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INTERNATIONAL DEVELOPMENT ASSOCIATION
PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT TO
THE REPUBLIC OF GHANA IN THE AMOUNT OF US$150 MILLION
AND
PROPOSED GRANTS TO
THE REPUBLIC OF THE GAMBIA
IN THE AMOUNT OF SDR 35.1 MILLION (US$45 MILLION EQUIVALENT)
AND
THE REPUBLIC OF GUINEA-BISSAU
IN THE AMOUNT OF SDR 24.3 MILLION (US$ 30 MILLION EQUIVALENT)
AND
THE WEST AFRICAN ECONOMIC AND MONETARY UNION IN THE AMOUNT OF SDR 12.5 MILLION
(US$16 MILLION EQUIVALENT)
AND
A PROBLUE GRANT TO
THE REPUBLIC OF GHANA IN THE AMOUNT OF US$5 MILLION

FOR A

WEST AFRICA COASTAL AREAS RESILIENCE INVESTMENT PROJECT 2

November 22, 2022

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

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CURRENCY EQUIVALENTS

Exchange Rate Effective October 31, 2022

0.799 DTS = 1USD

FISCAL YEAR

January 1–December 31

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ABBREVIATIONS AND ACRONYMS

AAAC	Competent Authority for Environmental Evaluation (*Autoridade de Avaliação Ambiental Competente*)
ABC	Secretariat of the Convention on Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and Southern Africa Region (Abidjan Convention)
ACECoR	Africa Centre of Excellence in Coastal Resilience
AFS	Annual Financial Statements
AM	Accountability Mechanism
ASA	Advisory services and analytics
AWPB	Annual work plan and budget
CEREMA	Center for Studies on Risks, the Environment, Mobility and Urban
CPCU	Central Projects Coordination Unit
CPF	Country Partnership Framework
CSE	Center for Ecological Monitoring (*Centre de Suivi Ecologique)*
CSO	Civil Society Organization
DAREN	Department of Agriculture, Water Resources, and Environment at WAEMU
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
EU	European Union
FBG	BioGuinea Foundation
GBV	Gender-based Violence
GEF	Global Environment Facility
GRS	Grievance Redress Service
IBAP	Institute for Biodiversity and Protected Areas (Republic of Guinea-Bissau)
IBRD	International Bank for Reconstruction and Development
ICZM	Integrated Coastal Zone Management
IDA	International Development Association
IFR	Interim Financial Report
IPF	Investment Project Financing
IUCN	International Union for Conservation of Nature
M&E	Monitoring and Evaluation
MECCNAR	Ministry of Environment, Climate Change and Natural Resources (Republic of Ghana)
MESTI	Ministry of Environment, Science, Technology, and Innovation (Republic of The Gambia)
MPA	Marine Protected Area
MSIP	Multisector Investment Plan
MSP	Marine Spatial Planning/Plan
NDF	Nordic Development Fund
NPV	Net Present Value
PACO	Central and West Africa Program of IUCN (*Programme Afrique Centrale et Occidentale*)
PAD	Project Appraisal Document
PARSI	Regional Strategic Action Plan for Investments (*Plan d'Action Régional Stratégique d'Investissement*)
PDO	Project Development Objective

PIM	Project Implementation Manual
PIU	Project Implementation Unit
PMAWCA	Port Management Association of West and Central Africa
PPSD	Project Procurement Strategy for Development
PRCM	Regional Partnership for Coastal and Marine Conservation (*Partenariat Régional pour la Conservation de la zone côtière et Marine*)
RAMPAO	Network of Marine Protected Areas in West Africa (*Réseau Régional d'Aires Marines Protégées en Afrique de l'Ouest*)
RISU	Regional Implementation Support Unit
RMU	Regional Management Unit
RSC	Regional Steering Committee of WACA ResIP
SDG	Sustainable Development Goal
SEA/SH	Sexual Exploitation and Abuse, and Sexual Harassment
SLWMP	Sustainable Land and Water Management Project
SNAP	National System of Protected Areas
SWM	Solid Waste Management
TA	Technical Assistance
UNEP	United Nations Environment Program
WACA	West Africa Coastal Areas Management Program
WACA ResIP 1	West Africa Coastal Areas Resilience Investment Project 1
WACA ResIP 2	West Africa Coastal Areas Resilience Investment Project 2
WAEMU	West African Economic and Monetary Union
WARCO	West Africa Regional Coastal Observatory *(Observatoire Régional du Littoral Ouest Africain)*

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name
Ghana, Gambia, The, Guinea-Bissau, Stateless	West Africa Coastal Areas Resilience Investment Project 2

Project ID	Financing Instrument	Environmental and Social Risk Classification
P175525	Investment Project Financing	High

Financing & Implementation Modalities

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

Expected Approval Date	Expected Closing Date
15-Dec-2022	31-Dec-2027

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To strengthen the resilience of targeted communities and areas in coastal Western Africa.

Components

Component Name	Cost (US$, millions)
Component 1: Strengthening Regional Integration	16.00
Component 2: Strengthening the Policy and Institutional Framework	28.10
Component 3: Strengthening National Physical and Social Investments	187.00
Component 4 : National Coordination	14.90

Organizations

Borrower:	Republic of Ghana Republic of Guinea-Bissau Republic of The Gambia West African Economic and Monetary Union (WAEMU) - Burkina Faso
Implementing Agency:	Institute for Biodiversity and Protected Areas (IBAP) - Guinea-Bissau Ministry of Agriculture - The Gambia Ministry of Environment, Climate Change and Natural Resources (MECCNAR) - The Gambia Ministry of Environment, Science, Technology & Innovation (MESTI) - Ghana

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	246.00
Total Financing	246.00
of which IBRD/IDA	241.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	241.00
IDA Credit	150.00
IDA Grant	91.00

Non-World Bank Group Financing

Trust Funds	5.00
PROBLUE MDTF	5.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
Ghana	150.00	0.00	0.00	0.00	150.00
National Performance-Based Allocations (PBA)	50.00	0.00	0.00	0.00	50.00
Regional	100.00	0.00	0.00	0.00	100.00
Gambia, The	0.00	45.00	0.00	0.00	45.00
National Performance-Based Allocations (PBA)	0.00	15.00	0.00	0.00	15.00
Regional	0.00	30.00	0.00	0.00	30.00
Guinea-Bissau	0.00	30.00	0.00	0.00	30.00
National Performance-Based Allocations (PBA)	0.00	10.00	0.00	0.00	10.00
Regional	0.00	20.00	0.00	0.00	20.00
Stateless	0.00	16.00	0.00	0.00	16.00
Regional	0.00	16.00	0.00	0.00	16.00
Total	**150.00**	**91.00**	**0.00**	**0.00**	**241.00**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2023	2024	2025	2026	2027	2028
Annual	10.27	30.03	69.89	57.45	62.26	16.10
Cumulative	10.27	40.30	110.19	167.64	229.90	246.00

INSTITUTIONAL DATA

Practice Area (Lead)

Environment, Natural Resources & the Blue Economy

Contributing Practice Areas

Finance, Competitiveness and Innovation, Social Sustainability and Inclusion, Transport, Urban, Resilience and Land

Climate Change and Disaster Screening

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

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

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

COMPLIANCE

Policy

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

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

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

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

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

Legal Covenants

Sections and Description

WAEMU, Financing Agreement, Schedule 2, Section I.A.1.(b)(A)(ii) - The Recipient shall no later than three (3) months after the Effective Date, or any later date agreed upon in writing with the Association, recruit or assign for the Project : A) a senior accountant and B) a procurement specialist, both with terms of reference, qualifications and experience satisfactory to the Association

Sections and Description

WAEMU, Financing Agreement, Schedule 2, Section I.D - The Recipient shall update no later than three (3) months after the Effective Date, under terms of reference and in form and substance satisfactory to the Association, a Regional Project Implementation Manual, including a monitoring and evaluation manual

Sections and Description

WAEMU, Financing Agreement, Schedule 2, Section I.A.1.(b)(B) - The Recipient shall, no later than six (6) months after the Effective Date, hire an external auditor for the project, in accordance with the Procurement Regulations

Sections and Description
WAEMU, Financing Agreement, Schedule 2, Section I.B.A - The Recipient shall no later than three (3) months after the Effective Date or any later date agreed upon in writing with the Association, enter into agreements with Contracted Entities under terms and in form and substance satisfactory to the Association in accordance with the Procurement Regulations

Sections and Description
WAEMU, ESCP, Section 10.2 - The Recipient shall establish the Project's grievance mechanism no later than three (3) months after the Effective Date

Sections and Description
WAEMU, Financing Agreement, Schedule 2, Section I.A.1.(b)(A)(i) - The Recipient shall, no later than three (3) months after the Effective Date, or such later date as agreed in writing with the Association, update, customize and install accounting software, with specifications and on terms satisfactory to the Association

Sections and Description
Guinea-Bissau, Financing Agreement, Schedule 2, Section I.A.3.(b)(A) and (B) - The Recipient shall, (A) no later than one (1) month after the Effective Date, or any later date agreed upon in writing with the Association, recruit for the Project an accountant with terms of reference, experience and qualifications satisfactory to the Association; (B) no later than three (3) months after the Effective Date, or any later date agreed upon in writing with the Association, appoint, recruit or designate for the Project: (a) a communication specialist; (b) a monitoring and evaluation specialist; (c) an internal auditor; all with terms of reference, qualifications and experience satisfactory to the Association

Sections and Description
Guinea-Bissau, ESCP, Section 10.2 - The Recipient shall establish the grievance mechanism no later than three (3) months after the Effective Date

Sections and Description
Guinea-Bissau, Financing Agreement, Schedule 2, Section I.E - The Recipient shall have adopted the Project Implementation Manual, including a monitoring and evaluation manual, no later than one (1) month after the Effective Date, or any later date agreed upon in writing with the Association, under terms of reference and in forma and substance satisfactory to the Association

Sections and Description
Guinea-Bissau, Financing Agreement, Schedule 2, Section I.A.3.(b)(C) - The Recipient shall, no later than three (3) months after the Effective Date, or any later date agreed upon in writing with the Association, update, customize and install an accounting software, with specifications and under modalities satisfactory to the Association

Sections and Description
Guinea-Bissau, Financing Agreement, Schedule 2, Section I.A.3.(b)(D) - The Recipient shall, no later than six (6) months after the Effective Date, hire an external auditor for the Project, in accordance with the Procurement Regulations.

Sections and Description
Guinea-Bissau, Financing Agreement, Schedule 2, Section I.A.2 - The Recipient shall, through IBAP, establish no later than three (3) months after the Effective Date, the National Steering Committee, under terms of reference and with qualified and experienced members in adequate number, all satisfactory to the Association

Sections and Description
Ghana, Financing Agreement and Grant Agreement, Schedule 2, Section I.A.3.(b)(A) - The Recipient shall, no later than three (3) months after the Effective Date, or any later date agreed upon in writing with the Association, incorporate the Project in MESTI's internal audit work plan

Sections and Description
The Gambia, Financing Agreement, Schedule 2, Section I.A.3.(c): the Recipient shall: (A) no later than one (1) month after the Effective Date or any later date agreed upon in writing with the Association, recruit (i) a procurement specialist; (ii) a financial management specialist; and (iii) an accountant, all with terms of reference, qualifications and experience satisfactory to the Association; (B) no later than three (3) months after the Effective Date, or any later date agreed upon in writing with the Association, acquire, customize and install an accounting software, with specifications and under modalities satisfactory to the Association; (C) no later than three (3) months after the Effective Date, or any later date agreed upon in writing with the Association, enter into a memorandum of understanding with the Recipient's internal audit directorate, under terms and conditions satisfactory to the Association; and (D) no later than six (6) months after the Effective Date, hire an external auditor for the Project, in accordance with the Procurement Regulations

Sections and Description
The Gambia, ESCP, Section 10.2 - The Recipient shall have established the grievance mechanism no later than 3 months after the Effective Date

Sections and Description
The Gambia, ESCP, Section 4.3: The Recipient shall adopt the SEA/SH Action plan during the first year of implementation of the Project

Sections and Description
The Gambia, Financing Agreement, Schedule 2, Section I.A.3(b) and ESCP, Section 1.1 - The Recipient shall establish , no later than one (1) month after the Effective Date or any later date agreed upon in writing, the Project Implementation Unit comprising a technical team with expertise on all relevant disciplines, all satisfactory to the Association and under terms of reference and with resources adequate for its mandate

Sections and Description
The Gambia, ESCP, Section 1.1: The Recipient shall recruit within three months after the Effective Date an environmental specialist, a social development specialist and a communications consultant, with terms of reference, qualifications and experience satisfactory to the Association

Sections and Description
Ghana, Financing Agreement and Grant Agreement, Schedule 2, Section I.A.3.(b)(B) - The Recipient shall, no later than nine (9) months after the Effective Date, or any later date agreed upon in writing with the Association,

configure GIFMIS to process Project data, with specifications and under modalities satisfactory to the Association.

Sections and Description
Ghana, ESCP Section 10.2 - The Recipient shall establish the Project's grievance mechanism no later than three (3) months after the Effective Date

Sections and Description
Ghana, ESCP Section 10.1 - The Recipient shall develop the Project's communication strategy in line with the SEP no later than six (6) months after the Effective Date

Sections and Description
WAEMU - Remedial Letter Overdue Audits - The Recipient will provide the overdue audits by January 31, 2023; this commitment will be monitored through the ISR

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	Guinea-Bissau - Financing Agreement, Article 5.01(a)(i) - The Recipient, shall have established the Project Implementation Unit, in accordance with Section I.A. of Schedule 2 to the Financing Agreement;
Effectiveness	IBRD/IDA	Guinea-Bissau - Financing Agreement, Article 5.01 (ii) and (iii) and ESCP, Section 1.1 - The Recipient shall have ; (i) appointed or designated for the Project a national Project coordinator within the Project Implementation Unit, with terms of reference, qualifications and experience satisfactory to the Association; and (ii) recruited for the Project: (A) an environmental specialist, (B) a social development and gender specialist, (C) a financial management specialist, and (D) a procurement specialist; all with terms of reference, qualifications and experience satisfactory to the Association.
Effectiveness	IBRD/IDA	Guinea-Bissau - Financing Agreement, Article 5.01(b): The Subsidiary Agreement between IBAP and the Recipient shall have been executed by the Recipient and the Project Implementing Entity, in form and substance satisfactory to the Association, and in accordance with Section I.B. of Schedule 2 of the Financing Agreement.
Effectiveness	IBRD/IDA	The Gambia - The Recipient shall have adopted the Project

		Implementation Manual, under terms and conditions and in form and substance satisfactory to the Association, in accordance with Section I.D.1 of Schedule 2 to the Financing Agreement
Type Effectiveness	Financing source IBRD/IDA	Description Ghana - Financing Agreement, Article 5.01(a) - The PROBLUE Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Recipient to make withdrawals under it (other than the effectiveness of this the Financing Agreement) have been fulfilled.
Type Effectiveness	Financing source IBRD/IDA	Description Ghana - Financing Agreement, Article 5.01(b) - The Recipient shall have adopted the Project Implementation Manual, including a monitoring and evaluation manual, under terms and conditions and in form and substance satisfactory to the Association, in accordance with Section I.D.1 of Schedule 2 to the Financing Agreement
Type Effectiveness	Financing source Trust Funds	Description Ghana - Grant Agreement, Article 5.01: All conditions precedent to the effectiveness of the IDA Financing Agreement have been fulfilled.
Type Effectiveness	Financing source IBRD/IDA	Description WAEMU - Financing Agreement, Article 5.01 - The Recipient shall have updated the terms of reference of both: (i) the Regional Management Unit; and (ii) the Regional Steering Committee to reflect the Project, all in accordance with Section I.A. of Schedule 2 to the Financing Agreement.
Type Disbursement	Financing source IBRD/IDA	Description WAEMU - Financing Agreement, Schedule 2, Section III.B.A.(b) - under Category (2), until and unless an agreement with IUCN has been entered into, in form and substance satisfactory to the Association, and in accordance with Section I.B. of Schedule 2 to this Agreement.

I. STRATEGIC CONTEXT

1. **The West African coastline, spanning from Mauritania to Gabon, includes 17 countries that are at varying stages of economic development.** Eight of these countries have a per capita gross domestic product (GDP) below US$1,000, ranking them among the lowest in the world. Many of these countries have gone through conflict or political and social unrest over the past 10 years. Although West Africa's economies have been growing steadily,[1] the countries continue to be heavily dependent on natural resources such as fisheries, fossil fuel, minerals, and timber. A very large proportion of West Africa's GDP—about 42 percent—is generated from its coastal areas (through, for example, fisheries, ports, and tourism). West Africa's coastal areas are home to almost one-third of the countries' populations.[2] Across Sub-Saharan Africa, the urban population, largely located in the coastal areas, is growing at an annual rate of 4 percent, almost twice the worldwide average of 2.1 percent.

2. **The coastal population is increasingly vulnerable to the effects of climate change.** This is especially true for the poor, whose already precarious livelihoods depend on the quality and quantity of natural resources. Every year, an average of 500,000 people in the region are affected by aggravated coastal erosion, flooding, and pollution. Economic losses have been estimated at US$3.8 billion in 2017 for four of the West Africa countries (Benin, Côte d'Ivoire, Togo, and Senegal), representing 5.2 percent of their GDPs for that year.[3] **The Gambia** is highly vulnerable to climate change. Relative to the year 2000, annual mean temperatures are projected to increase between 1.7° Celsius (°C) and 2.1°C by mid-century, and between 3.1°C and 3.9°C by the end of the century. Moreover, sea level is expected to rise between 19 centimeters (cm) and 43 cm by mid-century, which will increase flooding and erosion. The country is also vulnerable to climate change from increases in temperatures and decreases in rainfall. Climate impacts affect the country's key economic sectors such as agriculture, which is dominated by extensive rain-fed irrigation, as well as the tourism sector.[4] Vulnerability to climate change in The Gambia is linked to the country's widespread poverty and limited adaptive capacity to deal with the effects of such changes.[5] **In Ghana**, temperatures have risen by approximately 1°C since the 1960s and will continue to get warmer, with mean temperatures projected to increase by between 1°C and 3°C by mid-century, and by between 2.3°C and 5.3°C by end of the century. Heavy rainfall events are also expected to increase, which will likely result in flooding and flash floods, as well as riverbank erosion. Ghana is vulnerable to increasing aridity, droughts, extreme rainfall events, and flooding. It is also highly exposed to natural weather-related hazards and risks related to coastal resources, including storm surges and coastal erosion, as well as landslides, earthquakes, pest infestations, and wildfires. Ghana's flood exposure is projected to result in a US$160 million loss annually, due to flooding.[6] Regarding **Guinea-Bissau**, a short-term climate scenario (2016–2045) shows an increase in temperature of between 1.2°C and 1.3°C for the coastal zone. This will impact marine productivity, the marine food chain, and the availability of fish—similar to the impacts that

[1] Calderon, Cesar; Kabundi, Alain; Kubota, Megumi; Korman, Vijdan; Goyal, Aparajita; Eliste, Paavo; Forget, Vanina Daphne. 2022. Africa's Pulse, No. 26, October 2022: Food System Opportunities in a Turbulent Time. Africa's Pulse; No.26. Washington, DC: World Bank. *https://openknowledge.worldbank.org/handle/10986/38092*

[2] In the context of WACA and in line with the U.S. Coastal Zone Management Act of 1972, the terms "coastal zone" or "coastal areas" refer to the coastal waters (including the lands therein and thereunder), the adjacent shorelands (including the waters therein and thereunder), and the shorelines of the coastal states. They include islands, transitional and intertidal areas, salt marshes, wetlands, and beaches.

[3] Croitoru, Lelia; Miranda, Juan José; and Sarraf, Maria. 2020. "The Cost of Coastal Zone Degradation in West Africa: Benin, Côte d'Ivoire, Senegal, and Togo." The World Bank.

[4] *https://climateknowledgeportal.worldbank.org/country/gambia*

[5] *https://unfccc.int/sites/default/files/NDC/2022-06/Second%20NDC%20of%20The%20Republic%20of%20The%20Gambia-16-12-2021.pdf*

[6] United Nations Office for Disaster Risk Reduction. 2018. "Disaster Risk Profile—Ghana." http://africa.cimafoundation.org/documents/869

will be seen across the entire West African coastline. This is critical considering that the coastal zone in Guinea-Bissau occupies two-thirds of the country's territory. Home to about 70 percent of Guinea-Bissau's population, the coastal zone has a significant economic importance.[7]

3. **The region is faced with a broad crisis driven by the global slowdown; the war in Ukraine; shortages of energy, fertilizer, and food; and rising interest rates and debt levels on top of the impacts of the COVID-19 pandemic.** These challenges severely undercut spending on education, health, climate, and other development priorities while undermining the livelihoods of millions of coastal-dependent households. The impacts of the COVID-19 pandemic on West African countries have been significant. Response measures have resulted in both reduced incomes and disrupted value chains (including job losses). Negative consequences for vulnerable coastal communities have included complete shutdowns of some fisheries; knock-on economic effects from market disruptions; increased health risks for fishers, processors and communities; and exacerbated vulnerabilities to other social and environmental stressors in addition to increased illegal, unreported, and unregulated fishing.[8] Between 2019 and 2020, in Guinea-Bissau, economic growth decreased from 4.5 percent to 2.4 percent. And in Ghana, economic growth reduced from 6.5 percent in 2019 to 1.1 percent in 2020. The tourism sector in West Africa had significantly expanded over previous decades. However, scenario planning indicates that, given a worst-case scenario, a decline in the tourism sector could result in a 50 percent decrease in the sector's overall contribution to the countries' GDP and employment.[9]

A. Regional and Country Context

4. **In West Africa, rapid urbanization and net migration to the coast increase demands on the land, its resources, and the services its ecosystems provide to people.** Poverty is rampant, with 15 out of the 17 coastal countries having national poverty rates above 30 percent, although there are large variations.[10] For instance, oil-producing Ghana has the lowest poverty rate (23.4 percent in 2016)[11].

5. **The Gambia, stretching 350 kilometers (km) along the Gambia River and covering just 11,295 square kilometers, is surrounded by Senegal, except for an 80 km Atlantic Ocean front.** The country has a population of 2.35 million. With about 200 people per square kilometer, it is one of the most densely populated countries in Africa. Most of the population (57 percent) is concentrated around urban and peri-urban centers. Growth was robust at 6 percent in 2019, supported by improving confidence and record tourist arrivals, with sound macroeconomic management helping to reduce the fiscal deficit, exit from debt distress, and increase international reserves closer to prudential levels. Fisheries and aquaculture are important natural capitals in The Gambia, and can provide benefits in perpetuity to the economy and the population, as well as estuaries that support wildlife and biodiversity. The fisheries industry value

[7] Republic of Guinea-Bissau. 2021. "Updated Nationally Determined Contribution in the Framework of the Paris Climate Agreement." *https://unfccc.int/sites/default/files/NDC/2022-06/NDC-Guinea%20Bissau-12102021.Final.pdf. https://unfccc.int/sites/default/files/NDC/2022-06/NDC-Guinea%20Bissau-12102021.Final.pdf*

[8] Bennett, N.J., Finkbeiner, E.M., Ban, N.C., Belhabib, D., Jupiter, S.D., Kittinger, J.N., Mangubhai, S., Scholtens, J., Gill, D., and Christie, P. 2020. "The COVID-19 Pandemic, Small-Scale Fisheries and Coastal Fishing Communities, Coastal Management." *Coastal Management.* 48:4, 336–347, DOI: 10.1080/08920753.2020.1766937.

[9] United Nations Economic Commission for Africa. 2020. "Potential Socio-Economic Impacts of Coronavirus on West Africa." *https://www.uneca.org/sites/default/files/COVID-19/sro_wa_economic_and_social_impacts_covid_19_march18.pdf*.

[10] World Bank. September 2022. Update to the Poverty and Inequality Platform (PIP): What's New (English). Global Poverty Monitoring Technical Note; no. 24 Washington, D.C.: World Bank Group *http://documents.worldbank.org/curated/en/099700509122212929/IDU05b43a261041c504a5f0bb3405d0ef310b9e1*

[11] *https://pip.worldbank.org/country-profiles/GHA*

chain shares many interests with the tourism industry, from the fish resources in the waters to the final consumption of fish products.[12] The COVID-19 crisis has, however, resulted in a sharp economic downturn in 2020, with a reduction in tourists and trade disruptions leading to zero-percent growth and a 2.3 percent contraction of income per capita, partially reversing gains in poverty reduction. [13]

6. **In Ghana, natural resources were key drivers of economic growth for the country's 29.6 million people in 2018, indicating that a lack of environmental sustainability may impair Ghana's economic growth.** However, since the onset of COVID-19 Ghana has experienced a significant growth slowdown combined with heightened macroeconomic imbalances. Economic growth dipped to 0.5 percent in 2020; it rebounded to 5.4 percent the following year but slowed again in 2022 as macroeconomic imbalances began to build up. The large fiscal deficits that Ghana had been running for some time (partly due to energy and financial sector bailouts) and which peaked in 2020 due to high pandemic-related expenditures, triggered concerns of debt sustainability and the country has lost access to the international capital market since 2021. This in turn put pressure on the domestic currency, further aggravating debt pressures. Monetary financing of the deficit compounded inflationary pressures from higher food and fuel prices causing major hardship and welfare losses for the population and uncertainty in the business environment. Over the course of 2022 the currency depreciated by over 55 percent and headline inflation was 40.4% in October 2022. Growth is expected to decline to 3.5 percent. Hence, managing Ghana's coastal zone and its natural environment is important to sustainable development and climate resilience.

7. **Guinea-Bissau is a natural-resource-rich country with a population of just 1.9 million in 2019, two-thirds of which lives below the national poverty line of US$1.90 per day.** The country has a GDP of US$697 per capita, and the highest proportion of natural capital wealth per capita (47 percent) in West Africa. A 2014 wealth accounting exercise estimated Guinea-Bissau's natural wealth at US$3,874 per capita, over 90 percent of which is derived from renewable natural resources, including an extensive system of protected areas (26 percent of national territory) that host ecosystems and biodiversity of local, regional, and global significance.[14] This rich and relatively undamaged natural resource base, if well managed under the governance of stable and accountable institutions, could transform the economy, reduce poverty, and improve the lives of Guinea-Bissau's citizens.

B. Sectoral and Institutional Context

Biophysical Environment

8. **The sand in West Africa's coastal zone can be compared to a "sand river" maintained by a strong, wave-driven longshore transport of silt, sand, and gravel.** The sediments originate from rivers and large coastal sand deposits. These sediments are being destabilized due to sand being retained and blocked behind dams, interrupted by harbor jetties, and extracted (mined) for a variety of uses, including for use as aggregate in concrete for building. Managing the area's sediment and ecosystems within the context of climate change is already a transboundary development challenge.

[12] The Gambia Draft National Development Plan (2018–2021).

[13] *https://www.worldbank.org/en/country/gambia/overview*

[14] World Bank. Guinea Bissau. Systematic Country Diagnostic (SCD). "Turning Challenges into Opportunities for Poverty Reduction and Inclusive Growth";2016; Report No. 106725-GB; *https://documents1.worldbank.org/curated/en/100721467968248103/pdf/106725-CSD-P155168-IDA-SecM2016-0127-IFC-SecM2016-0078-MIGA-SecM2016-0076-Box396273B-PUBLIC-disclosed-7-5-16.pdf*

9. **The sandy coastal barrier is eroding at many locations, with the highest rates of retreat (in the order of 10m per year or more) occurring near river mouths and harbor jetties—that is, in the most urbanized areas.**[15] Coastal retreat is affecting people by resulting in loss of housing, assets, and land. The situation is further compounded by lack of coordination of anti-erosion solutions at local, national, and regional levels. The West African coastline is also susceptible to increased flooding caused by sea-level rise, storm surges, changes in swell waves, and intense rainstorms.

10. **Pollution affects the quality of coastal and marine ecosystems, and more than 80 percent of such pollution originates from land-based sources, primarily industrial, agricultural, and urban sources.**[16] Plastic waste and related chemicals often have bioaccumulation properties that are harmful to people who ingest these toxins through the food web. Africa is the second-largest source of annual global plastics inputs from rivers into global oceans, adding 7.8 percent.[17] Other pollution sources include agricultural pesticides, heavy metals, chemicals, effluents from industries and mining, and untreated solid and liquid waste from urban areas. Offshore oil drilling and abandoned oil platforms pose a high risk for oil spills, with transboundary impacts on neighboring countries.

11. **Degradation of coastal and marine resources and ecosystems is accelerating due to increasing population pressure on the coast, demand for resources, unplanned coastal development, and climate change.** The deterioration of the coast is leading to significant—and potentially irreversible—loss of critical ecosystems such as beaches, dunes, wetlands, and mangroves, which provide important protective and social services in the form of livelihoods, food, protection from storm surges, and timber. Natural habitat management needs to be viewed through a regional lens. For example, protecting ecosystems in Guinea-Bissau is a regional priority. The country's extensive mangroves serve as fish nurseries, supporting both national and regional fisheries. Migratory species such as endangered marine turtles and waterfowl that use the East Atlantic flyway are particularly affected, justifying habitat protection of certain geographic locations.

12. **Climate change and climate variability are predicted to further aggravate existing physical, ecological, biological, and socioeconomic stresses on the coast.** Increased frequency and intensity of storm surges, changes in swell waves, and sea-level rise may exacerbate coastal erosion, raising the likelihood of inundation of natural habitats such as mangroves. Combined with unplanned development, this will result in the loss of key functions (such as the stabilization of coastal lands and the provision of breeding grounds and sheltered habitats for many species) and impact communities' economic activities. Sea-level rise, storm surges, and changes in wave action may modify the transport of littoral sediment transport and erosion.[18] By 2100, average sea levels are projected to rise between 0.26 m and 0.63 m in a low-emissions

[15] Briere, Christophe; Giardino, Alessio; Nederhoff, Kees; Schrijvershof, Reinier; Tonnon, Pieter Koen; de Caires, Sofia Nunes. 2017. "Human Interventions and Climate Change Impacts on the West African Coastal Sand River." Washington, DC: World Bank. http://documents.worldbank.org/curated/en/250651515568868513/Human-interventions-and-climate-change-impacts-on-the-West-African-coastal-sand-river-a-preliminary-quantitative-assessment.

[16] United Nations. 2016. "The First Global Integrated Marine Assessment: World Ocean Assessment I." Chapter 25. *https://www.un.org/regularprocess/content/first-world-ocean-assessment*.

[17] Jambeck, J.R., Geyer, R., Wilcox, C., Siegler, T.R., Perryman, M., Andrady, A., Narayan, R., Law, K.L. 2015. "Marine Pollution: Plastic Waste Inputs from Land into the Ocean." *Science.* 347. 768–771. https://doi.org/10.1126/science.1260352.

[18] World Bank. 2020. "Effects of Climate Change on Coastal Erosion and Flooding in Benin, Côte d'Ivoire, Mauritania, Senegal, and Togo." Technical Report for the World Bank.

scenarios, and between 0.33m and 0.82m in high-emission scenarios[19]. Along the West African coast, these numbers are expected to rise faster than the global average.[20]

Socioeconomic Context

13. **The livelihood and well-being of Africa's coastal population is intricately entwined with the health of coastal resources, with profound implications for poverty alleviation and economic growth**. This natural resource base, if well managed by capacitated and accountable institutions, could reduce poverty and improve the lives of citizens while driving economic growth. At the same time, preserving important ecosystem services such as fisheries and flood protection and investing in coastal and marine protected areas (MPAs) is critical if ecosystem services and future economic opportunities are to be preserved.

14. **Social sustainability is essential for resilience.** Lessons from the World Bank portfolio on social inclusion in West Africa suggest that the interplay and intersectionality of social inclusion, social empowerment, and citizen engagement is essential for sustainability and resilience. The challenges of COVID-19, climate change, exclusion, and rising inequality have underscored the need to step up engagement in these areas. Good practice shows that supporting and empowering communities to diversify sources of incomes, livelihoods, and economic activities, and promoting citizen engagement can strengthen resilience initiatives. Attention needs to be paid to gender disparities and challenges faced by the vulnerable or disadvantaged segments of society, including youth, persons with disabilities, and the extreme poor.

Institutional Context

15. **Management of coastal ecosystems is complex and requires regionally coordinated and integrated planning.** Although some anthropogenic interventions have only a local effect, others have a much larger spatial effect. For example, the effect of worsening coastal erosion after 30 years on the Port of Lomé extends up to nearly 50km.[21]

16. **Current policy, regulatory, and institutional frameworks are not sufficiently developed to govern coastal areas and conserve environmental assets.** The Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the Atlantic Coast of the West, Central and South African Region (Abidjan Convention), adopted in 1984, is a key policy regional framework under implementation in the region. In 2019, four additional protocols were adopted that cover pollution from land-based sources and activities; environmental norms and standards related to offshore oil and gas activities; integrated coastal zone management; and sustainable mangrove management. However, poor management of West Africa's coastal areas has many causes, including lack of (or conflicting) regulation; weak enforcement; and ill-defined rules about property rights. Strengthening the regulatory, incentive, and institutional frameworks for better governance of coastal areas is key to putting development planning on a healthy path and maintaining strategic environmental assets, including those in coastal areas. The West Africa Coastal Areas Resilience Investment Project 1 (WACA ResIP 1, P162337) coordinates the implementation of the protocols and the support to the countries for integrating these dispositions into national regulations. This project, the West Africa Coastal

[19] Intergovernmental Panel on Climate Change. 2013. "Summary for Policymakers." In *Climate Change 2013: The Physical Science Basis*. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change.
[20] WAEMU. 2010. "Regional Shoreline Monitoring Study and Drawing up of a Management Scheme for the West African Coastal Area." Regional Diagnostic.
[21] Briere, Giardino, and Nederhoff, *et.al*. 2017.

Areas Resilience Investment Project 2 (WACA ResIP 2, P175525), will continue to support this policy/institutional aspect as part of the regional component.

17. **At the national level, the current arrangement of individual institutions each having their own area of responsibility for coastal zone management is insufficient.** Coastal management is often the responsibility of institutions with relatively limited convening power or capacity to integrate issues into national policy and planning. Coordination is further hampered by the large number of national institutions that gather and manage information relevant to coastal management. Countries have been engaged on this matter and are trying to address this shortfall. **In Ghana,** the Coastal Development Authority was established in 2016, and in **Guinea-Bissau**, the Institute for Biodiversity and Protected Areas (IBAP) and the Office of Coastal Planning started operating under the ministry in charge of the environment in about 2005. In **Gambia**, a review of existing policies in the Strategic Program for Climate Resilience concluded that relevant sectoral legislation does not reflect the realities of climate change risks, whereas coastal zone management remains challenged by knowledge and capacity gaps, fragmentation of mandates, and weak coordination structures. Local institutions have even less convening power, but they are the closest to the coastal communities dealing with the impacts of flooding, erosion, and pollution. WACA ResIP 2 will engage local governments and municipal authorities to strengthen coordination with national institutions, promote better identification of pressing issues, and ensure that quicker action is taken to address them. As in WACA ResIP 1, this project will engage mayors and local leaders to champion local action and community participation.

18. **Regional institutions are essential for addressing the magnitude of the challenge.** There are eight key regional institutions related to the ongoing WACA Program. The West African Economic and Monetary Union (WAEMU) is serving as an entry point for regional integration. WAEMU coordinates with the Economic Community of West African States (ECOWAS), the Economic Community of Central African States (ECCAS), the Secretariat of the Abidjan Convention (ABC), the Centre de Suivi Ecologique (CSE), the International Union for Conservation of Nature (IUCN), the Regional Partnership for Coastal and Marine Conservation (PRCM), and the Regional Network of Marine Protected Areas in West Africa (RAMPAO). In addition, the Port Management Association of West and Central Africa (PMAWCA)[22] is facilitating the application of best practices in port management and operations, and the Africa Centre of Excellence in Coastal Resilience (ACECoR)[23] is training human resources and engaging in demand-driven research. Due to the fact that these regional institutions come from varying economic, environmental, financial and policy contexts, there is a natural complementarity in mandates of these organizations and working with all of them is proving to bring an adequate response and economies of scale at the regional level. Nevertheless, the need for coordination is critical, considering the number of sectors involved. WAEMU provides support with this as part of the WACA Program.

19. **No single country alone can fix West Africa's coastal erosion, flooding, and pollution problems, nor independently preserve the health of the region's critical ecosystems.** The problems faced are multisectoral in nature, adding to the complexity. Solutions are bound to be expensive, beyond one single country's public finances or any single development partner's means. Coordination and collaboration between agencies at country and regional level will be needed to reduce transaction costs. The WACA ResIP 1 specifically supported national-regional integration efforts, and the World Bank-executed WACA Platform supported this effort by drawing on the World Bank's convening power to mobilize solutions-

[22] Ports Management Association of West and Central Africa website. *https://agpaoc-pmawca.org/ https://agpaoc-pmawca.org/*

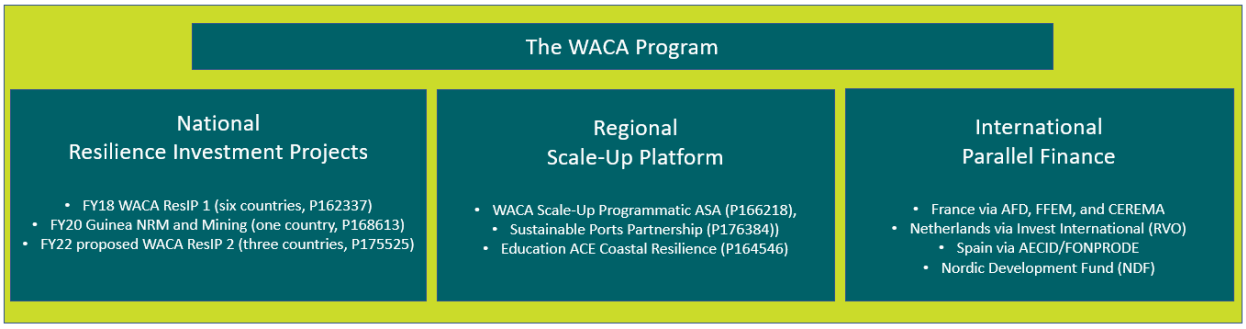
[23] Africa Centre of Excellence in Coastal Resilience website. *https://acecor.ucc.edu.gh/ https://acecor.ucc.edu.gh/*

focused partnerships and simplify coordination of finance to countries (Annex 3). Success will require long-term vision and commitment at national and regional levels. Such commitment has yet to be improved.

About the WACA Program

20. **The WACA Program was created in response to countries' request for solutions and finance to help protect and restore the ecological, social, and economic assets of West Africa's coastal areas by addressing erosion and flooding.** The WACA Program consists of national resilience investment projects and a World Bank-managed programmatic advisory services and analytics (ASA), the "WACA Scale-Up Platform". The WACA Platform crowds in additional partners and resources for sustainability, while national WACA projects serve as the mechanism for donor coordination in support of countries' multisector investment plans (MSIPs). More information on the WACA ResIP 1 and the WACA Platform is provided in Annex 4. As of 2021, the World Bank has helped to leverage an estimated of US$650 million in investment finance to clients from partners and mobilized US$8.5 million in trust funds. Today, the WACA Program includes engagement in 11 countries (Annex 11).

Figure 1: The WACA Program consists of national projects, regional integration, and Parallel co-finance.



21. **The WACA Program scaling-up should be understood in geographic terms, finance, and engagement for sustainability ends**. The scale of WACA ResIP 1 was decided in 2018 based on the mandates of the participating institutions (WAEMU, ECOWAS, and ECCAS), the financial resources available, the geographies involved, the shared biophysical impacts of the prevailing Guinea ocean current, coupled with the extent of the need for awareness and engagement on how these factors combine to affect sustainability. The Regional Implementation Support Unit (RISU) offers cross-learning between countries in areas of monitoring and evaluation (M&E), the Environmental and Social Framework (ESF), annual workplans and budgets, reporting to the regional steering committee, and synthesizing information for the World Bank Implementation Status Report. National project selection was considered based on IDA availability and the Country Partnership Framework (CPF) schedule. On top of this, the World Bank-executed WACA Platform continues to facilitate access to regional and global solutions and knowledge, simplify processes for finance mobilization, and deepen dialogue at the regional, national, and local levels. The program includes the progressive transfer of functions to WAEMU, which continues to increase in importance throughout WACA scaling-up. The role of the World Bank has also progressively evolved, facilitating this transfer with increased capacity-building and technical assistance (TA).

Box 1. Lessons from WACA ResIP 1 applied to WACA ResIP 2

A. Lessons from ResIP 1

WACA is a multi-faceted program responding to multiple collaborations required at local, national, and regional levels. By nature, the WACA Program seeks to build and strengthen what already exists. One of the best illustrations of this is the setting of the regional integration component, which brings together key regional organizations and partners for enhanced and coordinated collective action under the leadership of the WAEMU.

Regional integration activities offer economies of scale and efficiency while strengthening the mandates of existing regional organizations. Over the course of WACA ResIP 1 implementation, there has been evidence of:

- **The leadership of WAEMU**, which was demonstrated through the adoption in September 2022 of regional regulations aiming at facilitating the transposition of the Abidjan Protocols into national laws and the endorsement in June 2022 of the 2019 State of the Coast Report.
- **The importance of cross-border management of the coastline.** Through the re-dynamization of the cross-border technical committee between Togo and Benin, an additional investment of US$36 million was leveraged. The cross-border technical committee provided a platform to agree on the best technical solution, joint procurement, and joint request for additional financing.
- **Regional organizations gradually taking roles as intended.** For example, the CSE drew on its technical capacity to support the development of the West Africa Regional Coastal Observatory (WARCO) and the PRCM took a convening role, bringing civil society and academia together. Strong leadership has also come out of the University of Cape Coast hosting the ACECoR, with outcomes including the publication of a compendium of solutions.

At the regional level, there is a homogeneity in the level of engagement from regional partners and an increasing cooperation and dialogue across the network, which can be considered a success.

At the national level, despite delays construction works, positive results have been noted on ecosystem restoration and reforestation activities, as well as sub-social projects aiming at diversifying and improving coastal communities' livelihoods.

Overall, the mid-term review of WACA ResIP 1 completed in July 2022 concluded that the project remains pertinent in all the WACA ResIP countries and reported a high rate of 85 percent in beneficiary satisfaction.

B. Application of lessons from ResIP 1 in ResIP 2

Areas where lessons have been applied include

- **Strengthening WAEMU's leadership role**, especially on regional coastal policy and regulations, and in ensuring the overall sustainability of the WACA Program by strengthening regional institutions
- **Expanding and formalizing networks of regional partners and organizations**, including RAMPAO and PRCM while continuing to deepen linkages with academia via ACECoR
- **Applying a Regional Integration Score** between ResIP 1 and ResIP 2 to measure the performance at PDO level
- **Expanding livelihood diversification activities** by including an innovative sustainable jobs approach
- **Promoting a mix of green and grey physical investments**

Specifically on environmental and social compliance, lessons from ResIP have been applied as follows:

- **The presence of well-trained environmental and social experts** as part of the national project teams at the earliest stage of the project implementation has been included to ensure compliance with ESF requirements. This will ensure that risk mitigation measures included in ESF instruments prepared for each country are consulted upon, implemented and monitoring throughout the projects.
- **Disseminate of instruments widely to the various stakeholders** in a user-friendly and accessible format, depending on the specific needs of communities. The reason is that affected communities and other stakeholders need to have timely information on potential impacts, their mitigation, the channels and processes that are in place for them to voice their concerns and feedback, and how that feedback will be considered.
- **A functional grievance mechanism accessible to all stakeholders**, along with a strong communication strategy to support project performance as well as to ensure good relations and participation of communities and other stakeholders.

22. **Public and private partners have confirmed support for the WACA program.** In 2018, the WACA Ministerial Communique[24] created an authorizing environment for WACA to pursue three critical streams of work: (i) coastal risks management via regional economic commissions, regional protocols, and the pursuit of a regional observatory; (ii) national scale-up by expanding on the WACA MSIPs; and (iii) mobilizing financial resources from partners for new or existing WACA projects to strengthen coastal resilience. Similarly, the 2019 Private Sector Communique[25] confirmed the commitment of stakeholders from the transport, mining, energy, and fisheries sectors to pursue deeper engagement and establish ways to facilitate access to information and identify projects of interest to the private sector. The private sector is a key player in development but is also considered as a non-traditional actor in the financing of sustainable coastal development. Built infrastructure has a significant geographical footprint in West Africa's coastal areas, and the private sector is definitely a powerful driver of jobs that can underpin sustainable economic growth, fueling innovation and poverty reduction.

C. Relevance to Higher Level Objectives

23. **Global extreme poverty rose in 2020 for the first time in over 20 years as the disruption of the COVID-19 pandemic compounded the impacts of conflict and climate change, which were already slowing poverty reduction progress**.[26] The World Bank expects that the newly poor will live in congested urban settings and work in the sectors most affected by lockdowns and mobility restrictions[27]. The proposed project addresses West African coastal areas, especially where population density is high (coastal cities) and where climate change is an acute threat. In addition, on development, the world is facing a broad crisis driven by the global slowdown, the war in Ukraine, shortages of energy, fertilizer, and food, and rising interest rates and debt levels. These challenges severely undercut spending on education, health, climate, and other development priorities. As these crises threatens development gains and weakens the resilience of coastal communities in West Africa, WACA leverages existing programs to address these compounded impacts through resilient development of coastal areas, including socioeconomic assistance.

24. **The project contributes to the World Bank Group's global and regional commitments to address climate change.** The **World Bank Group Climate Change Action Plan**[28] aims to increase climate finance to reduce emissions, strengthen climate change adaptation, and align financial flows with the goals of the Paris Agreement, with a particular focus on coastal resilience (p31), nature-based solutions (p37), and healthy oceans for jobs and food. Tools such as the Green, Resilient, and Inclusive Development (GRID) screening tool to understand the potential benefits that can result from the deployment of a smart grid will be explored for relevant WACA ResIP 2 activities. The **Next Generation Africa Climate Business Plan (NG-ACBP)**[29] emphasizes the "Environmental Stability" of seascapes and watersheds for increased ecosystems

[24] *http://pubdocs.worldbank.org/en/858071542226715775/communique-WACA-2018-en.pdf*
[25] WACA. 2019. "Dialogue with Private Sector."
https://www.wacaprogram.org/sites/waca/files/knowdoc/Communique_WACA%20Private%20Sector-English.pdf
[26] World Bank. n.d. "Poverty." *https://www.worldbank.org/en/topic/poverty/overview*
[27] Word Bank Group. 2020. "Poverty and Shared Prosperity 2020: Reversals of Fortune."
https://www.worldbank.org/en/publication/poverty-and-shared-prosperity
[28] World Bank Group. 2021. "Climate Change Action Plan 2021–2025."
https://openknowledge.worldbank.org/bitstream/handle/10986/35799/CCAP-2021-25.pdf?sequence=2&isAllowed=y
[29] World Bank. 2020. "The Next Generation Africa Climate Business Plan: Ramping Up Development-Centered Climate Action." World Bank: Washington, DC. https://openknowledge.worldbank.org/handle/10986/34098

resilience, carbon sequestration, socioeconomic resilience, to all of which the WACA ResIP project contributes.

25. **The Africa regional integration strategy update to the World Bank Board[30] emphasizes connectivity, trade and market development, natural capital, and resilience as updated priority areas.** This supports the IDA20 framework, which underscores regional integration as a requirement to intensify delivery of results and impact. The pandemic is a stark reminder that certain development challenges require coordinated actions across countries. This remains the *raison d'être* for regional integration efforts. To ensure a greater role for the private sector in regional integration, addressing country and sub-regional investment climate issues, harmonizing policies at the regional level, and supporting enabling sectors such as infrastructure (physical, financial, and social) and human capital and skills will be crucial. The strategy[31] suggests that the continent's existing climate adaptation deficit poses "medium to high risks" in dealing with multiple climate challenges such as shifts in biome distribution and productivity, and migration. Climate change impacts are not going to stop at national borders, pointing to the need for effective collaborative action among countries to address or mitigate these impacts. The WACA ResIP project responds to this strategy by addressing coastal resilience, securing a stable coastal required to prevent loss of critical infrastructure like coastal roads for transport, and supporting healthy and productive coastal waters needed for food security, and natural capital.

26. **The Gambia CPF (FY22–26, Report No. 154485) includes "strengthening transparency, accountability, and effectiveness in governance" (focus area 1) and "enabling inclusive and resilient private sector-driven job creation" (focus area 2).** Both areas are supported by the proposed project, which focuses on urban resilience and protecting coastal areas to support the job-creating tourism industry. The proposed project also seeks to empower women and girls by identifying and addressing gender gaps in selected green industries and providing sustainable income-generating activities and employment opportunities for the population living in the project area.

27. **The Ghana CPF (FY22-26, Report No. 157249) emphasizes "promoting resilient and sustainable development" (focus area 3).** This focus area concentrates on building the country's resilience to exogenous economic, natural, and health shocks. The proposed project supports CPF objective 3.2 ("Improved adoption of sustainable natural resource management") insofar as it supports the proper management of Ghana's significant, and fragile, coastal natural resources to mitigate the impacts of climate change and other environmental risks.

28. **The Guinea-Bissau CPF (FY18-23, Report No. 114815) supports the efforts of the government to "expand economic opportunities and enhance resilience" (focus area 2).** Objective 4 is to "improve natural resource wealth and disaster risk management" and includes a CPF indicator for "improved coastal area and disaster risk management". The project will help Guinea-Bissau achieve this objective by improving institutional and legal frameworks that promote sustainable coastal and marine development; enhancing management of important coastal and marine ecosystems; strengthening tracking and monitoring of

[30] World Bank. 2020. "Regional Integration and Cooperation Assistance Strategy—Update." Report No. 154458-AFR. https://documents1.worldbank.org/curated/en/249911623450779120/pdf/Supporting-Africa-s-Recovery-and-Transformation-Regional-Integration-and-Cooperation-Assistance-Strategy-Update-for-the-Period-FY21-FY23.pdf

[31] "Supporting Africa's Transformation: Regional Integration and Cooperation Assistance Strategy for the Period FY18–FY23, May 7, 2018." Report No. 121912-AFR

environmental outcomes in coastal areas and at the community level; and supporting sustainable development to enhance rural incomes and resilience of coastal communities.

29. **The project contributes to the World Bank's Gender Strategy**[32] by supporting the improvement of human endowments through education and by better integrating women in sustainable job opportunities that will emerge from the coastal resilience approach proposed in the project. This project is closely aligned with the gender strategy in the way it seeks to remove constraints for more and better jobs (Pillar 2); remove barriers to women's ownership and control of assets (Pillar 3); and enabling women's voice and agency against gender-based violence (GBV) (Pillar 4). The project also draws from the World Bank's "Good Practice Note: Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing (IPF) involving Major Civil Works".[33]

30. **The project's approach also embodies many of the United Nations Sustainable Development Goals (SDGs).** The project will contribute to the following SDGs: inclusive and sustainable economic growth (SDG-8: Decent Work and Economic Growth); sustainable forest management and reverse land degradation (SDG-15: Life on Land); sustainable management and protection of marine and coastal ecosystems (SDG-14: Life below water); climate change action, awareness-raising, and human capacity in climate change mitigation and adaptation (SDG-13: Climate Action); and capacity building of local communities, enhancing multistakeholder partnerships to share knowledge, expertise, and technology, and promoting effective partnerships with public, private, and civil society organizations (SDG-17: Partnerships for the Goals).

31. **The project supports the World Bank Group's Twin Goals to reduce poverty and increase shared prosperity by 2030.** The poorest communities are likely to face economic displacement as their livelihoods are affected by sea level rise, coastal erosion, flooding, and pollution. By helping build climate-resilient cities, tourism, and transport, the project can help boost shared prosperity.

32. **The project is aligned with the World Bank Group's Global Crisis Response Framework (GCRF).** Specifically, Pillar 2 (Protecting People, and Preserving Jobs) with the implementation of the sustainable jobs approach in The Gambia and social investments across the countries to increase and diversify livelihoods; Pillar 3 (Strengthening Resilience) thanks to the physical investments in the countries on coastal resilience, improving disaster risk management and climate resilience at medium and long term and; and Pillar 4 (Strengthening Policies, Institutions and Investments for Rebuilding better) with component 2 providing customized technical assistance and capacity building on coastal resilience and blue economy, spanning across countries and at the regional level.

[32] World Bank Group. 2015. "World Bank Group Gender Strategy (FY16–23)." *https://documents1.worldbank.org/curated/en/820851467992505410/pdf/102114-REVISED-PUBLIC-WBG-Gender-Strategy.pdf*

[33] World Bank. 2020. "Good Practice Note: Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in IPF involving Major Civil Works." https://thedocs.worldbank.org/en/doc/741681582580194727-0290022020/original/ESFGoodPracticeNoteonGBVinMajorCivilWorksv2.pdf

II. PROJECT DESCRIPTION

33. WACA ResIP 2 will support site-specific grey, green, and hybrid physical investments, and social subprojects at the community level to achieve measurable increases in protection from coastal erosion and flooding, pollution control, and to promote climate-resilient and nature-based coastal development. **In terms of erosion control, the project will be financing**: (i) green infrastructure such as dune fixation to protect beaches from erosion using vegetation and shrubs to trap sand, wetland and mangrove restoration, and beach replenishment; (ii) grey infrastructure such as construction of breakwaters, seawalls, revetments, groynes, and dikes; (iii) land claim and reclamation; and/or (iv) measures to improve the management of natural habitats, including the reduction of invasive species encroachment and the restoration of natural hydrological flows. **Flood control under the project focuses on:** (i) rehabilitation of flood dikes and floodplains; (ii) rehabilitation and management of natural flood areas, including dredging to maintain natural flows in lagoons, and river restoration; (iii) infrastructure, for example, culverts for improved drainage, especially in urban areas; and (iv) sustainable landscape management practices in transboundary sub-watersheds and areas of high ecosystem value that drain into the coastal areas. **Pollution** will be managed by introducing pollution-control infrastructure that reduces land-based waste inputs in the ocean, through: (i) small works to improve sanitation; (ii) solid waste management programs for non-government organizations and communities; and (iii) oil-spill-incident preparedness and management plans and equipment. **Management of coastal ecosystems** will be supported by restoring degraded ecosystems, strengthening, and expanding protected areas, and providing alternative livelihoods to reduce pressure on the most fragile ecosystems by humans that depend on their services for their livelihoods. The project will also pilot a **sustainable jobs approach** designed to create income sources and livelihoods for people, targeting jobs stemming from coastal management activities (for example, maintenance of coastal protection infrastructure, plantations, recycling, and so on). More details on the project activities can be found in Annex 1.

A. Project Development Objective

Project Development Objective Statement

34. **The Project Development Objective (PDO) is to strengthen the resilience of targeted communities and areas in coastal Western Africa.**

35. **The PDO indicators are:**

1. Households in targeted coastal areas with *less exposure to erosion* due to the project (disaggregated by country) (number).
2. Households in targeted coastal areas with *less exposure to flooding* due to the project (disaggregated by country) (number).
3. Households in targeted coastal areas with *less exposure to pollution* due to the project (disaggregated by country) (number) (number).
4. Households with improved access to livelihood support (disaggregated by country) (number).
5. Area with reduced ecosystem vulnerability (hectares) (disaggregated by country) (ha).
6. Share of target beneficiaries with rating “satisfied” or above on project interventions (disaggregated by country, sex) (percentage).
7. Regional integration score (number).

B. Project Components

36. **The project's vision is to create a dynamic space for coastal countries and partners, where they share innovations, knowledge, expertise, and access to finance.** The project engages countries through TA to unbundle complex coastal development challenges into actionable priorities and will mobilize leadership at the national level to effectively advance concrete investment projects. In parallel, countries engage at the regional level to set priorities and coordinate cross-border investments while harmonizing policies. Refer to Annex 1 for a detailed project description.

37. **The project consists of one regional integration component and three country projects, each with the same design and organized in three components, namely, policy, investment, and coordination.** This is the same design as ResIP 1, and the mid-term review finalized in July 2022 which confirmed the effectiveness of the project design to achieve the PDO. However, key lessons from ResIP 1 have been incorporated (ref. Box 1).

Component 1: Strengthening Regional Integration (IDA US$16.0 million equivalent)

38. **The regional integration component will strengthen effective regional and national coordination of stakeholders, activities, and investments to improve climate resilience** in coastal areas in West Africa by harmonizing policies, developing collaborative decision-making support tools, strengthening regional institutional collaboration, and developing new strategic partnerships to scale-up the response to coastal resilience development challenges.

Component 1.1: Regional Strategies, Policies, and Governance

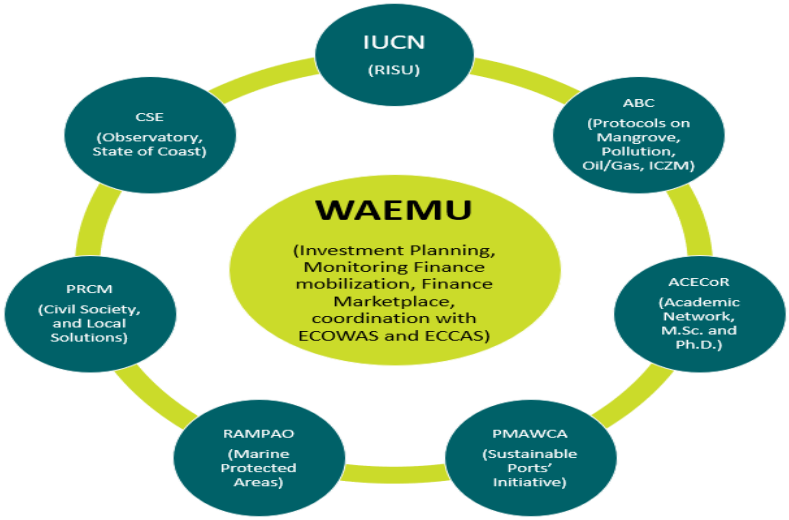
39. **This component will strengthen WAEMU's coastal resilience regional leadership and operationalize coordinated planning, financing, and monitoring of coastal resilience investments** by: (i) supporting implementation of a regional financing mobilization strategy, transferring finance mobilization functions to WAEMU, establishing a facility for the development of coastal resilience regional projects, strengthening coordinated frameworks for coastal resilience investments, operationalizing a regional investment monitoring system, and related outreach, knowledge-sharing and training events; (ii) strengthening a regional governance framework by developing regional strategies and reinforcing governance and joint collaboration with regional institutions, as well as fostering multi-stakeholder dialogue on coastal resilience and the blue economy; and (iii) improving environmental and social risk management for investments, as well as providing TA to support policy harmonization, operationalize port sustainability, and strengthen regional coastal agreements and protocols, including related studies, operational costs, training, and outreach.

Component 1.2: Regional Technical Support for Coastal Resilience

40. **This component will provide scaled-up technical implementation, coordination, and supervision support at regional and national levels**, including: (i) project and partnership coordination, outreach, capacity-building, training, and expertise mobilization; monitoring, evaluation, reporting, and knowledge management; fiduciary, communications, and monitoring of environmental and social aspects; and advice on the implementation of physical investments and the improvement of planning tools; (ii) coastal observation operationalization, including institutional and operational support to WARCO; regional data dissemination; support for national monitoring mechanisms; training and related studies and outreach;

and (iii) promotion of sustainable management tools including strengthening marine and coastal protected areas and supporting the development of ecotourism standards, with related studies, capacity-building, outreach, and training.

Figure 2: Regional institutions and their roles in WACA ResIP 2



41. **The component will be financed by the IDA20 Regional Window, which is available to eligible regional organizations and/or countries that participate in regional programs that aim to achieve regionality.** In the case of WACA, the project facilitates collective action to address shared goals while taking advantage of economies of scale for the benefit of coastal resilience. The "network model", which sees one institution (WAEMU) coordinate a network of several organizations (Figure 2), has been in operation in WACA ResIP 1 and will be expanded in WACA ResIP 2 with the incorporation of two additional regional institutions (PRCM and RAMPAO) and the extension of regional support to cover new coastal areas from Mauritania to Gabon, as envisioned in the WACA Program. The project will continue to engage relevant regional organizations on coastal-related matters (for example, PMAWCA will continue to be engaged on ports and ACECoR on education). The regional window is expected to help to improve connectivity between countries on coastal resilience, managing shared coastal resources, and promoting global and regional public goods. The network model will further serve as the basis for discussion on how to manage other key platform functions, including the helpdesk, which connects with established hubs of expertise in France, the Netherlands, Nordic countries, Japan, and West Africa via ACECoR, and the finance marketplace.

42. **The Recipient for the component is the WAEMU,** which will have overall responsibility for Component 1 WAEMU will contract IUCN to help manage the RISU and provide technical support to country projects, and facilitate implementation of Component 1.2 activities under WAEMU's supervision. Four other regional organizations will also be contracted by WAEMU to complement WAEMU and perform specific technical services at the regional level. Strengthening the capacity of these regional institutions is critical for achieving the sustainability of coastal resilience gains at the regional level, and for enabling these institutions to better support and scale national resilience actions such as those to be implemented under Component 3. ECOWAS and ECCAS will also continue to be involved with the WACA Program under ResIP 2, supporting the scale-up and engagement through their own processes.

Component 2: Strengthening the Policy and Institutional Framework (Total US$28.1 million equivalent: IDA US$26.1 million, PROBLUE US$2.0 million)

43. **This component will provide technical and financial support to help countries develop and operationalize the policy frameworks needed to implement integrated coastal zone management (ICZM) plans and land-use strategies, which in turn will support effective management of transboundary coastal ecosystems and marine spatial planning (MSP).** Specifically, it will support national and sub-national institutions that are mandated to develop and manage coastal zones to: (i) strengthen their institutional arrangements and policy frameworks for coastal zones and protected areas, (ii) develop transboundary contingency plans and strategies for coastal resilience, (iii) engage in spatial planning and multisectoral investment planning to secure financial sustainability; (iv) develop and maintain national coastal observatories to support the management and protection of coastal ecosystems; and (v) carry out regional integration and harmonization activities. These activities will strengthen national blue economies while supporting the effective management and protection of critical coastal ecosystems, which provide important services to nearby communities, including protection against flooding, pollution, and erosion. Efforts to improve the long-term financial sustainability of activities to conserve and manage critical ecosystems and biodiversity, especially through the national systems of protected areas, will also be supported.

Component 3: Strengthening National Physical and Social Investments (Total US$187.0 million equivalent; IDA US$184.0 million and PROBLUE US$3.0 million)

43. **The project will support site-specific grey, green, and/or hybrid physical rehabilitation and infrastructure investments in selected areas, and social subprojects at the community level** to achieve measurable increases in protection from coastal erosion and flooding, pollution control, waste management, and ecosystem management and restoration. The project will also support local and national stakeholders as they engage coastal communities for participatory purposes and to identify livelihood opportunities. Physical investments supported by the project include technical studies; regulatory gap analyses; works and equipment; ecosystem management and restoration measures; and training, outreach, and related activities that seek to embed sustainable landscape management practices. Investments will be based on coastal management plans; protected area and biodiversity strategies; and climate-resilient development plans, including MSPs that identify priority investments and actions for strengthening coastal resilience by improving the management of coastal ecosystems and mitigating the impacts of climate change.

44. **In terms of erosion control, the project will finance:** (i) green infrastructure, such as dune fixation using vegetation and shrubs to trap sand and so protect beaches from erosion; wetland, coastal forests and mangrove restoration; and beach replenishment; (ii) grey infrastructure such as the construction of breakwaters, seawalls, revetments, groynes, and dikes; (iii) land claiming and reclamation; and (iv) measures to improve the management of natural habitats, including the removal of invasive species and restoration of natural hydrological flows.

45. **Flood control under the project will focus on:** (i) rehabilitation of flood dikes and floodplains; (ii) rehabilitation and management of natural flood areas, including river restoration and dredging to maintain natural flows in lagoons; (iii) infrastructure, for example, culverts for improved drainage, especially in urban areas, and vegetation buffers; and (iv) sustainable landscape management practices in transboundary sub-watersheds and areas of high ecosystem value that drain into the coastal areas.

46. **Pollution measures will focus on improving the management and reduction of:** (i) industrial and municipal waste and effluent; (ii) marine litter in coastal hotspots by, among other measures, improving the collection, segregation, and disposal of plastic waste; and (iii) hazardous material (chemicals and heavy metals). Oil spill prevention and preparedness will also be an important focus area.

47. **The project will support improved ecosystem management and restoration,** including the improved management of protected areas and the restoration of degraded ecosystems, to strengthen ecosystem resilience and the sustainable delivery of ecosystem services. Activities will include TA and operational support, with a strong emphasis on participatory processes and community consultation. The project will also support efforts to reduce emissions from ecosystem degradation and deforestation (for example, REDD+ in Guinea-Bissau).

48. **The project will also support targeted social subprojects for coastal communities.** These community-driven activities will seek to: (i) support the creation of local jobs on labour-intensive works, (ii) provide opportunities to diversify local livelihoods, (iii) increase the adoption and effectiveness of community-led resource management schemes, and (iv) strengthen the role of women in the management of coastal resources. The overall objective is to enhance community health, safety, and livelihoods by supporting community development solutions that drive small works and other preparedness activities that reduce climate and disaster risk while triggering a shift to alternative livelihoods that align with natural resource management (NRM). Community participation will be embedded across all stages of the social subproject cycle, from subproject identification, planning, and implementation to operations, maintenance, and monitoring. Operations toolkits will set out the procedures for community mobilization; participatory needs diagnostics; participatory subproject prioritization and selection; community implementation workplans; community operations and maintenance and M&E; and the terms of reference for feasibility studies and community facilitators. Social subprojects and targeted communities will be identified during project implementation. However, likely subproject types include community infrastructure (for example, wells, schools, and sanitation) and livelihood diversification activities (for example, horticulture, beekeeping, oysters, and farming dried mangoes in Guinea-Bissau; urban farming alternatives in The Gambia; and aquaculture, innovative oyster production, mangrove nurseries and restoration, confectionary soap-making and other handicrafts, and plastics and waste management in Ghana). Women, youth, fishers and fish processors, mangrove harvesters, and those engaged in the agro-industry and tourism are expected to benefit.

49. **The project will also support the construction and rehabilitation of buildings** (headquarters and field buildings) for key institutions in charge of managing coastal zones, environmental and social risks, and protected areas.

50. **WACA ResIP 2 will introduce a "sustainable jobs approach" that builds on best practice from the World Bank.** Sustainable jobs are intended to create income sources and livelihoods that allow people to become more resilient to shocks (including coastal erosion, flooding, and pollution). Targeted jobs can stem from activities to manage coastal erosion, flooding, and pollution, or they can draw on the natural resources of coastal ecosystems. The project will: (i) frame a sustainable and inclusive jobs approach for the project; (ii) identify key jobs already present in current project designs; and (iii) identify potential jobs relevant to project sub-components. The central feature of the sustainable jobs approach is that economic activities are sustained beyond the life and support of this project. The approach will be piloted in The Gambia and be replicated in other countries as opportune. In The Gambia, the market assessment will identify

economic opportunities available to the target population and inform the design of the component to maximize them.

Component 4: National Coordination (IDA US$14.9 million equivalent)

51. **The project will strengthen participating countries** day-to-day management of the project, including environmental, social, fiduciary, and technical aspects; M&E; communication and outreach; and the financing of training and operating costs.

52. **Project implementation units (PIUs) will be established in each beneficiary country to manage the respective national projects.** These units will ensure that the project is implemented in accordance with the Project Appraisal Document (PAD), relevant project implementation manuals, and the country-specific project description and financing agreement. The PIUs will also ensure that the WACA MSIPs (or agreed alternative national strategies or plans) continue to form the basis for coordinated support from technical and financial partners to address the most pressing needs for management of their coastal zones. PIUs will manage the project on a day-to day basis, convening national workshops and meetings as needed and implementing communication activities to ensure that the project is understood by all stakeholders. The exact configuration of the three national PIUs is described under the institutional arrangements of the country projects.

53. **The countries will establish national steering committees** comprising senior representatives of relevant ministries and government agencies as well as key stakeholder groups concerned with coastal management (including civil society, traditional authorities, and trade associates) to ensure broad oversight and agreement on the activities to be financed. Diverse national steering committees ensure representative and joint decision-making that considers multiple viewpoints, thereby minimizing challenges down the line. At the implementation stage, countries will either retain the steering committees formed at the implementation stage or establish a new committee if needed.

54. **The countries may also establish national technical committees** comprising representatives of the sectors and entities concerned with coastal management and involved in the project's implementation to ensure smooth technical coordination between them. For that purpose, they will either retain the existing multisectoral technical committee established during the preparation phase for the development of the MSIP, establish a new committee, or rely on extra technical representation in the national steering committee.

PROBLUE Activities

55. **The PROBLUE trust fund will provide a US$5 million grant to WACA ResIP 2 in Ghana** for components 2 and 3 to be implemented by the Ministry of Environment, Science, Technology, and Innovation (MESTI). This grant will advance the development of Ghana's Blue Economy through three main activities: MSP, including the development of Ghana's national Sustainable Oceans Plan and targeted MSP; plastic pollution management, including the establishment of a marine debris laboratory at ACECoR and a pilot solid waste and plastic management action plan, coupled with policy/regulation design; and mangrove and blue carbon development, including the preparation and implementation of a mangrove planting strategy, the preparation of a blue carbon pilot project, and the development of data and a strategy to scale the blue carbon approach to additional assets, including other mangrove areas, coastal marshes, and marine vegetation.

Project Cost

56. **Total cost of the project is estimated at US$246 million**, including the US$5 million from PROBLUE, as summarized in Table 1.

Table 1: WACA ResIP 2 Project cost by component and country (US$ million)

	WAEMU	The Gambia	Ghana	Guinea-Bissau	Total
Component 1: Strengthening Regional Integration	**16.0**	**0**	**0**	**0**	**16.0**
1.1. Regional strategies, policies, and governance	10.5	0	0	0	**10.5**
1.2. Regional technical support for coastal resilience	5.5	0	0	0	**5.5**
Component 2: Strengthening the Policy and Institutional Framework	**0**	**6.0**	**11.1**	**11.0**	**28.1**
2.1. Institutions and governance	0	2.9	4.5	6.4	**13.8**
2.2. Coastal law and policies	0	0	2.8	0.8	**3.6**
2.3. Spatial and multisectoral planning	0	1.1	2.6	1.3	**5.0**
2.4. Coastal observation	0	2.0	1.2	1.1	**4.3**
2.5. Decision support system	0	0	0	1.3	**1.3**
Component 3: Strengthening National Physical and Social Investments	**0**	**35.0**	**137.0**	**15.09**	**187.0**
3.1. Physical investments	0	30.0	124.5	11.1	**165.6**
3.2. Social investments	0	2.5	5.7	3.6	**11.8**
3.3. Pollution and invasives	0	2.5	6.7	0.3	**9.5**
Component 4: National Coordination	**0**	**4.0**	**7**	**3.9**	**14.9**
Grand total	**16.0**	**45.0**	**155**	**30.0**	**246.0**

C. Project Beneficiaries

57. **Project activities are expected to directly benefit people at project sites in the three beneficiary countries** (The Gambia, Ghana, and Guinea-Bissau), who live along the coast and depend on it for their livelihoods. These people, including women and youth, and people living on marginal lands on barrier islands and near lagoons are at immediate risk from coastal erosion, flooding, and salinity intrusion. They also suffer from the negative impacts of both marine and coastal pollution. For example, fishers and fish processors (who are often women) living in coastal areas are among the most vulnerable groups in developing countries. People engaged in the agroindustry and tourism along the coastline's project sites also directly or indirectly benefit from the project interventions. Their livelihoods are often highly dependent on natural resources or ecosystem services that are increasingly being degraded. Unlike their wealthier counterparts, poor people have few savings to draw on to respond to shocks, and typically have very limited access to formal credit or recovery resources. The project will also indirectly benefit various beneficiaries, including the overall community, through positive impacts on ecosystem services, biodiversity, and climate change.

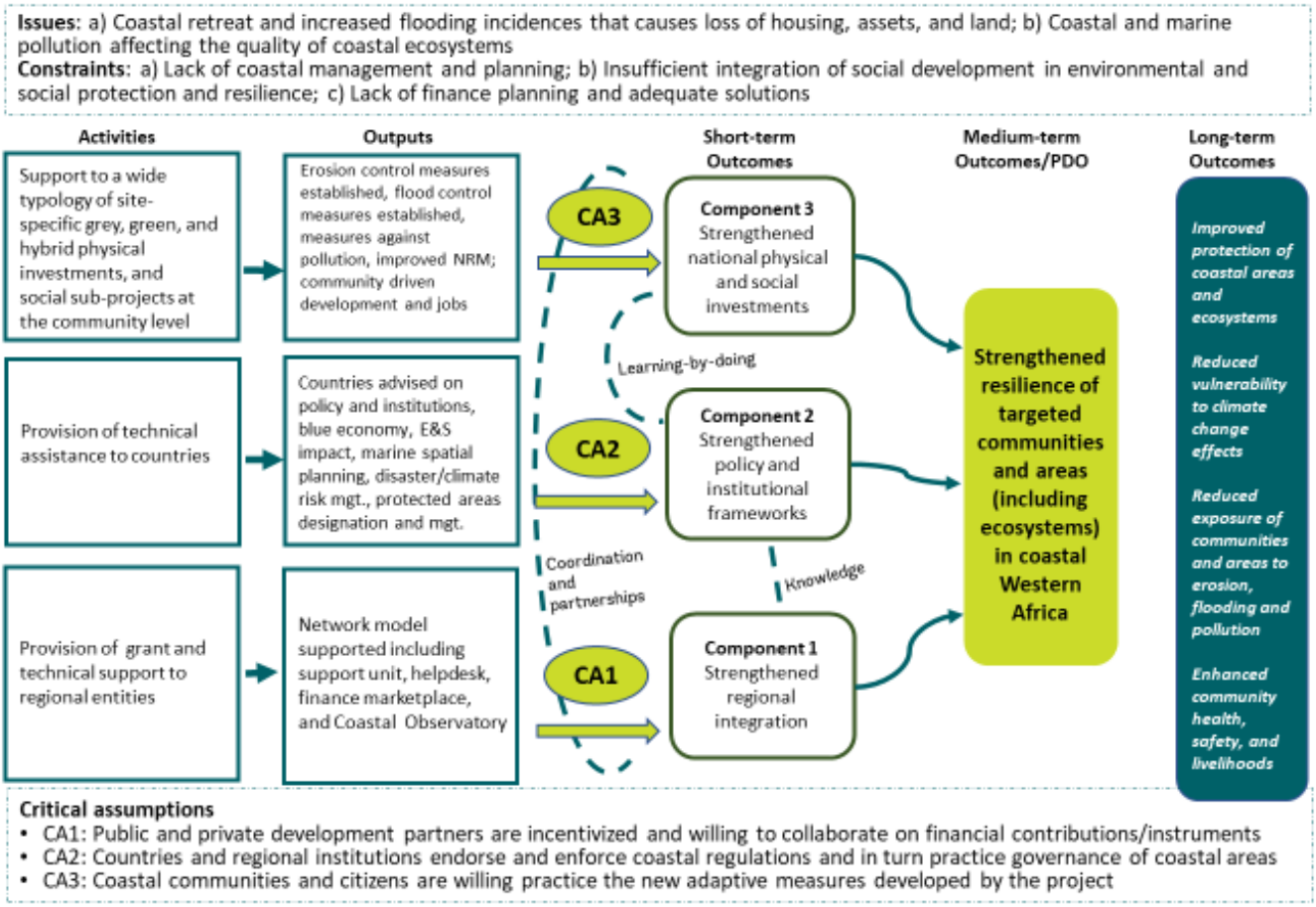
D. Results Chain

58. **The project seeks to address the underlying issues of: (i) coastal retreat and increased flooding incidents that cause loss of housing, assets, and land; and (ii) coastal and marine pollution affecting the quality of coastal ecosystems**. The constraints to sustainable development are: (i) lack of coastal management and planning; (ii) insufficient integration of social development in environmental protection and resilience; and (iii) lack of finance planning and adequate solutions. The project provides a dynamic

platform for coastal countries and partners to support a wide range of grey, green and hybrid physical investments to address coastal area degradation, share knowledge and expertise, and improve their access to finance. At the regional level, the project aims to support common priorities, coordinating cross-border investments while harmonizing policies.

59. **The project design—including national interventions in The Gambia, Ghana, and Guinea-Bissau as well as the regional integration component—is in continuity with the ResIP 1 structure and arrangements.** ResIP 2 incorporates lessons from ResIP 1, expanding on the initial project to enhance its social development, coastal and environmental resilience, and socioeconomic aspirations, in order to better offset the impacts of the COVID-19 crisis. It also innovates on matters of private sector development and project management.

Figure 3: Theory of Change



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

60. **The World Bank engaged on the issue of coastal resilience in West Africa because the loss of land to erosion causes harm to poor and vulnerable groups, and damages infrastructure critical to livelihoods and socioeconomic development.** The World Bank is involved because it can provide recipient-executed

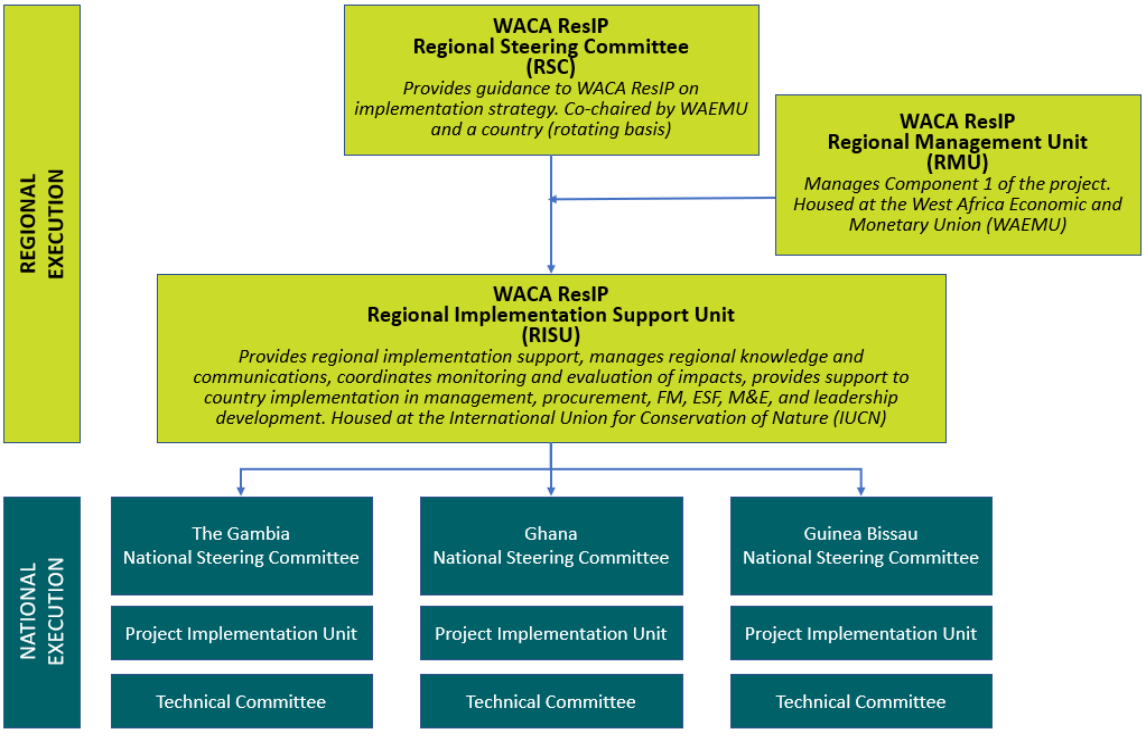
financing; ensure technical rigor and import good practice from multiple Global Practices; and can engage actively in the development dialogue by drawing on the convening power of the World Bank and assistance. Through this assistance (P166218), staff time provided though the Nordic Development Fund (NDF) trust fund resources has enabled joint and/or parallel co-finance from the French Development Agency, the Spanish Agency for International Development Cooperation, the European Space Agency, the NDF itself, and many technical partners. In total, the task team estimates that ResIP 1 IDA (US$226 million) and the proposed ResIP 2 IDA (US$246 million) has leveraged US$500 million. The result is indirect convening by World Bank of a donor-integrated approach that capitalizes on the strengths of each technical and financial partner.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

61. **The project will be guided by the project's Regional Steering Committee (RSC), established in 2018 for the ResIP 1.** The RSC is co-chaired by WAEMU and one of the countries on a rotational basis and systematically includes representatives from ECOWAS and ECCAS. The RSC will provide overall strategic guidance to the project, supports policy dialogue with countries for regional integration, advises on cross-boundary interventions, facilitates resource mobilization, and assesses the results and impacts of the project. The committee's terms of reference and operating procedures will be amended based on consultations between ResIP 1 and ResIP 2 participating countries, WAEMU, ECOWAS, and ECCAS, and will be integrated into the updated regional procedure manual. That committee will approve the annual work program for regional integration activities (Component 1).

Figure 4: Institutional arrangements for the WACA ResIP 2



62. **Formal existing coordination between regional economic institutions, with regular meetings between the environmental, agriculture, and water commissioners' teams in WAEMU and ECOWAS,** will be strengthened and extended to ECCAS, especially on key regional activities (coastal resilience investment planning and monitoring, and Blue Economy regional strategy).

63. **The WAEMU will manage Component 1 of the project through the Regional Management Unit (RMU) established under WACA ResIP 1**. The WAEMU hosts the RMU, which will manage project activities, budgets, and contracts with the entities involved in the project's implementation, including IUCN and regional institutions (ABC, CSE, PRCM, and RAMPAO), where disbursement (including the option for direct payment) will be based on the successful completion of activities per the annual workplan. The RISU, supported by IUCN, will complement the RMU on national project management support and on environmental and nature-based solutions expertise. This implementation arrangement has been proposed given the 15+ years of productive collaboration between WAEMU and IUCN on coastal zone management.

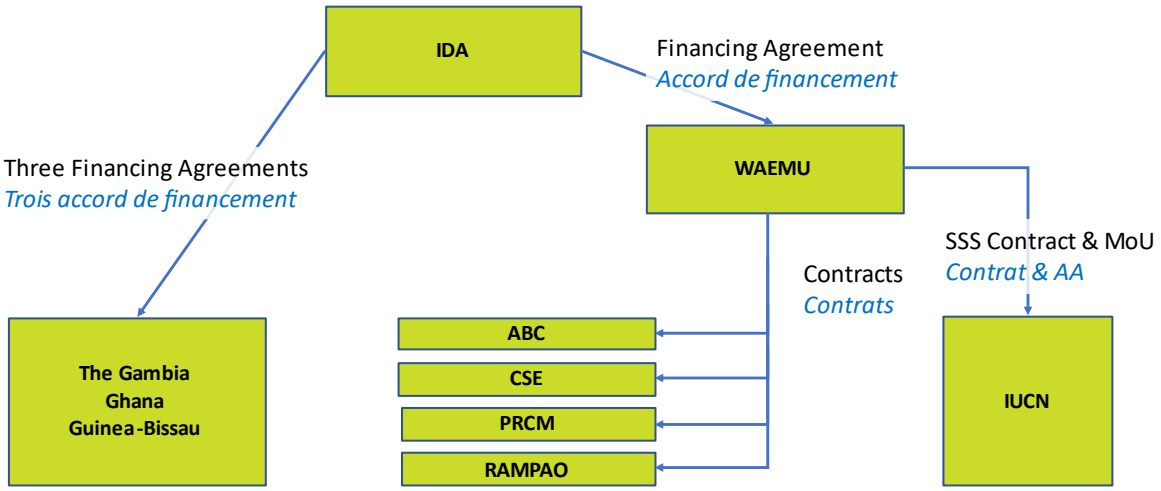
64. **The overall structure of the regional component remains the same as under ResIP 1, except for an adjustment to the arrangements with IUCN.** Under ResIP 1, IUCN had a project agreement with the World Bank and a subsidiary agreement with WAEMU. Paragraph 81 of the ResIP 1 PAD explained that such arrangement was "the only workable option" and meant as an "exceptional case [which] should not be considered a precedent to be replicated in future regional operations". On that basis, other avenues to involve IUCN's expertise, which remains otherwise ineligible to receive an IDA grant, have been explored. Under ResIP 2, WAEMU will instead contract IUCN's consultancy services pursuant to procurement regulations. IUCN will therefore be a procured entity. IUCN's responsibilities in the project will involve continuing to ensure the timely execution of activities at regional and national levels via the RISU established under ResIP 1, under terms of reference acceptable to the association. Under ResIP 1, IUCN played a highly complementary role to WAEMU in the regional component, providing high-quality technical support to countries. The RISU will continue to coordinate activities among participating countries, enhance communication and knowledge exchange between them, manage the regional M&E system, and evaluate the project's overall regional impact. The RISU will act as the RSC's technical secretariat and contribute to WAEMU's periodic progress reports on the state of project implementation in general, including Component 1. The reports will be made public on a website to ensure full transparency in project execution. The regional organizations (ABC, CSE, PRCM, and RAMPAO) each have their mandate from countries related to coastal zone management and have proven under ResIP 1 that they collaborate effectively so that timely action is taken to address coastal zone issues. Details of arrangements with regional institutions are provided in Annex 10.

65. **At the national level in each of the countries, a PIU is established to manage the project on a day-to-day basis.** The PIU will prepare annual work plans and budgets (AWPBs), manage procurement for the national needs of institutions, and provide support to counterpart institutions in the implementation of activities in cases where the ministry itself is not implementing the activity. The collaborative arrangements of the PIU will vary depending on the type of activity. Policy and governance activities will require direct engagement at the ministerial level, whereas other activities may engage the technical director or other persons designated by the minister in charge. Each country will establish a national steering committee to provide PIU oversight and make key decisions on the direction of the WACA Program in that country, including national strategies and annual work plans. The chair of each steering committee will represent their country on the RSC. Each country will also establish a multisectoral technical committee to ensure technical coordination and engagement of all coastal management

stakeholders. Each PIU will hire and retain key experts to support management of environmental and social risks and impacts. These experts include environmental specialists with occupational health and safety skills, social development specialists, and gender/GBV/ SEA/SH specialists.

66. **As part of the readiness for implementation, a project implementation manual will be prepared in each country** that explains the strategic rationale, key documents for the country such as the MSIP and/or any agreed-upon coastal management strategy or plan, and details how the project will be implemented. An M&E manual that considers effectiveness and is consistent with the existing system under ResIP 1 will also be prepared. Pre-feasibility studies for site investments are under way to optimize implementation readiness. At the regional level, WAEMU has prepared a regional project implementation manual that reflects the rationale for regional integration and describes the modalities for implementation at the regional level, including the RSC.

Figure 5: Financing and contractual arrangements under ResIP 2



B. Results Monitoring and Evaluation Arrangements

67. **M&E in WACA ResIP 2 is a key regional function in which all countries will participate, so strengthening regional collaboration and creating synergies**. It will be a tool for managing the program, communicating results, attracting new financing, and promoting concerted regional efforts. M&E will be undertaken at two levels: RISU and other agencies as relevant (such as the CSE) will undertake M&E at the regional level, while the PIUs will undertake M&E in their respective participating countries. Following similar arrangements to WACA ResIP 1, the RISU will be responsible for coordinating M&E in WACA ResIP 2, drawing on a single M&E manual that describes the requirements at country and regional level, and ensuring that all countries produce data and information on time and at a sufficient and necessary quality. The RISU will also design and implement data-collection efforts, which are best done at the regional level. The RISU will also provide technical backstopping on M&E to the countries; put in place a data-quality assurance mechanism; undertake its own data collection; and encourage cross-country learning. WACA ResIP 2 countries will be added to the M&E digital system, RUCHE. The Ghana PIU will also report on PROBLUE indicators and the RISU will provide support with integrating these results.

68. **M&E information will be collected at national level and synthesized for learning and management.** ResIP 2 M&E activities will: (i) generate information on the progress of the project; (ii) analyze and aggregate data generated at the regional, country, and local levels; and (iii) document and disseminate key lessons to users and stakeholders across the participating countries and elsewhere, together with the communication function of the WACA ResIP 2. It will also be the recipient of all countries' evaluation and progress reports and will share results and best practices across the West African coast. ResIP 2 will place special emphasis on the mapping of project interventions and results through geocoding of activities and overlaying these with key development indicators.

69. **The WACA Index on Coastal Resilience is a special M&E activity that will be conducted as part of WACA ResIP 2, covering the entire WACA Program.** The objective will be to measure the evolution of the WACA Program's Coastal Resilience Performance through WACA ResIP 1 (P162337), ResIP 2 (P175525), and the WACA Platform P-ASA (P166218). The activity will refine the definition of coastal resilience for the program and will identify a set of indicators to assess socioeconomic and environmental resilience in coastal areas at national and regional levels. The index will use indicators from the existing results frameworks. The methodology will be developed upon approval of WACA ResIP 2, and the results from the index activity will be integrated into the Results Framework at the mid-term review. The activity will be managed by the RMU and in coordination with the RISU and realized with a consultant, who will oversee the research.

C. Sustainability

70. **This project advances the sustainable implementation of the overall WACA Program** by building on the activities of the WACA ResIP 1 and institutionalizing functions of the WACA Platform in regional institutions. The sustainability approach of the project is built around institutions, infrastructure, knowledge, and capacities, as well as the sustainable jobs approach.

71. **Institutional sustainability.** WACA ResIP 2 will strengthen the ability of key regional and national institutions to house and implement the WACA Program over the long term by supporting the transition of functions outlined by the WACA Platform, including the mobilization of global expertise and knowledge; leveraging and coordinating partner financing for coastal resilience; and convening the dialogues necessary for political decision-making and community support. Support for these regional institutions is evidenced through the activities detailed under Component 1 (Strengthening Regional Integration), and through the institutional arrangements for the project, which build on the regional integration activities of WACA ResIP 1 and implement the findings of institutional analytical studies carried out as part of WACA Platform activities. WAEMU's capacity will be strengthened to coordinate coastal resilience investments and relevant initiatives with other financial and technical partner organizations. The mandate and ability of regional knowledge institutions such as ACECoR and the CSE to mobilize international expertise and apply global best practices for coastal resilience solutions under the WACA Program will also be strengthened, providing long-term knowledge services for WACA countries.

72. **Financial sustainability**. WACA ResIP 2 recognizes the need to ensure financial predictability and sustainability for WACA Program activities over the medium and long-term, especially as the Program transitions from World Bank-convened activities to implementation led by regional institutions and countries. Through the regional integration component, WACA ResIP 2 will strengthen WAEMU's role in mobilizing and coordinating resources for WACA countries to conduct technical and analytical studies, and investment financing to sustainably pursue the objectives of the WACA Program. The project will help

further WAEMU's role as the convenor of the WACA Marketplace, a regional financing mechanism that simplifies and catalyzes engagements with other donors and investors that support coastal resilience in West Africa. WACA ResIP 2 will also integrate and expand the scope and functions of the WACA Marketplace, ensuring that WAEMU is able to play a central role in engaging partners and the private sector to mobilize financing and technical resources for the WACA Program. In addition, the project will support the development of national strategies, such as support of conservation funds, to ensure long-term access to finance for the scaling up of successful project activities and for maintaining sufficient level of service. Finally, additional financing capacities will be leveraged, providing continuity in geographic coverage and scale-up of the project. For instance, a US$5 million PROBLUE grant has been added to ResIP 2 Ghana that focuses on mangrove restoration activities. Other opportunities will be sought as the project is implemented.

73. **Investment sustainability.** The country projects will help governments establish schemes to maintain built or planted grey or green infrastructure. Based on the Regional Strategic Action Plan for Investments (PARSI), WAEMU will also establish which priority projects need continued financing, to which end it will explore new financing instruments, including bonds that may be accessed for punctual maintenance in collaboration with the West Africa Development Bank (*Banque Ouest Africaine de Développement*). The project will also look at maintenance of coastal grey and green infrastructure such as groynes combined with beach nourishment, and mangroves monitoring and management. Municipality and community participation will be explored, as well as synergies with the sustainable jobs approach.

74. **Knowledge sustainability.** To ensure the sustainability of the WACA Program's efforts to support innovative thinking and cutting-edge knowledge and expertise, this project is institutionalizing several of the Program's knowledge functions within West African partner institutions. To support the next generation of West African scholars in relevant coastal resilience disciplines, the WACA Program mobilized IDA financing to establish ACECoR at the University of Cape Coast, Ghana. To mobilize global expertise for localized solutions, the Program developed the WACA Global Hub approach, establishing knowledge networks with France, Japan, the Netherlands, and Nordic countries to successfully drive independent research collaborations between West African and global institutions. The project will work with ACECoR to take over the West Africa WACA Hub function, coordinating engagements with global hubs, RMU and RISU on behalf of countries and partners, strengthening its main mission to train the next generation of coastal scientists and practitioners. WACA ResIP 2 will provide additional IDA resources to ACECoR to develop modern research programs through investments in infrastructure, equipment, and research and academic programs.[34]

IV. PROJECT APPRAISAL SUMMARY

A. Technical and Economic Analyses

75. **Technical or pre-feasibility studies have been prepared for parts of the proposed project**. For The Gambia, the project builds on a multi-year TA program supported by the World Bank. For Ghana, an MSIP is under way that will inform site selection and form the basis for multiple partners' support for coastal resilience. For Guinea-Bissau, the World Bank is working with the United Nations Development Program

[34] Find out more about ACECoR's activities at *https://acecor.ucc.edu.gh/.*

and other partners to narrow down the project's priorities. More details about the country projects are available in Annex 1.

76. **The economic analysis prepared for the project shows that the project is economically attractive,** with a net present value (NPV) of US$117 million, a benefit-cost ratio of 1.6 and an internal rate of return of 8 percent (Annex 6). A sensitivity analysis indicates that these results are robust: the project remains economically viable at a 30 percent increase in costs; at a 30 percent reduction in benefits; and for changes in discount rate. The results of this analysis are robust because it considers conservative values of project's benefits; many benefits that are difficult to quantify are not considered. These include ecosystem benefits resulting from the project activities (for example, the restoration of watershed functions and the provisional services that mangroves provide, including fisheries); improvements in the overall resilience of coastal communities resulting from better understanding of climate change and adaptation options; and greater capability of local authorities due to institutional strengthening.

77. **This economic analysis, and its results, should be treated with caution**, considering the on-demand nature of the project interventions—some of which require specific feasibility studies envisaged during the first years of the project's implementation—and lack of relevant data for all countries. Therefore, it is recommended that data collection is established during project implementation and more specific valuation/cost-benefit analysis is conducted at the mid-term review of the project.

78. **The project will support community-driven initiatives to transition to more sustainable green and blue practices.** The project partners with the PRCM to expand on the WACA's Local Action and Citizen Engagement (LACE) initiative. The World Bank team is exploring trust fund resources to accompany this effort while bringing in global experiences from the World Bank's portfolio and engaging its Social Sustainability and Inclusion Global Practice. The expected deliverables are: (i) practice notes on sustainable blue livelihoods, with a focus on gender and citizen engagement; (ii) design and delivery of training in pilot communities; and (iii) a model design for a country civil society organization (CSO) platform. In Ghana, WACA ResIP 2 will pilot the establishment of a civil society platform for coastal resource management. The intention is to ensure project interventions are consistent with adaptation goals of communities as well as feed into longer-term objectives of strengthening citizen voice in decision-making and strengthening linkages between local and national-level policy goals around sustainable blue practices. The national-level CSO platforms will be represented in the national steering and technical committees of ResIP 2, and where applicable, sub-national level groups (for example, non-government organizations, community-based organizations, traditional authority, research institutions, and district assemblies). Across all three countries, the project will support community-driven development approaches to social subprojects with a view to systematizing the approach to community control over planning decisions in natural resources management.

79. **This project is expected to have high climate adaptation co-benefits.** The project aims to build coastal resilience against climate risks by restoring and protecting wetlands, coastal forests including mangroves, and lagoons; and extending dikes, constructing canals, and implementing erosion, flood, and storm-surge protection works. Pilot works to protect and expand marine ecosystems that reduce risk and sequester carbon (such as seagrass beds) are also planned under this project. These ecosystems serve to attenuate

wave intensity and strengthen ecosystem health while sequestering significantly more carbon than terrestrial ecosystems.[35]

80. **Greenhouse gas mitigation benefits.** The proposed project is expected to drive in a reduction in net GHGs emitted compared to a without-project scenario due to carbon sequestration from project activities. Over the project duration of 30 years (including five years for the implementation of project activities and 20 years for capitalization of effects), the total carbon emissions saved by the project will be about 2,555,319 tons of carbon dioxide equivalent (CO_2e), or the equivalent of 85,177tCO_2e savings per year. The breakdown for individual countries is detailed below. A detailed analysis is presented in Annex 9.

Table 2: Projected total and annual greenhouse gas emissions savings

Country	Total savings from project (tCO2e)	Annual savings from project (tCO2e)
Guinea-Bissau	1,969,534	65,651
Ghana	591,162	19,705
The Gambia	-5,377*	-179
Total	**2,555,319**	**85,177**

81. **Citizen engagement.** The project will use multiple citizen-engagement mechanisms to support meaningful engagement of people living in coastal communities, and those who derive their livelihoods from natural resources and hotspots along the coast targeted for physical investments under the project. To sustain citizen participation and trust in project activities, steps will be taken to ensure that feedback provided by citizens triggers a tangible response or action. Queries about the project will be responded to and complaints addressed efficiently and effectively through grievance redress mechanisms. Citizen perception surveys will provide quantitative assessments of citizen perceptions regarding environmental benefits, livelihoods aspects, and participation. Consultations and focus groups conducted during the preparation phase will continue regularly throughout implementation, with attention paid to accurate and consistent messaging on the scope of the project during these discussions. Social subprojects will underpin participatory planning processes that promote social inclusion, create local ownership, and foster trust and accountability. In Ghana, the project will pilot a CSO platform to sustain citizen engagement on coastal resource management beyond the life of the project. CSOs will provide community oversight by monitoring project implementation, including the stakeholder engagement plan. The capacity of citizens to engage in local-level planning over the long term will also be strengthened through the design and delivery of training for representatives of civil society, community-based organizations, and local government. Feedback obtained through the variety of citizen engagement mechanisms will be documented, used to iteratively inform project implementation, and fed into periodic implementation progress reports, which are made available to project stakeholders.

82. **Women's participation and empowerment will be supported through focused policy, physical, and social interventions.** Poor women are often disproportionately affected by natural hazards and climate change because their jobs often rely on natural resources, such as mangroves and fish in the West African context. The project will contribute to reducing gender gaps through supportive policy development and through physical and social activities that address the disproportionate impacts on women and increase their resilience to climate change. Activities to support livelihood diversification for women will include the creation of new jobs and targeted educational and training opportunities. To drive women's

[35] Fourqurean, J., Duarte, C., Kennedy, H. et al. 2012. "Seagrass ecosystems as a globally significant carbon stock." *Nature Geosci* 5, 505–509. https://doi.org/10.1038/ngeo1477

empowerment, the project will support the strengthening and scale-up of community-led coastal resource management organizations, with the aim of ensuring that a significant portion of these are women-led. The project also uses the gender tag criteria and best practices to elaborate activities that respond to identified gender gaps (Annex 7).

83. **The project will engage the private sector, focusing on the ports and tourism subsectors.** In collaboration with the World Bank Infrastructure and Transport practice group, and with trust fund resources from PROBLUE, the port sector will be engaged via the PMAWCA to advance innovations identified through the 2020 WACA Call for Innovation,[36] including the WACA app for coastal infrastructure modelling; the Trans-Sand mechanism for a multipurpose vehicle for managing coastal sediment from dredging; and the Port-Systems approach, which engages citizens and stakeholders on port development. In collaboration with the World Bank Group's Finance, Competitiveness & Innovation Global Practice, and with trust fund resources from PROBLUE, the tourism sector will be engaged to develop approaches for sustainable tourism, focusing initially on small islands developing states. In Guinea-Bissau, eco-tourism will be a cornerstone in the development of a sustainable use for coastal areas and ecosystems.

84. **The International Finance Corporation (IFC) is engaged with the WACA Program and is identifying opportunities for sustainable investments.** A first set of advisory services is under way for the Benin Port, with which this project will expect to create synergy. A broader strategy of engagement of the IFC investment arm and WACA is under way in parallel.

B. Fiduciary

Financial Management

85. **The assessments of the financial management arrangements for the implementing entities at the national level and for WAEMU was completed.** The assessment determined: (i) implementing entity financial management arrangements (planning, budgeting, accounting, internal controls, funds flow, financial reporting, and auditing arrangements) to ensure that project funds will be used for the purposes intended in an efficient and economical way; (ii) capacity for accurate, reliable, and timely financial reporting; and (iii) arrangements to ensure the project's assets will be safeguarded. The financial management assessment was carried out in accordance with the Financial Management Manual for World Bank IPF Operations, which became effective on March 1, 2010, and was last revised in September 2021.

86. **In Ghana**, a PIU at MESTI is currently managing a World Bank-financed project. It has in place basic arrangements to support the flow of funds, with timely accountability. The team is familiar with World Bank procedures, and these procedures are properly documented in the project's Financial and Accounting Manual. For this project, and for transparency, each implementing agency will be required to maintain one designated Ghanaian Cedi (GHC) account for funds provided by the World Bank only. Funds flow arrangements will be further defined during a detailed financial management assessment.

87. **In Guinea-Bissau,** the current system for both procurement and financial management, including the administrative and financial procedures manual, is based on the processes and procedures put in place for Biodiversity Conservation projects (2011–2016, P122047, IDA funded) and the Biodiversity Conservation Trust Fund (2011–2016, P114756, Global Environment Facility (GEF) funded). IBAP has a

[36] Explore the WACA Call for Innovation eBook at https://storymaps.arcgis.com/stories/09a08140ebc947168ce9fa3ea63b05f0

team dedicated to administrative and financial management with an administrator, an administrative and financial manager, two accountants, as well as two people dedicated to procurement. The procurement system is independent from financial management. The project will support the recruitment of a financial management specialist, accountant, internal controller, and procurement specialist to the PIU.

88. **In The Gambia,** it will be the first time the Ministry of Environment, Climate Change and Natural Resources (MECCNAR) implements a World Bank-financed project. MECCNAR has a Central Projects Coordination Unit (CPCU), established in 2016, that has experience managing infrastructure projects and is currently overseeing the implementation of about 10 climate change and environmental-related projects funded by donors and/or national budget. A FM assessment was conducted to identify implementation capacity gaps, and a capacity development plan was developed to include hands-on support and training. Project management resources will be used to recruit consultants to supplement capacity.

89. **At the regional level, WAEMU has a financial policy ("Regulation No. 01/2008/CM/UEMOA Bearing Financial Regulations of the WAEMU Organs") that defines rules and internal control procedures.** In addition, the Department of Agriculture, Water Resources, and Environment (*Département de l'Agriculture, des Ressources en Eau et de l'Environnement*, or DAREN), the project's executing department, is familiar with the implementation of World Bank-financed projects. WAEMU has successfully hosted the Regional Biosafety Project in West Africa (P096058) and is currently managing the following World Bank-financed projects: regional program to harmonize and modernize living conditions surveys (P153702, IDA Grant D1120 in the amount of US$40.5 million); WAEMU Affordable Housing Finance (P161658, IDA Grant D2360 in the amount of US$25 million), and the WACA ResIP 1 (P162337, IDA Grant D2900 in the amount of US$12 million). The department has an internal audit team that will conduct all internal project audits, in particular to verify that the funds allocated to the project are used for the purposes intended. However, the Financial Management Action Plan details some areas that will need to be strengthened (refer to Annex 8).

90. **Overdue Audits at WAEMU.** There are two outstanding audits with respect to WACA ResIP 1 (P162337) and the WAEMU Affordable Housing Finance project (P161658) for the entity's Annual Financial Statements (AFS) for 2019 and 2020. The delay in the submission of the entity's AFS is a recurrent matter at the Court of Accounts of WAEMU. The WAEMU Commission's financial management team has been following up with the Court of Accounts of WAEMU to obtain the entity's AFS for 2019 and 2020. The Bank FM team prepared a remedial letter which has been signed and shared with WAEMU on November 17, 2022, indicating a deadline of January 31, 2023 for the submission of the overdue audit reports.

91. **Implementation Support Plan.** In addition to the regular internal and external audits, the World Bank Financial Management Team will conduct regular supervision missions every six months for activities implemented by WAEMU, and on an annual basis for The Gambia, Ghana, and Guinea-Bissau. During these supervision missions, World Bank financial management staff will evaluate financial management arrangements to ensure that they remain adequate for the project's implementation. Implementation support will include desk reviews, such as the review of interim financial reports (IFRs) and audit reports. In-depth and forensic reviews may be done where necessary. Financial management implementation support will be an integral part of the project's implementation reviews.

92. **The FM Assessments concluded that the financial management arrangements in place meet the World Bank's minimum requirements** under World Bank Policy IPF and are therefore adequate to provide—with

reasonable assurance—accurate and timely information on the status of the project required by the World Bank (IDA).

93. **The overall financial management residual risk rating is "moderate" for the implementing agencies in The Gambia, Ghana, and Guinea-Bissau, and "substantial" for WAEMU.**

Procurement

94. **Procurement under the proposed financing operation will be carried out in accordance with the following World Bank procedures:** (i) "The World Bank Procurement Regulations for IPF Borrowers" (2020); (ii) "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants" (2006, revised 2011 and 2016); and (iii) other provisions stipulated in the framework agreements, using the standard procurement documents accompanying the regulations.

95. **All procuring entities, bidders, and service providers (suppliers, contractors, and consultants) shall observe the highest standard of ethics** during the procurement and execution of contracts financed under the project, in accordance with Section III, paragraph 3.33, and Annex IV of the Procurement Regulations. When procurement is done in the national market, as agreed in the Procurement Plan, the country's own procurement procedures may be used with the requirements set forth or referred to in Section V, paragraphs 5.3–5.6 related to National Procurement Procedures. All works contracts, procurements that apply standard procurement documents will also adopt World Bank provisions related to environmental, social, health, and safety (ESHS) risks and impacts, including codes of conduct to prohibit SEA, SH, and GBV.

96. **Project Procurement Strategies for Development (PPSDs) and draft procurement plans.** The implementing agencies in Ghana, The Gambia, Guinea-Bissau, and WAEMU have finalized their PPSDs, which have been reviewed by the World Bank. A PPSD addresses how procurement entities will support the project's development objectives and deliver best value for money under a risk approach. The PPSDs cover procurement institutional arrangements, including roles and responsibilities, procurement methods, thresholds, and prior review arrangements. They also include a detailed description and assessment of the implementing entity's capacity to carry out procurement and manage contracts within an acceptable governance structure and accountability framework. All major procurements identified in the countries' PPSDs will be contracted through competitive processes, whether these procurements relate to works, goods, non-consulting services, or consulting services. International competitive procurement is generally the preferred option for procuring such works, but in some instances the market and security might lead to other options, based on the recommendations of the PPSD. Alongside each PPSD, a detailed procurement plan for the first 18 months of implementation was approved before the completion of loan negotiations. These procurement plans will be updated as required (and at least annually) during implementation to reflect actual implementation needs and improvements in institutional capacity. A summary of the finalized PPSDs is provided in Annex 8 as part of the procurement description and institutional arrangements.

97. **Procurement capacity assessments.** Procurement assessments were done for all implementing agencies in the project countries during the pre-appraisal mission, in accordance with the World Bank Procurement Risk Assessment and Management System.

98. **The overall project risk for procurement is "substantial".** The residual level of risk is expected to reduce once mitigation measures are implemented.

99. **Technical responsibilities.** The technical responsibility for preparing procurement packages (including technical specifications and terms of reference as well as amending basic procurement document templates, such as datasheets) will reside with the relevant specialists/experts, with support from the procurement team.

100. **Frequency of procurement supervision.** In addition to the prior review supervision, which will be carried out by the World Bank, semi-annual supervision missions are recommended. Annual World Bank procurement post-reviews will be conducted by World Bank procurement specialists. The sample size will be based on the procurement risk rating. Prior review procurements will be reviewed and cleared in the procurement tracking system (STEP) by World Bank procurement specialists.

101. **Contract management and administration.** For all contracts, contract management plans (in line with the provisions of Annex XI of the World Bank Procurement Regulations) will be developed during contract creation and completed at the time contracts are signed. The World Bank rolled out contract management in STEP in October 2022 to provide additional support to project contract management procedures.

102. **Training, workshops, study tours, and conferences.** Training (including training materials and support), workshops, conferences (based on individual and group requirements), and on-the-job training will be carried out in line with an approved annual training and workshop/conference plan. A detailed plan and terms of reference for training/workshops—including the number of trainees/participants, the duration of training/workshops, staff months, timing, and estimated costs—will be submitted to IDA for review and approval before initiating the process. Appropriate selection methods will be derived from the detailed schedule. After training, beneficiaries will be asked to submit brief reports indicating what skills have been acquired and how these skills will contribute to enhance their performance and contribute to the attainment of the PDO. These trainee reports will be provided to the project coordinator (along with completion certificates/diplomas) for record-keeping and for sharing with the World Bank if required. Training, workshops, conference attendance, and study tours will not be presented on the procurement plan.

103. **Operating costs.** Operating costs financed by the project are incremental expenses incurred by the PIU and technical implementation agencies as approved by the World Bank on account of project implementation, management, and M&E. These costs include: utilities; office space rental; office supplies; bank charges; vehicle operation, maintenance, and insurance; maintenance of equipment and buildings; communication costs; travel and supervision costs (that is, transport, accommodation, and *per diem*); and salaries of contracted and temporary staff. These goods and services will be procured using the procedures specified in the project manual of administrative, financial, accounting, and procurement procedures, accepted and approved by the World Bank.

C. Legal Operational Policies

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

D. Environmental and Social

104. **The project's overall environmental and social risk classification is "high".**

105. **The project's environmental risk is "high".** This is to account for the project's scope, nature, and environmental sensitivity, especially Component 3, whose interventions will take place in fragile coastal mangrove areas with the potential of coastal flooding and erosion, and the fact that poorly designed or implemented interventions could exacerbate erosion downstream. A further contributing factor is the weak capacity of implementing agencies regarding ESF assessment and implementation, and the potential redundancy of roles and responsibilities regarding coastal zone management. Furthermore, the occupational health and safety of workers and the community would need to be considered and properly managed. Aspects relating to ecosystem services will need to be assessed and managed.

106. **The project's social risk is "high".** Key social risks associated with project activities include: some physical and/or economic displacement, losses of assets, and/or income; restriction of access to resources; potential intercommunal conflict; some labor influx that may, in turn, exacerbate the risks related to SEA/SH; and the social exclusion of vulnerable groups such as persons with disabilities, the landless, elders, and youth in consultations and regarding access to benefits and development opportunities. Other risks include potential for child labor; community health and safety concerns; social fragmentation; and the disruption of traditional livelihoods. In terms of client capacity, institutional capacity to address ESF requirements varies.

107. **The environmental and social risk management for the project integrates lessons learned from WACA ResIP 1, particularly on stakeholder engagement, grievance management, and capacity building of environmental and social staff at PIU level.** PIU capacity is crucial for ensuring proper screening of activities and the timely preparation and implementation of site-specific instruments. Even though resettlement should not be large-scale under WACA ResIP 2, recent experience from ResIP 1 shows that PIUs require close supervision in the preparation and implementation of resettlement action plans to ensure correct mitigation measures are implemented prior to civil works. Meaningful participation of project beneficiaries and other stakeholders in discussions regarding potential social subproject preparation and implementation will help with the prioritization of activities and ensure better understanding of the concerns and needs of communities. Two-way communication between the project and the communities will also be strengthened by the project's grievance management mechanism.

108. **Eight of the 10 environmental and social standards (ESS) apply to the proposed project:** ESS1 (assessment and management of environmental and social risks and impacts); ESS2 (labor and working conditions); ESS3 (resource efficiency and pollution prevention and management); ESS4 (community health and safety); ESS5 (land acquisition, restrictions on land use and involuntary resettlement); ESS6

(biodiversity conservation and sustainable management of living natural resources); ESS8 (cultural heritage); and ESS10 (stakeholder engagement and information disclosure). The COVID-19 context has also been considered. ESF requirements will also apply to activities financed under TA such as legislation and guidelines related to coastal management, capacity building, and training.

109. **ESS1 (assessment and management of environmental and social risks and impacts):** The project includes interventions on policies and institutions, site investments, and social development, which have primarily positive environmental and social impacts and are expected to result in increased resilience of targeted communities and areas in the coastal Western Africa. The project aims to enhance the absorptive, adaptive, and transformative capacities of the three beneficiary countries and to reduce the shared risks to which they are exposed. To address the multiple adverse environmental and social risks and impacts on already vulnerable coastal communities, each country prepared an environmental and social management framework (ESMF), which was publicly disclosed (see table below). Risks and impacts could also result from TA activities. Therefore, the ESF requirements will apply for any activities funded from TA. These activities may include coastal management regulations and/or guidelines, training, and capacity-building. It will be important to ensure that the terms of reference for any TA include adequate assessment of environmental and social implications, and that the advice provided through the TA for addressing those implications is consistent with the ESF. Stakeholder engagement as per ESS10 is also a requirement for TA. No associated facilities are anticipated at this time, but if such facilities would emerge from parallel or co-financing, these would be subject to compliance with ESF requirements and the preparation of site-specific instruments detailing mitigation measures to be implemented before the start of works. Lessons learned from ResIP 1 contribute to a ResIP 2 design that is more participatory with coastal communities and ensure that communities are given feedback regarding their concerns on an ongoing basis. Close supervision of civil works will be necessary to ensure that site-specific instruments are implemented prior to starting any works, and that any damage to property or assets during works is avoided or compensated by the contractors. The PIU staff will conduct frequent site visits and prepare reports detailing progress and issues that may require remediation. In addition to the ESMF, a site-specific environmental and social impact assessment (ESIA) is under preparation for one of the potential priority sites in Ghana, Korle Lagoon, as per ESMF guidelines.

110. **ESS2 (labor and working conditions):** Based on an assessment of the labor requirements and types of employees engaged in the project, the Recipient countries and WAEMU prepared and disclosed labor management procedures to address key issues such as working conditions, the management of worker relationships, protecting the workforce, non-discrimination, minimum age of work, measures to prevent forced labor and child labor, and occupational health and safety requirements. Project workers include (i) all staff who directly work for the PIUs (civil servants or consultants); (ii) indirect workers (contractors and subcontractors; and (iii) community workers, where relevant. The labor management procedures contain a grievance mechanism for workers that is SEA/SH sensitive and follows national legislation as well as ESS2 requirements.

111. **ESS3 (resource efficiency and pollution prevention and management):** The project will support strengthening physical and social investments such as green infrastructure, grey infrastructure, building renovations, pollution abatement and waste management, and social and community-driven development. Different subprojects can result in various sources of pollution and impacts. Agricultural activities can result in soil erosion and water streams being contaminated by the improper management of agrochemicals (such as fertilizers and pesticides) and inadequate disposal of empty containers. The final ESMFs include guidance and measures to: (i) avoid and manage pollution; (ii) efficiently use resources

such as water and energy; (iii) promote good agricultural practices, including integrated pest management; and (iv) ensure the safe use of agrochemicals. Site-specific ESIAs and environmental and social management plans will include technically and financially feasible measures for improving the efficient consumption of energy, water, raw materials, and other resources. A mitigation hierarchy will also be applied to manage potentially adverse environmental and social impacts related to construction waste and other pollutants.

112. **ESS4 (community health and safety):** Impacts on community health and safety will primarily relate to life and fire safety at school projects or other buildings with public access (community development projects), and accidents stemming from the traffic of vehicles, trucks, and heavy machines at small infrastructure projects (roads, wave breakers, and small jetties). The management of agrochemicals at alternative agriculture projects could also impact local community health and safety if not done properly. Contaminated water from well restoration (a potential community development project) can also have a negative impact for the local community. The project ESMF and environmental and social management plan will include clear procedures and mitigation measures to avoid or limit the chances of COVID-19 infection among project workers and communities. These mitigation measures will follow the April 2020 World Bank interim guidance on COVID-19 consideration in construction or civil works, the stakeholder engagement tip-sheet, World Health Organization guidelines on COVID-19 preparedness and prevention, and national policies and directives on COVID-19 prevention and response.

113. **ESS5 (land acquisition, restrictions on land use and involuntary resettlement):** Some activities may require land acquisitions, leading to physical and/or economic resettlement. Resettlement policy frameworks were prepared and disclosed by the three Recipient countries. The frameworks provide guidance for preparing subsequent site-specific resettlement action plans, which after approval by the World Bank will be published in-country and on the World Bank's external website. These plans will be implemented prior to the start of civil works. The resettlement policy frameworks outline the principles and procedures for involuntary resettlement and/or compensation of project-affected people. They establish standards for identifying, assessing, and mitigating the negative impacts of project supported activities. For Guinea-Bissau, a process framework has also been prepared to address impacts related to restriction of access to natural resources.

114. **ESS6 (biodiversity conservation and sustainable management of living natural resources):** The ESMF provides guidance on screening and mitigation measures to ensure that project activities do not alter or cause destruction of any critical or sensitive natural habitats. The project will be implemented in coastal areas that host particularly diverse habitats, many of which are unique in terms of biodiversity and the provision of ecosystem goods and services. Project activities related to coastal infrastructure development and alternative agricultural production could impact on local ecology and biodiversity. While these activities are expected to be low-impact and will overall improve the conservation of these ecosystems, a comprehensive individual assessment must be completed before implementing these activities as part of site-specific environmental and social instruments to ensure that any activities undertaken are consistent with the area's legal protection status and management objectives, while meeting the requirements of ESS6, paragraph 27. As part of the ESMF, the clients have carried out an assessment of the potential impacts of project activities on biodiversity and natural resources, particularly from activities under Component 3. The ESMFs include guidance to prevent and mitigate possible small, localized, and reversible impacts that may be expected from the activities necessary to achieve project outcomes, as described under ESS1 above. If any significant impact is identified for any subproject, a standalone biodiversity management plan will be prepared.

115. **ESS10 (Stakeholder Engagement and Information Disclosure):** The Recipients and WAEMU have prepared and disclosed stakeholder engagement plans. These stakeholder engagement plans identify key stakeholders (including vulnerable groups), outline their characteristics and interests, and specify the timing and methods for engagement throughout the project lifecycle. In all countries, key stakeholders include the affected coastal populations, including poor and vulnerable groups, as well as national and local governments, donors, neighboring communities, private sector, civil society organizations, community-based organizations, and academia. During the consultations, feedback was received from various stakeholders.

116. **In Ghana's stakeholders consultations**, six themes emerged: (i) regarding the direct and indirect impacts of climate change, communities want to make sure government and implementing agencies consult with them with the aim of co-developing projects and programs that also address community needs, and that funding is also provided to train local leaders as part of adaptation support; (ii) regarding land use and development, there is a need to design funding for adaptation and resilience to give communities more decision-making authority in project implementation, land-use planning, and related infrastructure to anticipate and withstand future climate conditions; (iii) cultural heritage considerations should be integrated into climate change and resilience proposals; (iv) climate adaptation and resilience data should be co-produced with local communities and communicated in an accessible format; (v) with regard to disaster preparedness, more funding is needed for hazard mitigation efforts, nature-based solutions, and to create an early warning system; and (vi) regarding financing adaptation and resilience, government should ensure that climate justice and equity considerations apply to adaptation and resilience programs and projects financed or leveraged with national-level funds, with special attention to communities that face systemic underinvestment.

117. **Stakeholder consultations in The Gambia** generated feedback regarding: (i) concerns about the purpose of the project scope; (ii) whether there would be compensation for land acquisition; and (iii) whether employment opportunities would be created for local populations. Interest in nature-based solutions and training on disaster preparedness and monitoring was also expressed.

118. **ESF Instruments have been disclosed as per the following table:**

Recipient	National Disclosure Site	National Disclosure Date	WB Disclosure Date
The Gambia	*https://meccnar.gov.gm/waca-policy-documents*	October 20, 2022	October 20, 2022
Ghana	*https://mesti.gov.gh/west-africa-coastal-area-resilience-investment-project-ii-p175525/*	October 5, 2022	October 20, 2022
Guinea-Bissau	*https://ibapgbissau.org/documentacao/*	October 26, 2022	October 26, 2022
WAEMU	*http://www.uemoa.int/sites/default/files/bibliotheque/pmpp_waca_resip2_waemu_appraisal_rsa.pdf*	October 5, 2022	October 17, 2022

119. **The consultations in Guinea-Bissau** focused on project activities and recommendations such as providing the necessary equipment for park rangers to conduct monitoring activities and rehabilitating some the park infrastructure. There was a preference for in-person meetings and communications with Creole as

the preferred language. The engagements also uncovered a need to improve the grievance mechanism with written materials and guidance on how to keep records of cases.

120. **For WAEMU**, feedback from stakeholders focused on some of the lessons learned in the first phase, such as the need to reinforce the partnership and linkages between regional and national components of the project; improve the flow of information and communication between the regional and national stakeholders; ensure all stakeholders are included in different phases of the project.

121. **The stakeholder engagement plans each include a project-level, SEA/SH-sensitive grievance mechanism** that assures the safe and confidential documentation, response to, and management of complaints (including SEA/SH complaints) and the targeted and regular involvement of women and other at-risk groups in stakeholder engagements. If major changes occur in the scope of activities during implementation, a revised stakeholder engagement plan is required and should be publicly disclosed.

122. **Environmental and Social Commitment Plans:** With the support of the World Bank, the Recipients and WAEMU have prepared environmental and social commitment plans that identify the material measures and actions required, the timeframe within which these actions should be completed, and the responsible entities. The environmental and social commitment plans were finalized during negotiations and disclosed by the Recipients, WAEMU, and the World Bank. The environmental and social commitment plans require, among other things, that all PIUs hire skilled, experienced environment and social experts no later than three months after the project effectiveness date to oversee the management of environment and social risks and impacts, including occupational health and safety and SEA/SH-related issues.

123. **The overall GBV/SEA/SH risk for this program is "moderate".** SEA/SH risks are related mostly to: (i) construction activities when male workers are close to local communities, or if there is labor influx from outside the project area; (ii) the abuse of power, including SEA/SH and bullying in hiring, employment, and retention practices; (iii) the dissemination of accurate information on available services; and (iv) avenues to address grievances and resolve community conflicts leading to more harm, including against survivors who report SEA/SH experiences. To address these risks, the borrower countries have prepared SEA/SH action plans that include measures such as codes of conduct for workers and SEA/SH sensitive grievance mechanisms.

124. **The WACA approach will integrate social development aspects,** using citizen/gender strategic engagement to promote job creation for resilient coastal protection and targeted communities. A pilot, including an assessment of the market, will be undertaken in The Gambia.

V. GRIEVANCE REDRESS SERVICES

125. **Grievance Redress.** 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 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), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the Bank's Accountability Mechanism, please visit http://accountability.worldbank.org.

VI. KEY RISKS

126. **Macroeconomic risk for the project is "substantial".** The macroeconomic risk related to this project is about the countries' ability to provide public finance for government institutions to effectively manage the coastal zone. For The Gambia, inflation reached a several decades record high of 13.3 percent year-over-year at end-September 2022, and the current account deficit widened to 11.8 percent of GDP in 2022 owing to a deterioration of the trade balance and decline in remittances. For Ghana, the large fiscal deficits that it ran from 2020 onward triggered concerns of debt sustainability and the country lost access to the international capital market which, in turn, put pressure on the domestic currency, further aggravating debt pressures. In 2022, the Ghana currency depreciated by over 55 percent and headline inflation was just under 40% in September 2022, with growth is expected to decline to 3.5 percent. For all three countries, limited monetary financing compounded by inflationary pressures from higher food and fuel prices is causing major hardship and welfare losses for the population and uncertainty in the business environment. Larger external fiscal and external deficits, currency depreciation, and severe fiscal pressures could divert spending away from investment.

127. **The political and governance risk for this project is "substantial".** WACA ResIP 2 countries expressed a strong political interest in addressing coastal degradation issues. However, implementation generally lies with ministries in charge of the environment that do not always benefit from the highest political support. Gaps in institutional and regulatory frameworks also need to be filled through the TA components of the project. At the regional level, coordination between countries is also important because activities in coastal waters and shorelines in one country can affect another. Currently, limited collaboration and regional integration between countries has prevented countries from making optimal economic, social, and environmental decisions relating to their connected coastal areas. Decisions are usually taken unilaterally, without consulting neighboring countries at the political or technical levels or considering potentially adverse impacts on other countries. WACA ResIP 2 will address these issues with sensitization at a high political level and by using a consolidated regional institutional set-up, building on WACA ResIP 1 efforts towards regional integration (initially through WAEMU and the ABC, CSE, and ECOWAS). WACA ResIP 2 will also focus on transboundary aspects involving ResIP 1 and ResIP 2 countries. For instance, the appraisal of the Ghana project includes a discussion with Côte d'Ivoire to identify areas of cross-border collaboration. A similar situation exists between Guinea-Bissau and Senegal, and Senegal and The Gambia. Guinea-Bissau is also classified as a fragile, conflict, and violence-affected country, with a complex political economy, weak governance, and political tensions that may add some risk. These are mitigated through instruments and a CPF that ensures strong ownership and commitment, combining IDA financing and hands-on TA with assisting the government in enhancing public trust and the social contract. Aligned with the World Bank Strategy for fragile and conflict-affected countries (2020–2025), particularly its pillars on building institutional resilience and strengthening the government capacity, the project aims to support the capacity-building and financial sustainability of the key environmental institutions in Guinea-Bissau (IBAP, the Competent Authority for Environmental Evaluation (AAAC), and the General Environmental

Inspectorate (IGA). The PIU is under IBAP, an autonomous agency that has remained isolated from political and institutional tensions over the past decade. The project also relies on the BioGuinea Foundation (FBG), which is independent and designed to provide long-term financing for conservation. As for security concerns, project interventions are inside protected areas, where risks of violence (in Guinea-Bissau, mostly due to political unrest) are low. Missions will be conducted with IBAP, which has the mandate inside protected areas. Despite these mitigation measures, the residual risk is still rated as substantial.

128. **The sector strategies and policies risk for this program is "substantial".** At the national level, many sectors are involved in managing coastal areas, often with overlapping mandates, incompatible visions, and various levels of development. This requires strong engagement and an inter-sectoral coordination mechanism between primary and secondary stakeholders (for example, water, urbanism, transport, and municipalities). Such a mechanism is either lacking or not formalized in the three participating countries. The project will use different mechanisms to coordinate activities at both the national and regional levels. At the national level, the project will identify and build on existing mechanisms such as ad hoc commissions and multi-ministerial steering committees to ensure a high level of coordination. At the regional level, the RSC and the Scientific Regional Committee will strengthen engagement between countries in the region (under the leadership of WAEMU for strategies and policy matters). Despite the project's interventions, the residual risk for sector strategies and policies is rated as substantial.

129. **The risk for the project's technical design is "moderate".** WACA ResIP 2 is technically and operationally complex, dealing with different activities at the country level and adding a layer of integration at the regional level. To mitigate this risk, the teams already identified additional studies that are needed within the countries to complement the technical design. Overall, the risk in this section has been rated "moderate" because interventions are expected to be manageable, with a balanced set of physical interventions (for example, breakwaters, seawalls, revetments, groynes, dikes, rehabilitation of flood plain areas, ecosystem restoration, and so on) and soft activities (for example, social subprojects, citizen engagement, TA, and so on).

130. **The institutional capacity for implementation and sustainability risk is "substantial".** Some of the national implementing agencies have relatively weak implementation capacity due to limited human resources and technical capacity. The RISU will mitigate this risk by providing support. At the country level, significant training and capacity development have been included. The well-established regional framework will also provide substantial country support. For example, the IUCN's Central and West Africa Program (PACO) will continue to support country PIUs along with regional partners. The RISU will support in areas such as program coordination, M&E, reporting, financial and administrative management, procurement, environment and social, nature-based solutions, and so on. The WACA ResIP 2 will include an annual learning and cross-fertilization event on regional and economic scale issues, leading to a matrix approach to managing regional integration with positive impacts at national levels. WACA ResIP 2 countries were also invited to attend supervision discussions at the regional level as well as other important events to anticipate their integration into regional activities and their need for support. However, the risk remains substantial, especially for The Gambia and Guinea-Bissau, which have limited capacity at the institutional level.

131. **The fiduciary risk is "substantial".** Some PIUs / Ministries such as the Gambia have a limited experience using World Bank fiduciary regulations and administration tools. In other cases, despite the proven experience, delays were noted in delivering internal audits (*i.e.,* WAEMU). This rating is substantial because of the wide-spanning fiduciary transactions in several new countries coupled with regional-level

interventions. Mitigations measures, include: the preparation of the PIM including focus on fiduciary procedures; and, hiring adequate fiduciary specialists and strengthening overall capacities in PIUs on fiduciary matters (Cf. Annex 8).

132. **The environmental and social risk classification is "high".** Key environmental risks include the fact that under component 3, some of the activities will take place in fragile coastal mangrove areas with the potential of coastal flooding and erosion, and the fact that poorly designed or implemented interventions could exacerbate erosion downstream. A further contributing environmental risk factor is the weak capacity of implementing agencies regarding ESF assessment and implementation, and the potential redundancy of roles and responsibilities regarding coastal zone management. The main social risks associated with project activities include physical and/or economic displacement related to civil works as well as losses of assets and/or income due to impacts from project activities; potential inter-communal conflict between those benefitting from activities and those who may not be direct beneficiaries; potential labor influx related to civil works that in turn may exacerbate the risks related to SEA/SH; the social exclusion of vulnerable groups such as persons with disabilities, the landless, elders, and youth in both the consultations process and regarding access to benefits and development opportunities. Other risks include potential for child labor; community health and safety concerns; social fragmentation; and the disruption of traditional livelihoods. There is variation in institutional capacity to manage these risks, including in the implementation of ESF instruments.

Results Framework

COUNTRY: Western and Central Africa

West Africa Coastal Areas Resilience Investment Project 2

Project Development Objectives(s)

To strengthen the resilience of targeted communities and areas in coastal Western Africa.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Project Development Objective				
Households in targeted coastal areas with less exposure to erosion due to the project (disaggregated by country) (Number)		0.00	15,000.00	60,000.00
The Gambia (Number)		0.00		0.00
Ghana (Number)		0.00	15,000.00	60,000.00
Guinea Bissau (Number)		0.00		0.00
Households in targeted coastal areas with less exposure to flooding due to the project (Disaggregate per country) (Number)		0.00	20,000.00	44,000.00
The Gambia (Number)		0.00	2,000.00	4,000.00
Ghana (Number)		0.00	18,000.00	40,000.00
Guinea Bissau (Number)		0.00		0.00
Households in targeted coastal areas with less exposure to pollution due to the project		0.00	20,000.00	85,000.00

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
(disaggregated by country) (Number)				
The Gambia (Number)		0.00	10,000.00	45,000.00
Ghana (Number)		0.00	10,000.00	40,000.00
Guinea Bissau (Number)		0.00		0.00
Household with improved access to livelihood support (disaggregated by country) (Number)		0.00	15,000.00	54,000.00
The Gambia (Number)		0.00	1,000.00	4,000.00
Ghana (Number)		0.00	9,000.00	40,000.00
Guinea Bissau (Number)		0.00	5,000.00	10,250.00
Area with reduced ecosystem vulnerability (disaggregated by country) (Hectare(Ha))		0.00	50,000.00	147,043.00
The Gambia (Hectare(Ha))		0.00	10.00	70.00
Ghana (Hectare(Ha))		0.00		0.00
Guinea Bissau (Hectare(Ha))		0.00	48,990.00	146,973.00
Share of target beneficiaries with rating 'Satisfied' or above on project interventions (disaggregated by country, sex) (Percentage)		0.00	20.00	67.00
The Gambia (Percentage)		0.00		67.00
Ghana (Percentage)		0.00		67.00
Guinea Bissau (Percentage)		0.00		67.00
Regional Integration Score (Number)		10.00	30.00	84.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Component 1: Strengthening Regional Integration				
Countries that timely submit datasets to the Regional Coastal Observatory (Number)		0.00	1.00	3.00
Component 2: Strengthening the Policy and Institutional Framework				
Countries with national Multi-Sector Investment Plans updated to integrate regional environmental considerations (Number)		0.00	1.00	3.00
Score on policy instruments and legal framework (disaggregated by country) (Number)		0.00	1.00	5.00
The Gambia (Number)		0.00		3.00
Ghana (Number)		0.00		2.00
Guinea Bissau (Number)		0.00		4.00
Inter-Ministerial and Transboundary Coastal Zone Entities established and operational (disaggregated by country) (Yes/No)		No	Yes	Yes
The Gambia (Yes/No)		No		No
Ghana (Yes/No)		No	Yes	Yes
Guinea Bissau (Yes/No)		No	Yes	Yes
Natural Resources Management Committees with improved female participation (disaggregated by country) (Number)		0.00	1.00	9.00
The Gambia (Number)		0.00		0.00
Ghana (Number)		0.00	1.00	3.00

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Guinea Bissau (Number)		2.00		6.00
Countries with conservation financing capacity strengthened or created (Number)		0.00	0.00	1.00
Beneficiaries of capacity building activities (disaggregated by country, sex) (Number)		0.00	1,500.00	2,100.00
The Gambia (Number)		0.00		0.00
Ghana (Number)		0.00	300.00	750.00
Guinea Bissau (Number)		0.00	1,200.00	1,350.00
Component 3: Strengthening National Physical and Social Investments				
Targeted coastal area with flooding control measures (disaggregated by country) (Hectare(Ha))		0.00	50.00	200.00
The Gambia (Hectare(Ha))		0.00	50.00	200.00
Ghana (Hectare(Ha))		0.00		0.00
Guinea Bissau (Hectare(Ha))		0.00		0.00
National Early Warning Systems established or reinforced (Disaggregated by country) (Yes/No)		No	Yes	Yes
The Gambia (Yes/No)		No	Yes	Yes
Ghana (Yes/No)		No		No
Guinea Bissau (Yes/No)		No		No
Shoreline with targeted coastal erosion control measures (disaggregated by country) (Kilometers)		0.00	100.00	550.00
The Gambia (Kilometers)		0.00		0.00
Ghana (Kilometers)		0.00	100.00	550.00
Guinea Bissau (Kilometers)		0.00	0.00	0.30

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Sites/zones with pollution control measures (disaggregated by country) (Number)		0.00	1.00	2.00
The Gambia (Number)		0.00	0.00	1.00
Ghana (Number)		0.00	1.00	1.00
Guinea Bissau (Number)		0.00		0.00
Critical human-built assets protected (Number)		0.00	2.00	8.00
The Gambia (Number)		0.00	1.00	7.00
Ghana (Number)		0.00	1.00	1.00
Guinea Bissau (Number)		0.00		0.00
Area of natural ecosystems that have benefited from conservation and/or restoration measures. (disaggregated by country) (Hectare(Ha))		0.00	50,000.00	147,043.00
The Gambia (Hectare(Ha))		0.00	70.00	70.00
Ghana (Hectare(Ha))		0.00		0.00
Guinea Bissau (Hectare(Ha))		0.00	40,070.00	146,973.00
Forest area under management plans (Disaggregated by country) (Hectare(Ha))		0.00	100,000.00	539,000.00
The Gambia (Hectare(Ha))		0.00		0.00
Ghana (Hectare(Ha))		0.00		0.00
Guinea Bissau (Hectare(Ha))		0.00	100,000.00	539,000.00
Nature-based solutions established (Disaggregated by country) (Number)		0.00	3.00	11.00
The Gambia (Number)		0.00	1.00	6.00
Ghana (Number)		0.00	1.00	2.00
Guinea Bissau (Number)		0.00	1.00	2.00

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Increase in average annual earnings of women (Percentage)		0.00	10.00	20.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Households in targeted coastal areas with less exposure to erosion due to the project (disaggregated by country)	The indicator measures resilience to erosion by design through infrastructure solutions and nature-based solutions. It captures absorptive capacity of resilience due to the protection provided against erosion, and transformative capacity and creation of new livelihood opportunities. A household consists of one or more people who reside in the same dwelling and also share meals or living accommodation. A household may consist of a single family or some other	Annually	Field survey	Field survey	Regional Implementation Support Unit M&E function

	grouping of people. Less exposure to erosion means reduction in the danger of damage over the lifetime of the project to dwellings and other immovable assets from the action of surface processes.				
The Gambia					
Ghana	Keta Lagoon Complex, Densu Delta This indicator will be measured in synergy with the Problue indicator 3.8 related to Households in coastal areas vulnerable to erosion and flooding (number).				
Guinea Bissau					
Households in targeted coastal areas with less exposure to flooding due to the project (Disaggregate per country)	Climate indicator. The indicator measures reduced exposure to flooding through infrastructure solutions, and nature-based solutions. Less exposure to flooding means decreased likelihood and intensity of flooding,	Annually		Field Survey	Regional Implementation Support Unit M&E function

	due to project-related investments for houses and other immovable assets.				
The Gambia	Kotu Stream, green river belt, green and blue zones, river cleaning, reprofiling and/or enlarging the river profile, replacing or rehabilitating critical infrastructure (bridges, culverts), rehabilitating/expanding the primary drainage system, local water storage/infiltration areas utilizing sustainable urban drainage systems (SUDS).				
Ghana	This indicator will be measured in synergy with the Problue indicator 3.8 related to Households in coastal areas vulnerable to erosion and flooding (number).				
Guinea Bissau					
Households in targeted coastal areas with less exposure to pollution due to the project (disaggregated by country)	The indicator measures reduced exposure to pollution through infrastructure solutions and/or nature-based solutions.	Annually	Field Survey		Regional Implementation Support Unit M&E function

	Pollution is defined as the introduction of chemical substances into the natural environment that cause adverse change. Less exposure to pollution means reduction in the danger of damage over the lifetime of the project to human health, dwellings and other immovable assets from the introduction of chemical substances into the natural environment that cause adverse change.				
The Gambia	Kotu Stream cleaning, maintenance, awareness				
Ghana	This indicator will be measured in synergy with the Problue indicator 3.8 and 3.17 related to Households in coastal areas vulnerable to pollution (number) and pollution hotspots.				
Guinea Bissau					
Household with improved access to livelihood support (disaggregated by country)	The indicator measures improved livelihood at the	Annual		Field survey	PIUs and Regional implementation

	level of households (income, jobs, food and others) through activities promoted by the project and the valuation of physical investments (under component 3) that increase household income or self-sufficiency. This means that new livelihood activities have been added and developed (diversification of income sources) or that existing activities have been improved thanks to project interventions.				support unit
The Gambia					
Ghana	This indicator in Ghana will be measured in parallel with the Problue indicator 3.3 related to Men and women in coastal areas with increased economic opportunities in traditional and/or new economic sectors (number), of which women (%)				
Guinea Bissau	Underlying assumption is that everyone in PAs will				

	benefit from improved management of PA and its ecosystem services. Expected to actively engage with 61,500 people, the equivalent of 60% PNC, 60% PNTC, 80% PNLC populations. Assumption 6 people on average per household.				
Area with reduced ecosystem vulnerability (disaggregated by country)	This indicator measures the area of ecosystems that, as a result of the project activities, are experiencing a reduced exposure to contingencies and stress. This include the areas of ecosystems that are covered by protective, management, planning and strategic policies and or measure; and the areas of ecosystems that benefitted from restoration and conservation measures.	annual		Field Survey	PIUs and Regional implementation support unit
The Gambia					
Ghana					
Guinea Bissau	Area of PNTC, PNC and PNLC				

Share of target beneficiaries with rating 'Satisfied' or above on project interventions (disaggregated by country, sex)	The indicator on satisfaction with the totality of project interventions captures demand-side social accountability and serves as citizen engagement (corporate requirement). Focus in perception survey will be on: environmental benefits, livelihoods aspects and participation. The total is calculated as a simple average. This indicator will be also reflected in Problue Results Framework under "Beneficiaries, females" indicator.	Biennial	Perception survey	Perception survey	Regional Implementation Support Unit M&E function
The Gambia					
Ghana					
Guinea Bissau					
Regional Integration Score	The Regional Integration Score is a proxy measure of absorptive, adaptive and transformative capacity by providing a legal, institutional basis, techniques for planning, resource mobilization,	Annually	Reports	Compilation of information data sources.	Regional Management Unit (RMU) based at the West Africa Economic and Monetary Union (WAEMU).

	making investments and monitoring for building resilience in coastal areas. The maximum regional integration score for ResIP1 and 2 is 84				

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Countries that timely submit datasets to the Regional Coastal Observatory	The indicator links to the indicator on the regional coastal observatory and is thus an indirect measurement of strengthened capacity in resilience through provision of data on long-term trends and ecosystems health.	Annually	Review of entry data	Review of entry data	Regional Implementation Support Unit M&E function
Countries with national Multi-Sector Investment Plans updated to integrate regional environmental considerations	The indicator measures the number of countries that update their national MSIPs or developed coastal zone development and management plans (e.g. MSP, etc.) to include regional considerations, i.e. coastal area investments in one country will take	Annually	Review of national Multi-Sectoral Investment Plans		Regional Implementation Support Unit M&E function

	account of and mitigate potential negative environmental in neighboring countries. Cumulative targets.				
Score on policy instruments and legal framework (disaggregated by country)	The indicator is an indirect measurement of strengthened capacity (absorptive, adaptive and transformative) in resilience through improved policy instruments and legal framework for resilience in coastal areas. Annual targets.	Annually	Policy and legal review		Regional Implementation Support Unit M&E function
The Gambia					
Ghana	This indicator will be measured in synergy with Problue Ghana project, including with respect to indicators 2.25, 2.26, 2.28, 2.29 which all count for the MSP.				

Guinea Bissau					
Inter-Ministerial and Transboundary Coastal Zone Entities established and operational (disaggregated by country)	This indicator measures the existence or not of an operational body (committees, office, agency, authority, etc.) responsible for steering and coordinating the management of coastal resilience at national and / or transboundary levels. These bodies will be officially recognized after signature of the text of creation, and operational if the meetings are regularly held, the minutes drawn up and the decisions monitored and evaluated.				
The Gambia	This activity is supported by other donors				
Ghana	The project will help to operationalize the WACA steering committee				
Guinea Bissau	The project will provide support to the platform developed under the				

	Coastal Project. WACA will address the need for an ad-hoc committed for the preparation and monitoring of implementation of the Coastal and Marine Spatial Plan (CMSP)				
Natural Resources Management Committees with improved female participation (disaggregated by country)	The indicator counts the number of committee that manage natural resources and that actively promote women's participation. For Ghana, these committees are the Mangrove CREMAs. The Gambia: N/A; Guinea Bissau: the concerned institutions are the Parks management committees.	annual		institutional assessment	PIUs
The Gambia					
Ghana	This indicator will be measured in parallel with the Problue indicator 3.5 on Men and women participating in planning and decision-making on the Blue Economy (number).				
Guinea Bissau	Support will be provided to 3 PMCs, 7 sub-committees, and training will be provided to PMC members.				

Countries with conservation financing capacity strengthened or created	The indicator measures the improved capacity at country-level to attract financing for conservation without actually counting the financing received. Examples are conservation bonds and conservation trust funds.				
Beneficiaries of capacity building activities (disaggregated by country, sex)	The indicator measures the learning benefits of any capacity development, knowledge and skills transfer activity at the individual level, such as classroom or on-the-job training, demonstrations and awareness sessions. The indicator will be also disaggregated among men/women; government officials and local communities and type of training).	Annual		Registration sheets, certificates, etc.	PIUs
The Gambia	the number will be refined as soon as the number of beneficiaries from the component 3.2 will be identified.				
Ghana	The targets are for now				

	estimate numbers for potential beneficiaries on ESF training and technical issues, as well as community based trainings.				
Guinea Bissau	Estimate number of beneficiaries include those for environmental and social risks management trainings, people benefiting from environmental education, community based training, institutional capacities, natural resources management trainings, study tours.				
Targeted coastal area with flooding control measures (disaggregated by country)	The indicator links to PDO indicator #2 and measures absorptive capacity of resilience due to the protection provided against flooding. The specific flooding control measures differ between the three participating countries – see PDO indicator #2. Cumulative targets.	Annually	Technical review upon completion of works		Regional Implementation Support Unit M&E function

The Gambia	the 200 ha identified area are given by a buffer of 50m along the Kotu stream and the primary drainage.				
Ghana	Estimate TBC				
Guinea Bissau					
National Early Warning Systems established or reinforced (Disaggregated by country)	Climate indicator. National early warning systems include Hydromet. The indicator measures absorptive capacity of resilience through preparation for negative impacts of hazards and to save essential assets and lives	Annually	Institutional Assessment		Regional Implementation Support Unit M&E function
The Gambia					
Ghana					
Guinea Bissau					
Shoreline with targeted coastal erosion control measures (disaggregated by country)	Climate indicator. The indicator links to PDO indicator #1 and measures absorptive capacity of resilience due to the protection provided against erosion. In particular, it measures the length of the	Annually	Technical review upon completion of works		Regional Implementation Support Unit M&E function

	coast (threatened by erosion) protected against the risk of erosion thanks to the hard or soft structures put in place by the project. The specific erosion control measures differ between the three participating countries – see PDO indicator #1. Cumulative targets.				
The Gambia	N/A in the Gambia				
Ghana	Estimate				
Guinea Bissau	NBS likely in Bubaque area				
Sites/zones with pollution control measures (disaggregated by country)	Climate indicator. The indicator links to PDO indicator #3 and measures absorptive and adaptive capacity of resilience. The specific pollution control measures may differ between the three participating countries – see PDO indicator #3.	Annually	Technical review upon completion of works		Regional Implementation Support Unit M&E function
The Gambia					
Ghana	Indirectly in Korle lagoon				

	(sediment removal, no stagnating sewage)				
Guinea Bissau					
Critical human-built assets protected	The indicator measures critical assets protected because of the project.				
The Gambia	River restoration infrastructure (1), improved urban primary drainage (1), bridges on the Kotu stream limiting flow (5)				
Ghana					
Guinea Bissau					
Area of natural ecosystems that have benefited from conservation and/or restoration measures. (disaggregated by country)	This indicator measures the project's efforts in conserving and/or restoring more natural ecosystems. These are protected areas that have benefited from improved management and/or areas of degraded natural ecosystems that have benefited from restoration measures (reforestation, regeneration).	Annually	Field survey		Regional Implementation Support Unit M&E function
The Gambia					
Ghana					

Guinea Bissau	Area from the three protected areas on which the project focuses.				
Forest area under management plans (Disaggregated by country)	Corporate results indicators and climate indicator.	annual	Review of documents / field survey		
The Gambia					
Ghana					
Guinea Bissau	PAs ecosystem area for all 6 PAs: updated management plans in PNC, PNTC, PNLC, PNO, JVP, Urok				
Nature-based solutions established (Disaggregated by country)	Climate indicator. The indicator counts the number of nature-based solutions established that meet the criteria of the IUCN Global standard for NBS.	Annual	Field survey		
The Gambia					
Ghana					
Guinea Bissau					
Increase in average annual earnings of women	This indicator will measure the percentage increase in average annual earnings of female beneficiaries who are employed under the project in The Gambia. This indicator will be measured				

	after project completion at a point in time that the project can be considered long-term.				

ANNEX 1: Detailed Project Description and Cost

Component 1: Strengthening Regional Integration (IDA US$16 million equivalent)

1. **The objective of the regional integration component is to strengthen the effective coordination of stakeholders, activities and investments** for improving climate resilience in coastal areas in West Africa at the regional and national levels. This is achieved through harmonization of policy, development of collaborative decision-making support tools, strengthening regional institutional collaboration, and development of new strategic partnerships to scale-up the response to coastal resilience development challenges. Based on lessons learned and of the progress made in regional integration under ResIP 1, this Project will advance the transfer of WACA Platform functions to regional institutions. WAEMU will: (i) ensure a global coordination of the component; (ii) implement activities related to investment framework, finance, governance, dialogue and citizen engagement, together with regional policies, E&S risk management for investments and innovation; (iii) mobilize regional institutions supporting the implementation of activities (ABC, CSE, RAMPAO, PRCM) (sub-component 1.1); and (iv) hire IUCN to scale up its technical coordination and support role (Sub-component 1.2). Under its contract with WAEMU, IUCN will: (i) strengthen the RISU to support countries component management; (ii) mobilize internal and external international expertise to support regional and national activities; and (iii) ensure technical coordination and supervision of the regional institutions' activities involved in the project[37] to address identified challenges and country requests.

2. **The regional integration component will be firmly anchored on the foundations of the WACA ResIP 1 project** and will extend its regional and country support beyond the nine countries benefiting from a national operation to cover all the 17 countries from Mauritania to Gabon, as envisioned in the WACA Program.

3. **The sub-component will be implemented by WAEMU Commission's Environment Directorate**, through the existing RMU. WAEMU will mobilize IUCN and regional institutions, such as ECOWAS, through specific agreements to implement component activities. Two sub-components are proposed.

Sub-Component 1.1: Regional Strategies, Policies and Governance (IDA US$10.5 million)

4. **This sub-component aims to strengthen WAEMU coastal resilience regional leadership** and to operationalize a coordinated regional planning, financing and monitoring coastal resilience investments. The sub-component will be implemented by WAEMU's Commission Environment Directorate, through the existing RMU. The sub-component is organized around three pillars:

5. **Finance, investments, and innovation**. The project will support the implementation of the regional financing mobilization strategy developed under WACA ResIP 1, and will ensure the transfer of the finance mobilization function from the WACA platform to WAEMU. Activities will include organization of events for funds mobilization during key regional meetings, such as the Regional Marine and Coastal Forum (for example, the marketplace, donor round tables), and the establishment of a facility for the development

[37] The Abidjan Convention Secretariat of the United Nations Environment Program (UNEP), the CSE of Dakar, the Center for Studies on Risks, the Environment, Mobility and Urban Planning (CEREMA) and its network, RAMPAO, PRCM, ACECoR, the Global Initiative for West, Central and Southern Africa for the fight against marine pollution by hydrocarbons (GI-WACAF) and any other institutions with proven skills to support the resilience of coastal areas and communities.

of regional projects on coastal resilience.[38] This will be combined with continued efforts[39] to strengthen the coordinated framework for coastal resilience investments in the region, with the development or updates of investment plans at regional (PARSI)[40] and national levels (MSIP),[41] and the operationalization of a regional investment monitoring system.[42] To promote the use of innovative and regionally appropriate solutions in investments for coastal resilience, the project will support a call for proposals[43] for research and innovation initiatives, and knowledge sharing through research symposia.[44] This endeavor will support decision-making and investments, and will build expertise in West Africa by supporting innovators and researchers (MSc, PhD, and Postdoc).

6. **Governance, dialogue and citizen engagement.** The project will build on and strengthen the regional governance framework for coastal resilience initiated by WAEMU in 2007, with the Regional Coastal Erosion Program (PRLEC).[45] Activities will: (i) support the development of regional strategies for coastal resilience and the Blue Economy;[46] (ii) strengthen existing governance entities;[47] (iii) structure a joint collaboration platform between WAEMU, ECOWAS, and ECCAS to facilitate collaboration on Blue Economy and coastal resilience issues and address topics such as plastic pollution, regional coordination on maritime transport, and tourism development; (iv) strengthen the existing institutional framework for coastal resilience by supporting key regional institutions (CSE, ABC, PRCM, and RAMPAO)[48] engaged in coastal resilience in West Africa for regional coordination and animation in their fields of expertise; and (iv) foster multi-stakeholder dialogue, citizen engagement and civil society mobilization for coastal resilience with support from the PRCM secretariat[49].

[38] The facility will support the development of regional projects through TA based on regional financing mobilization strategy opportunities.

[39] Activities performed under WACA ResIP 1 resulted in: (i) an improved knowledge on the state, pressure, and responses provided to strengthen coastal resilience with the update of the West African Coastal Master Plan (SDLAO, 2020); and (ii) a structured approach to investment planning with the development of countries' MSIPs and the development of a strategic regional action plan for investments (PARSI), proposing, among other things, solutions to the problems identified in the updated SDLAO.

[40] Regional strategic action plan for investments (PARSI) including new topics such as plastic pollution, tourism, and transport

[41] Technical support for updating or developing national MSIPs

[42] Through: (i) recruitment of an investment specialist by WAEMU to monitor the regional strategic action plan for investments (PARSI); and (ii) development of a digitalized investment monitoring system.

[43] PRCM secretariat will build on its experience to coordinate this activity with a selection committee composed of all regional partner institutions and the Regional Scientific Committee.

[44] To be organized in coordination with the Marine and Coastal Forum and RSC meetings.

[45] The Regional Coastal Erosion Control Program (PRELEC) aims to support its members and the other coastal countries of West Africa, within the scope of a joint planning process and suitable investments, based on a better understanding of natural and anthropogenic phenomena associated with coastal risks. The WAEMU's Common Environmental Improvement Policy served as a framework for this initiative.

[46] Including: (i) update of the PRLEC and (ii) development of the West and Central Africa Blue Economy strategy, in line with the overall strategy for Africa. The Blue Economy strategy will articulate national initiatives and address coastal resilience issues, as well as key sectors such as tourism, transport, extractive industries, and fisheries.

[47] Through the organization of: (i) ministerial meetings to define regional strategic orientations; and (ii) RSC meetings/consultations to inform decision-making.

[48] (i) CSE to support WARCO facilitation: (ii) RAMPAO secretariat for the extension and consolidation of the MPA network as key coastal resilience investments; (iii) PRCM to promote citizen engagement, civil society mobilization, multi-stakeholder dialogue and innovations; and (iv) Abidjan Convention Secretariat on international and regional regulation and commitments.

[49] Through: (i) the organization of the Marine and Coastal Forum in West Africa; and (ii) coordinate support for civil society initiatives (call for small projects, support for their implementation and monitoring), capitalization and exchange of lessons learned, experiences and best practices, with a focus on gender inclusion.

7. **Improvement of the environmental and social risk management framework for investments and harmonization of policies for coastal resilience**. WACA ResIP 2 will continue to support the regional environmental and social risk management capacity-building program under the responsibility of WAEMU in collaboration with IUCN, the Netherlands Commission for Environmental Assessment and the World Bank. Related activities will include: (i) development of regional environment and social risk management guidelines;[50] (ii) implementation of a multi-year training program on environment and risk management; (iii) networking of national agencies and institutions in charge of environmental and social risk management; and (iv) operationalization of the "port sustainability program Charter"[51] by conducting regional studies and initiating a dialogue to improve the environmental performance of ports.

8. **With support from the Abidjan Convention Secretariat, this pillar will also strengthen the marine and coastal regulatory frameworks** within the region and will ensure their consistency with international and regional commitments, MSIPs, and PARSI: (i) an online atlas of marine and coastal environmental laws for West Africa will be developed to support countries' marine/ICZM spatial planning; (ii) TA on legal issues will be provided to countries to ensure regulatory reform processes are in accordance with ABC and its additional protocol; and (iii) the project will contribute to the organization of an ABC conference of parties to support inter-country dialogue on international and regional commitments.

Sub-Component 1.2: Regional Technical Support for Coastal Resilience (IDA US$5.5 million)

9. **This sub-component will provide technical support at the regional and national levels required to implement the project,** and strengthen regional initiatives and partnerships for coastal resilience. The IUCN will be hired by WAEMU through single-source procurement to provide this coordination and technical support. IUCN will mobilize its internal international expertise and will ensure technical coordination and supervision of the activities of regional institutions involved in the project[52] to address identified challenges and countries' requests. This sub-component is structured as follows:

10. **Helpdesk: project management, TA, and coordination of partnerships.** IUCN will consolidate the helpdesk function via its RISU, based in Dakar. The RISU staff, integrated to the IUCN Marine and Coastal Program, will support countries and regional partners on all components of project management: (i) program coordination; (ii) coordination of partnerships and institutional development; (iii) monitoring, evaluation, reporting and knowledge management; (iv) financial and administrative management; (v) procurement; (vi) communication; and (vii) environment and social framework management.

11. **IUCN, in collaboration with regional partners,** will provide technical support and capacity building to WACA countries in various fields - including implementation of physical investments (coastal engineering, nature-based solutions), provision and improvement of planning tools (ICZM, GIS, MSP), and management of marine-protected areas. They will organize virtual or face-to-face training sessions, workshops, and provide advice and TA on a permanent basis. IUCN will mobilize its internal units,[53] technical experts, and

[50] For example the management of sediment and dams.

[51] Approved in 2021 during the general meeting of the port management association of West and Central Africa (https://agpaoc-pmawca.org/https://agpaoc-pmawca.org/).

[52] The Abidjan Convention Secretariat of the UNEP, the CSE of Dakar, the CEREMA and its network, RAMPAO, the Regional Partnership for Coastal and Marine Conservation (PRCM), ACECoR, the Global Initiative for West, Central and Southern Africa for the fight against marine pollution by hydrocarbons (GI-WACAF), and any other institutions with proven skills able to support the resilience of coastal areas and communities.

[53] These include staff from African Protected Areas & Conservation program (PAPACO), NBS, "Green List" and business & biodiversity units

external expertise.[54] IUCN will provide technical support to WAEMU, including on the monitoring and supervision of WAEMU's agreements with regional institutions (CSE, RAMPAO, PRCM, and ABC).

12. **Coastal observation.** The project will support the operationalization of the WARCO in collaboration with CSE and with the RSC, as the main advisory body for technical and scientific outputs. Observation will become a continuous process with online accessible products and periodic summary documents. Activities will support: (i) WARCO's institutional framework; (ii) TA in the operationalization of WARCO's regional data dissemination platform,[55] (iii) support to national monitoring mechanisms and implementation of a training program,[56] (iv) assessment of the Red List of Ecosystems[57] for coastal areas in West Africa to complement existing knowledge on West African coastal ecosystems vulnerability; and (v) regular updates and dissemination of the West African State of the coast report.

13. **MPAs and ecotourism.** The project will promote MPAs and eco-tourism as a vehicle for a green, resilient, and inclusive development of coastal areas. The project will support the extension and consolidation of MPAs as a tool for the protection and sustainable management of ecosystems essential for coastal resilience. The Network of West African MPAs will be strengthened,[58] and international standards/labels will be applied to MPAs of the region to improve management efficiency and promote best practice. IUCN internal expertise, combined with external expertise, will be mobilized for the following activities: (i) evaluation of the management efficiency of MPAs (the integrated management effectiveness tool, iMET) and implementation of a training program for MPA managers on MPA management and sustainable tourism,[59] (ii) implementation of the West African MPA "Green List" labeling process for the promotion of MPAs managed according to international standards,[60] and (iii) the promotion of existing sites, and support for the inclusion of new natural and cultural World Heritage Sites, located on West Africa coast and in biosphere reserves that appear on the list of UNESCO World Heritage sites.61

14. **To promote eco-tourism in the coastal zone, the project will support:** (i) the elaboration of a diagnosis and the development of guidelines and standards for the sustainable development of tourism aimed at complementing ECOWAS ECCAS/WAEMU tourism standards;62 (ii) the organization of consultations for the adoption of these guidelines and standards by regional integration organizations; and (iii) the capacity-building of MPAs managers on sustainable tourism.

[54] i.e., on coastal engineering and spatial planning, CEREMA will: (i) provide assistance to WACA ResIP 2 countries in the design and monitoring of studies and works, as well as; (ii) continuous of ad hoc capacity building for all countries.

[55] The provision of TA to the CSE to improve data collection, dissemination, regional alert, and decision-making (software, IT equipment and training)

[56] International expertise (CEREMA, France's Naval Hydrographic and Oceanographic Service, European Space Agency and the US National Aeronautics and Space Administration (NASA)) will be coordinated to support the development of key applications for WARCO operation and effectiveness. Additional TA will ensure the quality assurance of WARCO, and build the technical and institutional capacity of national observation mechanisms, as well as the development of regional networks for the equipment of meteorological and marine measurements and the generation of information for the implementation of a decision support system for alerts (RESALOA).

[57] *https://www.iucn.org/theme/ecosystem-management/our-work/red-list-ecosystems*

[58] Through support to RAMPAO secretariat (as mentioned in sub-component 1.1.), and other MPAs stakeholders

[59] With IUCN staff from PAPACO.

[60] A series of pilot MPAs will be selected and supported to join the "green list", with IUCN staff from the "Green List" unit.

[61] A detailed diagnosis of all existing sites threatened by coastal risks and potential coastal sites to be included in the lists of World Heritage and biosphere reserves will be developed, along with a work program to support the inclusion process, utilizing staff from the IUCN "UNESCO World Heritage" Unit.

[62] With staff from the IUCN business and biodiversity unit.

Component 2: Strengthening the Policy and Institutional Framework (Total US$28.1 million equivalent: IDA US$26.1 million, and PROBLUE US$2 million)

15. **This component provides technical and financial support to countries** to develop and operationalize the policy frameworks necessary to implement ICZM plans and strategies at national level, and to link these to the regional level. The specific activities to be implemented in each of the participating countries are the following:

- **The Gambia (IDA US$6 million).** The project will: (i) support in mainstreaming disaster risk reduction and climate change in urban planning and resilient infrastructure; (ii) strengthen institutional capacities for effective and streamlined climate change and disaster risk reduction (DRR) responses; and (iii) improve the quality of hydro-meteorological services and early warning systems. This component will also contribute to gender-inclusive frameworks, plans and strategies; as well as capacity-building to equip planners, policy makers, and implementers with the knowledge and tools to analyze and develop more inclusive coastal recovery policies/plans. The project will also support Gambian engagement on the WARCO and state of the coast reporting process, local initiatives, and learning with PRCM; knowledge sharing on MPA management with RAMPAO; engagement of capacity-building, and professional training with ACECoR, and work with the Abidjan Convention Secretariat to address any gaps in meeting the obligations made to the Convention's protocols (mangroves, ICZM, pollution, and oil/gas). Finally, in The Gambia, this component will support the development of policy frameworks around transboundary coastal zone management along The Gambia's borders with Senegal.
- **Ghana (Total US$11.1 million: IDA US$9.1 million and PROBLUE US$2 million).** The project will support the strengthening of institutional and policy frameworks around coastal development, protection, and natural resource, invasive species, and pollution management (exclusive of fisheries). Focus areas will include strengthening existing national coordination mechanisms and developing mechanisms for sub-national coordination, including civil society coordination. This component will also support the institutional capacity building of MESTI and other government institutions involved in coastal zone management and development, and mechanisms for improved inter-institutional coordination. Policy actions will support improved land use and MSP for resilient coastal development, including collection and analysis of data critical for risk-informed decision making. This includes, but is not limited to, data related to beach profile and crest elevation, spatial data, pollution M&E (including plastic pollution), and improved local demographic and economic data, especially as relates to sources of livelihood and gender disaggregation. Policy actions will also support the circular economy and plastics agendas as identified under the ongoing World Bank-executed PROBLUE trust fund activity, "Improving Framework Conditions for Reducing Marine Litter and Pollution in the Greater Accra Region, Ghana". This component will support Ghanaian engagement on the West Africa Coastal Observatory and State of the Coast reporting process; private-sector engagement on ports via the sustainable ports' initiative; local initiatives and learning with PRCM; knowledge-sharing on MPA management with RAMPAO; engagement of capacity-building and professional training with ACECoR; and work with the Abidjan Convention Secretariat to address any gaps in meeting the obligations made to the Convention's protocols (mangroves, ICZM, pollution, and oil/gas) - including participation in ongoing dialogues for the adoption of an international legally binding treaty on plastic pollution of the marine environment, complemented by the ongoing PROBLUE ASA). This component will also provide support to ACECoR to establish modern research capabilities through the development of research facilities and equipment, will develop decision support tools for government and private sector, and

will identify critical investment opportunities for nature-based solutions and integrated sediment management, in collaboration with leading institutions on these topics from the Netherlands and Japan. This component will support the development of policy frameworks around transboundary coastal zone management, specifically as it relates to the use and management of shared resources along Ghana's borders with Côte d'Ivoire and Togo. The project will support the establishment of an integrated national-local citizen platform for coastal resource management and will utilize other social accountability platforms. The platform will comprise two tiers: a national level civil-society organization platform represented in the WACA ResIP 2 Steering Committee and Technical Committee, and a sub-national level platform. The structure and operation of the platform will draw on the experience of existing natural resource governance platforms at national level (Civil Society Platform on Oil and Gas, Ghana Extractive Industry Transparency Initiative, Public Interest Accountability Committee) and subnational level (Community Resource Management Areas), fisheries co-management groups, and other community-based organizations. The platform's objective is to ensure project interventions are consistent with the adaptation goals of communities (short term), and to help strengthen the linkages between local and national level policy goals around sustainable blue practices (long term). CSO activities are expected to include: (i) articulating the views of communities in project areas and supporting accurate communication about coastal development issues and the project in communities; (ii) providing inputs to policy discussions on coastal resource management; (iii) monitoring the implementation of the stakeholder engagement plan; (iv) piloting a sub-national level platform which converges non-government organizations, community-based organizations, traditional authorities, research Institutions, and district assemblies; and (v) engaging in regional knowledge exchanges with CSOs in other WACA countries. The development of the platform will be supported by analytics under the WACA Program. Co-financing from the PROBLUE trust fund to Ghana will support: (i) the development of a national sustainable oceans plan, including the data collection and analyses necessary for subsequent, area specific MSPs; and (ii) improved plastic pollution through the design of regulatory and legal frameworks, advancing recommendations from Ghana's National Plastic Action Partnership, and through innovative pilots for plastic collection, and buy-back and recycling centers.

- **Guinea-Bissau (IDA US$11 million).** The project will support three areas of work: integrated coastal zone management, environmental and social risk management, and management of protected areas. On ICZM, the project will strengthen multisectoral platforms for collaboration; build institutional, stakeholder, and monitoring and data-sharing capacity; improve legislative and regulatory frameworks; support transposition of international conventions (for example, Abidjan, CBD, CITES, and Ramsar) to national laws and regulations; and support marine and coastal spatial planning and related studies, such as the development of natural capital accounting. The project will also: (i) strengthen capacity for the management of environmental and social impacts and risks by supporting the AAAC and the General Inspectorate of Environment (IGA); (ii) prepare strategic plans, operational manuals, and technical guides for evaluating risks; and (iii) develop monitoring systems (citizen monitoring and participation, a national grievance mechanism, GIS database, and so on). The project will support development of regulatory instruments to safeguard environmental and social conditions, and the implementation of related communication and awareness-raising campaigns, as well as targeted training programs for different stakeholders. On protected areas, the project will strengthen the IBAP and its partners to manage the National System of Protected Areas (SNAP) - including governance and operational capacity, preparation of the SNAP's 2021–2030 strategy, preparation of "Red Lists" of threatened species, a study for scaling up the SNAP REDD+ program and curbing deforestation, studies for co-management of protected areas and communication strategy, and targeted training initiatives.

Support to update laws and regulations (for example, an update of Framework Law on Protected Areas, draft Law on Mangroves, Community Forestry, Law on Endangered Species) will also be undertaken, along with supporting ecological connectivity through the proposed Jeta-Cacheu-Pecixe Biosphere Reserve and the Mina-Fifiol and Balana-Colbuia ecological corridors. The project will strengthen M&E including the GIS department, SNAP-wide monitoring system, the completion of the Management Effectiveness Tracking Tool, and eventually the integrated management effectiveness tool (iMET). Equipment including drones, infrared cameras, and satellite images will be procured. Finally, partnership arrangements with the FBG will be supported. The project will support the financial sustainability of the SNAP through support to the FBG on operation and governance structures and advisory bodies; operational manuals (for example, on investment policy, environmental and social risk policy, gender policy, grievance redress mechanisms, M&E, and an administrative and fiduciary procedures manual); fiduciary, operational, and monitoring support and training; preparation and implementation of a joint financing strategy; communication; participation in environment trust funds and foundations networks; fundraising capacity, including innovative financing instruments (for example, blue carbon credits, debt-to-nature swaps, and park bonds), the design of grant mechanisms; partnering with IBAP on implementing its REDD+ project; and office space and equipment. Support will be provided for the development of eco-tourism, including an update of the system of standards, codes of conduct, labeling for eco-tourism, and digitalizing park access fees, licenses and visas, a concession framework for eco-tourism, study exchange tours, studies and a development plan for ecotourism in the Bijagos, marketing campaigns and communications, and the required training of IBAP and Ministry of Tourism staff, private sector and community partners. On regional integration, the project will support Guinea-Bissau's engagement on the West Africa Coastal Observatory and State of the Coast reporting process, private sector engagement on ports via the sustainable ports' initiative, local initiatives and learning with PRCM, knowledge-sharing on MPA management with RAMPAO, engagement of capacity-building and professional training with ACECoR, and work with the Abidjan Convention Secretariat to address any gaps in meeting the obligations made to the Convention's protocols (mangroves, ICZM, pollution, and oil/gas). This Component will also directly benefit from IUCN regional activities on red lists, eco-tourism strategies, and capacity building of actors on ICZM. On transboundary cooperation, the project will explore management of the shared resources along Guinea-Bissau's borders with Senegal and Guinea.

Component 3: Strengthening National Physical and Social Investments (Total US$187 million equivalent: IDA US$184.0 million, PROBLUE US$3 million)

16. **A combination of physical investments and social subprojects will be financed under this component.** Each country determined its own priorities in view of its allocated budget. Because of the visibility of activities, and the potential exposure of people at sites, a tracking system for civil works contracts will be established to ensure the monitoring of progress but also that the social grievance mechanism is adequate in each country.

17. **In terms of physical investments, the project will support coastal erosion, flooding, pollution and control works, as well as ecosystem management and restoration activities.** Social sub-projects will be also developed in support of coastal communities.

18. **The specific activities to be implemented in each country are the following**:

- **The Gambia (US$35 million IDA).** The project will finance site-specific interventions to reduce risks of flooding and erosion in the Greater Banjul Area (GBA), home to 25 percent of the country's population

and 45 percent of GDP. The activities under this component are informed by previous technical analyses that identified five priority areas for intervention or hotspots. These areas were identified through a coastal risk assessment of GBA that was conducted over the period of 2019–2021, under the technical leadership of the National Disaster Management Agency, supported by the Africa Caribbean Pacific – European Union (EU) Disaster Risk Reduction Program and as part of the Integrated Urban and Coastal Resilience Technical Assistance Program to The Gambia.[63] For each of the identified hotspots, an investment scenario was developed to reduce the risks, combining structural and non-structural measures, and hybrid infrastructure solutions, including nature-based solutions. From this TA, which was supported by PROBLUE and the Global Facility for Disaster Reduction and Recovery, the government selected the Kotu stream intervention to be supported under the proposed project based on the high social and economic impacts expected. The solutions identified by the TA includes river restoration activities, the creation of a green river belt for flood control in the downstream section, and improved urban drainage systems in the upstream area. The project also involves rehabilitating critical infrastructure that currently impedes water flow (adapting bridges and culverts), rehabilitation and modification of the primary drainage system, and, where possible, improving local water storage/infiltration areas. Feasibility and design studies for the interventions will also be supported by this component, with financial and technical support from Invest International. GAMWORKS will provide technical support for the implementation of physical works. Social subprojects will support targeted communities in area(s) of intervention to not only benefit as much as possible from the physical infrastructure and potential job opportunities (through the implementation of the sustainable jobs approach), but also contribute to their sustainable management (operation and maintenance). The project will support consultations with communities, to help identify interventions aimed at improving the living conditions and promoting the sustainable development of urban coastal areas. Priority activities identified by the government include: (i) improving solid waste management to improve health conditions and reduce flooding; (ii) engaging the community on emergency preparedness and response; (iii) exploring sustainable urban farming alternatives; and (iv) a jetty feasibility study. Depending on the areas of intervention, these would involve the community in the development of nature-based approaches and green river belt investments. UNCDF may be an implementing partner for the community development activities. The eligibility and selection criteria, as well as the relevant modalities, would be described in a dedicated operations manual for this subcomponent.

- **Ghana (Total US$137 million: IDA US$133.9 million and US$3 million PROBLUE).** The project will support physical interventions under this component at Korle Lagoon, the Densu Delta, and at Keta Lagoon. The project will support feasibility studies in two additional sites at Winneba and Apam. At Korle Lagoon, the project will construct a jetty at the outlet of the lagoon to prevent sediment accumulation and will stabilize the lagoon's embankments through riprap structures and vegetation. Additionally, the project will dredge the existing sediment at the outlet, and will remove the foundations of an old bridge that are blocking the outflow of water and serving as an accumulation point for sediment. Following the completion of these works and improved management of solid waste within the lagoon, the project will support the restoration of approximately 42 ha of the lagoon to improve its ecological status and hydrological function. In Densu Delta, the project will support improved spatial planning and enforcement capacities relating to the existing regulations for

[63] World Bank-executed trust fund supported by the Africa Caribbean Pacific-European Union Natural Disaster Risk Reduction Program.

protected areas, and will minimize further encroachment into the delta ecosystem. Specifically, the project will support improved awareness of, and capacity to monitor and enforce, existing environmental protection regulations regarding sand mining and removal, solid waste management, Ramsar site management guidelines for wetland conservation, and building regulations and permitting to prevent further encroachment and settlement on highly vulnerable sites. For flood management related to the Weija reservoir, the project will support the vegetation of buffer areas in the upstream waterways and within the delta for increased absorption capacity, and at the outlet of the delta, measures for improved outflow of water during extreme events. For improved management of coastal erosion, the project will support measures including beach nourishment, the vegetation of dune areas, and works including but not limited to groyne systems (temporary and/or permanent) to prevent further erosion. The project will also support the protection and restoration of mangroves and coconut palms where possible, which are critical for fishery health and bird-nesting areas, as well as supplemental income generation for local communities. At the Keta Lagoon Complex, project interventions will focus on mangrove reforestation and protection, with specific attention given to mangrove areas that are threatened by saline intrusion due to coastal erosion and sea-level rise degrading the narrow sandbar separating the mangrove habitat from the sea, as seen at the mouth of the Volta near Fuveme. Activities in the area will also support physical interventions to mitigate the erosion seen in communities throughout the complex, with potential focused interventions at sites near Dzita and/or Blekusu, to be determined following technical studies and intensive stakeholder engagement. The component will also support mangrove-planting schemes in eligible areas throughout Ghana, where many initiatives are under way at a small scale due to lack of financing. Pilot studies and works will be carried out for a “living shorelines” approach to identify coastal ecosystems and native marine vegetation, such as peatlands and seagrasses, that could be restored and/or expanded to mitigate flooding while enhancing mitigation and improving nearshore ecosystems that can serve as a habitat and breeding grounds for marine biodiversity. The social subprojects will be identified during project implementation using a community driven development approach. An operations toolkit will be developed laying out the step-by-step procedures for community mobilization (outreach and sensitization), participatory needs diagnostics, participatory subproject prioritization and selection, subproject proposal preparation, community implementation workplans, subproject closure including community operations and maintenance, and M&E, and terms of reference (e.g., feasibility studies and facilitators). The typology of subprojects may include community infrastructure (e.g., wells, schools, and sanitation) and livelihood diversification activities (e.g., aquaculture and innovative oyster production, mangrove nurseries and restoration, confectionary/soap-making and other handicrafts, and plastics and waste management). A negative list of social subprojects has been identified in the ESMF and will be excluded from financing under the project. Women, youth, fishers and fish processors, mangrove harvesters, and those engaged in the agro-industry and tourism are expected to benefit from these subprojects. Co-financing from the PROBLUE trust fund will support the development of a national blue carbon strategy and a pilot project for mangrove areas. The pilot project will partner with a renewable energy company committed to reducing its carbon footprint through the purchase of carbon credits. A preliminary deal has been identified for approximately 3,000 ha of mangrove forest in Ghana, which would allow the energy company to purchase the associated carbon credits and invest in mangrove protection and restoration within the local communities, while still allowing for contributions for Ghana’s NDCs.

- **Guinea-Bissau (IDA US$15.1 million).** This project will support management of the SNAP with a priority focus on *Parque Natural dos Tarrafes de Cacheu* (PNTC), *Parque Natural das Lagoas de Cufada*

(PNLC), and *Florestas de Cantanhez* (PNC). The interventions will include restoring degraded ecosystems (e.g., bolanhas, mangroves, and coastal forests); strengthening of park governance, including the updating and disseminating of at least three park decrees and regulations; operation of existing park management councils and the creation of park management sub-committees; stakeholder consultations and exchanges between parks; implementation of management plans for coastal and marine protected areas; strengthening surveillance and monitoring capacity; and training for IBAP and its partners related to small-scale works that protect infrastructure threatened by erosion and flooding; and the promotion of community management of the ecosystems and community development activities. The project will also support the construction and equipment of a building with a laboratory for national environmental and enforcement agencies, including AAAC, IGA, and the National Institute for Environment, and potential extension of IBAP headquarter buildings, both in the capital, Bissau, as well as construction or rehabilitation of parks buildings (main building, control posts, and miradors). It would also support studies and small-to-medium-scale works to improve access and infrastructure in the Bijagos, including the Bubaque jetties and potentially its landing strip, to promote eco-tourism development.

Component 4: National Coordination (IDA US$14.9 million equivalent)

- **The Gambia (IDA US$4 million).** The PIU will be anchored within MECCNAR under the existing CPCU, to take responsibility for project implementation. The PIU will organize national meetings and workshops, participate in regional workshops, and conduct the priority communication activities required to ensure that the project issue is understood by the beneficiaries and all other stakeholders. It will also be responsible for M&E project activities. The chair of the national steering committee participates in the RSC every six months.
- **Ghana (IDA US$7 million).** The Project coordination unit (PCU) under the supervision of the MESTI, will ensure the daily execution of the project. The PCU will coordinate implementation of activities with beneficiary agencies, including Ministry of Works and Housing, and the Ministry of Lands and Natural Resources, and will organize national meetings and workshops, participate in regional workshops, and conduct the priority communication activities required to ensure that the project issue is understood by the beneficiaries and all its other stakeholders. It will also be responsible for M&E activities. The chair of the national steering committee participates in the RSC every six months. Furthermore, the synergy with PROBLUE activities will be maximized by having MESTI as the main project counterpart.
- **Guinea-Bissau (IDA US$3.9 million).** The PIU will be established in IBAP and will be responsible for the technical implementation of activities. IBAP will have fiduciary control and overall responsibility for the project, as well as for the implementation of the ESF under the supervision of the Ministry of Environment. A technical cell will be established in the institution in charge of its respective area (area 1: INA; area 2: AAAC; area 3a: IBAP; area 3b: FBG) and will be responsible for the technical implementation of activities. With respect to area 3b, IBAP will sign a memorandum of understanding with the FBG, the responsible technical agency. To this end, the FBG will establish a sub-account where it will receive advances to cover Pillar 3b expenditures. The FBG will provide IBAP's PIU with all the required documentation to justify expenditure prior to sub-account replenishment. It will also provide any information required for inclusion in the project's IFRs, disbursement requests, audits, and progress and other reports A project operation committee will comprise representatives of the four institutions, as well as a representative for Ministry of Environment and Biodiversity (MEB). The PIU will organize national meetings and workshops, participate in regional workshops, and conduct

the priority communication activities required to ensure that the project issue is understood by the beneficiaries and all other stakeholders. It will also be responsible for M&E activities.

- **Project cost by recipient and component.** Out of the IDA US$241 million financing and US$5 million PROBLUE financing, over three quarter of the amount (US$185.2 million) is for physical investments, while coordination costs have been kept at 7.3 percent (US$17.68 million, when adding the regional and national coordination).

Project Cost

Table 1.1 project cost by recipient and component

	WAEMU	The Gambia	Ghana	Guinea-Bissau	Total
Component 1: Strengthening Regional Integration	**16.0**	**0**	**0**	**0**	**16.0**
1.1. Regional strategies, policies, and governance	10.5	0	0	0	**10.5**
1.2. Regional technical support for coastal resilience	5.5	0	0	0	**5.5**
Component 2: Strengthening the Policy and Institutional Framework	**0**	**6.0**	**11.1**	**11.0**	**28.1**
2.1. Institutions and governance	0	2.9	4.5	6.4	**13.8**
2.2. Coastal law and policies	0	0	2.8	0.8	**3.6**
2.3. Spatial and multisectoral planning	0	1.1	2.6	1.3	**5.0**
2.4. Coastal observation	0	2.0	1.2	1.1	**4.3**
2.5. Decision support system	0	0	0	1.3	**1.3**
Component 3: Strengthening National Physical and Social Investments	**0**	**35.0**	**137.0**	**15.09**	**187.0**
3.1. Physical investments	0	30.0	124.5	11.1	**165.6**
3.2. Social investments	0	2.5	5.7	3.6	**11.8**
3.3. Pollution and invasives	0	2.5	6.7	0.3	**9.5**
Component 4: National Coordination	**0**	**4.0**	**7**	**3.9**	**14.9**
Grand total	**16.0**	**45.0**	**155**	**30.0**	**246.0**

Table 1.2 Project cost by expenditure category and country (US$)

	Service_EA	Workshops and trainings_EA	Works_EA	Equipment_EA	Subproj_EA	Operating cost	Miscellaneous	Total
Regional	8,960,000	1,070,000	0	500,000	1,400,000	4,070,000	0	**16,000,000**
The Gambia	9,835,000	1,400,000	25,000,000	420,000	1,250,000	2,250,000	4,845,000	**45,000,000**
Ghana	17,000,000	1,000,000	122,700,000	6,850,000	5,000,000	2,450,000	0	**155,000,000**
Guinea-Bissau	12,684,000	2,674,100	5,550,000	2,165,300	1,890,000	3,996,600	1,040,000	**30,000,000**
Total	**48,479,000**	**6,144,100**	**153,250,000**	**9,935,300**	**9,540,000**	**12,766,600**	**5,885,000**	**246,000,000**

ANNEX 2: Regional Integration: Rationale and PDO Score for Regional Integration

1. **The project is financed in part by resources from the IDA 20 Regional Window.**[64] This annex describes the rationale for regional integration, as established with WACA ResIP 1 (P162337) and updated for WACA ResIP 2 (P175525) and presents the PDO score for Regional Integration.

Regional dimension	Illustrative project activities
Environmental flows Management of coastal ecosystems is complex and requires watershed, land use, coastal, and marine regionally coordinated and integrated planning with many stakeholders.	State of the Coast Reporting by country and regionally (CSE) Incorporation of international experiences and experts (Hubs) Implementation support (RISU) provides support in national leadership development, communications, and stakeholder engagement Technical leaders make decisions that consider regional positive or negative externalities (RSC)
Innovation and capacity building Countries are constrained by poor coordination and insufficient resources to manage multi-country challenges, climate change adaptation, and to spatially manage shared natural resources in the coastal zone.	Piloting and learning from new approaches such as soft and hard engineering (nature-based or hybrid solutions), and financing instruments to tackle erosion, floods, and pollution (Countries) Regional knowledge exchange, evaluation, and planning to scale up the solutions and cross-support (RISU) Policy and regulation harmonization (WAEMU, ECOWAS, ABC)
Cross-border solutions (positive or negative externalities) Some anthropogenic interventions have a local effect, while others have a much larger spatial effect. For example, the Port of Lomé affects up to nearly 50 km in neighboring Benin. Similarly, The Gambia, Senegal, and Guinea-Bissau are inextricably linked with shared coastal geomorphological processes.	Activities that seek to manage coastal erosion, flooding, and pollution, and impact important ecosystem areas (wetlands, mangroves, and lagoons) Ghana-Côte d'Ivoire; Guinea-Bissau-Senegal; and The Gambia-Senegal cross-border activities based on lessons from the Benin-Togo example (RISU)
Early warning systems Early warning is required for pollution, flooding, tidal waves, migration, and the movement of people. Most of the extreme events affecting coastal areas in West Africa come from international zones (that is, the ocean) and could be predicted from regional models. Responses to warnings are more efficient when coordinated between zones.	Staffing and capacity building, to develop common practice and interoperable standards Equipment and reporting, to gain as a result of economies of scales, and a common set of equipment (maintenance is made easier) Knowledge exchange, to share best practice from events (improvement always comes after disasters) Communication
Coastal observation Monitoring of trends in biophysical data (geomorphology, vegetation, biodiversity, and land use) is essential to	Staffing and capacity building, to develop common practice and interoperable standards

[64] https://ida.worldbank.org/en/replenishments/ida20-replenishment

Regional dimension	Illustrative project activities
manage the coastal areas in a regionally coordinated manner, and there are economies of scale in procurement and analyses of data. Sharing interoperable information is critical to having a common vision of the situation.	Equipment and reporting to gain as a result of economies of scale and a common set of equipment (maintenance is made easier) Knowledge exchange, to share best practice and facilitate cross-support, and communication Data collection, procurement and analysis, to benefit from economies of scale, for example, when equipment needs to be brought from remote places
Institutional capacity building Prepared under WACA, a draft World Bank report at the regional level suggests there is no single institution that has all the capacities, or the mandate, needed to address the range of issues associated with climate change along the entire West African coast.	TA to the ABC and other regional organizations, to engage countries on coastal-zone management

2. **Regional Integration Score.** The project applies a "score-approach" to measure the success of regional integration. This approach was used in ResIP 1, and confirmed to be effective and relevant at the Mid-Term Review, so it has been expanded to ResIP 2. The following table lists the criteria/sub-criteria for the score, the target value, and the status of the score as of the ResIP 1 MTR in July 2022. The total maximum regional integration score for ResIP 1 and 2 is 85.

Criteria / sub-criteria	Target			Status as of ResIP 1 MTR	
	ResIP 1	ResIP 2	Total	Score	Rate
A. Governance framework for coastal zone management established/in place	**4**	**6**	**10**	**2**	**50%**
A collaboration agreement is signed between the regional institutions (WAEMU, IUCN, CSE, ABC, PRCM, RAMPAO)	2	0	2	1	50%
The collaboration agreement signed by the regional institutions is operational	1	0	1	1	100%
The Regional Scientific Committee is in place and informs decision-making	1	0	1	0	0%
Establishment and operation of a collaboration platform between WAEMU, ECOWAS and ECCAS	0	2	2	0	
Stakeholder/multi-stakeholder consultation forum is in place and operational	0	4	4	0	

Criteria / sub-criteria	Target			Status as of ResIP 1 MTR	
	ResIP 1	ResIP 2	Total	Score	rate
B. Regional strategy for coastal resilience established and its implementation tools established.	**14**	**24**	**38**	**0**	**0%**
Strategy – Regional strategy for coastal zone resilience	1	11	12	0	0%
Investments - A regional strategic action plan for investments (PARSI) (with objectives, commitments and timetable) in favor of the resilience of coastal zones (transboundary coastal erosion, floods and pollution) is approved at ministerial level by all participating countries.	3	0	3	0	0%
Investments – PARSI commitments are incorporated into the National Sector Plans (PIM) of all participating countries.	6	3	9	0	0%
Investments – An investment tracking system is in place	0	1	1	0	
Finances – A regional fundraising strategy is adopted	2	0	2	0	0%
Finances – Fundraising mechanism is in place / Fundraising events	0	2	2	0	
Finance/Investments - Number of projects	0	3	3	0	
Finance/Innovation - Establishment of a support mechanism for innovation in favor of coastal resilience.	0	1	1	0	
Legislation - Integration of ABC additional protocols into the WAEMU legal framework	2	1	3	0	0%
Legislation - Adoption of new ABC protocols (AMP)	1	2	3	0	0%
C. Mechanisms for monitoring results and supporting decision-making in place with a regional observatory established and operational.	**6**	**3**	**9**	**1**	**17%**
The institutional and legal system of the regional observatory is established	2	0	2	1	50%
The regional observatory is legally established and has an operating structure	1	0	1	0	0%
The regional observatory produces, receives and processes data	1	1	2	0	0%
The regional observatory shares data on a public platform	1	0	1	0	0%
The monitored data is used to inform decision making.	1	1	2	0	0%
Collaboration with other observation platforms	0	1	1	0	
D. Helpdesk – support to countries and regional institutions	**11**	**16**	**27**	**7**	**64%**
Technical expertise mobilized to support countries in the implementation of project activities (ResIP 1&2) and ensure capacity building.	6	1	7	5	80%
Support provided to countries for project implementation (ResIP 1&2) is effective	2	0	2	2	100%
Development of regional tools to support the blue economy and promote green and inclusive investments.	0	10	10	0	
Total score	**35**	**50**	**85**	**10**	**29%**

ANNEX 3: Partnerships and Leveraging

1. **Since inception of the WACA Program, several partners have integrated their development programming with WACA.** The main motivation is that partnership simplifies the process to mobilize technical studies and translate them into concrete investment projects - all under an overarching results framework that reflects the shared interests of communities, countries, and their partners. As an example, the NDF is supporting both the development and implementation of high-impact projects that contribute towards both WACA objectives and the NDF's core purpose, to address climate change and development challenges through financing, knowledge, and partnerships. This partnership started as trust fund support to identify project needs, evolved into investment co-financing under ResIP 1 for Benin and Senegal, and continues as programmatic support to the WACA Program to identify climate challenges and solutions in West Africa, and as potential investment financing as part of ResIP 2. Similarly, France is providing finance and TA to several projects, all labeled as contributions to the WACA Program. In total, the World Bank has leveraged approximately US$650 million in resilience investments for the WACA Program.

2. **WACA ResIP 2 is expected to benefit from partner parallel or co-financing to national projects and knowledge contributions**, including:

   - **In The Gambia**, agreements have been reached between the Dutch government's development agency, Invest International, and the Government of The Gambia to finance feasibility studies and develop preliminary designs under Component 3.

   - **In Ghana**, discussions are ongoing with Invest International to provide co-financing for grey and/or green infrastructure development under Component 3. The World Bank continues to coordinate with UN Habitat and IUCN, which are implementing or designing projects around mangrove restoration, protection, and community engagement.

   - **In Guinea-Bissau**, the World Bank is working with UNDP to ensure complementarity with their recently approved coastal zone project. In addition, the team has engaged the MAVA Foundation, the Blue Action Fund, and the EU to mobilize funds for the project including matching funds to the FBG's endowment fund, and co-financing for the REDD+ Community Based Avoided Deforestation Project (blue carbon project). The EU has indicated an interest in supporting activities in fisheries and protected areas management.

3. **The WACA Program's role in achieving a successful and sustainable regional approach for coastal management is dependent on the inclusion and commitment of local, regional, and global partners**. In the appraisal process of this operation, the World Bank will continue to deepen these engagements.

ANNEX 4: Overview of the WACA Program

1. **The West Africa Coastal Areas Program was announced at the 21st United Nations Framework Convention on Climate Change's Conference of the Parties in 2015 (COP21)**, following which a TA phase began. In 2018, a first six-country investment operation was approved by the Board and a programmatic ASA (P166218) was initiated in parallel to facilitate World Bank engagement on the development challenges involved.

2. **The core objective of WACA is to address coastal erosion, flooding, pollution and ecosystem vulnerability nationally and regionally**, integrating the activities of countries and regional institutions to achieve transformational and sustainable change for coastal zone management. The program operates on coastal resilience in three ways:

   - **National resilience investment projects** are implemented by the national governments of WACA countries and key regional institutions.

   - **A regional platform (commonly referred to as the WACA Platform)** is currently operated by the World Bank with multiple partners. The WACA Platform is the convening mechanism by which the program aims to mobilize the financing, knowledge, and dialogue that is needed to achieve transformational and sustainable success for coastal zone management in the region.

   - **Investments and TA from international WACA partners** operate in parallel, through unique mechanisms, with objectives that are aligned with those of the WACA Program.

3. **To strengthen the resilience of targeted communities and areas in coastal West Africa, the program engages countries through TA, finance, and dialogue** to unbundle the complex range of coastal development challenges into actionable priorities, thereby mobilizing leadership at the national level to effectively advance concrete investment projects. This dynamic space for coastal countries and partners, sharing knowledge, expertise, and improving their access to finance is also brought about at the regional level to set common priorities and coordinate cross-border investments while harmonizing policies.

4. **The WACA Program's role in achieving a successful and sustainable regional approach for coastal management is dependent on the inclusion and commitment of a wide range of local, regional, and global partners**. Through its national resilience investment projects and the WACA Platform, the program has engaged key partners on knowledge and expertise (for example, ACECORE, IRD; and global hubs), finance (for example, WAEMU and bi-lateral donors), and community engagement (for example, PRCM). The combined efforts of WACA countries and their partners have mobilized US$650 million in coastal resilience investment financing, and leveraged expertise from four global hubs in France, Japan, the Netherlands, and the Nordic countries.

5. **Sustainability is integrated into the objectives of the WACA Program**. In addition to its core mission of improving the management of shared coastal resources and reducing the natural and man-made risks affecting coastal communities, the program also aims to institutionalize its functions and objectives in multiple regional institutions to ensure sustained and transformative action for resilient coastal areas and communities in West Africa.

6. **This transfer of program functions to WAEMU and other regional partners is being implemented by this project**, ensuring co-management of the WACA Program by the World Bank and partners, as outlined under Component 1 (regional integration). These project activities will allow for the continued development and achievements of WACA Program activities (the marketplace, C4I, the observatory, global hubs, and partnerships), while allowing the program itself to focus on sustainable financing sources and mechanisms in parallel with the institutionalization of the WACA Program in the region.

ANNEX 5: Climate Co-Benefit

1. **This project is a direct response to nationally determined contributions (NDCs) in coastal areas**, which are among the most climate-vulnerable habitats of the three countries. Under the project, coastal protection interventions are financed, reducing the risk of the hazards of coastal erosion, flooding, and pollution. The three national projects have been developed in line with the NDCs to move towards an integrated and cross-sectoral management of marine and coastal resources. The project activities contribute to mitigation and adaptation, while building resilience to climate change. For example, mangrove conservation in coastal areas and the restoration of coastal habitats will help reduce flooding risk and coastal erosion. The participating governments will also strengthen the monitoring of shoreline changes through their participation in the West Africa Coastal Observatory, to which they contribute national data. The indicators in the results framework reflect adaptation efforts, as well as data and monitoring efforts.

2. **The project contributes to the NDC targets set out in Table 5.1.**

Table 5.1: Contributions to countries' NDC targets

	Mitigation	Adaptation

The Gambia	Re-greening degraded landscapes; multi-strata agroforestry for "linear and green river belt" and "green and blue spaces" interventions	• Additional climate financing to strengthen government institutions' technical and institutional capacity, and support civil society engagement on climate change reinforcing local resilience building and ensuring sustainability.
		• Construction of climate-smart infrastructure:
		  ○ Grey infrastructure: drains, bridges, pedestrian roads, streetlights, stormwater systems, etc., to reduce flooding, soil erosion, and marine pollution.
		  ○ green infrastructure: Nature-based solutions will enhance the resilience of current and future hard infrastructure systems, adding adaptation co-benefits by reducing flood risks; preventing soil erosion; improving water quality; protecting wetlands; increasing infiltration capacity; recharging groundwater; contributing to water security for drinking, irrigation, and recreational uses; minimizing urban heat; reducing air pollution; and strengthening biodiversity.

Ghana	Promote gender-responsive sustainable forest management	• Early warning and disaster risk management • Enhance climate resilience of women and the vulnerable • City-wide resilient infrastructure planning
Guinea-Biss au	• Ensure the effective management of the protected areas (now covering 26% of the country). • Reduce illegal and indiscriminate falling of trees. • Strengthen the existing capacity to develop a REDD+ program. • Develop community forest action plans.	• Increase the adaptation capacity of national ecosystems, through soil protection against water and wind erosion, and protection of the coast against rising sea levels and other types of erosion (from NDC 2016).

	Mitigation	Adaptation
	• Community-level activities will be aligned with NDC goals to reduce fuel-wood consumption, and parks infrastructure will be upgraded to promote use of renewable energy.	

3. **Priorities for adaptation:** Adaptation remains a priority for the three countries in their revised NDCs. The countries are expecting to allocate budget to implement adaptation programs in the most affected sectors (notably water, agriculture, fisheries and aquaculture, forestry, and health) as well as the most vulnerable environments and ecosystems. Of these, the project directly or indirectly affects water, fisheries and aquaculture, and forests/mangroves.

4. **Priorities for mitigation:** The project will also support the countries' ambitions for mitigation, albeit in a limited fashion. The project is designed to respond to NDC mitigation priorities in forestry/mangroves, and thereby supports the countries' national climate change mitigation goals.

Regional Climate Vulnerability context

5. **The West African coastline is vast and countries share access to the Atlantic Ocean.** West Africa, with countries spanning from Mauritania in the north to Nigeria in the south, is a hotspot of climate change according to the fifth IPCC Assessment Report and is expected to be strongly impacted by climate change in the 21st century and beyond. Climate change projections show that temperatures may rise by 0.5°C per decade in West Africa, accompanied by increased rainfall variability and intensity, and accelerated sea-level rise (SLR) of around 1 meter per century (IPCC 2014).

6. **Projections of climate impacts on the West Africa coast are grim.** A World Bank technical report[65] on climate and coastal resilience in West Africa suggests that by 2050, climate change will worsen the extent of floods and erosion on West Africa's coastline. By 2100, West Africa is expected to have sea level rise by up to 1.06m, to experience higher incidences of extreme rainfall, a temperature increase of 2°C, and 5,500 km^2 of its coast flooded. Climate-resilient infrastructure, disaster risk management plans, and nature-based solutions are needed to protect coastal livelihoods.

7. **These climate change impacts are becoming a limiting factor for all sectors.** The degradation or loss of coastal sediment, mangroves, and wetlands, reduced regeneration of forests, and the loss of species migration negatively affect coastal populations. If fishermen are unable to continue their normal productive activities, they will have to seek alternative sources of income/employment and other livelihoods.

[65] World Bank, 2020. Effects of Climate Change on Coastal Erosion and Flooding in Benin, Côte d'Ivoire, Mauritania, Senegal, and Togo. Technical Report for the World Bank. https://www.wacaprogram.org/sites/waca/files/knowdoc/West%20Africa%20Climate%20Change%20Assessment_April%202020%20FINAL.pdf

8. **Country climate vulnerability and risks.** Guinea-Bissau climate vulnerability maps[66] shows ocean acidification, seal-level rise, wave-surge, coastal flooding, and decreased availably as being climate risks. In Ghana, an ensemble of climate projections for Ghana suggests significant increase in annual temperature and precipitation.[67]

Statement of intent to address climate vulnerability and linkages within project activities

9. **Adaptation and mitigation.** To directly implement the climate change adaptation pledges communicated through the countries' NDCs, this project intends to build resilience to key climate change impacts. While limited related to mitigation, the project will also support the countries' ambition for mitigation as indicated in Table 6.2.

Table 5.2: Typology of activities that contribute to climate change adaptation and mitigation

Component 1: Strengthening Regional Integration			
Finance, investments and innovation	• Call for innovation, research, knowledge exchange-finance mobilization (marketplaces, finance roundtable, regional mechanisms for projects development) • Development and/or update of regional and national coastal resilience investment plans		
Governance, dialogue and citizen engagement	• Regional strategies for the Blue Economy • Regional collaborative platform on Blue Economy, coastal and climate resilience • Civil society mobilization (coastal and marine forum, etc.)		
Strengthening of environmental and social framework	• Reinforcement of environmental and social regulations/standards • Technical assistance on policy and regulatory questions		
Helpdesk: project management, TA and partnerships	• Operationalization of the Regional Coastal Observatory • Establishment of MSP		
Component 2: Strengthening the Policy and Institutional Framework			
	The Gambia	**Ghana**	**Guinea-Bissau**
Policy	• Develop Climate Change Act and update Climate Change Policy • Develop national disaster risk management policy, strategy, and action plan • Develop national land policy • Develop rainwater harvesting policy • Develop drainage standards that take into the climate into account • Develop solid waste management policy	• Coastal protection institutional framework • Marine spatial planning, multi-sectoral planning, and resource mobilization	• Laws: protected areas, mangrove • Guidelines on environment and social instruments (also to include climate change aspects)
Institutions	• Institutional strengthening and capacity building for national technical agencies	• ACECoR	• Capacity building for actors (including on climate change) • Development of grant-giving mechanism for

[66] *https://unfccc.int/sites/default/files/NDC/2022-06/NDC-Guinea%20Bissau-12102021.Final.pdf*
[67] *https://climateknowledgeportal.worldbank.org/sites/default/files/2021-06/15857-WB_Ghana%20Country%20Profile-WEB.pdf*

			community adaptation activities (FBG)
Data	• Strengthening data development and analytics related to disaster risk management	• Coastal trend monitoring program • Capacity development for national agencies and institutions • Coastal observation equipment	• Strengthening monitoring capacities and production of data (land-use changes, forests, coastal hazards)
Strategic plans	• Integrate climate considerations into council development plans • Develop emergency plans at the district level	• Blue Economy Policy Framework	• Climate-informed MSP • MPA management plans (including climate and risk aspects) • Creation of new biosphere reserve • Climate-informed eco-tourism plan for Bijagos
Component 3: Strengthening National Physical and Social Investments			
Coastal protection			• Coastal ecosystems conservation and restoration (as below)
Habitat restoration and ecosystem conservation	• Develop green river belt (downstream area) • Restore wetlands • Proposed nature-based solutions will store and sequester carbon to contribute to meeting the national GHG targets	• Mangrove reforestation in the Densu and Volta Delta • Piloting of living breakwater systems (incl. seagrasses with 10x carbon capture capacity per hectare vs. terrestrial forest) • Nature-based solution for managing polluted lagoons	• Mangroves, coastal forests and seagrass conservation and regeneration; avoided coastal deforestation (REDD+ projects, feasibility for scale-up) • Avoided deforestation • Use of renewable energy (installation of solar panel in Parcs building and eco-tourism facilities) and promotion of more efficient energy use (improve stoves)
Flood management	• Replace or rehabilitate critical infrastructure (bridges, culverts, etc) • Wetland and floodplain restoration • Rehabilitate/expand the primary drainage system • Develop sustainable urban drainage systems • The Kotu Stream will be restored for flood control and will integrate nature-based features as a key component of its engineering and landscape design	• Rehabilitation and construction of new sea defenses	• Coastal ecosystems conservation and restoration (as above)
Pollution management	• Refurbish water treatment plant • Solid waste management non-governmental organisation/community program • Small works to improve sanitation	• Management of marine plastics • Improved oil spill incident preparedness and Management • Oil spill management equipment	
Social sub-projects	• Resilience grant program • Community micro-projects for more resilient community infrastructure	• Strengthening of CSO platform • Livelihood restoration of local coastal communities	• Community micro-projects for alternative livelihoods or more resilient community

	• Climate resilience training at community level • Gender focused training/engagement on coastal management • Gender and social inclusion M&E		infrastructures (e.g. well, schools)

10. **Measurable results related to climate change.** Drawn from the results framework, as indicated in Table 5.3

Table 5.3: Specific indicators in the results framework that supports adaptation and mitigation

Indicator	Adaptation and mitigation
ODP1	Households in targeted coastal areas with less exposure to erosion due to the project
ODP2	Households in targeted coastal areas with less exposure to flooding due to the project
ODP3	Households in targeted coastal areas with less exposure to pollution due to the project
IR29	National early warning systems established or reinforced
IR30	Council's contingency plans updated to incorporate women into the decision-making process during disaster response activities
IR31	Targeted coastal area with flooding control measures (disaggregated by country) (hectares)
IR32	Shoreline with targeted coastal erosion control measures (disaggregated by country) (kilometers)
IR35	Area of natural ecosystems that have benefited from restoration measures (disaggregated by country) (number)
IR36	Forest area under management plans (hectares)
IR37	Nature-based solutions established (number)
IR38	Coastal households with access to improved livelihood activities

ANNEX 6: Economic Analysis

Approach

1. **The economic analysis is based on a cost benefit analysis.** The project costs a total of US$246 million, encompassing US$45 million for The Gambia, US$150 million for Ghana, US$30 million for Guinea-Bissau, US$16 million for regional integration, and US$5 million of the PROBLUE grant. Project investments focus on implementing an adaptation option for improving resilience of the coastal areas in the three countries; without it, local communities will lose their livelihoods, assets will be damaged, and available land will be gradually lost.

2. **The analysis used a discount rate of 6 percent[68] and a time horizon of 30 years (2023–2053),** to account for the project's long-term benefits of coastal protection from erosion and floods. While the project generates a **wide range of benefits**, only some of them—mostly the tangible ones, and some ecosystem services—could be estimated in monetary terms, for example, mangrove benefits and avoided damages to assets and economic productivity as a result of erosion and floods. To verify the robustness of the cost-benefit analysis results, a sensitivity analysis to potential changes in different parameters is also conducted (changes in discount rate, project costs, and benefits).

3. **A carbon price is applied in the subsequent analysis.** An assessment of climate benefits considered incremental, sequestered carbon and storage because of direct interventions during the project life of 30 years, without accounting for the additional benefits resulting from improved forestry management. The "with-project", "with carbon benefits", and "without-project" scenarios were compared over the lifetime of investments made to promote the green economy, that is, the project life - which is estimated at 30 years. In total, the project will generate net emissions reductions of 2.56 million tCO_2e during the project life). The economically efficient value of carbon is the social cost of carbon (Sohngen and Mendelsohn, 2003; Stiglitz and Stern, 2017). Currently, the World Bank recommends a social cost of carbon (starting at year 2023 as US$51/$tCO_2e$ low estimate and US$102/$tCO_2e$ high estimate), rising at 2.25 percent per year (Stiglitz & Stern, 2017). Based on this information and on the results of the EXACT assessment, the project NPV with accounted carbon benefits is estimated at US$192.9 million during the project life (Table 9).[69]

Economic analysis

4. **This section describes the valuation of costs and benefits for each component** and proceeds to present the proposed approach for the whole project.

<u>Component 1: Strengthening Regional Integration</u>

- **Costs.** This component includes actions related to common coastal policy, facilitation of cross-border dialogue, regional synthesis of state of the cost information, implementation support and TA on areas of law, institutions, observation, spatial planning, and governance. Over the 30-year period, the present value of the associated costs is estimated at US$14 million.

[68] World Bank. 2016. Discounting Costs and Benefits in Economic Analysis of World Bank Projects. World Bank.
[69] World Bank. 2017. Shadow price of carbon in economic analysis.

- **Benefits**. The benefits include improved quality of actions, economies of scale in developing tools and systems, and capacity building (qualitative assessment).

Component 2: Strengthening the Policy and Institutional Framework

- **Costs.** This component includes actions related to developing coastal laws, strengthening institutions and planning initiatives, improving the observatory and its early warning systems, as well as operational and maintenance costs (for example, of the observatory.). Over the 30-year period, the present value of the associated costs is estimated at US$21.3 million.[70]

- **Benefits.** The benefits of this component include institutional strengthening and improving the efficiency of the observatory and its early warning systems, which will provide better protection of the coastline in the future. A recent study conducted in the region of ECOWAS showed that investments in the modernization of observations and early warning systems generate benefit-cost ratios of between 4:1 in Togo and 14:1 in Ghana, depending on several parameters such as type of risk, frequency, and so on.[71] The same study estimated a benefit-cost ratio of about 3.5:1 in The Gambia and 7:1 in Guinea-Bissau. Applying this ratio to the costs associated with upgrading the observatory and early warning systems, the present value of the benefits is valued at US$29.9 million.[72]

5. **Net Benefit.** Based on the above, Component 2 generates net benefits at US$8.6 million.

Component 3: Strengthening National Physical and Social Investments

- **Costs.** These include investment costs (e.g. improvements to the drainage system and implementation of sustainable urban drainage systems measures, mangrove plantations, other coastal infrastructure, support for income-generating activities) and annual costs of maintenance (coastal infrastructure, mangroves, etc., for this project is estimated as an average of 1 percent of the investment costs), and alternative income-generating activities targeting sustainable agricultural production as an alternative to cashew nuts (e.g., horticulture, beekeeping, oysters, dried mangoes), while ensuring that the community benefits along the value chain. Overall, the present value of these costs is estimated at US$163.2 million.[73]

- **Benefits.** The project is expected to provide a variety of benefits, some of which are estimated in monetary terms as follows.

6. **Mangrove restoration/rehabilitation benefits.** Mangroves provide significant benefits, including flood protection, provision of non-timber goods, and improving the fish habitat. Recent research indicates that Côte d'Ivoire is among the world's top 15 countries where mangroves provide the greatest benefits of

[70] Discount rate 6 percent.
[71] Quiroga, S. 2021. "Economic valuation of hydromet modernization scenarios in ECOWAS region". The World Bank.
[72] The present value of the benefits is valued as a multiplication of the BCR with the present value of costs of the observatory and its early warning systems.
[73] Discount rate 6 percent.

averting flood damage to people, with an average estimate as high as US$30,000/ha/year.[74, 75] An assessment provided by Menendez et al.(2020) demonstrates that in Guinea-Bissau the benefits of mangroves (averted damages to the property) are valued at 3.24 percent of GDP. Total economic values for mangroves as reported in the meta-analysis by Salem and Mercer (2012) lie in the range of US$2,772/ha/year to US$80,334/ha/year, with a mean of US$28,662/ha/year and a median of US$3,847/ha/year. The average value in Brander *et al*. (2006) and Chaikumbung *et al*. (2016) are in the same order of magnitude (US$2,800/ha/year and US$2,000/ha/year).[76] In the current analysis we use a conservative estimate of about US$5,700/ha/year, based on an adjustment of the estimated mangrove benefits obtained in Nigeria.[77] Mangrove reforestation/rehabilitation interventions will be implemented mostly in Ghana (Densu and Keta Lagoon), and Guinea-Bissau (MPAs Cantanhez, Cacheu, and Cufada). A meta-analysis of the mangrove restoration studies[78] reported six main cost categories: plantation costs (including the cost of plants and planting), maintenance costs, engineering costs (for example, pit digging, materials), labor costs, transportation costs, and total costs. Without considering extreme values, the range of total mangrove restoration costs was US$23.22 per hectare to US$371,326.75 per hectare, with a median value of US$1,097.16 per hectare.

7. **A meta-analysis has found that mangrove restoration offers positive benefit-cost ratios** ranging from 10.50 to 6.83 under variable discount rates (−2 percent to 8 percent), suggesting that mangrove restoration is a cost-effective form of ecosystem management. Benefit-cost ratios of natural mangroves are even higher, in the range of 10.9-16.8, which suggests that maintaining existing natural mangroves is more cost-effective than restoring degraded mangroves. In the project analysis, we applied a mean value of 6.8 as the benefit-cost ratio, due to a lack of information about the actual area under restoration.

8. **Initial mangroves forest recovery can be seen in 3 to 5 years,** when new generations of mangroves are able to take hold, but full recovery of an ecologically functioning forest can take time; a review of 160 documented mangrove restoration efforts across 24 countries illustrated a largely positive picture of mangrove restoration success and for projects that are well-documented, survival rates range from 60 percent to 90 percent after 10 years.[79] For this project, year 10 is considered as the year in which the benefits will begin accruing.

9. **Based on these analyses, over a 30-year period**, the present value of the benefits provided by mangroves in Ghana and Guinea-Bissau is estimated at US$42.8 million and net benefits at US$36.5 million.

10. **Benefits from avoided damages due to coastal erosion and flooding**. The overall impact of coastal erosion and flooding in the project countries is estimated as follows:

[74] Beck, M., Narayan, S., Losadam, I., Menendez, P., and Torres, S.. 2019. “Building Coastal Resilience with Mangroves: their Contribution to the Changing Wealth of Nations”.
[75] Menendez, P., Losada, I., Torres-Ortega, S., Narayan, S. and Beck, M. 2020. “The Global Flood Protection Benefits of Mangroves”. Nature Research.
[76] Rounded values
[77] Croitoru, L., Miranda, J.J., Khattabi, A. and Lee, J.J. 2020. “The Cost of Coastal Zone Degradation in Nigeria”. World Bank. Washington D.C.
[78] Su, J., Friess, D.A., & Gasparatos, A. 2021. “A meta-analysis of the ecological and economic outcomes of mangrove restoration”. *Nat Commun* 12, 5050. *https://doi.org/10.1038/s41467-021-25349-1*
[79] Worthington, T., and Spalding, M. 2018. “Mangrove Restoration Potential: A global map highlighting a critical opportunity.” 10.17863/CAM.39153.

- **Ghana.** The total annual economic impact of coastal erosion and flooding in Ghana was estimated at US$47 million in 2015, corresponding to the equivalent of more than 0.1 percent of Ghana's 2017 GDP, or 1.5 percent of GDP in the coastal area. Fifty-seven percent of these impacts can be attributed to coastal erosion. Due to climate change-related soil erosion, this economic impact is expected to increase to US$1.6 billion by the year 2100.[80] About 7 percent of Ghana's land area is considered coastal, and about a quarter of the country's population resides here. Some 37 percent of the country's coastal land was lost to erosion and flooding between 2005 and 2017.[81]
- **Gambia.** By the end of this century, under a 1m sea-level-rise scenario, the total land to be lost due to inundation is about 12.46 square kilometers (1,246 ha), with a corresponding economic loss of about US$788 million over the coastal zones. This land loss is predicted to occur at an average rate of 6m of coastal retreat per year along the coastal zone of Gambia.[82]
- **Guinea-Bissau.** Projections indicate that, with a sea-level rise of 0.13m by 2025, approximately 77,800 people will be flooded per year; while with a sea-level rise of 0.35m in 2050, as many as 179,800 will suffer this fate. The total costs of climate-driven sea-level rise in Guinea-Bissau were indirectly assessed by combining the costs of forced migration, land loss, salinization, sea floods and river floods. Without adaptation, such costs could reach approximately US$8 million per year by 2025, US$29.9 million per year by 2050 and US$361.8 million per year in 2100.[83]

11. **The coastal infrastructure proposed by the project is expected to stabilize the sandy coastal areas in three sites**. In the absence of the project, the coastal areas would be reduced by erosion, with Ghana's shoreline retreat currently ranging from 0.27m to 3.72m per year in front of the Densu delta and 8m to 10m per year in the Keta Lagoon area (Dzita-Anloga beach). In Gambia the rate of erosion of coastline, based on scenarios, ranges between 1m and 2m per year, resulting in an average land loss of about 3 ha per year,[84] and even more so in Guinea-Bissau. Using Google Earth observations of the width of the different portions of the strip, it is estimated that the project would stabilize an average of about 6.7 ha per year for the remaining time horizon (2023–2053). The benefits of avoided erosion on these areas include: (i) the value of saved assets and economic production; and (ii) the value of bare land, which would otherwise be lost to erosion.

12. **A recent study conducted on the West African coastal areas estimated the economic values provided by one hectare of coastal land in Côte d'Ivoire**, and the distribution of this land between urban and rural areas.[85] Table 7.1 reflects these estimates, adjusted to the year 2021.

[80] World Bank. 2017. Cost of Coastal Environmental Degradation, Multi Hazard Risk Assessment and Cost Benefit Analysis.
[81] *https://news.mongabay.com/2022/03/as-rising-seas-destroy-ghanas-coastal-communities-researchers-warn-against-a-seawall-only-solution/*
[82] Amuzu, J., Bubu, P. J., Amos, T. K-B., and Yaffa, S. 2018. "The Socio-economic Impact of Climate Change on the Coastal Zone of the Gambia". West African Science Service Center on Climate Change and Adapted Land Use (WASCAL). *Natural Resources and Conservation* 6(1): 13-26, 2018, DOI: 10.13189/nrc.2018.060102 (link: *https://www.hrpub.org/download/20180228/NRC2-14210991.pdfhttps://www.hrpub.org/download/20180228/NRC2-14210991.pdf*)
[83] *https://info.undp.org/docs/pdc/Documents/GNB/4978_LDCF_Guinea%20Bissau_PRODOC_April%202019.pdf*
[84] UNEP. 2016. Options for Ecosystem-Based Adaptation in Coastal Environments. https://www.sprep.org/attachments/bem/PEBACC/EbA_resources/Options_for_Ecosystem-based_Adaptation_in_Coastal_Environments_UNEP.pdf
[85] Croitoru, L., Miranda, J.J., and Sarraf, M. 2019. "The Cost of Coastal Zone Degradation in West Africa: Benin, Cote d'Ivoire, Senegal and Togo". World Bank. Washington D.C.

Table 6.1: Example of economic value on the coastal zone (*Croitoru et al. (2019), values adjusted to 2021)*

	Urban	Rural
Assets and economic production (US$/ha)	356,000	24,000
Bare land (US$/m^2)	200	50
Share of coastal land (%)	2%	98%

13. **Ghana.** An assessment of the avoided damages in projects sights in Ghana was conducted based on different approaches due to the different characteristics of the locations and the absence of specific locations and detailed information about green and grey infrastructure or other project activities:

- **Densu delta.** Interventions in Densu delta are similar to project activities of WACA ResIP 1's Ramsar sights in Benin, Côte d'Ivoire, and Togo. Thus, the assumption is that the project is expected to generate a similar conservative benefit-cost ratio (1.4); applying this value to the costs associated with the Densu delta restoration, nature-based solutions, and grey solutions to address coastal erosion and flooding, the present value of benefits is estimated at US$42.1 million.

- **Keta lagoon**. Project interventions in the Keta area will focus on the community facing the most urgent need for intervention that stands to benefit most from a hybrid infrastructure approach, with the specific sites and interventions to be identified based upon robust community engagement and stakeholder involvement. Yearly benefit (annual damage avoided) per kilometer equals US$1.6 million in Senegal, US$0.4 million in Côte d'Ivoire, US$0.1 million for Ghana, US$7.3 million in Togo, and US$1.5 million in Benin[86]. The value for Ghana is lower since multiple variables could not be estimated (IMDC, 2017). In comparison, an economic valuation[87] of the nature-based and grey solutions to prevent coastal erosion within Ghana, in Volta delta near Keta lagoon, found that yearly benefits per kilometer range between US$0.2 million and US$0.6 million based on time payments (stated preference method), and between US$0.9 million and US$25 million based on money payments. Applying a more conservative lower threshold and based on time payments, the annual benefit of avoiding erosion and preventing flooding on the sandy strip in Ghana is estimated at about US$0.2 million per kilometer per year. This analysis considers a 50km sandy strip at Keta Lagoon (based on Google Earth). The present value benefits from these interventions are estimated at US$132.1 million.

- **Korle lagoon.** The project will address the accumulation of marine sediment at the outlet of the lagoon, thereby minimizing the obstruction to water flow within the lagoon and past the Old Winneba Road bridge, will dredge the existing sediment at the outlet, and remove the foundations of the old bridge that are blocking the outflow of water and serving as an accumulation point for sediment. Following the completion of project works and improved management of solid waste within the lagoon, WACA ResIP 2 will support the restoration of the lagoon—encompassing approximately 42 hectares—to improve its ecological status and hydrological function. Applying an assessment by Croitoru et al. (2019), the present value benefits from these interventions are estimated at US$14.85 million.

14. **Applying these findings to existing information about the project interventions and intended results**, the present value of avoided losses and damages due to coastal erosion and flooding in Ghana is estimated

[86] Croitoru, L., Miranda, J.J., and Sarraf, M. 2019. "The Cost of Coastal Zone Degradation in West Africa: Benin, Cote d'Ivoire, Senegal and Togo". World Bank. Washington D.C.
[87] Hagedoorn, L.C., Addo, K.A., Koetse, M.J., Kinney, K., and Van Beukering, P.J.H. 2021. "Angry waves that eat the coast: An economic analysis of nature-based and engineering solutions to coastal erosion." Institute for Environmental Studies

at US$128.5 million (excluding mangroves, since benefits associate with mangroves restoration were estimated separately).

15. **The Gambia**. Reduced flood and erosion along the Kotu Stream (The Gambia) water catchment area, using nature-based solutions and hard infrastructure. This area is home to about 201,044 people, where 59,564 or 29.6 percent are affected by fluvial and pluvial floods, as well as coastal erosion.[88] The project will support an integrated investment to reduce flood risks and erosion consisting of inter alia cleaning, reprofiling and/or enlarging the river profile; replacing or rehabilitating critical infrastructure (bridges, culverts); rehabilitating/expanding the primary drainage system; and, where possible, incorporating local water storage/infiltration areas utilizing sustainable urban drainage systems. In addition, the project proposes to establish a green river belt that will facilitate river discharge and reduce buffer from extreme rainfall events. Results of a cost-benefit analysis for interventions in Gambia are based on the feasibility study conducted by Royal Haskoning DHV for the Greater Banjui area. The study estimated the benefits based on the economic flood risk (average annual damage) prevented, as prevented damage for events that have a frequency exceeding 100 percent (yearly damage), 10 percent (10 years event), 4 percent (25 years event), 2 percent (50 years event), 1 percent (100 years event), and 0.4 percent (250 years event), and the effectiveness of measures to reduce the flood risk. Based on expert judgement on the effectiveness of secondary drainage additional to the proposed primary drains in the Kotu Stream area, the total effectiveness of these measures was estimated at 70 percent of the total pluvial flood risk for 2040, with an annual average damage consideration of US$5.114 million per year. Based on these assumptions, the proposed project interventions could result in annual avoided damage at US$3.58 million per year. Based on the feasibility study findings, the present value benefits for the intervention in Kotu Stream are estimated at US$34.8 million.

16. **Guinea-Bissau.** In Guinea-Bissau, Component 3 will focus on prevention of flooding and increased erosion rates and restoration/regeneration of coastal ecosystems and includes several groups of interventions with the majority of the actual investments focusing on MPAs Cantanhez, Cacheu, and Cufada. Due to the demanding nature of the activities, the cost-benefit analysis focused on the assessment of benefits of mangrove restoration and rehabilitation (including mangrove restoration works, such as the establishment of nurseries, planting seedlings, support for assisted natural regeneration of mangroves, and so on). The present value benefits for these interventions are discussed above.

17. **Social sub-projects for coastal communities.** These community-driven activities will be implemented to support local benefits where jobs for labor-intensive works can be carried out, and will provide opportunities for livelihood diversification, sustainable management of the project infrastructure or grey/NB solutions, increased adoption and effectiveness of community-led resource management schemes, and the strengthening of the role of women in the management of coastal resources. Given the on-demand nature and wide variety of these interventions, the analysis focused on the experience of similar initiatives in the region. For example, these interventions in Côte d'Ivoire[89] and Benin had shown an average increase in beneficiary income of between 20 and 40 percent after the second year, depending

[88] Nieuwenhuis, 0., Bos, M., Wise, M., Hoogduin, L., De Jonge, H., and Bergsma, L. 2021. *Flood and Coastal Risk Assessment and Priority Investment Planning for Greater Banjul*. Royal HaskoningDHV.
[89] USAID. 2014. “Etude de capitalisation des expériences en matière d’activités génératrices de revenus en faveur des enfants vulnérables en Côte d’Ivoire“; Bertrand, M., Crépon, B. A., Marguerie, A., et Premand, P. 2016. ”Youth Employment and Skills Development in Côte d'Ivoire”. World Bank.

on the type of activity undertaken. Using the average estimate of a 20 percent income increase for the 30,000 households targeted by this activity, the present value of the additional benefits is estimated at US$23.3 million.

18. **Based on the above assumptions, Component 3 is estimated to generate present value benefits of about US$299.7 million, and net benefits at US$165.9 million**.

Component 4. Project Coordination

19. **This component supports the management and implementation of the above activities.** It generates benefits that have already been captured in the previous components. The present value of its costs is estimated at US$14.3 million.[90]

Table 6.2: Summary of costs and benefits assessment (discount rate 6%)

	Present value costs (US$ m)	Present value benefits, (US$ m)	NPV (US$ m)	Benefit-cost ratio	Measured benefits valuation methods/comments
Component 1	14				
Component 2	21.3	29.9	25.9		Avoided human and asset losses (based on the benefits of investment in coastal observation improvements)
Component 3					
3.1. Ghana					
Keta Lagoon, flood and erosion control works	47	132.1	85.1		Avoided damage cost
Keta Lagoon, mangroves protection and restoration	4	27.1	23.1		Benefits transfer
Densu Delta	30.1	42.1	12.0		Avoided damage cost/benefits transfer
Korle Lagoon	13.2	14.5	1.3		Avoided damage cost/benefits transfer
3.1. Gambia Kotu Stream, flood prevention, physical investments and green park	27.1	34.8	7.7		Avoided annual damage cost. Nature-based solutions option is considered in the cost-benefit analysis
3.1. Guinea-Bissau Mangroves restoration	2.3	15.7	13.4		Benefits transfer
3.1. Other physical investments (all countries)	22.2				
3.2 Social investments/income-generating activities	10	33.4	23.3		30,000 households, increase in income of 20%
3.3. Pollution and invasives	7.3				
Component 4. National coordination	14.3				

[90] Including operation and maintenance and a 6 percent discount rate.

Project total, costs include operation and maintenance	**212.5**	**329.5**	**117**	**1.6**	

Table 6.3: Cost-benefit analysis results: base analysis and sensitivity scenarios

	NPV (US$ million)	Benefit-cost ratio	Internal Rate of Return
Base analysis (6% discount rate, 30 years)	117	1.6	8 %
Consider only low-shadow carbon prices and other project benefits (GHG assessment, with 6% discount rate)	192.9	1.9	
Sensitivity analysis to:			
Increase in discount rate (10%)	32.3	1	8
Increase in project costs (30%)	53.2	1.2	8
Decrease in project benefits (30%)	18.1	1.1	7

ANNEX 7: Gender Tag ToC and SEA/SH Prevention and Response Action Plan

1. **This annex includes the Gender Tag theory of change (ToC) under The Gambia WACA ResIP 2 country project.** The annex provides a summary, in the table below, on three gender gaps, actions, and indicators. This is followed by an analysis, details on actions, and linked indicators for gender gap. Under the regional project, The Gambia seeks to close gender gaps by removing constraints for more and better jobs in solid waste management (SWM), tree planting, mangrove restoration, and urban farming through the results chain outlined below.

2. **This project is closely aligned with the World Bank's Gender Strategy (2016–2023).** It supports Pillar 2: Removing Constraints for More and Better Jobs. The project also draws on the Good Practice Note on Addressing GBV in IPF Involving Major Civil Works.

3. **The activities below are also in line with national policies such as the 2016 National Climate Change Policy, the 2010 Gender and Women Empowerment Policy,** and programs such as sustainable livelihood initiatives around gardening, nursery management, agroforestry products, mangrove restoration, and coastal protection; and training and sensitization activities around gender and climate change.

4. **Gender Gap : Limited access to sustainable job and wage employment in SWM,** tree planting, mangrove restoration, urban farming, including horticulture production; lack of training for women in these markets (Pillar 2: Removing Constraints for More and Better Jobs).

5. **Analysis: According to the Food and Agriculture Organization's 2019 gender profile of agriculture and rural livelihoods, agriculture is one of the most important sectors in The Gambia's economy.** More than 60 percent of all Gambians depend on agriculture for their livelihood. Notably, the poorest population is mainly engaged in agriculture. Crop production provides about 75 percent of household incomes, and employs 70 percent of the labor force, accounting for 3 percent of the Gross Domestic Product (GDP)[91] and 40 percent of the foreign exchange earnings.[92] Women account for about 50 percent of the total labor force in the country and 70 percent of unskilled laborers. Forty-two percent of female employment is in agriculture, compared with 22 percent of male employment. As much as 84.6 percent of women are considered in vulnerable employment, against 71 percent of males, and only 14 percent of women are wage and salary-workers against 29 percent of males. Women play a big role in subsistence agriculture and work predominantly in the informal sector, selling agricultural produce in markets. However, their remuneration is lower than that of men. There are multiple reasons for these gender gaps in both formal and informal employment: women have lower levels of education and bear disproportionate household responsibilities.

6. **Most agricultural work is done by women, who support themselves and their children.** Similarly, horticultural production is mainly practiced by women on a small scale, partly for consumption and partly for sale at local markets as primary products to earn a little income to supplement their subsistence

[91] FAO. The Gambia.
[92] FAO and ECOWAS Commission. 2019. "National Gender Profile of Agriculture and Rural Livelihoods–The Gambia." Country Gender Assessment Series, Banjul.
https://www.fao.org/3/ca3222en/ca3222en.pdfhttps://www.fao.org/3/ca3222en/ca3222en.pdf

earnings with cash income. Women farmers also raise and manage most of the small ruminants and poultry in rural areas for the same purpose. In The Gambia, most women have little to no control over their land, income, or other productive resources, despite playing essential roles in the production of food, consumption in households, and reproduction of the family. Traditional male-centered norms and values weigh heavily on women's access to productive resources, their decision-making power within the household, and their capacity to determine their own and their children's well-being. Women are constrained in decisions on marriage; when and how many children to have; the use of family planning methods; and healthcare for themselves and their children.[93] These constraints start in early adolescence and can produce harmful effects throughout their lives. The role of women as mothers cannot be separated from their role as providers of food security. Together, these factors highlight a picture of conflicting demands on women's time and responsibilities, resulting in high vulnerability, which becomes worse during economic recessions.

7. **Women often lack bargaining power and thus face disadvantages within their households,** including limited agency and domestic violence. Three out of four working-age women have no access to their earnings. Only 25.5 percent of women were active in paid work in 2018 (see Figure 8). Women's low access to paid employment makes them financially dependent on their husbands and consequently lowers their bargaining power at the household level. Research from various parts of the world shows that under such circumstances, women are less likely to make decisions on important household matters and household allocation of resources, which tends to reduce investment in education and the health of children.[94]

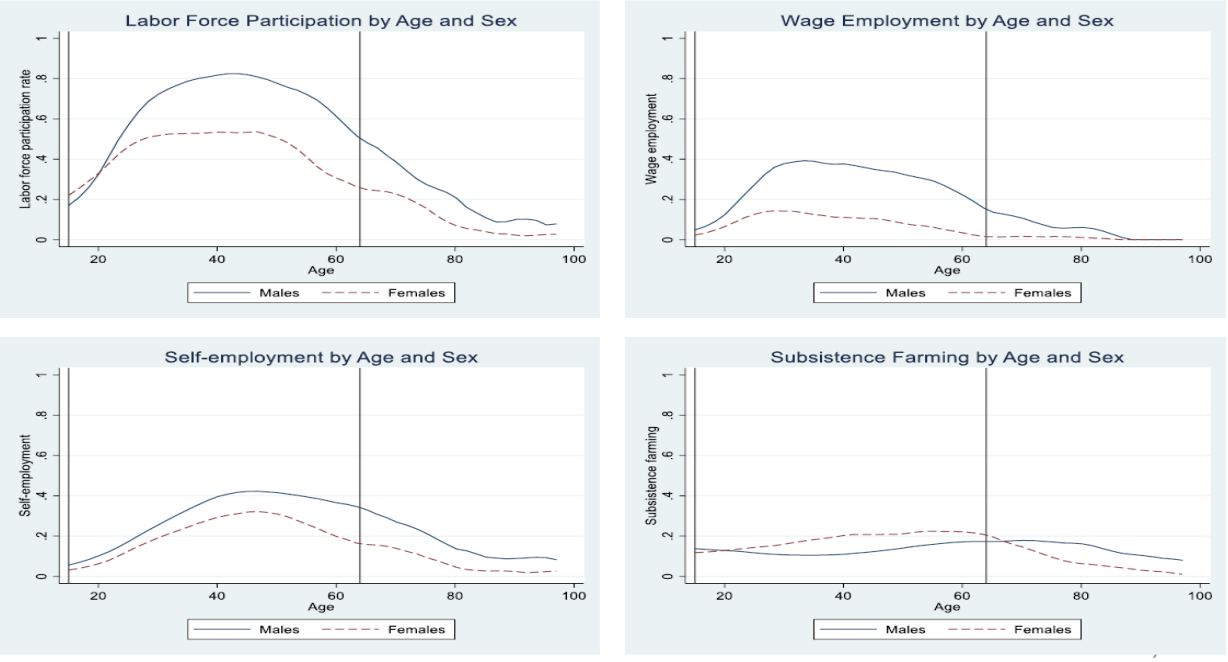
8. **Three out of four women of working age have no access to their earnings**. Forty-eight percent of males of working age are in paid employment (wage employment or self-employment), compared with only 25.5 percent for females (see Figure 8). Compared to women, men are 2.3 times more likely to be wage-employed and 42 percent more likely to run their own businesses. By contrast, women are 3.7 times more likely to be unpaid helpers in family businesses, and 26 percent more likely to be engaged in subsistence agriculture. Traditionally, female farmers are mainly involved in the production of rice and horticulture crops. Women usually face a double burden: because they are responsible for most of the unpaid work in the household—taking care of the home, the children, and the elderly—they are more likely to suffer from time poverty and to have limited mobility.[95]

9. **SWM, tree planting, mangrove restoration, urban farming, and the horticulture production sectors present significant employment opportunities for women.** However, barriers hinder their participation. It is projected that there will be an increase in the occurrence of heavy rainfall events and an increase in drought events.[96] Because there are no formal solid waste disposal systems in urban areas, waste is often burned, either at dumpsites or where it is generated.[97] Additionally, dumping of solid waste into wetlands is widespread and some households and businesses burn or litter their waste where it is generated.[98] Local

[93] A 2014 gender assessment by the World Bank.
[94] A 2019 UNCDF study shows that many Gambian women highlight school fees as a primary financial need. Mothers tend to think of themselves as responsible for their children's education, especially when the husband has several wives.
[95] UNCDF, 2019.
[96] Goy Garbia et al 2022
[97] Goy Garbia et al 2022; Maci and Kitchin 2020.
[98] Goy Garcia et al. 2022

governments are responsible for domestic solid waste management and each municipality provides collection services individually. However, the coverage does not reach all areas.[99] In The Gambia, women play an important role in waste disposal and environmental management, yet they are disadvantaged in accessing jobs and income from the SWM market, as they are in many sectors. The SWM sector thus has the potential to generate jobs and income for women while reducing waste, enhancing urban sanitation, and expanding the circular/recycling economy. However, women's participation is limited: while they are involved in SWM in some informal capacities including waste-picking, diversion, and sorting, SWM service providers are male-dominated. SWM skills, qualifications, and resources are needed to enhance opportunities and the likelihood of success, along with connections to formal job opportunities as a means to close employment gaps and support women's role in the rapidly evolving waste management sector.[100]

Figure 7.1: Gender gaps in work activities over the life cycle (*Source: Labor Force Survey, 2018)*



10. **Project actions to close gender gap.** Only one gender gap has been identified, which is under Subcomponent 3.2. Here the project will close gender employment and wage gaps in SWM, tree planting, mangrove restoration, and urban farming, including horticulture production, by: (i) providing support to women to access jobs opportunities, and (ii) generating jobs in the formal SWM sector through the implementation of a local non-governmental organization. The project will first generate data on women's employment in SWM, tree planting, mangrove restoration, and urban farming, including horticulture, through the study, "Assessment of market potential for economic activities in the Kotu stream".[101] The

[99] Goy Garcia et al. 2022
[100] Terraza, Horacio, Orlando, M.B., Lakovits, C., Lopes Janik, V., and Kalashyan, A. 2020. "The Handbook for Gender Inclusive Urban Planning and Designs." World Bank.
[101] Jobs and Economic Transformation Platform Pilot project support to WACA ResIP 2-Gambia by Senior Economists.

study will survey two sets of research questions on market analysis and constraints and opportunities for the target group. The project will also generate an analysis of the gender gap through the "Assessment of the recycling potential in KMC and associated markets, pathways to integrate waste-pickers in the formal system, and gender analysis". An outcome of this study is the socioeconomic profile of the formal and informal recycling sector, disaggregated by gender and age range. Particular attention will be made in the Market Study Assessment to the livelihoods of women waste pickers and farmers who may be impacted by any future flooding events that might affect their SWM, tree planting, mangrove restoration, urban farming, and horticulture activities, which we have seen recently.

11. **Based on the data and analysis generated by the studies**, **the project expects to generate employment opportunities in SWM, tree planting, mangrove restoration, urban farming for women**, ensuring that women will be paid on par with men in a male-dominated sector to close the gender gap in earnings. The creation of jobs under this project will focus on developing sustainable livelihoods by not only creating jobs but developing the skills for female beneficiaries to participate more efficiently in SWM, tree planting, mangrove restoration, urban farming markets after the project has closed. It is expected that these jobs will be sustained beyond the life cycle of the project. The project will also link women with market services and tools as well as include skills training for women.

12. **The expected outcome** is that local women involved in these sustainable jobs create ownership in regard to maintenance and protection, awareness raising of floods/erosion issues, and community solutions, and income generation and wages that are on par with men, and therefore, more gender-equitable and sustainable results with an increase in average annual earnings which will be measured after project completion where we can consider the duration of the jobs to be long-term.

13. **Indicator**. The project will measure the percentage increase in the average annual earnings of female beneficiaries taking part in the project. There is currently no baseline, as one will be established with a survey. The target for this indicator is 20 percent. This indicator will be measured after project completion at a point in time when the project can be considered long-term and can be used to measure the increase in earnings of the project's female beneficiaries.

GBV Risk Analysis and Mitigation Strategy

14. **According to the 201920 Demographic and Health Survey, 9 percent of women between the ages of 15 and 49 in The Gambia have experienced sexual violence**, while almost 40 percent of married women have been subjected to either physical, sexual, or emotional violence by their current or most recent partners.[102] The survey found that about 51 percent of women and 35 percent of men in The Gambia agree that wife battering is acceptable if a wife burns the food, argues with her husband, goes out without telling her husband, neglects the children, or refuses to have sexual relations with her husband.[103] The percentage of women who reported having experienced GBV stood at 41 percent in 2013[104] and is likely underreported.

[102] The Gambia, Demographic Health Survey (DHS), 2019–20, 255.
[103] The Gambia, Demographic Health Survey (DHS), 201920, 255.
[104] DHS 2013.

ANNEX 8: Financial Management and Procurement

The Gambia

1. **MECCNAR has established the CPCU to implement the project.** The CPCU has no donor project experience, especially in the use of the World Bank Procurement Regulation. The CPCU will be reinforced with a PIU composed of different specialists. The PIU under the CPCU will be responsible for coordinating and implementing the WACA Project and all development partner-funded projects in the sector to avoid multiple PIUs, create synergy between projects, strengthen capacity, and build continuity. However, as a newly established PIU, the unit has inadequate experience in the implementation and coordination of a World Bank-funded project using the New Procurement Framework. At this moment, only the director of CPCU is recruited under the Public Procurement Authority and has little knowledge of the IDA financing project operations.

2. **Meanwhile, in positions of the PIU like project coordinator, procurement specialist, financial management specialist, M&E specialist, environment specialist, and social development specialist, the terms of reference are being cleared at the World Bank level and will be advertised in national newspapers** and other media outlets to get well-qualified staff with World Bank-funded project experience.

3. **The project will have a transition from the unit supporting the fiduciary of the Public Procurement Authority that is Central Projects Coordinating Unit of the Ministry of Agriculture until they gain experience in these areas.** PIU staff will coordinate the overall project implementation on a day-to-day basis. The PIU will coordinate and consolidate the AWPBs and oversee all other technical implementation agencies. It will be responsible for all fiduciary aspects of the project, including: (i) procurement, disbursement, accounting, and financial reporting(ii) M&E of the project; and (iii) ensuring the auditing of project accounts. WACA will also prepare bi-annual reports recording the progress of the project. All project accounts will be audited annually by independent auditors who have been approved by the IDA. The audited accounts should be submitted to IDA with no objection not later than six months after the end of the fiscal year. The project coordinator of WACA will act as the secretariat for the PSC.

4. **The project will also establish a contracts committee that will be key in making procurement and procurement-related decisions to support the execution of all procurement activities.** This committee shall be headed by the permanent secretary, who may designate a project coordinator or other official/s as chairperson of the committee, which shall comprise members of key project stakeholders. The chairperson shall select an evaluation committee different from the contracts committee in every procurement activity to ensure value for money and transparency in the procurement.

Financial management and disbursement arrangements

5. **In connection with the preparation of the WACA ResIP 2, a financial management assessment of the regional implementing entity at WAEMU and of the implementing entity within each participating country has been conducted**. The assessment was done in The Gambia for the Ministry of Environment, Climate Change, and Natural Resources (MECNAR); in Ghana for MESTI; and in Guinea-Bissau for IBAP (*Institut de la Biodiversité et des Aires Protégées*).

6. **The objective of the financial management assessment** was to determine whether (i) these implementing entities have adequate financial management arrangements to ensure that the project funds will be used for the intended purposes in an efficient and economical way; (ii) that the project financial reports will be prepared accurately, reliably, and on time; and (iii) that the project's assets will be safeguarded. The financial management assessment was carried out in accordance with the Financial Management Manual for World Bank IPF Operations, which became effective in March 2010 and was last revised in September 2021. In this regard, a review of the financial management arrangements has been conducted for the above entities as further detailed below.

7. **The overall conclusion of the financial management assessment is that the project's financial managements arrangements within each of the above-implementing entities meet the World Bank's (IDA) minimum financial management requirements** under the World Bank IPF Policy and Directive and, therefore, are adequate to provide, with reasonable assurance, accurate and timely information on the status of the project required by the World Bank (IDA). The overall residual financial management risk rating of the project is "moderate". At implementing agency level, this risk is deemed "substantial" for WAEMU. It is deemed "moderate" for The Gambia, Ghana, and Guinea-Bissau. The residual financial management risk for WAEMU is "substantial" because, although WAEMU is familiar with the World Bank-financed projects, (i) it did not submit the entity's audited financial statements on time in 2020 and 2021; (ii) the required internal audit report for the second semester of 2021 was not received on time; (iii) the financial management staffing arrangements under ResIP 1 may not be adequate to properly cover ResIP 2 (the current specialist does not work exclusively on ResIP 1 and he is not supported by an additional accountant).

8. **To mitigate the fiduciary risk to the extent possible**, the following actions need to be implemented: (i) recruit a financial management specialist for WAEMU, The Gambia, and Guinea-Bissau; (ii) recruit an accountant for Guinea-Bissau and The Gambia; (iii) elaborate and adopt the project implementation manual (PIM), including detailed financial management procedures for The Gambia, while the existing financial management manual of procedures used by WAEMU, MESTI in Ghana, and IBAP in Guinea-Bissau will be updated to reflect the specificities of this new project; (iv) acquire and install dedicated accounting software to accommodate the bookkeeping of the project for The Gambia, while the existing accounting systems will be configured for Ghana, Guinea-Bissau, and WAEMU; (iv) sign a memorandum of understanding with the Internal Audit Directorate of The Gambia to conduct an ex-post review of transactions on a semester basis to reinforce the internal control environment of the project in The Gambia, while WAEMU and MESTI in Ghana will include the activities of ResIP 2 into the work plan of its internal audit department; (v) agree on the IFR format for the project's quarterly reports for the three countries and WAEMU; and (vi) submit for World Bank no-objection the terms of reference for, and subsequently recruit and maintain, external auditors for The Gambia, Ghana, and Guinea-Bissau, and WAEMU.

Budgeting arrangements

9. **The national PIUs in The Gambia, Guinea-Bissau, and the RMU based at the WAEMU, will each prepare an AWPB** in accordance with terms of reference acceptable to the World Bank. Implementing entities receiving funds from the above-mentioned Project implementing entities will submit their budgets to the

respective PIUs for consolidation. The AWPB will then be approved by respective Project Steering Committees (PSC) and submitted to the World Bank not later than November 30 of each calendar year throughout the implementation of the Project.

10. **For Ghana, as a government agency, MESTI follows the budget preparation guidelines as per the PFM Act 2016, Act-921, and the annual budget guidelines issued by the Ministry of Finance.** Before the start of the budget cycle, the project coordinator will have discussed the various activities and work programs with the M&E coordinator, the procurement specialist, and the respective beneficiary agencies. This will form the basis for preparing the detailed AWPB. The AWPB will be submitted to the Project Steering Committee for review and approval. Approved budgets will then be submitted to IDA for a 'no objection' to ensure that the planned activities are in line with the PDO.

11. **The regional and national implementing entities will monitor the project's AWPB execution with the project accounting software** following the budgeting procedures specified in the financial management manual of procedures, and they will report on variances along with submitting the quarterly unaudited IFRs. The budgeting system will need to forecast for each fiscal year the origin and use of funds under the development of a Sustainable Ocean Plan (SOP) WARDIP 1. Only budgeted expenditures will be committed and incurred to ensure that resources are used within the agreed-upon allocations and for the intended purposes. The semi-annual IFRs will be used to monitor the execution of the AWPB.

Accounting arrangements

12. **Accounting policies and procedures, and information system.** Overall, accounting procedures are adequate for the selected project-implementing entities of the three countries and WAEMU. The implementing entities in Ghana, Guinea-Bissau as well as WAEMU will update their accounting software within three months after project effectiveness. The PIU in The Gambia will purchase and install accounting software with multi-project, multisite, and multi-donor features, customized to generate its financial reports. The installation of the software shall be completed within three months after project effectiveness.

13. **Accounting staff.** To strengthen the accounting staffing arrangements in the selected project implementing entities for the three participating countries and WAEMU, several actions are recommended. All accounting staff will be trained in World Bank financial management and disbursement procedures as well as in the use of the project accounting software.

Regional level

- ***WAEMU***: a dedicated senior accountant will be recruited based on terms of reference satisfactory to the World Bank, within three months of the project effectiveness date.

Country level

- ***The Gambia***: MECCNAR will recruit a qualified financial management specialist and accountant, within one month after the project comes into effect.

- ***Ghana***: The overall financial management responsibility will be handled by the MESTI Head of Accounts, a qualified accountant with over 10 years of relevant accounting experience. He will be

supported by a project accountant who is also qualified with a minimum of three years of experience in reporting on donor-funded projects. The project accountant will be responsible for the day-to-day accounting and reporting responsibilities and will be supported by other accounts staff. The project accountant will be the main liaison officer between the Bank and MESTI, with oversight from the head of accounts. Given that the project accountants provided by the Controller and Accountant General's Department (CAGD)are rotated every two to five years, this results in the outward transfer of knowledge and the need to retrain new accountants after each rotation.

- ***Guinea-Bissau***: IBAP will recruit one accountant within one month after the project comes into effect, based on terms of reference satisfactory to the World Bank.

14. **Accounting standards and basis.** For Guinea-Bissau and WAEMU, the prevailing accounting policies and procedures in line with the West African Francophone countries accounting standards—SYSCOHADA for ongoing or recently closed World Bank-financed operations will apply. For The Gambia, the PIU will use the cash basis to maintain the project's accounts, which will be supported by appropriate records and procedures to track commitments and safeguard assets. The project financial statements will be prepared using International Public-Sector Accounting Standards considering IDA requirements and specificities related to externally financed investment projects. For Ghana, MESTI has adopted the International Public-Sector Accounting Standards and the modified accrual basis of accounting and there are written policies and procedures covering all routine accounting and related administrative activities. The internal audit unit also adopts the International Public-Sector Accounting Standards in its operations. MESTI is required to review and update its accounting policy where necessary.

Internal control and internal audit arrangements

15. **Internal controls.** The internal control procedures will be documented in the FM manuals of procedures for each of the project implementing entities and their PIM, taking into consideration gaps in their existing FM Manuals/Regulations to ensure that Project FM arrangements are in line with the financing agreements. These efforts will ensure that WACA ResIP 2 has an effective internal control system covering the procedures required to support activities under different components, including those that will be carried out with subnational and local actors. A review of the internal control systems noted no major internal control or accountability issues.

16. **Internal audit. The implementing entity in Guinea-Bissau will need to recruit a qualified and experienced internal auditor within three months of the project coming into effect**, while the PCU in The Gambia will sign a memorandum of understanding with the Internal Audit Directorate of The Gambia to cover the ResIP 2 activities. In Ghana, MESTI has a functioning internal audit unit that helps to promote a sound control environment for transaction processing. The MESTI HQ Internal Audit Unit is managed by the Internal Audit Head who is qualified and supported by assistant internal auditors. The Internal Audit Unit is responsible for performing post-audit reviews of project transactions. The Internal Audit Head is required to include the WACA ResIP 2 project in MESTI's internal audit work plan and therefore, the internal audit team is required to periodically perform risk-based audits to monitor project activities and provide periodic internal audit reports. At WAEMU, DAREN, which is the executing department of the project, is familiar with the implementation of World Bank-financed projects such as WACA ResIP 1. The

department has an internal audit department that will conduct all internal project audits, in particular, to verify that the funds allocated to the project are used for the purposes intended.

Governance and anti-corruption arrangements

17. **All country and regional implementing entities will follow their institutional rules/regulations/ guidelines/policies and procedures.** FM arrangements will ensure that there are internal control systems in place and that audits are conducted to prevent and detect fraud and corruption. Transparency and accountability are highly encouraged by putting the project budget and audited financial statements on the project-implementing entity's websites where applicable. Complaint-handling mechanisms should also be set up by the project implementing entities so that beneficiaries who are not receiving services as planned have a mechanism to raise their complaints and ensure that they are followed up and addressed. This will involve putting a system in place to record all complaints received, direct them to the person responsible for addressing them, and record when a response is sent to the complainant. WARDIP SOP 1 must also comply with the World Bank anti-corruption guidelines.

Funds flow arrangements

18. **Designated Account for WAEMU.** For WAEMU, which is based in Burkina Faso, the designated account will be opened in the BCEAO, and a project account in a commercial bank under terms and conditions acceptable to the Bank, which will receive transfers from the WAEMU designated accountant periodically as further described below.

19. **Designated Accounts for the participating countries.** In Ghana, MESTI will maintain one US$ Designated Account to receive funds from the World Bank and, also maintain a local currency project account to support operational activities. Both accounts will be opened at the Bank of Ghana. The designated accounts will be managed by the MESTI Head of Accounts with prior approval of all transactions by the Chief Director. In The Gambia, a designated account will be opened at the Central Bank of the Gambia in US dollars, to receive funds from the Bank. In Guinea-Bissau, the PIU will open one designated accountant at a financial institution acceptable to the World Bank in BCEAO Francs CFA.

20. **The designated accountants and project accounts will be managed by each national PIU and the RMU** in line with the financial management Manuals. The account is set up to fund eligible expenditures based on the approved annual activity plans.

21. **Disbursements:** For the Gambia, Guinea, and WAEMU, the ceiling of the designated accountants would be determined in the disbursement and financial information letter (DFIL), based on the disbursement forecast for the first four months. The account would be set up to fund eligible expenditures based on the approved annual budget and work program. Disbursements would comply with specific procedures included in the project financial and administrative manual. Disbursements under the project would be transaction-based. In addition to making advances to the designated accountant, other disbursement methods would be available for use under the project, such as reimbursement, direct payments, and special commitment. Further instructions on disbursement and details on the operations of the withdrawal applications and direct payments would be outlined in the DFIL.

22. **For Ghana, Components 2, 3 and 4 will be implemented under the principles of traditional IPF arrangements using report-based disbursement arrangements.** As part of this approach, the allocated resources will be advanced to MESTI's US$-designated account based on a six-monthly forecast of expenditures and replenished quarterly for further periods of six months using IFRs generated from MESTI's GIFMIS system. The IFRs will serve as the basis for requesting advances and also for documentation. The initial disbursement will be based on the consolidated expenditure forecast for six months, subject to the Bank's approval of the estimates. Subsequent replenishments of the designated accountant would be done quarterly based on the forecast of the net expenditures for the subsequent half-year period. The World Bank Procurement guidelines shall govern all procurement activities.

23. **Under ResIP 1, IUCN had a project agreement with the World Bank and a subsidiary agreement with WAEMU.** Under ResIP 2 WAEMU will establish contracts with IUCN and with regional institutions—ABC, CSE, PRCM, and RAMPAO—where disbursement (including the option for direct payment) will be based on the successful completion of activities per the annual work plan.

24. **For all three participating countries and WAEMU, if ineligible expenditures are found to have been made from the designated and/or project accounts, the borrower will be obligated to refund the same.** If the designated accountant remains inactive for more than three months, the World Bank may reduce the amount advanced. The World Bank will have the right, as reflected in the terms of the Financing Agreement, to suspend disbursement of the funds if significant conditions, including reporting requirements, are not complied with. Additional details regarding disbursement will be provided in the disbursement letters.

Financial reporting arrangements

25. **The project implementing entities in The Gambia, Ghana, and Guinea-Bissau, will prepare quarterly unaudited IFRs in form and content satisfactory to the World Bank,** which will be submitted to the World Bank within 45 days after the end of the calendar quarter to which they relate. The regional PMU hosted by the WAEMU will submit the IFR under Component 1 of the project within 60 days after the end of the calendar quarter. The contents of the IFR for all implementing entities will include the following information to account for project funds:

- A narrative outlining the major project achievements for the quarter covered by the IFR
- A statement of sources and uses of funds showing the use of funds by components as per the PAD (useful in monitoring implementation of the components)
- A statement of sources and uses of funds showing the expenditure by category as per the financing agreement (for allocating expenditure as per the Financial Agreement)
- A budget variance report comparing the utilization of approved budget against expenditure
- A Designated Account reconciliation statement
- A physical progress report
- A procurement report and a procurement table, including a list of current commitments (i.e., signed, and ongoing contracts)
- A cash forecast for six months (to be the basis of requesting additional funding for Ghana).

26. **Formats of the various periodic financial monitoring reports to be generated from the financial management system will be developed and discussed with MECCNAR, MESTI, IBAP in The Gambia, Ghana, Guinea-Bissau, respectively, and WAEMU, before negotiation.** The financial reports will be designed to provide relevant and timely information to the project management, implementing agencies, and various stakeholders monitoring the project's performance.

27. **In addition, MECCNAR, MESTI, IBAP in The Gambia, Ghana, and Guinea-Bissau, respectively, and WAEMU will prepare annual financial statements at the end of each fiscal year following the acceptable accounting principles.** The financial statements will comprise, at a minimum, (i) sources and uses of funds (summary of expenditures shown under the main program headings and by main categories of expenditures for the period), and (ii) notes to the financial statements, including background information, the accounting policies, detailed analysis, and relevant explanation of the main accounts/major balances to name a few. All the national PIUs and the regional PMU shall provide, as an annex to the financial statements, an inventory of fixed assets acquired according to asset classes, dates of purchase, location, and cost. The implementing entities in The Gambia, Ghana, and Guinea-Bissau, as well as the regional PMU should note that advances will not be recognized as expenditures until the goods and/or services have been delivered with the relevant supporting documentation.

External audit arrangements

28. **Each key PIU in Ghana, Guinea, The Gambia, and WAEMU Commission will engage auditors acceptable to the World Bank,** following World Bank processes, policies, and guidelines to conduct the audit of the project accounts.

29. **Detailed notes to be included in the project's audited financial statements will incorporate activities financed under the project.** The auditor will express an opinion on the financial statements in compliance with International Standards on Auditing and prepare a management letter giving observations and comments, providing recommendations for improvements in accounting records, systems, controls, and compliance with financial covenants in the financing agreement. To meet the Bank audit requirements, all the implementing entities are required to complete the competitive bidding process within six (6) months after effectiveness, for competitively selected private firms. If an SAI is requested to conduct the audit, the terms of reference must be shared with and cleared by the World Bank no later than three months after project effectiveness. Terms of reference for each project implementing entity will be agreed upon with the World Bank. External audits will be conducted annually, and the audit report and management letter will be submitted to the Bank within six months after the end of the financial year audited, for all the national implementing entities, and nine months after the end of the financial year audited, for WAEMU, as noted under financial reporting above.

30. **All the implanting entities will prepare, if needed, a plan to address any issues and recommendations contained in the audit reports.** The action plan and follow-up activities will be communicated promptly to the Bank. The audit reports will be publicly disclosed by the World Bank in accordance with the World Bank disclosure policy.

31. **In addition to the project's audited financial statements, as the continuing entity, the WAEMU's financial statements are annually conducted by the Court of Accounts of Burkina Faso.** A review of the audit status of the WAEMU's financial statements under ResIP 1 revealed the following issues:

- 2019 audit reports due on June 30, 2021, were overdue for more than 15 months.
- 2020 audit reports due on June 30, 2022, were overdue for more than four months.

32. **The WAEMU has been advised to closely work with the Court of Accounts** to address these in a reasonable timeframe.

33. **Table 8.1 presents the Financial Management Action Plan for WACA ResIP 2,** with the entity responsible for each action and the completion date.

Table 8.1: Financial Management Action Plan

Issue/topic	*Action recommended*	*Responsible body/person*	*Completion status/date*
All countries, and WAEMU			
External Auditing	Recruit an External Auditor, based on terms of reference satisfactory to the World Bank	Respective governments/WAEMU	Within six months after effectiveness
The Gambia			
Staffing	Recruit one FM specialist, based on terms of reference satisfactory to the World Bank	Government of The Gambia	Within one month after effectiveness
Information system accounting software	Acquire and install accounting software	Government of The Gambia	Within one month after effectiveness
Internal auditing	Sign a memorandum of understanding with IAD	Government of The Gambia	Within three months after effectiveness
FM manual of procedures	Elaborate and adopt the Project Implementation Manual including detailed financial management procedures	Government of The Gambia	Before effectiveness
Ghana			
Information system accounting software	Configure the existing GIFMIS to include the needs of WACA ResIP 2	Government of Ghana	Within three months after effectiveness
Internal Auditing	Include ResIP 2 activities in MESTI's internal audit work plan	Government of Ghana	Within three months after effectiveness
FM manual of procedures	Update the existing financial management manual of procedures	Government of Ghana	Within three months after effectiveness
Guinea-Bissau			

Issue/topic	*Action recommended*	*Responsible body/person*	*Completion status/date*
Staffing	Recruit one financial management specialist and one accountant	Government of Guinea-Bissau	Before effectiveness
Information system accounting software	install, customize and update accounting software	Government of Guinea-Bissau	Within three months after effectiveness
Internal auditing	Recruit or appoint an internal auditor	Government of Guinea-Bissau	Within three months after effectiveness
Financial management manual of procedures	Update the existing PIM with financial management manual of procedures	Government of Guinea-Bissau	Within one month after effectiveness
WAEMU			
Staffing	Senior Accountant	WAEMU	Within three months after effectiveness
Information system accounting software	Migrate the existing TomPro accounting system to include the needs of WACA ResIP 2	WAEMU	Within three months after effectiveness
Internal Auditing	Include WACA ResIP 2 activities in the internal auditors' workplan	WAEMU	Within three months after effectiveness
Financial management manual of procedures	Update the existing financial management manual of procedures to include ResIP 2	WAEMU	Within three months after effectiveness

34. **Implementation Support Plan.** In addition to the regular internal and external audits, the World Bank task FM team will conduct regular supervision missions on a half-yearly basis for the activities implemented by WAEMU, and on an annual basis for The Gambia, Ghana, and Guinea-Bissau. During these supervision missions, World Bank FM Staff will evaluate the FM arrangements to ensure that they remain adequate for the implementation of the project. Implementation support will also include desk reviews, such as the review of IFRS and audit reports. In-depth reviews and forensic reviews may be done where deemed necessary. The financial management implementation support will be an integral part of the project's implementation reviews.

35. **Conclusion.** This assessment concludes that the financial management arrangements in place meet the World Bank's minimum requirements under World Bank Policy IPF, and therefore are adequate to provide, with reasonable assurance, accurate and timely information on the status of the project required by the World Bank (IDA). **The overall financial management residual risk rating is "m*oderate*" for the implementing agency in The Gambia, Ghana, and Guinea-Bissau, and "substantial" for WAEMU**.

Procurement

The Gambia

36. **Procurement will be carried out following:** (i) *the World Bank Procurement Regulations (PR) for IPF Borrowers*, dated November 2020, and (ii) the "Guidelines on Preventing and Combating Fraud and Corruption in Projects financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006, revised in January 2011 and July 2016; and (iii) the provisions stipulated in the financing agreements. Any works bidding documents will be based on the Standard Procurement Document, recently enhanced to reflect positions on the Environment, Social Health, and Safety. The STEP will be the platform for preparing, submitting, reviewing, and clearing procurement plans and prior review procurement activities.

37. **Assessment of procurement capacity and risks.** A summary procurement risk assessment of the CPCU anchored at MECCNAR has been conducted by the World Bank during the preparation of the PPA. As indicated, a PIU will be set up under the CPCU and will be responsible for the coordination and implementation of the WACA Project. The PIU will supervise all procurement activities of MECCNAR and is responsible in particular for: (i) finalizing procurement documents prepared by the PIU or the technical structures; (ii) preparing the advertisement notices; and (iii) presiding over tender committees and drafting contracts for approval.

38. **The procurement risk assessment revealed that** (i) MECCNAR has no experience using World Bank procurement regulations and administering STEP because the Ministry has never implemented a World Bank-funded project; (ii) the absence of a project implementation manual with a clear system of accountability with a clear definition of responsibilities and delegation of authority on who has control of procurement decisions, which will be prepared within the PPA phase; (iii) the PIU procurement team was comprised of one procurement specialist with limited World Bank procurement regulations experience; (iv) there is no contract management and monitoring system in place. Mitigation measures will include: (i) preparation of the PIM, including the procurement procedures; (ii) the recruitment of the procurement specialist; and (iii) the strengthening of the procurement capacity of the PIU and the procurement specialist to be provided by the World Bank team.

39. **The Procurement Strategy for Development Summary:** MECCNAR serves as the lead institution for the project. The PPSD concluded that there is a conducive environment for the implementation of the project.

40. **Under MECCNAR, project management will be carried out by a new PIU, a Specialised Procurement Unit to be headed by a procurement specialist conversant with the New Procurement Framework and Procurement Regulations of the World Bank.** The safeguards team (environmental and social safeguards specialist) will be hired to ensure compliance and fulfilment of all the safeguards requirements. The project shall involve experts from technical beneficiary departments and agencies for the preparation of specifications and the provision of technical advice.

41. **Thirty-one activities have been identified under the project and analysis shows that there are opportunities for both national and international firms under the project.** For the high-risk and complex consultancies for which there is a lack of local capacity, the client will thoroughly disseminate the REOIs

at the World Bank website, UNDB online, in relevant local newspapers, and other electronic portals. Civil works, especially restoration of river profile (cleaning, re-profiling, and/or enlarging), goods, and non-consulting services procurement will follow similarly with the publication of the SPNs to attract qualified bidders. The support of the World Bank's procurement specialist will provide professional guidance to the procurement specialist of the PIU of the WACA. The World Bank will also support the PIU of the MECCNAR in the development of the terms of references, and technical specifications for complex and high-risk assignments.

Table 8.2: Procurement thresholds

Type of procurement	Procurement prior review thresholds (USD$ millions)			
	High risk	Substantial risk	Moderate risk	Low risk
Civil works	5.0	10.0	15.0	20.0
Goods, IT, and non-consulting services	1.5	2.0	4.0	6.0
Consultants (firms)	0.5	1.0	2.0	4.0
Individual consultants	0.2	0.3	0.4	0.5

Category	Thresholds for procurement approaches and methods (USD$ millions)				
	Open international	Open national	Request for quotation	Consulting services	Engineering and construction supervision
Civil works	≥3.0	<3.0	≤0.2	N/A	N/A
Goods, IT, and non-consulting services	≥0.3	<0.3	≤0.1	N/A	N/A
Shortlist of national consultants	N/A	N/A	N/A	<0.2	≤0.2

42. **The overall procurement risk is rated "high".** The residual level risk is expected to be "substantial" once the mitigation measures are implemented.

Ghana

43. **Procurement implementation arrangement:** The project will be implemented by MESTI. MESTI shall implement and manage the procurements under the project with technical support from the technical beneficiary agencies.

44. **MESTI Procurement Capacity Assessment:** As part of project preparation, a procurement capacity assessment was conducted for the PIU under MESTI. The ministry had successfully implemented the Sustainable Land and Water Management Project (SLWMP). It is noted that MESTI is a government agency that undertakes procurement using the Ghana Public Procurement Act 663, as amended with Act 914. Per the requirements under the Act, MESTI has the stipulated procurement structures, which include a procurement unit, head of procurement, tender committee, etc., and follows the procurement planning, review, and clearance authorities as stated in the law. MESTI successfully implemented SLWMP and is familiar with World Bank project requirements. The SLWMP made use of mainstream staff and a procurement consultant. The consultant is no longer with the ministry, and it is a challenge to retain

mainstream staff, even though capacity has improved, as some have been transferred to other government agencies.

45. **The Procurement Unit is headed by a qualified procurement professional, who is supported by three procurement officers.** It was noted that the Head has experience in public procurement per Act 663 and other donor-funded projects such as the International Fund for Agriculture Development (IFD). He is currently handling the PPA for the project using the WB Procurement Regulations, STEP, etc. He also continues to benefit from the Bank's monthly procurement training and has acquired considerable World Bank experience in Goods, Works, and Consultancy Services procurement. MESTI has good filing and record keeping. The contents of procurement document reviews are of good quality but can be improved.

46. **The assessment, therefore, revealed adequate dedication and experience to implement and manage procurements by the PIU.** To ensure the required proficiency, dedication, and retention for project delivery is maintained, there is the need for the procurement director/ specialist to undertake Bank procurement training at GIMPA to build on the gained experience in the implementation, management, delivery, and reporting on procurement under the project. From the procurement perspective, project implementation will not require new arrangements and will rely on the PIU arrangement and procurement specialist.

47. **Proposed mitigation by the borrower should include:** (i) strengthening the procurement capacity of the procurement specialist to execute procurement on the project and offer hands-on/mentoring training to procurement staff at the PIU and at the technical beneficiary agencies; (ii) Prepare a project implementation manual (PIM) with clear procurement procedures, responsibilities, process timelines; (iii) organize orientation/project launch workshops for key staff; (iv) identify and monitor key performance indicators on major procurements and contracts that influence PDO achievement and continually track and monitor procurement execution and contract performance with a robust contract management system in place;[105] (v) undertake yearly post-reviews/procurement audits; (vi) ensure all files and records about contracts are separately filed, appropriately secured and protected from damage at the PIU; (viii) fall on the experts at the beneficiary agencies and external experts/consultant to support in the preparation of terms of reference, requests for proposals, and carry out evaluations, etc. with the requisite knowledge and experience on the subject matter area and avail themselves during and after the evaluation periods; (ix) have an efficient scheduling of workload and deliverables by the mainstream staff on the project; (x) avoid transfers that will cause replacement of staff with adequate experience and knowledge on project implementation; (xi) procurement at MESTI and the beneficiary agencies should work together in implementing procurement to consolidate experience and knowledge on procurement implementation and management; (xii) enforcement of remedies if the Government of Ghana does not take appropriate sanctions against officials who violate procedures, if any; and (xiii) to avoid/minimize political interference and conflict of interest, the required project implementation support staff and individual consultants for project management will be procured through open competition with advertisement in widely circulated news media. The default procurement process will be an open competition.

[105] STEP rolled out contract management in October 2022 to augment the borrower's contract management systems.

48. **Project Procurement Strategy for Development Summary:** Ghana has a stable political climate with stable democratic governance and a decentralized governance system that provides an efficient, effective, and equitable social service delivery to its citizens. The Public Procurement Authority (PPA), under Section 3 (d) of the Public Procurement Act, is mandated to supervise public procurement and ensure compliance with statutory requirements. Forty-three activities have been identified under the project and include high-risk, high-cost procurement items that will require high expertise and highly experienced firms. The market approach will therefore be both national and international. The procurement packages in the procurement plan have been structured to attract qualified and potential bidders. The borrower has adequate experience and knowledge in approaching both markets.

49. **Procurement Risk:** Based on the assessment, the procurement risk is "substantial" in that the procurement staff at MESTI will require further capacity to build on the already acquired experience undertaking World Bank IPF and other donor-funded projects.

50. **For a "substantial" risk rating, the applicable thresholds are as follows:**

Table 8.3: Procurement approaches and methods

	Prior review threshold in (US$ '000)				Procurement methods thresholds (in US$ '000)							
					Works			Goods, IT, and non-consulting services			Shortlist of national consultants	
RISK RATING	Works	Goods, IT systems+ non con. serv	Consultant: firms	Consultant: individuals	Open international or ICB	Open national or NCB	Request for quotation/ national shopping	Open international or ICB	Open national or NCB	Request for quotation/ national shopping	Consulting services	Engineering & construction supervision
SUBSTANTIAL	≥10,000	≥2,000	≥1,000	≥300	≥15,000	<15,000	≤200	≥3,000	<3,000	≤100	<300	≤500

Guinea-Bissau

51. **It is proposed that the PIU should be hosted by IBAP**, on behalf of the Ministry of Environment and Biodiversity.

52. **IBAP has an autonomous status**: the current system for both procurement and financial management, including the administrative and financial procedures manual, is based on the processes and procedures put in place for "Biodiversity Conservation" projects (20112016, P122047, IDA-funded) and "Biodiversity Conservation Trust Fund" (2011-2016, P114756, GEF-funded). IBAP has a team dedicated to administrative and financial management, with an administrator, an administrative and financial manager, two accountants, as well as two people dedicated to procurement. **The procurement system is independent of that of financial management.**

53. **Procurement weaknesses identified:** These include: (i) the procurement manual based on the old guidelines (2011), which should be updated to take into account the New Procurement Framework; (ii)

the existing technical staff of IBAB and DGMP have limited capacity in the New Procurement Framework and their roles in terms of functional collaboration should be described in the procurement manual; (iii) the technical staff of the Ministry of Environment has very limited experience in Bank procedures; (iv) the existing file recording system needs to be improved; and (v) the Central Procurement Unit (ANAP) was recently dismantled by the government. All these weaknesses increase the risk of (i) tentative or incorrect application of procurement processes resulting in delays; (ii) implementation delays and poor quality of planification and contract deliverables; (iii) number of complaints and high cost for resolution; (iv) poor filing system that increases cost/time of supervision and decrease supervision effectiveness; and (v) identifying bottlenecks and delivering improvement solutions.

54. **Project Procurement Strategy for Development Summary:** Guinea-Bissau has developed and adopted WAEMU directives on the management of public finance, one of which relates to procurement. Procurement risks identified included significant delays in the implementation of procurement reforms, the absence of efficient dispute mechanisms, no human resources strategy, and no procurement audits. Given this context and the very limited capacity of the Ministry of Environment staff in procurement, it is anticipated that a separate PIU will be established inside IBAP that will be responsible for fiduciary and administrative work and facilitate the communication and coordination among the institution (INA) and agencies (AAAC) inside the Ministry of Environment and Biodiversity and the FBG for project implementation.

55. **A simplified procurement capacity assessment of the implementing agencies was conducted by the World Bank.** The assessment reviewed the organizational structure for implementing the proposed WACA project and the staff responsible for procurement inside IBAP which is hosting Project PIU. The risks identified included limitations in implementing procurement activities due to a lack of experienced procurement personnel and high staff turnover in Guinea-Bissau, as well as political instability. It is therefore recommended that the PIU recruit a procurement specialist for IBAB PIU. Procurement and related staff shall also be provided with quality training on WB procurement procedures. The assessment also revealed that though IBAB PIU has developed valuable experience in procurement execution of the planning, processing, and contract management of project procurement activities there was considerable risk. Procurement oversight needs improvement with additional capacity building of procurement staff on the Procurement Regulations for IPF borrowers. Other key issues and associated mitigation measures have been provided extensively in the PPSD.

56. **The Recipient prepared the procurement plan for the first 18 months of the project** and provided the basis for the procurement methods which will also be available in the project's database and on the World Bank's external website. The plan will be updated by the project team annually or as required to reflect the actual project implementation needs. When approaching the national market, as shall be agreed in the PP, the country's own procurement procedures may be used. The World Bank has reviewed the Standard Procurement Documents (SBDs) for procurement of goods and works under national competitive bidding and has found them acceptable in terms of consistency with the World Bank's procurement principles. National open competitive bids shall follow the procedure outlined in the Public Procurement Directive, provided that such procedure shall be subject to the following requirements as provided in section 5 paragraph 5.4 of the Procurement Regulations for IPF Borrowers.

57. **The overall procurement risk is assessed as "high".** To manage these risks, several mitigation measures will likewise be developed, including (i) the revision of the procurement manual to clarify the decision-making mechanism with thresholds for approval and delegation; (ii) the training of new staff of the technical department (e.g. Ministry of Environment; IBAB and DGMP) on the World Bank's procurement procedures and bids evaluation; (iii) a better definition of the role of procurement staff recruited under the proposed project; (iv) the control of the procurement tracking system (STEP); and (v) hiring a qualified procurement specialist.

Table 8.4: Procurement Prior Review Threshold

Category	Prior review (US$ million)	Open international (US$ million)	Open national (US$ million)	RFQ (US$ million)	Short list of national consultants	
					Consulting services (US$ million)	Engineering and construction supervision (US$ million)
Works	≥5	≥3	<3	≤0.2	N/A	N/A
Goods, IT, and non-consulting services	≥1.5	≥0.3	<0.3	≤0.1	N/A	N/A
Consultants (firms)	≥0.5	N/A	N/A	N/A	≤0.2	≤0.2
Individual consultants	≥0.2	N/A	N/A	N/A	N/A	N/A

58. **Contract management capability**. The PIU remains overall responsible for compliance with the agreed procurement procedures and processes and shall monitor the contractual performance including contract management issues if any.

Table 8.5: Procurement action plan

Action	Responsible party	Deadline
Elaboration of the PPSD	PIU (IBAP)	appraisal (completed)
Update the PIM including procurement procedures (**Processes and procedures put in place for "Biodiversity Conservation" projects (2011-2016, P122047, IDA funded) and "Biodiversity Conservation Trust Fund" (20112016, P114756, GEF-funded).**	MOE/ PIU	Three months after effectiveness
Recruit a procurement specialist with qualifications and experience satisfactory to the World Bank	MOE/ PIU	Before effectiveness.
Training for tender committee members and other partners	PIU/DGMP with World Bank support	Six months after effectiveness

West African Economic Monetary Union (WAEMU)

59. **WAEMU will manage Component 1 through the RMU established under WACA ResIP 1.** The assessment carried out at the level of WAEMU revealed that the RMU has acquired World Bank experience whiles implementing the project. There is a current implementing manual that needs to be updated, Procurement staff at WAEMU/RMU are overloaded with many tasks within WAEMU. Hence there are long procurement delays that require a dedicated procurement specialist to implement procurement activities.

60. **The main risks identified include:** (i) procurement staff are too overstretched to effectively implement procurement actions on time and in line with World Bank procurement policies and procedures, and (ii) delays in the implementation of procurement roadmap activities with the potential to affect project

implementation. Overall, such risks may result in possible delays in the evaluation of bids, and technical proposals leading to implementation delays, and the underachievement of project objectives. The effect may also result in poor procurements.

61. **Project Procurement Strategy for Development Summary**: As part of the preparation of the project, WAEMU (with support from the World Bank) finalized its PPSD, which describes how fit-for-purpose procurement activities will support project operations for the achievement of PDOs and deliver value for money.

62. **The subcomponents to be handled by WAEMU will develop regional strategies, policies, and governance (Subcomponent 1.1) and provide regional technical support for coastal resilience (Subcomponent 1.2).** Contracts will be procured and awarded per WAEMU procedures, subject to compliance with the requirements of the new World Bank regulations published in July 2016 and revised in November 2017, August 2018, and November 2020. Capacity assessment of WAEMU revealed that the institution has the capacity in terms of experience and staff to carry out procurement having successfully implemented WACA ResIP 1. Two key procurement risks identified include improvement of procurement procedures manual and non-performance on the part of some consultants and service providers. Mitigation measures spelled out comprise the provision of additional TA and procurement support from the World Bank office and the recruitment of an additional procurement expert for WACA ResIP 2. Others are providing capacity-building opportunities for WAEMU procurement staff and identifying experience and qualified regional-level service providers for the different procurement categories (consultants and suppliers). The procurement plan was developed alongside the PPSD and will be published on the project website and the World Bank's external website.

63. **About 23 activities have been identified under the project** and include a few high-risk, high-expenditure and a few high-risk, low-cost expenditures but the majority are low-risk, low-cost expenditures and may not require the services of high expertise and highly experienced firms. The market approach will be national and international to attract experienced service providers. Direct contracts have been planned with regional bodies within their regalian tasks.

64. **The overall procurement risk is Substantial, but after the proposed mitigation measures recommended below, the risk will be moderate.** These measures include (a) hiring, on a competitive basis, an experienced procurement specialist familiar with World Bank procurement procedures and policies to support the implementation of procurement activities; (b) updating the existing manual of procedures (administration, finance, and accounting) to clarify roles for each team member involved in the procurement process and define the maximum delay for each procurement stage, specifically concerning review and approval systems, and the signing of contracts agreements.

Table 8.6: Procurement approaches and methods

Category	Prior review (US$ million)	Open international	Open national	RFQ	Short list of national consultants	
					Consulting services	Engineering and construction supervision
Works	≥10	≥5	<5	≤0.2	N/A	N/A
Goods, IT, and non-consulting services	≥2	≥0.5	<0.5	≤0.1	N/A	N/A
Consultants (firms)	≥1	N/A	N/A	N/A	≤0.2	≤0.4
Individual consultants	≥0.3	N/A	N/A	N/A	N/A	N/A

65. **WAEMU will establish single-source procurement contracts with IUCN, ABC (UN Environment Program), CSE, PRCM, and RAMPAO.** The single source selection method is justified so to ensure continuity based on their existing involvement in WACA ResIP 1; these institutions' proven success and relevance in WACA ResIP 1; and the uniqueness of their expertise and role in coastal resilience in the region. IUCN, ABC (UN Environment Program), CSE, PRCM, and RAMPAO stand out as institutions with a continued commitment and involvement to coastal issues in West Africa, each exhibiting specific expertise and mandates. IUCN has, under WACA ResIP 1, and will continue, under WACA ResIP 2, to house the RISU to provide TA to WAEMU and WACA countries. The other four institutions have a proven role and success under WACA ResIP 1. ABC focuses on policy and regulation, and CSE on coastal observation. PRCM and RAMPAO aim to strengthen two dimensions: (i) citizen engagement and multi-stakeholder mobilization; and (ii) marine and coastal protected areas management for coastal resilience in West Africa. They will be contracted under WACA ResIP 2 to provide continuity to the work already underway.

ANNEX 9: Greenhouse Gas Emissions Assessment

1. **The World Bank has adopted a corporate mandate to quantify the greenhouse gas (GHG)** mitigation potential of the projects it funds, in order to manage and reduce GHG-related emissions. For that purpose, it uses the FAO EX-ACT tool.

2. **The GHG analysis for the project has been undertaken using the EX-ACT tool, version 9.3.4. This tool assesses the project's net carbon balance.** The net carbon balance has been defined in terms of net balance in the CO_2 equivalent both emitted and sequestered from project implementation. The tool compares the with-project scenario to the without-project scenario to estimate carbon stock changes, and is expressed as equivalent tons of CO_2 per hectare for the project overall, and also the annual balance. The analysis has been done for each of the three project countries, namely Guinea-Bissau, Ghana, and The Gambia separately, as required by the tool and methodology.

3. **A number of the project's activities directly result in carbon sequestration and carbon capture**, through the management of mangroves, seagrass, tidal marshes, and coastal erosion. However, the project still needs to identify some of the reforestation and plantation activities, and the exact locations and areas for all activities. The present calculations are based on the available information. Therefore, there is a likelihood of much higher GHG savings from project activities than can be estimated.

4. **Basic assumptions**: As previously mentioned, the FAO EX-ACT tool assesses individual countries only, and therefore, a separate analysis has been undertaken for each of the three project countries. The GHG assessment takes the project period of 5 years, and a capitalization of 25 years, therefore totaling 30 years for the assessment.

5. **Guinea-Bissau:** For the GHG analysis, in Guinea-Bissau, the climate is noted as tropical wet, and the soil type has been identified as low-activity clay soils. The project has identified 3,750 ha of land for rewetting with mangrove forests, in the coastal zones. Without the project interventions, it is assumed that this will be completely degraded by the end of the assessment period. It is assumed that without the project, the mangrove forest will restore 100% of nominal biomass, that otherwise would not be there. This apart, there is also expected to be reforestation of tropical rainforest activities in Guinea-Bissau. However, the present extent and location are still to be finalized, and therefore it is not a part of the GHG analysis.

6. **Ghana:** The climate identified for the GHG analysis in Ghana is tropical moist, and the soil type is low activity clay soils. The focus of activities in Ghana is the revegetation of mangroves through either replantation activities or protection from salinity intrusion by reinforcing the sandy shores at the mouth of River Volta. Without the project, it is assumed, that there will be significant salinity intrusion into the Volta delta which will result in the loss of southern mangrove areas. The project will also protect the mangroves at the mouth of the river Ada. It is assumed that without the project, there will be no rewetting of mangroves at either of the identified sites, but with the project, there will be 1,225 ha rewetting in River Volta Delta, and 3,226 ha rewetting at River Ada. The project will also support the revegetation of mangroves at three locations, River Volta (582 ha), Muni Lagoon (4 ha), and Kedzi (450 ha); and will restore 100 percent of the nominal biomass in these areas. Without the project, none of these areas can be expected to have any rewetting undertaken, or any biomass restoration, and this would result in long-term degradation and coastal erosion.

7. **The project shall also rewet a tidal marsh and seagrasses in Ghana.** This shall include 12 ha of tidal marshes at Korle, and 50 ha of seagrass at Dansoman, and these will have 100% of nominal biomass restored. Without the project, there would be no rewetting or biomass restoration at either of the two sites.

8. **The Gambia:** The climate for The Gambia has been identified as tropical wet, and the soil type as low activity clay, for GHG estimations. Activities in The Gambia are to include river dredging and restoration, and some urban drainage. This will mainly be for the restoration or widening of the river. The river widening will include the excavation of soil and biomass. Therefore, it has been assumed that the existing 34 ha of vegetated wetland along the riverbank (assumed as a tidal marsh in the tool) will be reduced by 25 percent due to excavation activities. For dredging, it is assumed that 0.25 million cubic meters will be excavated, which shall provide 25 ha of soil excavated (assuming a depth of 1 meter), of which 25 percent will include revegetation. It is also expected that new vegetation in the green belt and river restoration and enlargement. However, as there is presently insufficient information, it is not included in the GHG estimations for the country. Finally, in The Gambia, there will also be the restoration of biomass in the form of mangroves and tidal marshes through rewetting, which would not have happened without the project, and will increase by 25 percent in both cases. It is assumed the project could gain new wetland areas and shall include 2 and 7 ha of mangrove and intertidal vegetation respectively.

9. **Overall result:** This section has reviewed the climate benefits for the three countries separately, which are available below. Overall, for the available data in the three countries, the net climate benefit of all three countries is **2,555,319 tCO_2e**, when compared to the business-as-usual scenario. This is equivalent to an annual savings of **85,177 tCO_2e**.

10. **Guinea-Bissau**: For Guinea-Bissau, the net climate benefit is 1,969,534tCO_2e as compared to the business-as-usual scenario. This is an annual savings of 65,651tCO_2e, from project implementation. The major savings calculated thus far are from the management of wetland ecosystems, and the protection and management of mangroves.

Table 9.1: Results for Guinea-Bissau from Ex ACT GHG analysis (tCO_2e)

PROJECT COMPONENTS	For the project overall			Annual savings		
	Without project	With project	Balance	Without project	With project	Balance
Coastal wetlands	0	1,969,534	1,969,534	0	65,651	65,651
Total emissions	**0**	**1,969,534**	**1,969,534**	**0**	**65,651**	**65,651**

11. **Ghana: For Ghana, there is expected to be a net climate benefit of 591,162tCO_2e from the project**, as compared to the business-as-usual scenario. This is an annual saving of 19,705tCO_2e from project implementation. The savings come from the rewetting and restoration of coastal wetlands that include mangroves, tidal marshes, and seagrass, and from the protection of the sandy shores and lagoons from salinity ingress.

Table 9.2: Results for Ghana from Ex ACT GHG analysis (tCO_2e)

PROJECT COMPONENTS	For the project overall			Annual savings		
	Without project	With project	Balance	Without project	With project	Balance
Coastal wetlands	0	591,162	591,162	0	19,705	19,705
Total emissions	**0**	**591,162**	**591,162**	**0**	**19,705**	**19,705**

12. **The Gambia: For The Gambia, no overall emission benefits from the project are expected** with the current available information. It is calculated that the project will create an additional 5,377tCO_2e as compared to the business-as-usual scenario. This is an annual loss of 179tCO_2e, from project implementation. The savings from activities in The Gambia identified thus far have been from the protection and management of mangroves. However, the river restoration and dredging activities will result in a net increase in emissions and are calculated to be more than the total savings calculated for mangrove management. Hence, there are no savings in the balance, but an increase in emissions from presently identified activities. Although the physical interventions in this country involve nature-based flood control measures through the restoration of the river and floodplain, the project will involve river widening and dredging. The net emission is based on global reference values for "salt marsh vegetation" (a very conservative assumption) and an accounting tool originally designed for aquaculture projects. The emissions, therefore, overcome the carbon sink contributions of the new nature-based features (new vegetation and new floodplain created).

Table 9.3: Results for The Gambia from Ex ACT GHG analysis (tCO_2e)[106]

PROJECT COMPONENTS	For the Project overall			Annual Savings		
Project components	Without project	With project	Balance	Without project	With project	Balance
Coastal wetlands	0	-5,377	-5,377	0	-179	-179
Total emissions	**0**	**-5,377**	**-5,377**	**0**	**-179**	**-179**

13. **The table below provides details of uncertainty under the present scenarios for the countries individually.** This uncertainty is mainly from emission factors.

Table 9.4: Percentage of uncertainty in estimations

	Guinea-Bissau		Ghana		The Gambia	
Uncertainty level	**tCO_2e/yr**	**Percent**	**tCO_2e/yr**	**Percent**	**tCO_2e/yr**	**Percent**
Without	0	0	0	0	0	0
With	-65,651	40	19,705	46	179	48
Balance	-65,651	40	19,705	46	179	48

[106] Note that with the accounting method, any dredging in coastal soil is assumed marsh/mangrove, and is therefore intensively penalized.

ANNEX 10: Implementation Arrangements and Support Plan

Strategy for implementation arrangements

1. **The RISU is the core feature for implementation support provided in the project and is described under institutional arrangements.** The RISU was established under WACA ResIP 1 in 2018, is managed by IUCN, and is staffed with competitively recruited people.

2. **The strategy for supporting project implementation will focus on successfully mitigating the risks identified at various levels** and supporting the risk management proposed in the SORT; it will consist of (i) implementation support missions carried out jointly with the RISU and (ii) TA in areas of weaknesses and where new approaches/procedures have been introduced.

3. **Implementation support missions**. The supervision strategy will use several instruments to review progress and respond to implementation issues, including:

   - **Implementing support missions.** The World Bank task team will conduct semiannual implementation support missions to review overall WACA ResIP 2 implementation performance and progress toward the achievement of the PDO. There will be one mission per country as well as one regional mission each year. The RISU will conduct missions on its own to provide ad hoc support to countries as needed. Support from technical partners will be sought when needed, including from partners engaged by the World Bank in France, the Netherlands, Nordic countries, and Japan.
   - **A mid-term review will be carried out midway through the implementation phase.** It will include a comprehensive assessment of the progress in achieving WACA ResIP 2 objectives as laid out in the results framework. The mid-term review will also serve as a mechanism for revisiting design issues that may require adjustments to ensure satisfactory achievement of the project's objective.
   - **Other reviews.** Each year, the World Bank and the RSC will consider the need for additional analytical, advisory, and knowledge-sharing activities and/or third-party reviews.
   - **Implementation completion.** At the close of the project, each government, WAEMU, and the World Bank will carry out separate implementation completion reviews to assess the success of the project and draw lessons from its implementation.

4. **World Bank WACA task team set up.** There are two regional Task Team Leader roles, one with a strategic and outreach role and one with technical role, as well as country specific co-TTLs based in the region to the extent possible. The regional TTLs will be supported by one full-time operational officer based in Washington. This arrangement will enhance interaction with WACA ResIP 1 countries and improve monitoring of progress.

5. **Objective of implementation support mission**. The implementation support missions will have the combined aim of reviewing the quality of implementation, providing solutions to implementation problems, and assessing the likelihood of achieving the PDO. More specifically, they will (i) review implementation progress by component, including institutional development aspects; (ii) provide solutions to implementation problems as they arise; (iii) review with the RISU and national PIUs the action plan and disbursement programs for the next six months; (iv) review the project's fiduciary aspects,

including disbursement and procurement; (v) verify compliance of project activities with the World Bank's environmental and social safeguard policies; (vi) review case studies and survey results to measure results indicators to determine progress toward the PDO against the targets set within the Results Framework and the quality of implementation; and (vii) review the quality of capacity-building activities, which are crucial for an effective implementation of the program. The missions will combine some field visits (whenever feasible, taking the security situation into account); field-based focus group discussions and interactive workshops with stakeholders for feedback; and regional workshops as well as national workshops to highlight implementation issues, pick up emerging implementation lessons, and share mission recommendations, including agreements on actions moving forward. It will also include reviews of semestrial/annual reports and relevant studies.

Implementation support plan

6. **Technical support**. Some of the investments contemplated under the project are relatively complex from a technical standpoint, especially in terms of ensuring that the activities to be funded result in expected coastal zone management improvements. In addition to the World Bank's core supervision team, additional expertise may be mobilized periodically to provide (i) expert or innovation advice on key infrastructure options, and (ii) TA to implementing agencies in the form of hands-on training and mentoring.

7. **The focus of support**. The first two years of implementation will see more technical support, and later the focus will change to more routine monitoring of progress, troubleshooting, and assessments based on the Results Framework. The implementation support missions to each country will be on a semiannual basis, followed by regional workshops to discuss views on progress and challenges for each country. The support missions may be complemented by short visits by individual specialists to follow up on specific thematic issues as needed.

8. **Fiduciary support**. Fiduciary teams based in World Bank country offices (procurement and financial specialists) will closely supervise the project's fiduciary management. They will participate in the twice-yearly implementation support missions and facilitate capacity building for the project's fiduciary, and at least once a year the procurement staff will organize a post-review of procurement activities.

9. **During implementation support missions**, the project financial management specialist based in the country office will review the financial management systems, including capacity for continued adequacy; evaluate the quality of the budgets and implementing agencies' adherence thereto; review the cycle of transaction recording until the end of report generation; evaluate the internal control environment, including the internal audit function; review IFRs and/or annual Financial Statements; follow up on aging of the advance to the designated account; follow up on both internal and external audit reports, and periodically assess the project's compliance with the financial management manual as well as the Financing Agreement.

10. **On the procurement front**, the World Bank will provide implementation support to the client through a combination of prior and post reviews, procurement training to project staff and relevant implementing agencies, and periodic assessment of the project's compliance with the procurement manual. Implementation support missions will be geared toward (i) reviewing procurement documents, (ii) providing detailed guidance on the World Bank's procurement guidelines and (iii) monitoring

procurement progress against the detailed procurement plan. Following the recommendations of the fiduciary assessments of the implementing agencies, and in addition to the prior review supervision to be carried out from World Bank offices, the semiannual supervision missions will include field visits, of which at least one mission will involve post review of procurement actions.

11. **Environmental and Social Framework.** The World Bank specialists in social and environmental management based in Washington or country offices will provide support to the countries to ensure proper implementation of the ESF instruments. Each year, they will conduct implementation support missions to (i) provide training on ESF requirements and to review ESF reports on project progress, (ii) ensure that procurement arrangements are consistent with the ESF requirements set out in the project legal agreements, and (ii) assess compliance with agreed environmental and social actions (mitigation, monitoring, and management measures). They will also participate in regional meetings to discuss findings, share lessons learned, and propose good practices to help improve ESF compliance as well as environmental and social sustainability.

12. **The main focus of implementation**. Table 11.1 summarizes the main focus of implementation support during the life of the project.

Table 10.1: Main focus of implementation support

Time	Focus of implementation support	Skills needed
First 12 months	Project start-up Support to preparatory activities (sensitization, community consultations, and planning, institution building, strengthening implementation capacity including M&E) Support to finalization of manuals Guidance on applying ESF instruments Development of impact evaluation methodology and oversight of baseline survey Procurement, financial management, M&E, and ESF training of staff at all levels Establishing coordination mechanisms with complementary projects	Regional TTLs + operations officer + Co-TTLs Engineer NRM Coastal policy Coastal observation financial management Procurement Environment ESF specialist Lead Social ESF specialist Social development Communications M&E Leadership development
12-48 months	Monitoring implementation performance including progress Review coastal spatial planning, quality of participatory processes, and capacity-building initiatives Review of annual work plans and disbursement schedule Review quality of semestrial/annual reports, data, and various produced studies Assess the quality of the implementation process and data collected Review of audit reports and IFRS	Regional TTLs + operations officer + co-TTLs Engineer NRM Coastal policy Coastal observation financial management Procurement Environment ESF specialist Lead Social ESF specialist Social development Communications M&E Leadership development

	Review adequacy of the financial management system and compliance with financial management covenants Assess the quality of ESF instruments as they are applied	

Skills mix required

13. **Table 11.2 summarizes the proposed skill mix and number of staff weeks during project implementation.** It is anticipated that this will change over time as demand increases.

Table 11.2: Skills mix needed for implementation support

Skills needed	Number of staff weeks (annually)	Number of trips[107]	Comments
TTL	10	2	Headquarters based
Operations officer	10	2	Headquarters based
Country-TTLs (x3)	15 for each	2 for each	Country office-based and HQ based
Engineers	6	3	Headquarters based
NRM	6	2	Headquarters based
Coastal policy	6	1	Headquarters based
Coastal observation	6	2	Headquarters based
financial management	6	1	Country office based
Procurement	6	1	Country office based
Environment	6	3	Country office based and/or Headquarters based
Social development	6	3	Country office based and/or Headquarters based
Communications	2	1	Headquarters based
M&E	2	1	Headquarters based
Leadership development	2	1	Headquarters based

14. **Role of partners.** The role of partners and their expected inputs are summarized in Table 11.3.

Table 11.3: Role of partners in implementation support

Name	Institution	Role
Commissioner	WAEMU	Co-chair of WACA ResIP Steering Committee
Executive secretary	ABC (UN Environment)	Executes ABC-specific activities as per contract (ABC Protocols)
Coordinator	CSE	Executes CSE-specific activities as per contract (Regional Observatory)
Regional director	IUCN	Executes RISU-specific activities, provides technical support and coordination and manages the relationship with WAEMU
Executive secretary	RAMPAO	Executes RAMPAO-specific activities (marine and coastal protected areas)
Executive director	PRCM	Executes PRCM-specific activities (citizen engagement, dialogue, innovation)
Secretary general	PMAWCA	Engage with participating clients at the regional steering committee meetings
Head of Center	ACECoR	Engage with participating clients at the regional steering committee meetings

[107] Assuming implementation support resumes to some level of normal after COVID-19 restrictions

ANNEX 11: Map

15. **Project map.** This map was cleared on October 20, 2022, and shows the countries covered by the WACA Program, color coded to reflect the level of engagement.

