management. This component will use goods, works, consulting services, training, and operating costs to finance: (i) project coordination and management, including salaries; (ii) M&E of project activities and outcomes; (iii) communication and media products, including social media, TV, radio and other means for the effective communication of project activities and real-time results to different stakeholders; (iv) management of fiduciary functions; (v) knowledge management, organization of workshops, citizen engagement, training, internships, and stakeholder coordination; (v) baseline studies and implementing the project's M&E plan and related learning and evaluation activities; and (vi) preparing all environment and social instruments for the effective management of project environmental and social risks. Trainees from national universities will be recruited to strengthen the project regional coordination teams in the field in terms of communication on financial management and the ESF.

Sub-component 4.1. Project coordination (US\$ 9.1 million of which US\$8.5 IDA and US\$ 0.6GEF)

43. **Under sub-component 4.1, LDCF funds will be used to support the operating costs of the PIU.** Specifically, this sub-component will initially finance the development of procedural manuals, the preparation of an exit plan, and audits of the project accounts. Subsequently, it will finance the purchase of equipment and office supplies for the project and its operation, including PIU staff costs.

Sub-component 4.2 Communication and knowledge management (US\$ 0.3 million of which US\$0.1 IDA and US\$ 0.2GEF)

44. **Through dedicated LDCF funding, this component will finance the implementation of a knowledge management system that will provide real-time information on lessons learned for the development and scaling up of integrated watershed management plans in each targeted sub-watershed.** To this end, the sub-component will ensure a smooth flow of information both within the project team and with external stakeholders by developing an appropriate communication strategy and ensuring visibility of the project through various channels and events. Particular attention will be paid to documenting and disseminating the project's good practices, results and impacts to maximize their uptake and dissemination. In addition, knowledge management will focus on identifying, organizing and sharing the knowledge generated, while setting up secure archiving systems to ensure transparency and traceability of data. These actions will promote a culture of continuous learning and optimize the project's overall impact.

Sub-component 4.3 Environment and Social instruments and M&E (US\$ 0.7 million of which US\$ 0.2 IDA and US\$ 0.5 GEF)

45. **This sub-component will focus on developing the necessary instruments to put in place environmental and social standards for the project. It will develop specific management frameworks, stakeholder engagement plans and environmental and social impact assessments.** It will also prepare the functional frameworks required for the smooth operation of the project, with a focus on gender-based violence prevention and ensuring adequate planning for Indigenous peoples. At the same time, with funding from the LDCF, this sub-component will ensure the ongoing monitoring and evaluation of the project using real-time digital data collection technologies such as GEMS (Geo Enabling Initiative for Monitoring and Supervision). It will establish an initial baseline and develop a detailed monitoring and evaluation plan. A methodological monitoring system and reporting tools will be put in place, emphasizing data digitization. Results-oriented reports will be produced regularly, and mid-term and final evaluations, as well as other necessary assessments, will be done to ensure the project's transparency and effectiveness.

Component 5. Contingency Emergency Response Component (US\$0 million)

46. **A Contingency Emergency Response Component (CERC) is included in the project in accordance with the Investment Project Financing (IPF) Policy, paragraph 12, for Situations of Urgent Need of Assistance and Capacity**



Constraints. This will allow for rapid reallocation of uncommitted funds in the event of an eligible crisis or emergency.³⁹ A CERC Operations Manual will be prepared by the GoB and will provide detailed guidelines and instructions on triggering the CERC and using funds (including activation criteria, eligible expenditures, ESF requirements, specific implementation arrangements as well as staffing required for the Project Coordinating Authority).

D. Project Beneficiaries

47. **The main project beneficiaries are rural residents in 80 collines across 87 target sub-watersheds.** The project will also benefit a broader population through systemic reforms targeting better coordination of climate action and landscape management support at sub-watershed and *colline* levels. Direct beneficiaries are estimated as follows: (i) a total of 213,320 households (1,066,600 beneficiaries), including 543,970 women and 7,773 people from vulnerable groups, who will benefit from sustainable watershed management practices, greater climate resilience, and improved livelihoods; (ii) 309,680 residents who will benefit from employment creation (labor-intensive jobs), 40 percent of whom will be youth and 51 percent women; (iii) 60 local institutions at the district and *colline* level, who will benefit from increased capacity and clarified rules and responsibilities; (iv) 10,000 micro-entrepreneurs and cooperatives/associations who will benefit from engagement in profitable climate-resilient activities in the project's intervention areas; and (v) government institutions and private sector organizations, as well as academia and research institutions, who will receive capacity-strengthening project investments in human resources and infrastructure. The following ministries and their respective departments are among those which will benefit: MINEAGRIE; the National Land Commission; and various line Ministries (of Interior; Justice, Hydraulics, Energy, and Mining; Infrastructure; Transport; Education; Health; and National Solidarity).

48. **In total the project is expected to contribute to the creation of 42,000 jobs.** The World Bank Sectoral GDP and Employment Multipliers in Burundi note estimates the number of jobs created, along with additional revenues in various value chains. While this job creation rate varies heavily depending on the specific value chain, the median estimate is that 10,000 jobs will be created alongside US\$1 million in additional revenues. As such, based on the economic and financial analysis, the project could be expected to contribute to the creation of 42,000 indirect jobs by increasing the demand for labor by MSMEs that benefit from improved production factors or conditions. Supply chain jobs and consumption spillover jobs could not be calculated due to the lack of baseline data but will be collected during project implementation.

E. Results Chain

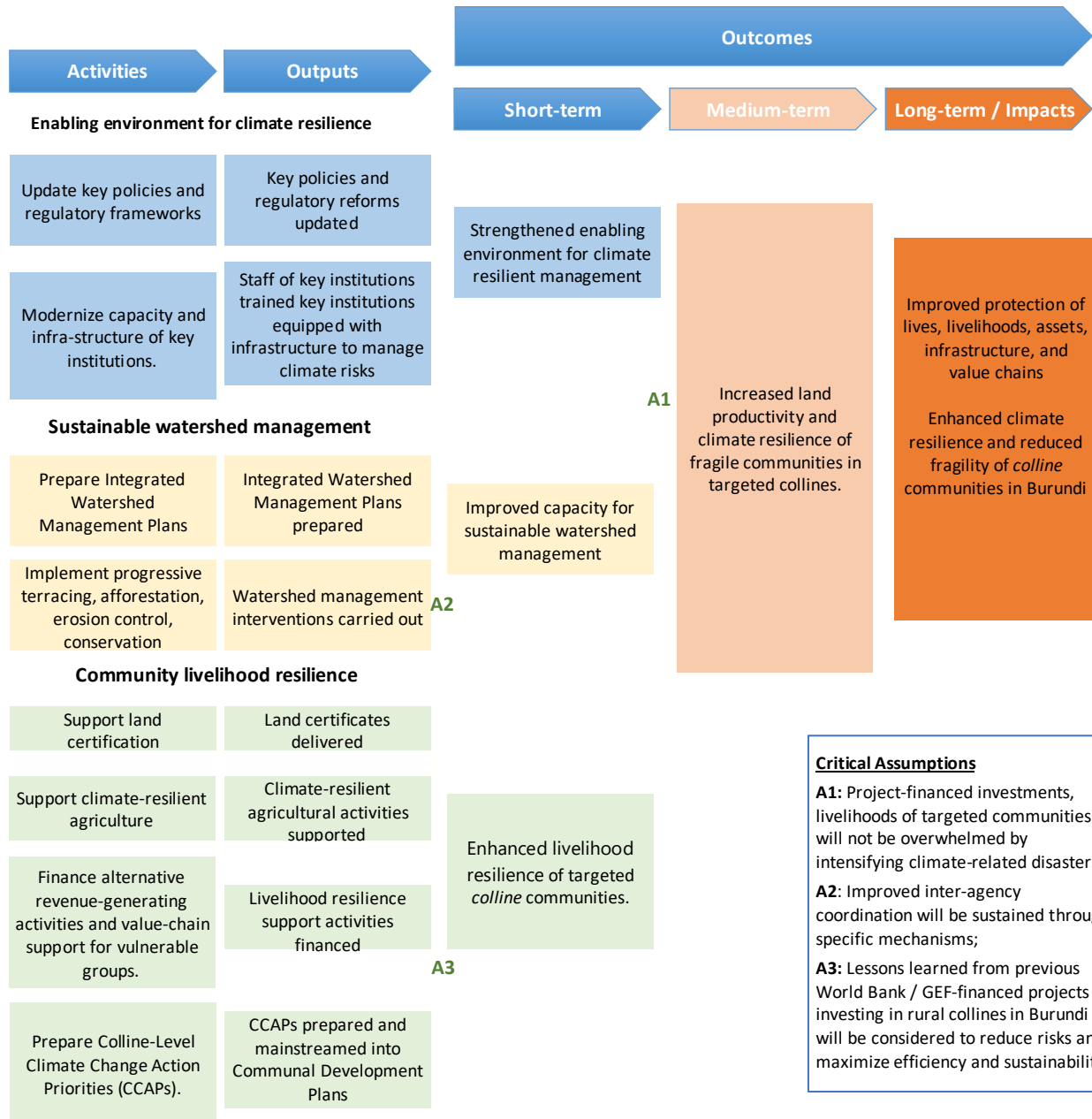
49. **Problem statement:** The proposed project lays the policy, institutional and capacity foundations to enable Burundi to scale up sustainable watershed management nationwide and to sustainably finance locally-led climate action. The capacity of Burundian ecosystems and communities to withstand climate shocks is currently limited by policy and institutional fragmentation, and by low levels of investment in sustainable watershed management to halt/reverse land degradation. This situation stifles economic opportunity, job creation and land tenure security in rural areas, ultimately affecting rural communities' livelihoods and social cohesion, and fueling community tensions and conflict risks over land and degrading natural resources, fraying the resilience of the most vulnerable groups. To tackle this problem, the project aims to increase land productivity and climate resilience of fragile communities in targeted *Collines* in Burundi. The project will: (i) strengthen the enabling environment for climate resilience in Burundi; (ii) make investments in the sustainable restoration and management of watersheds across 87 target hotspots that experience combined climate, land loss, and fragility risks; and (iii) provide new jobs and climate-resilient livelihood opportunities to 980,852 rural *colline* beneficiaries.

50. **In the medium to long-term the impact of the project will be** i) increased land productivity, ii) improved protection of lives, livelihoods, assets, infrastructure and value chains; and iii) enhanced climate resilience and reduced fragility of *colline* communities in Burundi.

³⁹ An eligible emergency is defined as an event that has caused, or is likely to imminently cause, a major adverse economic and/or social impact associated with natural or manmade crises or disasters. Such events include a disease outbreak.



Figure 3: Project Theory of Change (ToC)



F. Rationale for Bank Involvement and Role of Partners

51. The World Bank is well-positioned to support Burundi’s integrated sustainable landscape management and climate resilience agenda, given ongoing operational engagement, past analytical foundational work, and track record of implementing similar operations in Burundi, the region, and globally. The operation builds on ongoing projects across multiple development sectors that contribute to climate resilience and will scale up climate resilience outcomes across the portfolio. The World Bank has a track record of implementing similar climate adaptation operations in the region and worldwide, leveraging global expertise in areas spanning rural development, resilience, business climate support, inclusive finance with digital financial services, and value chains. The World Bank’s technical advantage and excellent client dialogue



with MINEAGRIE have led it to assist with landscape programs in Burundi since 2018, mobilizing expertise across the world, in many cases linking across multiple sectors, and leveraging multilateral/bilateral donor funding such as the \$6 million additional financing mobilized from the GEF (LDCF) to contribute to the Burundi Landscape Restoration and Resilience Project (BLRRP, P160163) \$30 million. To ensure the implementation of a scaled-up approach, World Bank engagement will build on the excellent results already produced from the BLRRP, and similar projects nationally and in other countries.

52. **The project stands as the largest rural development investment in Burundi's collines to date, making an important contribution to the portfolio supporting government objectives for Burundi's economic transformation and climate resilience.** It will scale up the good practices of the BLRRP (P160613), which transformed 22 *collines*, and the GEF Additional Financing (P171745), which scaled up landscape management in another 9 *collines*. There is demonstrated need and client demand for scaling up activities to reach the remaining 2,608 *collines* nationwide. The project further incorporates the findings of the analytical study funded by the PROGREEN Trust Fund that helped to close the gaps in identifying the key risk factors and determine priority *collines* for restoration, build consensus on priority interventions, and prepare client engagement for a scaled-up investment in climate resilience and landscape restoration across the nation.⁴⁰

53. **The rationale for public sector financing is the lack of viable investment opportunities for the private sector in colline resilience solutions, combined with a regulatory environment that is not suitable to attract private sector investments.** Given the externalities associated with environmental threats and climate-related disasters, large-scale private funding for erosion control or environmental protection is impractical. However, the project aims to help facilitate greater private investment in the future. As a result of the project, foundational investments are expected to emerge in climate change capacity building; early warning system support and monitoring of hydroclimatic and environmental risks at national level; land certification processes; improved land productivity; greater property rights security; resilient landscapes; climate-resilient livelihood support and climate-smart agriculture practices on degraded landscapes; incubation and capacity development support to local entrepreneurs to develop and sustain climate-resilient agriculture value-chains; sustainable energy solutions including improved cookstoves commercialized at scale in rural areas (including incentives for the use of recycled charcoal briquettes developed from agricultural waste as an alternative to wood-chopping) and the development of associated SMEs through extension services. Private-capital investments will follow once the market conditions are in place to sustain project investments.

G. Lessons Learned and Reflected in the Project Design

54. **The design of interventions is informed by the lessons from the BLRRP (P160613) and its GEF Additional Financing (P171745), the underlying analytics from the PROGREEN Trust Funded study (P176820), and international experiences.** Lessons learned include the importance of flexible design and simple implementation arrangements. The operational context in Burundi is challenging due to significant capacity constraints: projects need to be designed with simple implementation arrangements and small but high-impact components; involve a limited number of contracted firms due to procurement bottlenecks; and build on existing local/government capacities to enable ownership and sustainability of project results. Previous projects in Burundi have demonstrated the difficulty of operating complex projects built on foreign expertise. The BLRRP has had to operate during COVID travel bans; building on local partnerships with universities and centers of expertise contributed to project sustainability and local ownership.

55. **The project complements and builds on the lessons of multiple other rural/national scale investments in the World Bank Burundi portfolio:** (i) the Integrated Community Development Project (Turikumwe, P169315) aimed at

⁴⁰ The World Bank. 2023. "Diagnosing Drivers of Climate and Environmental Fragility in Burundi's Colline Landscapes - Towards a Multi-Sector Investment Plan to Scale up Climate Resilience". Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/099930006302237433>.



improving nutrition, access to basic services and economic opportunities for host communities and refugees, and which included US\$15 million in funding from the Refugees and Host Communities (RSW) sub-component; (ii) the Great Lakes Regional Integrated Agriculture Development Project (P161781; US\$75 million), which increases agricultural productivity and commercialization, including developing Water User Association-managed irrigation systems; (iii) the Solar Energy in Local Communities Project (P164435), which expands access to energy; and (iv) the Urban Resilience project (P177146), which complements this project's support in urban centers with a focus on early-warning systems, disaster risk management, and flood protection, mainly in greater Bujumbura.

56. **Finally, the project builds on the lessons from the Performance and Learning Review of the World Bank Group's FY19-23 Country Partnership Framework for the Republic of Burundi, which underscores the economy's reliance on agricultural land productivity.** It also addresses the impact of land degradation and climate change on domestic growth, livelihoods, and overall development. By advocating for market-based approaches, the project fosters the development of value chains and agro-processing. It aims to facilitate access to finance for farmers and agribusinesses, bolster entrepreneurship, and establish connections between producers and both local and international markets. These goals are in line with the objectives of the IFC's SME Ventures project⁴¹ under implementation in Burundi. In partnership with the IFC, the project weaves climate resilience into its strategies by promoting the development of climate-smart agricultural practices, local entrepreneurship incubation, and infrastructure development capable of withstanding climate-related shocks and stresses.

III. PROJECT IMPLEMENTATION

A. Institutional and Implementation Arrangements

57. **The PIU hosted by MINEAGRIE will be responsible for overseeing the planning and implementation of the project activities, including fiduciary functions, and coordinating day-to-day operations among agencies, project beneficiaries, and the Ministry of Finance, Budget, and Economic Planning (MoF).** The PIU was established in 2018 to manage the BLRRP (P160613) and its GEF Additional Financing (subsequently approved in 2020, P171745). It is already implementing the Project Preparation Advance (PPA) for the proposed project (US\$2.5 million approved in July 2023). The PPA enabled the GoB to support the project preparation and ensure implementation readiness, including technical studies and capacity strengthening. MINEAGRIE will host the Secretariat of the Inter-Ministerial Project Steering Committee (PSC) and will ensure regular communication and coordination with the Ministry of Finance, PSC, the Technical Committee (TC), and the PIU. The recruitment of key PIU staff has already been finalized under the PPA, and additional staff will be hired by February, 2024. They will include a technical officer, 4 rural engineering specialists, 3 monitoring and evaluation specialists, a specialist in social protection, 3 accounting specialists, an assistant to the coordinator, and 2 regional drivers. The project team is in place, ready to implement the new project. Financial management and procurement reviews concluded that the PIU understands World Bank procurement procedures and has the capacity to manage the project. At the local level, sub-watershed management committees will need to be established to support on-the-ground implementation. This will involve bringing together multiple stakeholders in charge of water, agriculture, and landscape management at the commune level to oversee the scaling up of integrated watershed management across *collines*. At the end of the project, the PIU will seek to transfer all its fiduciary and project coordination capacities to MINEAGRIE to ensure long-term sustainability. See Annex 1 for further information.

B. Results Monitoring, Evaluation, and Verification Arrangements

58. **The PIU will build on the robust M&E system already established by the BLRRP to collect timely data and analyze progress and results.** M&E will be closely linked to the communications component of the project, aiming to build

⁴¹ International Finance Corporation. 2018. <https://documents1.worldbank.org/curated/zh/648931548940086239/pdf/134220-WP-IFC-SME-Ventures-Main-report-PUBLIC.pdf>



awareness, capture lessons and findings from on-the-ground implementation in real-time to inform scaling-up planning, make strategic and operational decisions and course corrections, as well as support accountability and transparency. Building on the lessons from the BLRRP, the M&E framework is based on: (i) the program results chain and underlying assumptions of the theory of change; and (ii) compliance with World Bank requirements, including the selection of key core indicators as well as specific indicators for gender, climate change adaptation and mitigation, and citizen engagement. The project will support several evaluations including: (i) institutional analysis; (ii) social audits; and (iii) farm and household surveys to understand the project impact resilience at the household level. In addition to monitoring results, the PIU will develop key operational reports to effectively track implementation progress in terms of procurement processes, implementation of larger contracts, and physical and financial progress by sub-component. This will be further complemented by the monitoring data collected regularly by the PIU, using real-time technology such as GEMS to facilitate data use and knowledge management.

C. Sustainability

59. **Sustainability measures for the project's direct beneficiary groups are built into the design.** Sustainability measures involve: (i) capacity building for mandated national/local government institutions and their ownership of project realizations for integrated watershed management planning and land use; (ii) building social and institutional sustainability at the *colline*/commune level (through the locally-led *colline* climate action plans mainstreamed into the PCDCs (*Plans Communaux de Développement Communautaire*, the Communal Development Plans), and at the watershed level (through the sub-watershed management committees) so that the activities continue beyond the project lifespan; (iii) helping to build lasting institutions (MSMEs, water user associations, locally-based organizations/committees, cooperatives/nurseries) to ensure long-term impact; (iv) ensuring technical and environmental sustainability, through the use of nature-based solutions at sub-watershed level; sustainable practices for landscape restoration (local materials/species); climate-smart interventions; low-emission activities (e.g. gravity/or solar-pumping for irrigation); development of efficient cookstoves to protect forests and support alternative livelihoods; and (v) promoting sustainable growth in rural areas by incentivizing locally-led climate-smart activities, restoring a supportive natural resource base, and creating new locally-led planning and budgeting tools to tackle the impacts of climate change. Furthermore, the project supports inclusive climate adaptation by providing communities, vulnerable groups, and MSMEs with project financing to allow them to drive the priorities for their communities and ecosystems' resilience. Such activities and tools include the watershed management commitments to sustain management of sub-watershed restoration works; the *Colline* Climate Resilience Action Priorities (CCAPs) to continue local ownership of climate action priorities and funding; and lastly new generation climate-mainstreamed Communal Development Plans, to drive the creation of new climate-resilient livelihoods and incubated entrepreneurship opportunities, operation and maintenance of new early warning equipment or infrastructure, and use of efficient water and climate-smart farming techniques.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

Technical

60. **The project's technical design prioritizes investments to halt/reverse land degradation and restore climate resilience in a set of priority most-at-risk hotspot *collines*, using an integrated watershed management approach.** The targeted project *collines* and related sub-watersheds are selected from the list of 347 *collines* identified by the PROGREEN report as very high risk due to compounded climate, land degradation and conflict risks. We then used seven selection criteria to identify priority *collines* to be covered under the project, including proximity to *collines* already covered under the BLRRP (P160613), social inclusion, accessibility, hosting critical infrastructure such as national dams, inclusion of



protected areas and ensuring the selected *collines* also covered entire sub-watersheds. Following these criteria, seven target project sites were selected, covering a total of 80 *collines* across 87 sub-watersheds (see Figure A2.2 in Annex 2).

61. **The choice of interventions reflects the GoB priorities (PND), the World Bank’s Africa Regional Strategy, IFC’s re-engagement action plan in Burundi, and lessons from the BLRRP.** All high-impact community resilience-building activities under the BLRRP (land certification, climate-resilient agriculture and livelihood support) will be scaled up under Component 3. Micro-irrigation is a new component, based on client demand. Lastly, the CCPAs are an innovation that will serve as instruments for locally-led climate adaptation planning at *colline* and commune levels. They are expected to yield multiple lessons to better understand how to successfully deploy locally-planned and led climate adaptation projects. The project is expected to deliver multiple socio-economic and environmental benefits, which will significantly improve the resilience of target rural populations to intensifying shocks from climate change and land degradation. Climate-vulnerable beneficiary households will be identified based on the national registry of most socially and climate-vulnerable community members in the targeted *collines*. This same approach was utilized in the BLRRP, with broad success and no grievances were recorded after six years of project implementation. Eligible beneficiaries will include local institutions, community groups, firms, cooperatives, associations, and non-government organizations (NGOs).

62. **The project will prioritize equity, inclusion, and social cohesion across all components—the essential ingredients for long-term resilience in the face of the multi-risk fragility observed in Burundi’s *collines*.** The project will have a well-developed gender and social inclusion focus because the share of women in target *collines* is disproportionately larger than elsewhere in the country (men are more likely to migrate to cities for work). The project will thus prioritize the inclusion of marginalized groups. These include women (including widows and single mothers), youth, IDPs—notably those driven out of their homes by climate-related flooding, landslides and other disasters (accounting for 89 percent of all IDPs as per the latest IOM data)⁴²—*Batwa* communities and people with disabilities. Working closely with the ongoing social protection projects in the Burundi portfolio, the project will build on current efforts to prepare a national registry to identify the most vulnerable, as well as on evidence from humanitarian operations to locate the most climate-afflicted and displaced populations. Other examples of project interventions to address social cohesion are activities to upgrade *colline*-level land certification and registration to include recognition of land rights for the most vulnerable (widows, female-headed households, marginalized groups); digital cash-for-work transfers to local marginalized *batwa* communities for land restoration labor work; and providing space for community dialogue to address conflict-related trauma to further reduce social conflict risks and foster inclusion. These measures will help build shared prosperity and reduce multi-risk fragility in Burundi’s *colline* landscapes.

63. **The project generates significant gender and inclusion benefits.** In Burundi, gender dynamics are significantly impacted by climate impacts on agriculture and watershed management, with women facing disproportionate effects from climate change. Traditionally engaged in agricultural activities like crop cultivation and livestock management, women encounter undervaluation and limited access to resources such as land, credit, and inputs. Climate change exacerbates these challenges, with erratic weather patterns leading to crop failures and food insecurity primarily affecting women responsible for household nutrition. Environmental degradation worsens their plight, as they rely heavily on natural resources for sustenance and income. Limited land rights compound these vulnerabilities, with less than 15 percent of land titles registered in women’s names, reflecting a system influenced by patriarchal norms and insufficient legal protections. This situation hinders women’s awareness and ability to improve livelihoods, particularly in agriculture. Despite the focus of the Burundi National Development Plan (2018-2027) on gender equality, and refugee inclusion, achieving parity in decision-making and sectoral integration remains challenging. Furthermore, with the absence of a law on inheritance in Burundi, under customary law a woman’s entitlement to land is frequently subordinate to the preferential rights held by male relatives. These traditional practices are firmly embedded in the collective mindset. As a result, in practical terms, it is typically the rights of men that are granted precedence and are thus recorded on the land

⁴² Burundi IOM, UN Migration. Climate Change and Disaster Overview (2018-2023).



certificate. The BLRRP (P160613) and its GEF AF (P171745) address these issues by prioritizing female participation, promoting women's land rights (achieving already more than 75 percent of land certificates bearing women's names), and supporting economic empowerment through savings and credit groups. The project will continue to scale up land certification for women as a key investment in the resilience of women's livelihoods.

Economic and Financial Analysis

64. **An economic analysis was conducted as part of project preparation. It incorporates all project activities as together they are expected to have an additional and combined benefit in the cost-benefit calculation.** Benefits included in the analysis include estimates of reduced repair costs and avoided income losses associated with flooding and erosion, increased income potential due to improved land quality and availability of irrigation, reduced costs of sediment removal for river maintenance, and an estimation of the value of the wood contained in reforested areas, including refugee-hosted *collines*. The institutional investments under Component 1 will also enable improved environmental capacity and management, and, as such, have been included in the analysis, although they are likely to accrue even wider benefits than those captured here.

65. **The economic analysis indicates that the investments are economically viable, showing an estimated total net present value (NPV) of US\$60.1 million at a 15 percent discount rate.⁴³ The economic rate of return (ERR) is estimated at 36 percent** based on the total project investments, with benefits calculated over a 15-year period. Since the project will not result in direct revenues (e.g., toll payments for a road), the analysis focuses only on economic benefits in terms of reduced expenditure and increased income for all beneficiaries. Preliminary GHG analysis from the preceding project indicates the project will mitigate approximately 529,156 tons of carbon dioxide equivalent (tCO₂e) per year, for a total of 939,342 tCO₂e over the 15-year period. If the shadow price of carbon is set at US\$44/tCO₂ for 2025 (low scenario) with an annual increase of 2.25 percent, the NPV including GHG emission reductions increases further to US\$830 million with an ERR of 110 percent.

66. **The analysis also includes an assessment of the implications of the parallel exchange rate market under different scenarios.** All estimates used in the base case economic analysis above assume that project currency conversion will occur at the current official exchange rate of BIF 2,874 per US\$ (neutral scenario). This means that in the current parallel exchange rate environment, the project will be required to pay a premium since it will not be able to convert funds at the higher shadow exchange rate.⁴⁴ If the government were to release exchange rate results linked to the ongoing reform project (optimistic scenario),⁴⁵ the project ERR would increase to 72 percent. If the premium required were to increase by 50 percent (pessimistic scenario), the project would remain economically viable with an ERR of 22 percent. However, the project also incorporates mitigation measures to adapt to the ongoing FOREX shortage should the situation remain or worsen, including the use of international procurements to reduce the impact of the parallel exchange rate environment. An estimated 23 percent of the project budget will be disbursed directly in US\$ and the remaining 77 percent converted to BIF.

Alignment with Paris Agreement

67. **The operation is aligned with the goals of the Paris Agreement on both mitigation and adaptation**

68. **Assessment and reduction of mitigation risks:** The operation's activities are at low to no material risk of having a negative impact on Burundi's low-GHG emissions development pathways. All activities are considered universally aligned on mitigation. Regulatory/policy reform activities are all considered universally aligned. These include institutional and

⁴³ We estimate a 15 percent discount rate as the risk-adjusted opportunity cost of capital. Additional NPV estimates at other discount rates have also been provided as a measure of the sensitivity of our analysis.

⁴⁴ The shadow exchange rate fluctuates widely. These are the rates used in the analysis based on latest available data.

⁴⁵ Release of exchange rate controls would allow for project funds that are disbursed in Burundi Francs (FBu) to be converted from US\$ at a higher rate.



community capacity strengthening; technical studies to monitor data on land and climate risks; public administration initiatives, including support for land certification under Component 1; watershed management planning (Sub-component 2.1), including technical assistance and preparation of studies, plans and guidelines and support to operationalize sub-watershed management committees; restoration and integrated watershed management (Sub-component 2.2); improved management of protected areas and reserves (Sub-component 2.3); and land certification activities under Sub-component 3.2. Activities to improve land productivity under Sub-component 3.1, and climate resilient agriculture investments under Sub-component 3.3, are universally aligned, as they meet at least two of the three pillars of Climate-Smart Agriculture. Distribution of cattle and pigs in the *collines*, distribution of agricultural inputs, investments in irrigation systems, and dissemination of climate-resilient seeds contribute to the pillars by building resilience to climate change and increasing agricultural productivity and incomes. Financing income-generating activities such as beekeeping and gardening are low risk. Provision of cookstoves is considered universally aligned, as the cookstoves do not directly burn fossil fuels or non-renewable biofuels.

69. **Assessment and reduction of adaptation risks:** Climate hazards are not likely to have a material impact on the operation or its development objectives. The key climate risks impacting community livelihoods, contributing to land degradation and reducing agricultural productivity include an increase in landslides, flooding, and extreme rainfall; pest and disease incidence; and droughts (as discussed throughout the project document and in Annex 2). The inherent level of risk to the operation from these climate hazards is low, as the operation's intent is to improve climate resilience and therefore, address these climate risks through all investments and sub-components. The actual climate risk to project investments is low. The project contributes directly to adaptation and resilience through the following: investments in policy and regulatory reform to improve climate risk management (Component 1); sustainable watershed management practices to reduce the risks of soil erosion and enhance long-term resilience of watersheds to climate shocks (Component 2); climate-smart agricultural investments and climate-resilient livelihoods support (Component 3); investments to develop public and community infrastructures for disaster risk management and response, and for strengthening local early warning systems for climate-related hazards (Sub-component 1.2).

B. Fiduciary

Financial Management

70. **The project will be implemented by one implementing agency, MINEAGRIE PIU, which is already implementing two ongoing projects.** The FM assessment for the project implementing agency was conducted using World Bank Guidance: FM Manual for World Bank Investment Project Financing Operations, reissued on September 7, 2021. The MINEAGRIE PIU comprises seven FM consultants. The financial management arrangements of the project will be based on the existing arrangements under the BLRRP and its additional financing (P160613 & P171745).

71. **The overall FM residual risk rating for this project is assessed as Substantial.** The key FM risks identified include: (i) the large number of beneficiaries resulting from shifting from 31 *collines* in 3 target provinces to 887 *collines* now spread nationwide; (ii) the increased FM workload, which may impact the timely recording of financial transactions and generation of financial statements; (iii) the weak budget-execution monitoring process; and (iv) the introduction of a cash-transfer activity. To mitigate these risks: (i) the Project Implementation Manual (PIM) will clearly define the tasks and internal control processes and procedures; (ii) the PIU will hire two additional accountants (consultants) to manage the increased workload; (iii) the internal audit scope of work will be revised to include reviewing activities under the new project; (iv) budget execution reports will be included in the project's quarterly and annual financial statements; and (v) the PIU will be paired to another project in the portfolio with strong experience in cash transfers management (MERAKABANDI) to benefit from lessons learned and avoid past mistakes made. The World Bank will continue to support the PIU in the various FM aspects. In addition, the World Bank team will conduct at least two onsite supervision visits every year to ensure that robust FM systems are maintained for the grant throughout the life of the project.



Procurement

72. Procurement rules and procedures. Procurement will be carried out in accordance with the World Bank Procurement Regulations for IPF Borrowers (Borrowers Regulations), dated September 2023 (referred to as World Bank Procurement Regulation); the Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, revised July 1, 2016 (referred to as World Bank Anti-Corruption Guidelines); and the provisions stipulated in the Financing Agreement. When approaching the national market, the country’s own procurement procedures may be used based on the requirements set forth or referred to in the World Bank Procurement Regulations (paragraphs 5.3 to 5.6, related to National Procurement Procedures). For national competition, the Borrower and the World Bank will agree on provisions to be included in the bidding documents used to ensure full consistency between national procurement procedures and the World Bank Procurement Regulations for IPF Borrowers, dated September 2023. Those provisions will include, among others, confirming the application of, and compliance with, the World Bank’s Anti-Corruption Guidelines, including without limiting the World Bank’s right to sanction and the World Bank’s inspection and audit rights.

73. Project Procurement Strategy for Development (PPSD). The project’s main procurable activities include: (i) works: small public infrastructure works, development works on progressive terraces, rehabilitation of ravines and all other environmental protection related works; (ii) consulting and non-consulting services, including technical assistance; and (iii) goods: improving land productivity through the distribution of agricultural inputs (seeds and fertilizers), livestock and veterinary kits. Similar activities have already been implemented under the BLRRP (P160613) and its Additional Financing (P171745) and therefore do not present any challenge to the implementing agency. Traditional market approaches like national limited/open national will be used. Very few contracts will use the international approach with Rated Criteria. A Project Procurement Strategy for Development (PPSD) has been prepared, defining the selection methods for the main contracts. Procurement plans (PPs), as agreed between the World Bank and the recipient, will specify procurement methods and their applicable thresholds, as well as activities that will be subject to the World Bank review. The first plan covers the first eighteen months of project implementation.

74. Systematic Tracking of Exchanges in Procurement (STEP). The recipient shall use the World Bank’s online procurement planning and tracking tool, STEP, to prepare, clear, and update its PPs and conduct all procurement transactions. Any updates to the PPs made thereafter shall be submitted to the World Bank for approval and, through the mandatory use of STEP by the implementing agency, the World Bank will be able to monitor all procurement transactions.

75. Procurement risk assessment. The Implementing Agency has a team of experienced procurement staff (two Senior Procurement Specialists) with the right skills and behaviors and a satisfactory track record in carrying out procurement and good procurement knowledge and experience. However, conducting negotiations with international firms/service providers remains a challenge for the Implementing Agency. The project procurement risk before implementing the mitigation measures outlined in Annex is “Substantial” but could be reduced to a rating of “Moderate” upon successful implementation of the mitigation measures (See Annex 2).

C. Environmental, Social and Legal Operational Policies

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



76. The **Policy OP/BP 7.50** applies because some of the proposed investments will take place in the Lake Tanganyika Basin and Kagere River Basin, which are international waterways. In accordance with the policy, the five riparian countries were notified from May 31 to June 5, 2024, and there were no objections to the project. Based on the outcome of the notification process and the assessment that the project will not cause appreciable harm, the Regional Vice President gave her approval to finalize project preparation on July 8, 2024.

D. Environmental and Social Risks

77. **The Environmental and Social Risk Classification (ESRC) conducted under the Environmental and Social Framework (ESF) rated the project's overall E&S risk as Substantial.** Nine out of ten of the environmental and social standards are relevant. This is due to adverse risks and impacts associated with the large scale of the activities (country-wide), the inclusion of Batwa and refugee populations, potential conflicts resulting from beneficiary selection, primary support to women, and challenges related to technical assistance activities.

78. **The environmental risk is rated as Substantial.** The environmental impact of the project is expected to be largely positive, as it will support restoration and sustainable watershed management, land restoration labor work, farmer-led hill irrigation practices, improved management of pastures, protected areas and forests, and land management, income-generating value chains, and CERC activities. It will also support small public infrastructure works and TA activities related to climate resilience, watershed management, and capacity building. However, the potential environmental, occupational health and safety (OHS) risks associated with these activities are expected and would have to be managed: road safety and occupational health and safety issues, cumulative water pollution, hazardous waste from consumable accessories for livestock vaccines. Other environmental risks may include temporary disturbances to local biodiversity and living natural resources; habitat disturbances; soil loss related to planting activities; dust; and temporary construction related air or water pollution, waste generation, and wastewater.

79. **The social risk is rated as Substantial.** The project is expected to have positive social impacts as well, as it will support investments in sustainable watershed management and planning, community-based tourism, climate-resilient livelihoods, and technical assistance for community engagement through a multi-stakeholder planning process. The bulk of these activities will be designed and managed primarily by communities, farmers, and resource user groups. Climate-resilient investment packages will have positive social impacts for target vulnerable communities, as well as income diversification opportunities. Concerning gender inclusion, planned project activities related to land certification, livelihoods, and social cohesion strengthening activities, are expected to have predominantly positive impacts on women and girls in Burundi. Issues of social inclusion are challenging, and the key project interventions will require extended consultation between local communities, government bodies and other project actors. The project could also have adverse social impacts, including: (i) exclusion of key vulnerable populations from benefits of the project and potential conflicts in beneficiary selection and/or support to women taking part in land certification process; (ii) physical and economic relocation due to land acquisitions; (iii) GBV/SEA/SH on vulnerable groups, including women and girls, and potential negative impacts related to exclusion from indigenous peoples/Sub-Saharan African historically underserved traditional local communities' (IP/SSAHUTLC) rights and livelihoods; (iv) risks related to child and forced labor in the watershed management and access to land and natural resources; and (v) conflicts that may arise between agricultural development and conservation needs. The project will finance small public infrastructure, including protected areas, roads, agroforestry, and small irrigation construction works, which may cause minor economic and resettlement impacts, as well as restrictions on land use and access to natural resources that cause a community or groups within a community to lose access to resource use, including legally designated protected areas, forests, or biodiversity areas to be restored in connection with the project.

80. **Regarding SEA/SH risks, the overall SEA/SH risk rating of the project is Substantial.** The prevalence of GBV in Burundi, including intimate partner and sexual violence, is higher than the regional average: 47 percent of Burundian



women report having experienced physical or sexual intimate partner violence and 23 percent of Burundian women report having experienced sexual violence in their lifetime.⁴⁶ In this context, the project's activities targeting female beneficiaries could contribute to creating and/or exacerbating GBV, including SEA/SH risks, economic violence, and intimate partner violence. Specifically, SEA/SH risks include: i) risks associated with land certification activities where women will be potential recipients of project benefits and will also be challenging gender norms around women's land tenure, which can expose them to violence at the community level; ii) risks linked with producing a shift in gender dynamics and norms through livelihoods and climate resilience activities that will grant women greater access to and control over financial resources and greater opportunity for community leadership; and iii) risks likewise linked with activities intended to strengthen social cohesion and address community trauma, which can prompt changes in social norms with regard to otherwise marginalized groups, such as women and girls, and increase their vulnerability to abuse. To manage these risks, the project has developed an SEA/SH action plan as a part of the ESMF, according to its level of risks and based on the recommendations of the Good Practice Note Addressing SEA/SH in IPF projects.⁴⁷ The plan outlines core mitigation measures as codes of conduct for project workers; an accountability and response framework with grievance mechanism and service-mapping; a training and sensitization plan for project personnel and communities and consultations at community level to address risk for women and girls; and the hiring of a GBV specialist to oversee the action plan implementation. In addition, the project will develop a Gender Action Plan.

81. **To address, mitigate and address the E&S risks and impacts, the Borrower has prepared, consulted and disclosed the following instruments:** Environmental and Social Management Framework (ESMF); Resettlement Policy Framework (RPF); Indigenous Peoples Planning Framework (IPPF), Labor Management Procedures (LMP), Stakeholder Engagement Plan (SEP) and Environment and Social Commitment Plan (ESCP)⁴⁸. The consultations for the project were conducted through focus groups at both the *colline* and communal levels in the 12 affected communes and around the protected areas. Participants included representatives of women, youth, Batwa, people living with disabilities, and returnees. Additionally, individual interviews were held with key informants such as administrative authorities, heads of decentralized services of partner ministries, NGO leaders, and members of the Project Preparation Unit. These focus groups took place from April 3 to April 12, 2022. A Social Assessment with a Gender perspective and a corresponding Action Plan was also prepared. Risks related to the capacity of the Borrower will be mitigated by developing training modules as agreed in the ESCP. Additional E&S risk management information is provided in Annex 2.

E. Grievance Redress Services

82. **Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may submit complaints to existing project-level grievance mechanisms or the Bank's Grievance Redress Service (GRS).** The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project-affected communities and individuals may submit their complaint to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of Bank non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of Bank

⁴⁶ Government of Burundi. 2016–2017 Demographic and Health Survey in Burundi.

⁴⁷ World Bank. 2022. *Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing Involving Major Civil Works. Good Practice Note*. Third Edition. Environmental & Social Framework for IPF Operations. Washington, DC: World Bank.

⁴⁸ Dates of publication respectively on the country [project website](#) and on the World Bank websites are as follows: [ESMF](#) (27 August 2024), [Resettlement Framework](#) (7 November 2024), [IP/SSAHUTLC Planning Framework](#) (7 November 2024), [Labor Management Procedures](#) (27 August 2024), [Stakeholder Engagement Plan \(SEP\)](#) (7 November 2024) and [Environmental and Social Commitment Plan \(ESCP\)](#) (7 November 2024).



management and after management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), visit <http://www.worldbank.org/GRS>. For information on how to submit complaints to the Bank's Accountability Mechanism, visit <https://accountability.worldbank.org>.

V. KEY RISKS

83. **Overall, the project risk rating is *Substantial*.** The most important risk indicators are described below, along with measures to help mitigate these risks.

84. **Political and governance risks are rated *Substantial*.** Despite its fragile institutions, Burundi witnessed peaceful elections and a peaceful transition of power in 2020. The project lies at the heart of the PND 2018-27, which calls for protecting the environment, adapting to climate change, improving land-use planning, and transformation that creates decent jobs for all. A continued strong collaborative partnership with the Ministry of Finance and the Presidency will be essential to ensure the project's sustainability. Internal and periodic third-party monitoring will be crucial risk mitigation strategies to ensure effective project implementation. The project also proposes close engagement with private sector beneficiaries, communities, and civil society.

85. **The macroeconomic risk is *High*.** Although public debt remains sustainable, it is overshadowed by potential distress. The country is grappling with pronounced external imbalances, evidenced by substantial current account deficits, insufficient reserve buffers, and a significant parallel exchange rate premium, which averaged 100 percent in May 2024. These challenges are compounded by fragile political institutions, endemic poverty, dependence on external aid, and infrastructural shortcomings. The persistent fuel shortages and the widening disparity between official and parallel foreign exchange rates threaten to suppress already modest economic growth. Protracted postponements in resuming mining sector operations could significantly erode both revenue streams and the trajectory of economic growth. Given these dynamics, there is potential for a further contraction in export coverage, an exacerbation of already elevated inflation rates, and a broadening of fiscal and current account deficits. Such developments, along with a delay in the first review of the Extended Credit Facility (ECF) program, would likely intensify financing constraints and amplify the public debt burden. Mitigating factors include ongoing government efforts to consolidate fiscal accounts, modernize monetary policy, and further liberalize the foreign exchange market. Further, the project incorporates price contingencies to mitigate cost escalations and encourages the use of local materials, aligning with nature-based solutions. To minimize exposure to fluctuations in government fiscal resources, no government co-financing is anticipated. Lastly, the project has accounted for the dual exchange rate market in its calculations of the IRR, cost-benefit ratio, and NPV.

86. **The sector strategies and policies risks' are rated *Substantial with some risk implications*.** A critical gap exists in the legal and institutional framework concerning land ownership and access rights for women. The current legal system, influenced by patriarchal traditions, restricts women's access to land and property rights, limiting their economic independence and ability to contribute to development. Additionally, the dominance of low-productivity agriculture, combined with high population growth and environmental degradation, poses a substantial threat to the country's economic stability and poverty reduction strategies. The project aims to support legal and policy reforms, particularly in inheritance laws and land certification processes, to ensure women's land rights are protected. These reforms will also focus on enhancing agricultural productivity through sustainable land and watershed management practices to mitigate the risks associated with climate change. Addressing these policy and strategy gaps is essential for improving climate resilience and fostering green and inclusive economic growth in Burundi.

87. **The technical design of project risk is *Substantial, given the dispersed scale of the project sites and targeted interventions*.** A multiplicity of interventions that span multiple geographical scales of action, from the national level



(component 1) to local levels (across components 2 and 3), will require careful activity monitoring & evaluation by the PIU and the three provincial branches, as well as a clear sequencing of project activities to be implemented in a coordinated and synchronized fashion. To mitigate this risk, the PIU will define a clear Monitoring & Evaluation Plan outlining activity leads, roles and sequence for all project-financed activities with close follow-up of progress against targets. Pro-active coordination by the PIU of multiple firms hired to execute components of the project will also be critical to project success.

88. **Institutional capacity for implementation and sustainability is rated *Substantial*.** Implementation arrangements represent a substantial risk to the achievement of the PDO, due to the time, cross-sectoral coordination, specialized skills, and some technical and procurement challenges involved in watershed planning and management. Delays may occur because of the prolonged time required for cross-sectoral coordination of planning and implementation, and unspecified clearance processes and arrangements. These risks are mitigated through adopting a clearer Project Implementation Manual that specifies responsibilities and timelines for the activities' cycle of preparation and planning, internal and World Bank clearances, implementation, M&E, and reporting. Risks related to activities' implementation in the targeted communities will be facilitated and mitigated through the established Sub-Watershed and Commune/Colline Development Committees.

89. **Fiduciary risks are rated *Substantial*.** Given the inherent fiduciary risk at the country level, and the number of players involved in project activities, implementation will face transparency challenges that in turn cause risks to financial management and procurement. The proposed risk mitigation measures focus on the training and quality of personnel; prioritization; streamlining of funds to go directly to beneficiaries; application of best procurement, internal control, audit, and third-party monitoring practices; clearly specified responsibilities; and timelines for preparing and conducting the procurement activities. The project procurement risk before implementing the mitigation measures outlined in Annex is "Substantial" but could be reduced to a rating of "Moderate" upon successful implementation of the mitigation measures (See Annex 2).

90. **The Environment and Social risks are rated *Substantial*.** In addition to the risks identified under the project activities and addressed in the E&S instruments, other risks could arise from the capacity of the Borrower, which include the PIU, contractors, communities to manage the risks and impacts of project activities in line with ESS objectives. An ESMF, RPF, IPPF, LMP, SEP and ESCP were prepared, consulted and disclosed and will be implemented to assess and manage E&S risks and impacts. Risks related to the capacity of the Borrower will be mitigated through training modules as agreed in ESCP.

91. **The stakeholder risks are *Substantial*.** Effective citizen engagement will drastically minimize this risk. This is a fundamental element of the project, to ensure that the needs and priorities of beneficiaries are at the forefront of project implementation and will be monitored during implementation through social audits. The project will facilitate the strengthening/establishment of watershed management committees and other local stakeholder platforms, as well as local CCAP committees at the *colline* level, to ensure locally-led planning. This will ensure that communities and local stakeholders have a say in the management and use of their land and identify economic opportunities. Feedback will be requested on the most effective ways to communicate and implement activities to encourage full participation by the targeted beneficiaries. Free, prior, and informed consent (FPIC) will be fully integrated into the approach. The communication strategy will ensure that beneficiaries receive sufficient information about the project, as well as on how and where to obtain further information. Social audits will be conducted biennially, with the results reported and implementation adjusted accordingly. The results framework of the project in Annex 1 includes an indicator capturing beneficiary feedback.



ANNEX 1. Results Framework

PDO Indicators by PDO Outcomes

Baseline	Closing Period
Scaled-up integrated landscape management	
Land productivity in targeted degraded landscapes (Percentage)	
Jun/2024	Mar/2031
20	50
Hectares of terrestrial areas under enhanced conservation and management (Hectare(Ha))	
Jun/2024	Mar/2031
14 700	57770
Enhanced livelihood resilience of fragile communities	
People with enhanced resilience to climate-risks (number, disaggregated by gender, most vulnerable subgroups) (Projects with over 20% of climate co-benefits are expected to report on this) (Number of people)	
Jun/2024	Mar/2031
361 827	1 342 679

Intermediate Indicators by Components

Baseline	Closing Period
Enabling environment for climate resilience	
New or revised climate resilience related policies adopted (Number)	
Jun/2024	Mar/2031
0	3
Public institutions for climate resilience enhanced according to adopted capacity building plans (Number)	
Jun/2024	Mar/2031
3	13
Sustainable landscape management	
Integrated Watershed Management Plans prepared (Number)	
Oct/2024	Mar/2031
0	87



Sub-watersheds restored according to integrated watershed management plans (Number)	
Oct/2024	Mar/2031
36	123
Community livelihood resilience	
Colline Climate Change Action Plans prepared (Number)	
Jun/2024	Mar/2031
0	80
Beneficiaries of Colline climate-resilient livelihood support program (Number, cumulative) (Number)	
Jun/2024	Mar/2031
41 749	135 349
Land certificates issued (number, cumulative, disaggregated by gender) (Number)	
Jun/2024	Mar/2031
103 525	343 525
ØLand certificates delivered, of which bear the woman's name (Percentage)	
Jun/2024	Mar/2031
76	75
Displaced people and people in host communities provided with services and livelihoods (Number of people)	
Jun/2024	Mar/2031
0	48 309
Millions of new or better jobs (Number)	
Jun/2024	Mar/2031
21 562	63 562
Share of project of beneficiaries with rating 'Satisfied' or above on project interventions (Percentage)	
Jun/2024	Mar/2031
91	95
Project Implementation Support	
CERC	



Monitoring & Evaluation Plan: PDO Indicators by PDO Outcomes

Scaled-up integrated landscape management	
Land productivity in targeted degraded landscapes (index) (Percentage)	
Description	The indicator measures the increase in average yield expressed as a percentage of a basket of key crops in areas where the project has supported the adoption of improved landscape management and farming practices. It is based on a comparison with a counterfactual obtained in a benchmark study. Land productivity is calculated by subtracting the yield obtained in each period from the yield obtained in the counterfactual and then multiplying the result by 100. The targets are non-cumulative.
Frequency	Biennial
Data source	Field survey
Methodology for Data Collection	The estimation will use data from surveys at the farm-level and farmer field schools.
Responsibility for Data Collection	PIU M&E function
Number of hectares of terrestrial areas under enhanced conservation and management (hectares)	
Description	The indicator measures, in hectares, the area of land where new and/or improved sustainable landscape management practices have been introduced and adopted by farmers. These practices involve a combination of at least two technologies (refer to guidance note on corporate results indicators) and approaches to improve land quality and restore degraded land. The targets are cumulative.
Frequency	Annual
Data Source	Field survey and project and activity records
Methodology for Data Collection	Analysis and account of results based on the following: a) For progressive terracing and agroforestry activities, the cumulative indicator is measured and collected by a service provider NGO. Acceptance of the work will be carried out by a hillside technical committee comprising the CDCs, the Agricultural Monitor and the SBV committee, and validated by the Rural Engineering Manager at the project office. b) For development work on hillside reservoirs, river bank stabilization and gully correction. For agroforestry activities, data will be entered by a service provider and an acceptance committee will be set up by the PCU. For the management of PAs within the framework of the project, the OBPE will undertake assessment of effectiveness of PA management.
Responsibility for Data Collection	PIU M&E function
Enhanced livelihood resilience of fragile communities	
Number of people with enhanced resilience to climate risks (disaggregated by gender, most vulnerable subgroups) (Projects with over 20% of climate co-benefits are expected to report on this)	
Description	The indicator measures the number of persons reached by at least one resilience action developed by the project (e.g. development, agricultural or livestock kit, protected area management, land certification, micro-irrigation, IGAs, rural micro-small businesses, BFFS, various training). The targets are cumulative.
Frequency	Annual
Data source	Field survey and service providers' records
Methodology for Data Collection	Analysis and account of people reached.
Responsibility for Data Collection	PIU M&E function



Monitoring & Evaluation Plan: Intermediate Results Indicators by Components

Enabling environment for climate resilience	
New or revised climate resilience-related policies adopted (Number)	
Description	The indicator refers to the number of policy documents developed or revised and adopted by government departments for strategic guidance in planning and implementing activities, in particular: (i) the Strategy for National Scaling of Climate Resilience and Landscape Restoration and its action plan, (ii) the Strategic Orientation Document for an Early Warning System (SAP) and its investment plan, and (iii) a strategic ecotourism plan. The targets are cumulative.
Frequency	Annual
Data source	Draft policy documents and summaries or proceedings of validation meetings or workshops
Methodology for Data Collection	Review of documents summaries and proceedings
Responsibility for Data Collection	PIU M&E function
Public institutions for climate resilience enhanced according to adopted capacity building plans (number)	
Description	This indicator counts the number of institutions for which capacity-building activities have been undertaken and completed according to the capacity-building plan. The targets are cumulative.
Frequency	Annual
Data Source	Capacity-building plan and training providers' report.
Methodology for Data Collection	Account of institutions.
Responsibility for Data Collection	PIU M&E function.
Sustainable landscape management	
Integrated Watershed Management Plans prepared (number)	
Description	The indicator counts the number of integrated watershed management plans prepared in a participatory manner and operational in each sub-contracted basin. A participatory approach involving communities, and stakeholders will be used to draw up the plans. The resulting plans will be rendered operational and launched by the end of the process, under the responsibility of the sub-watershed management committees. The targets are cumulative.
Frequency	Annual
Data Source	Integrated watershed management plans, minutes of stakeholder meetings and management meetings, NGO reports
Methodology for Data Collection	Review of documents
Responsibility for Data Collection	PIU M&E function
Sub-watersheds restored according to integrated watershed management plans (number)	
Description	The indicator refers to the implementation and completion of a comprehensive package of restoration and sustainable land management work, including terracing, biophysical treatment of gullies, tree planting, agroforestry, green manure crops, fodder grass contour hedges, water harvesting and selective soil fertility improvement, at the scale of each <i>colline</i> . The targets are cumulative.
Frequency	Annual
Data Source	Project and activity records, direct observation
Methodology for Data Collection	Review of documents
Responsibility for Data Collection	PIU M&E function
Community livelihood resilience support	
Numbers of Colline Climate Change Action Plans prepared (Number)	
Description	The indicator counts the number of <i>colline</i> action plans drawn up with project facilitation. The targets are cumulative.
Frequency	Annual



Data Source	Guidelines of Colline Climate Action Plans
Methodology for Data Collection	Review of Colline action plans
Responsibility for Data Collection	PIU M&E function
Land certificates issued (number, cumulative, disaggregated by gender)	
Description	This indicator measures the number of land certificates issued through the land administration system with support from the project. The targets are cumulative.
Frequency	Annual
Data Source	Project and activity records, register of land certificates produced and issued to beneficiaries.
Methodology for Data Collection	Count of land certificates issued to be beneficiaries based on consultation of register of land certificates and review of supporting activities.
Responsibility for Data Collection	PIU M&E function
Land certificates delivered which bear the woman's name (percentage)	
Description	Expressed as a percentage, this indicator shows the proportion of land certificates issued on which a woman's name appears, either exclusively or in combination with a man's name. The targets are non-cumulative.
Frequency	Annual
Data Source	As above.
Methodology for Data Collection	As above.
Responsibility for Data Collection	PIU M&E function
Numbers of new or better jobs (number)	
Description	This indicator refers to the number of new or better jobs created. Jobs are counted as people with gainful employment of more than 30 days in a year. Employment can be self-employment or in exchange for payment in cash or in-kind.
Frequency	Annual
Data Source	Project and activity records.
Methodology for Data Collection	Review of records. Double-counting will be avoided by comparison of participants lists.
Responsibility for Data Collection	PIU M&E function
Share of project of beneficiaries with rating 'Satisfied' or above on project interventions (percentage)	
Description	This indicator refers to the rate of satisfaction of targeted communities with regard to the various interventions of the project.
Frequency	Annual
Data Source	Project and activity records.
Methodology for Data Collection	This rate is estimated through satisfaction perception surveys. At the hill level, the surveys are carried out by the facilitators at the level of the model farms by the NGO service provider in charge of agricultural supervision. At the level of the FFS, it is the FAO. At the level of the PAs, the surveys will be carried out by OBPE and ASE. The results of these surveys will be validated, processed and harmonized by the provincial ESAs to feed into the indicators.
Responsibility for Data Collection	PIU M&E function
Project Implementation Support	
CERC	



ANNEX 2: Implementation Arrangements and Support Plan

1. **The Ministry of the Environment, Agriculture, and Livestock (MINEAGRIE) will be the line ministry for the project and act as the Borrower’s representative.** MINEAGRIE will ensure that the executing institutions and implementing agencies carry out their respective responsibilities. The project implementation arrangements are designed to ensure that sufficient capacity is developed to supervise the proposed activities, and that additional efforts are dedicated to building public sector capacity to sustain results over the long term.

2. **MINEAGRIE will host the PIU and the Secretariat for the Steering Committee and will provide project oversight and lead day-to-day management of the project.** The PIU will consist of a national coordinator, a technical manager, a financial management specialist, a senior accountant, two accountants, a logistician, an archivist, an internal auditor, and two procurement experts, as well as environment and social specialists (E&S), a gender and GBV specialist, technical specialists (at least one per component), and specialists to cover other PIU functions, such as M&E, communications, financed by the project's operational costs. Other experts may be added to the team based on need. All financial management, procurement transactions, and other fiduciary functions—including environment and social functions—will also be centralized within the PIU. The PIU will provide the overall technical coordination between the implementing agencies and beneficiaries at the central and local levels.

Box A2. Key Government Institutions Relevant to Project Implementation

The Ministry of the Environment, Agriculture, and Livestock (MINEAGRIE), the project’s counterpart line ministry, has an overall policy and institutional mandate over climate, rural lands, and rural development, integrating the following water, agriculture, livestock, and environmental technical departments: (i) the National Hydrometeorological Service (Institut Géographique du Burundi, IGEBU), overseeing data collection, monitoring, and early warnings for observed climate and weather risks; (ii) the Extension Service (Bureaux Provinciaux de l’Environnement de l’Agriculture et de l’Elevage, BPEAE), providing extension services (research tools, techniques, seeds, and fertilizer) to rural farmers, with a dense network of extension agents based in every *colline*; (iii) the Office Burundais de la Protection de l’Environnement (OBPE), in charge of Environmental Monitoring, National Parks, Protected Areas and Climate funds management; and (iv) the Direction Générale de l’Aménagement, de l’Irrigation et de la Protection du Patrimoine Foncier (DGPAT), in charge of rural land administration and irrigation development).

The Prime Minister’s Office hosts the National Land Commission, *Secretariat Permanent de la Commission Foncière Nationale*; the Interior Ministry hosts the National Platform for Disaster Risk Reduction; the Justice Ministry oversees the *Direction Nationale des Titres Fonciers* (National Directorate of Land Titles), while the Ministry of Finance oversees the national Directorate of Planning. Several other line ministries cover climate-sensitive development sectors, include the Ministry of Energy, Ministry of Infrastructure and Equipment, Ministry of Transport, Ministry of Education, Ministry of Health, and Ministry of National Solidarity.

3. **The PCU will have three interprovincial branches:** (i) the provinces of Kirundo and Muyinga, with headquarters in Muyinga; (ii) the provinces of Kayanza, Bujumbura and Cibitoke, with headquarters in Bujumbura; and (iii) the provinces of Gitega, Bururi and Rumonge, with headquarters in Gitega. The PCU will coordinate and manage the day-to-day operations of the three interprovincial branches. Each branch will be led by a branch coordinator and staffed by up to four technical and community specialists, financed by the project's operational costs. The interprovincial branches’ main tasks will be to ensure (i) engagement of the beneficiaries and supervision of the implementation of the Stakeholders Engagement Plan (SEP); (ii) operational planning and preparation of the project activities and their bidding documentation; (iii) supervision of the project activities implemented by service providers and communities; and (iv) M&E and reporting functions as guided by the PIU.

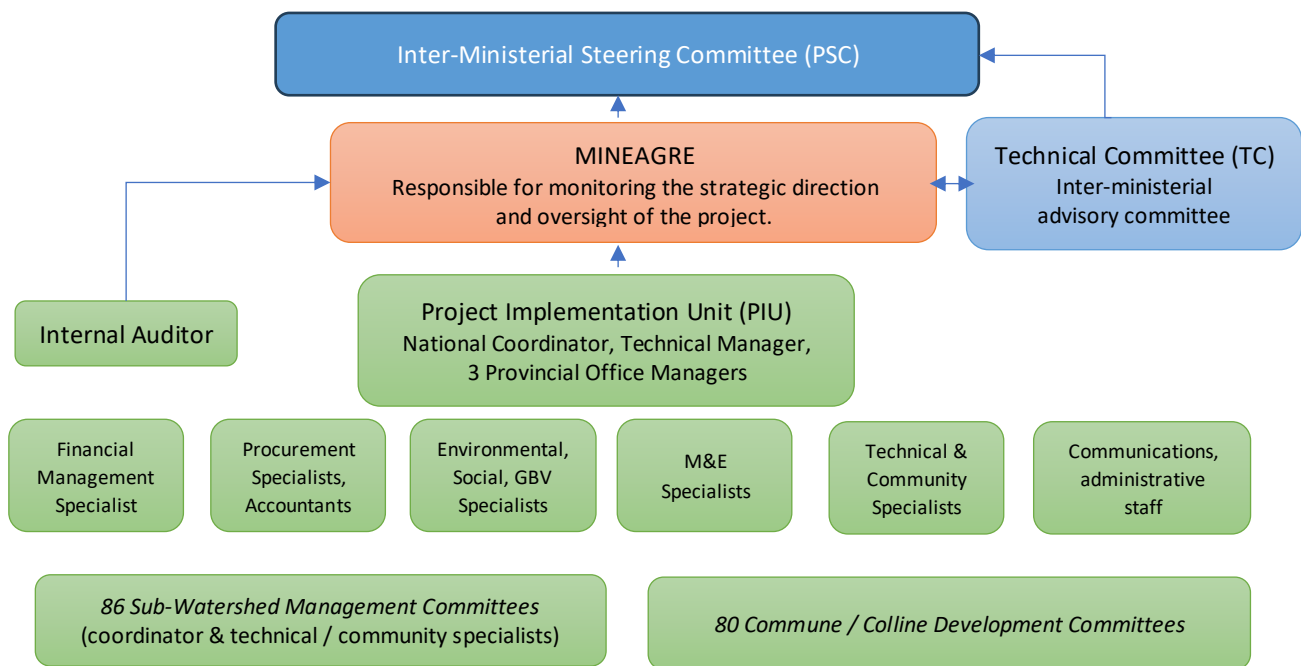
4. **The project will be governed by an inter-ministerial Project Steering Committee (PSC; see Figure A2.1.) co-chaired by MINEAGRIE and the Ministry of Finance, Budget and Economic Planning (MFBPE).** Twelve representatives from relevant authorities and key sectoral ministries and institutions, provincial governors, as well as selected farmers' organizations, environmental NGOs, local universities or research institutes, and the private sector (including women entrepreneur representatives) will form

the Steering Committee Members. The Steering Committee will be chaired by MINEAGRIE with the Ministry of Finance,



Budget and Economic Planning (MFBPE) as Vice-Chair. The role of the committee is to ensure the quality of the annual budget, work plan, and audit reports and provide orientation to ensure consistent and effective project activities and any relevant adjustments that may be required. In addition to the above, the PSC may co-opt any other representatives deemed necessary in the interest of the project. The PSC will meet at least twice a year or whenever needed. If required, the PSC will provide implementation advice, guidance, and direction for the following functions: (i) approving the project’s annual work plan and budget and audit reports; (ii) facilitating inter-agency coordination to ensure compliance and adherence to the project’s development objectives; (iii) resolving disputes or conflicts related to the project, if any; and (iv) approving any policy, regulatory and institutional recommendations from the project to ensure consistent and effective implementation of project activities and any relevant adjustments that may be required. The PSC will be set up no later than two months after the effective date.

Figure A2.1. Organigram of project implementation arrangements



5. **The Technical Committee ensures technical advice and coordination of planning and implementation actions, interacts directly with the PIU, and advises the project’s Steering Committee. This committee will be set up no later than two months after the effective date.** The Technical Committee is responsible for analyzing the annual action plans to be submitted for approval by the Steering Committee, and for providing feedback on the reports submitted by the PIU to the Steering Committee. The Technical Committee will facilitate the coordination and communication among the PIU and project’s institutional beneficiaries. It will be co-chaired by the Permanent Secretaries of the Ministry of Finance and MINIAGRE and will include representatives from the ministries represented in the Steering Committee. The Technical Committee may request technical expertise for the monitoring and review of project documents submitted to the Steering Committee.

6. **Sub-Watershed Management Committees (SWMCs)** will be set up at commune level to guide development and implementation of the integrated landscape management plans in sub-watersheds. Building on provisions of the water law (to be implemented under Component 1), at the level of the communes, sub-watershed management “committees”



will be created by decree by the communes. The SWMCs' core functions will be: (i) promoting effective interaction and coordination between the various entities supporting the planning and implementation of land restoration activities in sub-watersheds; (ii) informing and coordinating the planning and implementation of project activities in sub-watersheds; and (iii) resolving conflicts and grievances related to the project activities. The SWMCs will be chaired by the communal administrators, and will consist of up to 10 members each, including the respective project provincial branch coordinators, local implementing partners, local universities or research institutes, and the private sector, including women entrepreneur representatives. The SWMCs will be set up no later than three months after the effective date. As some sub-watersheds will be crossing multiple communes, watershed-level management committees will also be envisaged as a follow-up institutional measure during the second half of the project, based on the successes and lessons learnt from implementing the sub-watershed level management committees.

7. **The Commune/Colline Development Committees (CDCs)** are tasked with preparing the development plan for the commune/cluster of *collines* (known as *plans de developpement communautaires* or PDCs). The CDCs of the participating *collines* will ensure integration of the project-developed Colline Climate Action Priorities (CCAPs) into the PDCs, thereby mainstreaming climate resilience priorities into regular development planning at local level.

8. **Implementation partners.** The technical implementation of project activities will be done by MINEAGRIE, with technical support from private firms, organizations and/or experienced NGOs hired through a competitive process. Their contracts will include capacity building of partners at the national and local levels, and requirements for local implementation partnerships. To maximize benefits for local stakeholders and promote sustainability, the contracts will stipulate explicit criteria for local capacity building, putting the responsibility on bidders for these contracts to either develop capacity on the ground to meet these needs or to sub-contract with local partners that can provide the services and capacity needed.

9. **Project Implementation Manual (PIM).** The project will be implemented in accordance with the PIM, which provides a framework for the implementation of project activities, including basic project management, institutional responsibilities, financial procedures and management of fiduciary responsibilities, staff selection and management, results M&E, risk assessment and mitigations, ESF, and any other specific reporting requirements imposed by the World Bank.

10. **The targeted project *collines* and related sub-watersheds are selected from the list of 347 *collines* identified by the PROGREEN study⁴⁹ as at very high risk from compounded climate, land degradation and conflict risks.** Using seven selection criteria (among others: proximity to already covered BLRRP *collines*, social inclusion, accessibility, hosting of critical infrastructure such as national dams and inclusion of protected areas) and to ensure that the selected *collines* also cover entire sub-watersheds, seven target project sites were selected covering a total of 80 *collines* across 87 sub-watersheds (Figure A2.2).

⁴⁹ The World Bank. 2022. "Tackling Climate Change, Land Degradation and Fragility – Diagnosing Drivers of Climate and Environmental Fragility in Burundi's Colline Watersheds: Towards a Multi-Sector Investment Plan to Scale up Climate Resilience".



Financial Management

11. The key FM arrangements include (see Table A2.1):

- (i) *Budgeting* – the PIU will prepare annual workplans based on the project activities and submit it for the No Objection from the World Bank. A budget execution report will be included in the quarterly interim financial reports. The Project Implementation Manual (PIM) will detail the workplan and budget preparation, approval, and execution processes and procedures.
- (ii) *Accounting*: The project code and chart of accounts will be detailed in the PIM. International Accounting Standards (IAS), which are also applicable in the country, shall be applied for the project financial transactions and financial statements preparation. The accounting software shall be upgraded and programmed to facilitate the recording of financial transactions related to the new project activities. The project will have the accounting and internal control procedures and processes clearly documented in the FM section of PIM.
- (iii) *Internal audit/internal controls*: The specifics of the activities to be implemented by the project shall be considered and included in the PIM. The internal audit unit in the PIU will review compliance with FM procedures for the project activities and conduct regular internal audit missions on a risk-based approach.
- (iv) *Staffing*: MINEAGRIE PIU currently has seven FM consultants (one FM specialist, two senior accountants, one logistician, one internal auditor and two secretary-accountants in the provinces). The FM team assigned to IDA-funded projects needs to be strengthened by hiring two additional senior accountants. This will also speed up the execution of financial management processes and reduce the exceptions in FM.
- (v) *Anti-corruption* – The PIU will adhere to the World Bank Anti-Corruption Guidelines. The possibility of circumventing the internal control system with practices such as bribes, abuse of administrative positions, etc. are ringfenced with internal control procedures outlined in the FM section of the PIM.
- (vi) *Financial reporting* – the PIU will prepare separate quarterly Interim Financial Reports (IFR) for submission to the World Bank within 45 days of the end of the reporting quarter using IFR formats to be agreed during the negotiation. The PIU will prepare consolidated annual financial statements within three months of the end of the fiscal year. At the end of each fiscal year, the project will prepare financial statements comprising (a) a balance sheet; (b) a statement of sources and uses of funds, (c) a statement of budget execution; (d) accounting policies and procedures; and (e) notes related to significant accounting policies and standards adopted by management and underlying the preparation of financial statements submitted.
- (vii) *External audit* – The project will have its financial statements audited by external auditors acceptable to the Bank, based on the agreed ToRs. The consolidated financial statements audit report and the management letter will be submitted to the Bank within six months of the end of each fiscal year. The project will comply with the World Bank disclosure policy of audit reports (for example, making them publicly available promptly after receipt of all final financial audit reports, including qualified audit reports) and disclose the report on the official website within one month of the final version being accepted.
- (viii) *Funds flow* – Proceeds of the grant will be used by the project in accordance with the Grant Agreement between the World Bank and the Government of Burundi (GoB) and the Disbursement and Financial Information Letter (DFIL). One Designated Account (DA) denominated in USD will be opened at the Banque Republique de Burundi (BRB), the Central Bank of Burundi, consolidating IDA and TF financing. In addition to the DA, the PIU will open an operating account denominated in Burundi francs (BIF) at the BRB or at any commercial bank. The PIU may open an account denominated in Burundi francs (BIF) to capture revenue resulting from the sale of bidding documents. Replenishments to the DA will be made against withdrawal applications supported by a Statement of Expenditures. The DA ceiling is established based on the cash requirements of the project. Other methods of fund disbursement (reimbursement, direct payment, and special commitment) will also be available to the project as indicated in the DFIL.



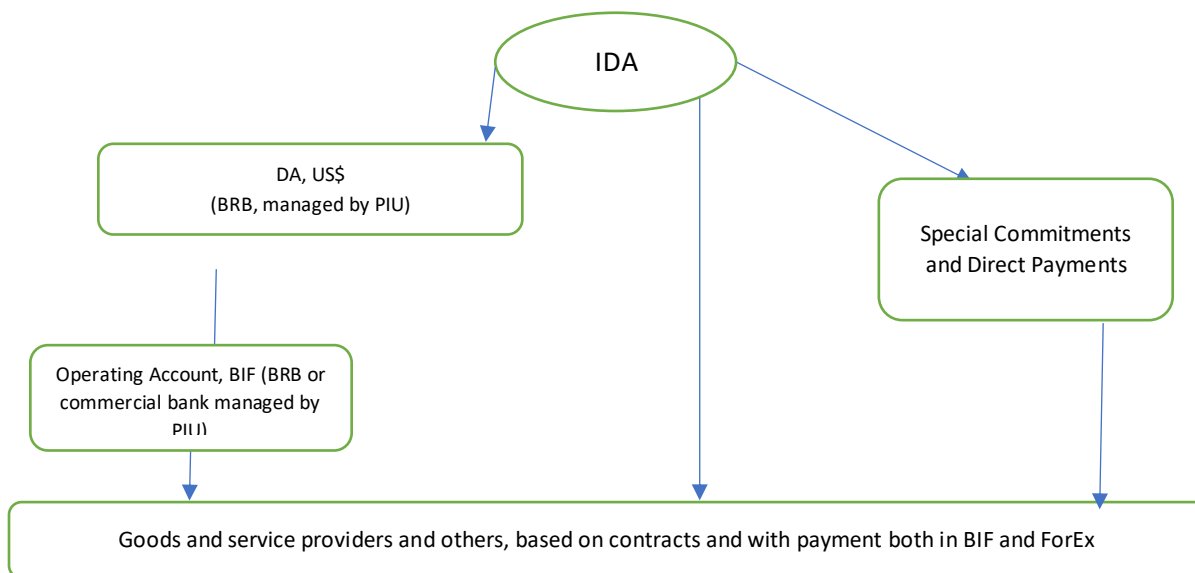
12. **Eligible expenditures:** The project’s eligible expenditures include goods, works, non-consulting services, consulting services, training, grants under the project activities, and operating costs. The project will also have emergency for the respect of said expenditures. These are: (a) the recipient has determined that an eligible crisis or emergency has occurred and has furnished the Bank with a request to withdraw financing amounts under the cost category; and (b) the Bank has agreed with such determination, accepted said request and notified the recipient; and (c) the recipient has adopted the CERC Manual and Emergency Action Plan in form and substance acceptable to the World Bank. The Manual will contain E&S provisions, including an exclusion list, E&S screening, and basic mitigation measures. These provisions are reflected in the Financing Agreement and agreed with the client.

Table A2.1: Key FM Action Plans

Action	Responsible body	Due date
Budgeting		
AWPB will be prepared and submitted to the Bank for ‘No Objection’ aligned with GoB budget calendar.	PIU	During project implementation
Monitor budget utilization and include variance analysis in IFRs	PIU	During project implementation
Accounting and Staffing		
Outline FM procedures to cover activities under new project in the PIM	PIU	Within three (3) months of effectiveness
Reinforce the financial team with two senior accountants if needed	PIU	During implementation
Financial Reporting		
Submit IFRs in a timely manner as per the timeline set in the DFIL using agreed IFR formats	PIU	During implementation
Prepare a checklist to closely monitor quality of IFRs	PIU	During implementation
Internal Control and Internal Audit		
The PIM will outline procedures for internal control that will be applied and monitored by the project	PIU	Within three (3) months of effectiveness
Ensure internal auditor unit reviews of the project activities including segregation of duties as per PIM	PIU	During implementation
Fund flows		
Open project-specific bank accounts in a timely manner including opening of designated account (USD)	PIU	Within one month of effectiveness
External Audit		
Ensure the project accounts are audited by auditors acceptable to the Bank following agreed ToRs, and the report submitted within 6 months of the end of each fiscal year	PIU	During implementation



Figure A2.3: Funds Flow diagram



Procurement

13. **Procurement rules and procedures.** The requirements for national open competitive procurement are Table A2.2 below). Key mitigation measures for the project to address procurement risks identified are also outlined in table A2.3.

Table A2.2. Requirements for national open competitive procurement

Requirements for national open competitive procurement	Actions
Open advertising of the procurement opportunity at the national level.	No action needed.
The procurement is open to eligible firms from any country.	No action needed.
The request for bids/ proposals will require that during bidding bidders/proposers present a signed acceptance to be incorporated in any resulting contracts, confirming application of, and compliance with, the Bank’s Anti-Corruption Guidelines, including without limitation the Bank’s right to sanction and the Bank’s inspection and audit rights.	The requirement should be included in the Bidding Document/Request for Proposals.
Contracts with an allocation of responsibilities, risks, and liabilities.	The requirement should be included in the Bidding Document/Request for Proposals.
Publication of contract award information.	No action needed.
Rights for the Bank to review procurement documentation and activities.	The requirement should be included in the procurement plan.
An effective complaints mechanism.	The PIM outlines an effective complaints mechanism in line with World Bank Regulations.
Maintenance of records of the procurement process.	The PIM spells out the practical modalities and appropriate documentation to archive.



Table A2.3. Procurement Action Plan Corrective Measures

Issue/Risk	Recommended and Mitigation measures	Owner and Time Frame
1. Challenges in conducting negotiations with international firms/suppliers/service providers	Hiring an international consulting firm to support the Implementing Agency in conducting negotiations. Training the Implementing Agency and more specifically the Procurement Team and the Tender Committee in conducting negotiations	Implementing Agency Within six (6) months after project effectiveness
2. Limited capacity on contracts management and rated criteria for ICB	Training on contracts management and rated criteria	Implementing Agency Within six (6) months after the effectiveness
3. Delays in delivery/performance deadlines impacting the business schedule for project activities	Regular monitoring of contract performance / increase follow-up meetings Ensure quality selection of service providers	Implementing Agency Continuously
4. Gender-based violence (GBV)	Use The Bank SPD with clauses on gender-based violence	Implementing Agency Continuously

14. **Oversight and monitoring arrangements for procurement:** The existing Project Implementation Manual for the Burundi Landscape Restoration and Resilience Project (P160613) has been updated and will be submitted to the World Bank for review and approval at the effectiveness date at the latest. It will define the project’s internal organization arrangements and its implementation procedures, and will include, among other things, all the relevant procurement procedures for calling for bids, selecting consultants, and awarding contracts. The project monitoring arrangements for procurement will be analyzed and developed.

15. **Procurable items under this project include goods, works, non-consultant services, and consultant services contracts.** Components 1, 2, and 3 include activities related to: (i) goods for beneficiaries and the PIU; (ii) consultant services to prepare documents, conduct studies, or draft legal documents; (iii) consultant services to organize business plan competitions, support payment of subventions to beneficiaries, and monitor and train beneficiaries; (iv) grants (matching, in-kind, and cash) expenditures using the World Bank procurement procedures guided by provisions in the PIM; and (v) technical assistance to the banking sector.

16. **To increase negotiation power with international suppliers, a competitively recruited international consulting firm will assist project beneficiaries with purchases of equipment, technology, and services.** Information asymmetries and lack of experience and scale limit the negotiation power of Burundian MSMEs with powerful international suppliers. An international trading company will help to select the best options in complex international markets; aggregate purchases; optimize the acquisition of equipment, technology, and high-tech inputs for beneficiary MSMEs; and ultimately negotiate lower unit cost for better quality, including aftercare services.

Environmental and Social (E&S) Risk Management



17. **Implementation of E&S measures.** Project activities consist of: (i) provision of subsidies for equipment purchases, small-scale infrastructure, technical assistance, and operating costs; (ii) training, coaching, or capacity development activities; (iii) provision of grants; (iv) technical support and assistance; and (v) marketing campaigns and international promotion campaigns. Based on the results of the E&S assessment, risks related to the capacity of the Borrower will be mitigated by developing training modules as agreed in the ESCP. The PIU shall establish and maintain the following full-time positions which have already been hired by the PIU: (i) one Environmental Specialist, (ii) one Social Specialist, and (iii) one GBV/SEA/SH Specialist. The following measures shall be implemented: (a) adopt, disclose and implement a set of E&S instruments materially consistent with ESF (amongst them, the SEP and its GRM-SEA/SH, ESMF, SEA/SH Action Plan, IPPF, RPF, LMP); (b) to recruit a third-party E&S experts to assist the E&S impact screening with recommendations on mitigation measures; and (c) ensure TA activities are carried out in accordance with ToR that are consistent with the ESF. Once the investments are defined, site-specific instruments (RAPs, IPPs, ESIA/ESMPs, Checklist ESMPs, BMPs) will be developed during implementation and prior to the carrying out of subproject, where necessary. A CERC Addendum to the project's ESMF shall be prepared should the project trigger CERC.

18. **Most activities will be conducted by firms and suppliers that hold service contracts with the Borrower; therefore, all applicable Environmental and Social Standard 2 (ESS2) requirements must be followed by these firms.** This includes not only the firm with the service contracts but also the firms that they subcontract, which is where the most significant risks of non-compliance are generally observed. Since the project may install solar panels, the risk of forced labor and child labor under ESS2 should be considered, in particular during the production of a solar supply chain as well as for the small infrastructure works and climate-resilient agricultural activities. Where there is a significant risk of forced labor related to primary supply workers, the Borrower will require the primary supplier and/or contractor to identify those risks and if forced labor cases are identified, the Borrower will require the primary supplier/contractor to take appropriate steps to remedy them. Ultimately, where remedy is not possible, the Borrower will, within a reasonable period, shift the project's primary suppliers to suppliers that can demonstrate that they are meeting the relevant requirements of ESS2. Prior to beginning the procurement process, the Borrower will undertake market analysis to identify the possible sellers of solar panels to the project. The bidding documents will emphasize forced labor risks in solar panels and components and will require that sellers of solar panels to the project will not engage or employ any forced labor among their work force. Bidders will be required to provide two declarations: a Forced Labor Performance Declaration (which covers past performance), and a Forced Labor Declaration (which covers future commitments to prevent, monitor and report on any forced labor, cascading the requirements to their own sub-contractors and suppliers). In addition, enhanced language on forced labor will be included in the procurement contracts.

19. **TORs for any TA activities under the project produced by the client, will refer to relevant ESSs and incorporate relevant assessments to ensure that activities and outputs are consistent with ESF requirements.** Moreover, to address potential environmental and social risks, the project will not finance the following excluded activities: (i) any of the activities listed, or activities that produce and/or use materials listed, in the World Bank Group/International Finance Corporation Exclusion List⁵⁰ and such other activities and/or materials to be listed in the Project Operation Manual (POM) and which are classified and referred to as part of the negative list in the POM; (ii) an investment that is classified as high risk for potential environmental and social impacts, in accordance with the provisions of the POM and the ESMF (iii) an investment that involves large-scale physical and economic displacement as described in Land Acquisition, Restrictions on Land Use, or Involuntary Resettlement (as defined under ESS 5); that adversely impacts sensitive habitats and species as described in Biodiversity Conservation and Sustainable Management of Living Natural Resources (as defined under ESS 6); that adversely impacts Cultural Heritage (as defined under ESS 8); or that involves child or forced labor (ESS2); (iv) an investment that involves the potential use of, or discharge into, any waterways as defined and applicable under World

⁵⁰ See the list here: https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/company-resources/ifcexclusionlist



Bank Operational Policy 7.50 (or detailed design and engineering studies of such investment); and (e) an investment that involves any other exclusions agreed by the Bank and the Borrower as set forth in the POM.

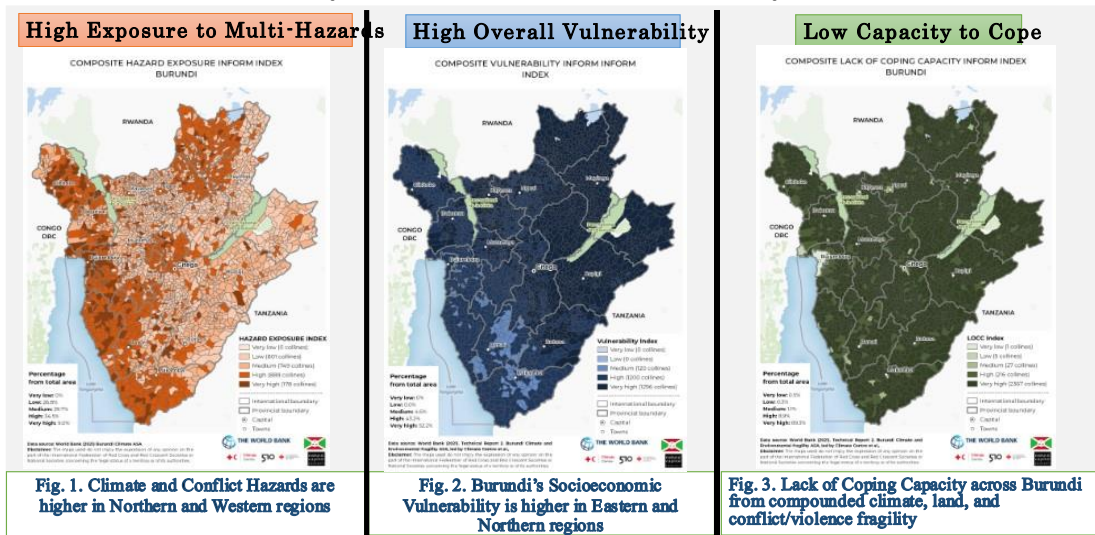


ANNEX 3: Project Contribution to Climate Change Adaptation and Mitigation

Risk, Exposure, and Vulnerability

1. **Burundi is highly vulnerable to the impacts of natural hazards and climate change.** It ranks as the 19th most vulnerable country and the 13th least ready to adapt on the latest Notre Dame Global Adaptation Initiative (ND-GAIN) Country Index.⁵¹ **Ninety-eight percent of Burundians are socioeconomically vulnerable to climate change impacts,** but this socioeconomic vulnerability is spatially distributed, with northeastern and eastern regions of the country registering the highest vulnerability (Figure A3.1). Past extreme weather events, including the severe floods in 2006 and 2007 and severe droughts in 1999, 2000 and in 2005, accounted for losses exceeding 5 percent of GDP.⁵² Climate-related hazards pose an existential threat to almost all the country’s sectors, including agriculture, livestock, fisheries, the environment, ecosystems, health, forestry, energy, infrastructure, human settlement, and water resource management. Climate change impacts, predominantly floods and landslides, are the main drivers of internal displacement, disproportionately affecting women and children. Since 2018, climate change impacts and disasters, in particular heavy precipitation and floods, have affected 646,018 persons including 145,183 individuals that have been displaced.⁵³ In 2020, climate related disasters accounted for 100 percent of forced displacements.

Fig. A3.1. All of Burundi is found to be highly exposed, acutely vulnerable and lacking coping capacity to face compounded conflict and climate risk impacts



Source: World Bank, 2022⁵⁴

2. **In nearly every decade since independence, Burundi has suffered extreme climate-related events.** Mean temperatures have been rising, and the dry season has been getting longer. Burundi has experienced a general

⁵¹ The ND-GAIN index summarizes a country’s vulnerability to climate change and other global challenges in combination with readiness to improve resilience. <https://gain.nd.edu/our-work/country-index/rankings/>

⁵² World Bank (2018): Systematic Country Diagnostic (SCD).

⁵³ IOM, UN Migration. Climate Change and Disaster Overview (2018-2023).

⁵⁴ The World Bank. 2022. “Tackling Climate Change, Land Degradation and Fragility – Diagnosing Drivers of Climate and Environmental Fragility in Burundi’s Colline Watersheds: Towards a Multi-Sector Investment Plan to Scale up Climate Resilience”.



warming trend of 0.31°C per decade since 1979⁵⁵, with implications for agriculture, water availability, and health, given the shift towards hotter days and nights. Although rainfall exhibits significant natural variability without clear long-term trends, an expected increase in the intensity of rainfall events suggests a move towards more extreme weather conditions, raising the risk of floods and landslides.

3. **Climate change is expected to increase these vulnerabilities.** Climate change is expected to increase the frequency and intensity of climate related hazards, in particular landslides, floods and heavy precipitation, with increased flood and landslide occurrences expected during the rainy season (November to February). While there is uncertainty in projections of local long-term future precipitation trends, there is agreement on continued increases in the intensity of extreme precipitation. Future climate projections⁵⁶ suggest that the mean annual precipitation in Burundi (Bujumbura) is expected to increase by 31.02 mm in 2040-2059 to 99.72mm by end of century (2080-2099)⁵⁷. Further, the average largest 1-day precipitation and largest 5-day precipitation are also projected to increase by 6.82 percent to 18.89 percent and 13.01 percent to 24.07 percent by mid-century (2040-2059) and end of century (2080-2099) under the same future climate scenario. These climate risks—including increased temperatures,⁵⁸ floods, heavy precipitation, landslides, and increased rainfall variability—will hasten land degradation⁵⁹ and loss of critical ecosystems and associated ecosystem services, and increased food insecurity.
4. **Under future climate scenarios (SSP3-7.0), the average mean annual temperature is projected to increase by 1.46°C by 2040-2059.** Future climate projections suggest a longer dry season coupled with increased evaporation. The coldest night and hottest day temperature are projected to increase, with the minimum of minimum temperature projected to increase by 1.57°C by 2040-2059 and the maximum of maximum temperature projected to increase by 1.54°C over the same period. Further, the frequency of 'hot' days (hot days are considered as temperatures above 30°C) are projected to increase annually (by as much as 47 days per annum) and across every season, with disproportionate impact on vulnerable populations such as the elderly, young children, those with preexisting health conditions, and low-income families. The anticipated increase in temperatures and frequency of hot days will likely exacerbate heat-related illnesses, worsen air quality, and strain local food resources.

Intent to Address Climate Change

5. **The project responds directly to the concerns in the WBG Climate Change Action Plan 2021-2025 and the World Bank Burundi Country Partnership Framework (FY19-FY24) regarding vulnerability to the effects of climate change.** The project aims to build resilience to climate change through investments in both structural and non-structural measures, to mitigate the impacts of climate change, floods, landslides and other erosion processes in rural Burundi, and climate change is the main driver of this operation and its investments. Physical interventions under Component 2 include watershed management works, such as progressive terracing, check-dams and river stabilization works.
6. **Climate change adaptation and mitigation are cross-cutting issues embedded in all project components and are the driving force behind proposed investments (Table A3.1).** Burundi is increasingly at risk of climate change, particularly due to expected changes in rainfall and storm intensities, and inadequate urban drainage infrastructure that results in flooding (pluvial, fluvial and lake) and landslides. The project will support investments for a total amount of US\$70

⁵⁵ The World Bank. 2022. "Tackling Climate Change, Land Degradation and Fragility – Diagnosing Drivers of Climate and Environmental Fragility in Burundi's Colline Watersheds: Towards a Multi-Sector Investment Plan to Scale up Climate Resilience"

⁵⁶ Data sourced from the World Bank Group, Climate Change Knowledge Portal. Available at <https://climateknowledgeportal.worldbank.org/>

⁵⁷ Under the Shared Socio-Economic Pathways (SSP) 3-7.0 future climate scenario (middle-of-the-road).

⁵⁸ Rising temperatures exacerbate land degradation in Burundi, affecting soil quality and agricultural productivity.

⁵⁹ Land degradation, as defined in the PROGREEN-funded study (World Bank 2022), refers to the deterioration of the land's quality and productivity due to various factors such as erosion, loss of vegetation cover, soil compaction, and other forms of land misuse



million that directly address Burundi’s climate vulnerabilities, particularly to climate change-exacerbated flooding, and that support the country’s low-GHG emissions development pathways.

Table A3.1. Project Contributions to Climate Adaptation and Mitigation

Component / Sub-component	Climate-Relevant Activities
Component 1: Enabling environment for climate resilience (IDA US\$5.6 million, GEF US\$2.3 million)	
<p>Sub-component 1.1 Strengthening policy and regulatory framework (US\$0.5 million)</p>	<p>Adaptation activities:</p> <ul style="list-style-type: none"> • Support to develop policies and capacity at both national and local levels for the planning and implementation of integrated landscape management⁶⁰ and climate resilient practices via: <ul style="list-style-type: none"> ○ Development of national program and action plan to scale up watershed management and climate resilience to all <i>collines</i> ○ Establishment of coordination mechanisms for integrated landscape management ○ Development and implementation of strategic plan for ecotourism ○ Reviewing and updating policies and regulations to identify and address gaps in climate action and integrated landscape management of land/water resources ○ Development and dissemination of guidelines for implementing policies on integrated landscape management ○ Establishment of a national platform to bring together public sector, civil society and private sector for climate action <p>Mitigation activities:</p> <ul style="list-style-type: none"> • Support to develop policies and capacity for integrated landscape management and climate resilient practices encompasses climate mitigation elements as well as adaptation, as successful landscape management will result in increased carbon stocks and reduced GHG emissions, as demonstrated by the operation’s GHG accounting results
<p>Sub-component 1.2 Institutional capacity strengthening at national, watershed and community levels (US\$7.3 million)</p>	<p>Adaptation activities:</p> <ul style="list-style-type: none"> • Support to national agencies, provincial/ communal administrations, and beneficiary communities to improve planning, implementation, and management of climate-related risks to land and land degradation • Baseline capacity assessment to evaluate current capacities and gaps to address land degradation (which is largely climate-driven) and climate risks at national and local levels • Institutional capacity strengthening of climate-relevant line ministries at the national and local levels to address the gaps identified in the baseline assessment • <i>Establishment of a new national/regional excellence center on climate change and environmental risk management, new professional certifications and degree programs on climate, updated training capacities for improved climate science research, collaborations and fora to help develop innovations in climate-related training and climate-resilient agriculture.</i> Establishment of a platform bringing together the public sector, civil society and the private sector for climate action • Enhanced national capacities for early warning service delivery • Development of public and community infrastructure for disaster risk management and response and to strengthen early warning systems

⁶⁰ For this operation, integrated landscape management may be defined as large-scale ecosystem management to achieve long-term sustainability and resiliency that involves collaboration among multiple stakeholders and across multiple sectors to manage competing demands for land use. This approach considers the specific geographic and socioeconomic context to manage the natural capital for meeting goals of food security and inclusive green growth. (definition adapted from <https://documents1.worldbank.org/curated/en/468091468153281587/pdf/793400BRI0RioL00Box037737400Public0.pdf>). The integrated landscape management approach employed will focus on conservation/restoration of key ecosystem services, including erosion control, flood management, provision of healthy food, carbon storage, air purification, and biodiversity conservation, among others.



Component / Sub-component	Climate-Relevant Activities
Component 2: Sustainable watershed management (IDA US\$29.3 million, GEF US\$14.7 million)	
Sub-component 2.1 Watershed management planning (US\$3.8 million)	<p>Adaptation activities:</p> <ul style="list-style-type: none"> Support to address gaps in coordinated land and water management planning and interventions by preparing feasibility studies and other plans and guidelines to support the development of sub-watershed management⁶¹ plans Development of sub-watershed management plans and coordination of committees to support plan development The development of these plans will enable each sub-watershed unit to more holistically address climate change risks to water and land use <p>Mitigation activities:</p> <ul style="list-style-type: none"> Development of sub-watershed management plans will also include measures to ensure that GHG emissions are reduced and carbon stocks increased via these plans from enhanced land use planning and improved ecosystem services
Sub-component 2.2. Sustainable watershed management (US\$36.7 million)	<p>Adaptation activities:</p> <ul style="list-style-type: none"> Implementation of sub-watershed management plans which will include sustainable land management practices that stabilize and restore vegetation on slopes to mitigate the risk of landslides and soil erosion, reduce flood risks and increase food production. Specific measures will include progressive terracing, riverbank stabilization, and protected areas management. <p>Mitigation activities:</p> <ul style="list-style-type: none"> Implementation of sub-watershed management plans will include mitigation measures such as afforestation, and implementation of the plans is expected to lead to a substantial reduction in GHG emissions as demonstrated by the operation's GHG accounting
Sub-component 2.3. Improved Management of Protected Areas (PAs) and Reserves (IDA US\$3.4 million)	<p>Adaptation activities:</p> <ul style="list-style-type: none"> Sustainable, climate-resilient management of PAs and Reserves to ensure longevity in the face of climate impacts – specific measures include rehabilitation of park access ways by local communities, protection of endemic species and habituation of local game such as buffaloes and chimpanzees which will help to conserve biodiversity and ecosystem services which also help to mitigate the impacts of climate change Support to livelihood diversification of climate-vulnerable populations through promotion of community-based ecotourism and development of IGAs <p>Mitigation activities:</p> <ul style="list-style-type: none"> Climate-resilient management of PAs and Reserves will conserve ecosystem services, which include soil carbon storage and carbon cycling, thereby contributing to reduced GHG emission as demonstrated by the operation's GHG accounting
Component 3. Community livelihood resilience support (IDA US\$26.2 million)	
Sub-component 3.1. Climate-resilience Planning (US\$0.6 million)	<p>Adaptation activities:</p> <ul style="list-style-type: none"> Elaboration of Colline-level Climate Action Priorities (CCAPs) which will define priority climate-resilient investment packages Integration of CCAPs into communal development plans to enable locally-led climate adaptation planning

⁶¹ Watershed management approaches consider the interactions of both land and water use at the watershed level to ensure sustainable water and land use that conserves the hydrologic services of the watershed (e.g., protecting the water quality and availability), while also preventing and managing the impacts of soil erosion, flooding, and other hazards, and enabling productive resource use by all relevant stakeholders. These approaches utilize both land use practices and water resources management. The approaches taken in this project consider climate change risks as a critical factor in overall watershed management planning and as one of the key drivers for this work.



Component / Sub-component	Climate-Relevant Activities
<p>Sub-component 3.2. Climate-resilient agriculture and livelihoods (US\$17.7 million)</p>	<p>Adaptation activities:</p> <ul style="list-style-type: none"> • Investment in climate-resilient agriculture practices will include design and construction of micro-irrigation systems and establishment/training of water user associations in the sustainable management of these systems, thereby reducing water usage • Dissemination of climate-resilient seeds to farmers will help reduce the impact of floods/droughts/extreme temperature on agricultural productivity • Livelihood diversification to provide alternatives to agriculture, which is a highly climate-sensitive sector, including cash-for-work opportunities, value chains support, and training in alternative sectors • Access to sustainable energy sources through improved cookstove vouchers for women beneficiaries and inclusive finance access • Implementation of CCAPs <p>Mitigation activities:</p> <ul style="list-style-type: none"> • Micro-irrigation systems will include gravity and solar-based pumping systems • Supply of cookstoves will reduce GHG emissions (cookstoves will not utilize fossil fuels or non-renewable biofuels)
<p>Sub-component 3.3. Land Certification (US\$7.9 million)</p>	<p>Adaptation activities:</p> <ul style="list-style-type: none"> • Land certification is a critical enabling condition for investments in climate-resilient livelihoods. Without proper land security, investments in climate-resilient agriculture and other climate-resilient livelihoods cannot be sustained. As such, land certification is a key enabler of climate-resilient action.

GHG Accounting

92. GHG accounting was completed using the EX-ACT tool. The results display the project will mitigate approximately 529,156 tons of carbon dioxide equivalent (tCO_{2e}) per year, for a total of 939,342 tCO_{2e} over the 15-year period.