

Document of  
The World Bank  
**FOR OFFICIAL USE ONLY**

Report No: PAD2454

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON

PROPOSED IDA CREDITS

TO THE REPUBLIC OF BENIN IN THE AMOUNT OF €24.1 MILLION (US\$30 MILLION EQUIVALENT)  
REPUBLIC OF CÔTE D'IVOIRE IN THE AMOUNT OF €24.1 MILLION (US\$30 MILLION EQUIVALENT)  
REPUBLIC OF SENEGAL IN THE AMOUNT OF €24.1 MILLION (US\$30 MILLION EQUIVALENT)  
REPUBLIC OF TOGO IN THE AMOUNT OF €24.1 MILLION (US\$30 MILLION EQUIVALENT)

PROPOSED IDA GRANTS TO THE

REPUBLIC OF BENIN IN THE AMOUNT OF 10.3 MILLION SDR (US\$15 MILLION EQUIVALENT)  
ISLAMIC REPUBLIC OF MAURITANIA IN THE AMOUNT OF 13.8 MILLION SDR (US\$20 MILLION  
EQUIVALENT)  
DEMOCRATIC REPUBLIC OF SÃO TOMÉ AND PRÍNCIPE IN THE AMOUNT OF 5.5 MILLION SDR (US\$8  
MILLION EQUIVALENT)  
REPUBLIC OF TOGO IN THE AMOUNT OF 10.3 MILLION SDR (US\$15 MILLION EQUIVALENT)

A PROPOSED REGIONAL IDA GRANT TO THE

WEST AFRICA ECONOMIC AND MONETARY UNION IN THE AMOUNT OF 8.3 MILLION SDR (US\$12  
MILLION EQUIVALENT)

AND

PROPOSED GLOBAL ENVIRONMENT FACILITY GRANTS TO THE

REPUBLIC OF BENIN IN THE AMOUNT OF US\$11.57 MILLION,  
DEMOCRATIC REPUBLIC OF SÃO TOMÉ AND PRÍNCIPE IN THE AMOUNT OF US\$1.15 MILLION, AND  
REPUBLIC OF TOGO IN THE AMOUNT OF US\$7.53 MILLION

FOR A

WEST AFRICA COASTAL AREAS RESILIENCE INVESTMENT PROJECT

March 16, 2018

Environment and Natural Resources Global Practice  
Africa Region

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

## CURRENCY EQUIVALENTS

(Exchange Rates Effective January 31, 2018)

US\$1.46 = SDR 1

US\$1.25 = EUR 1

### Benin

Currency Unit = CFA Francs (CFAF)

CFAF 527 = US\$1

### Côte d'Ivoire

Currency Unit = CFA Francs (CFAF)

CFAF 527 = US\$1

### Mauritania

Currency Unit = Mauritanian Ouguiyas

MRU 35.26 = US\$1

### Senegal

Currency Unit = CFA Francs (CFAF)

CFAF 527 = US\$1

### São Tomé and Príncipe

Currency Unit = São Tomé and Príncipe Dobras

STN 19.83 = US\$1

### Togo

Currency Unit = CFA Francs (CFAF)

CFAF 527 = US\$1

## FISCAL YEAR

January 1 - December 31

## ABBREVIATIONS AND ACRONYMS

ABC	Abidjan Convention
ABE	Beninese Environmental Agency ( <i>Agence Béninoise de l'Environnement</i> )
ACBP	Africa Climate Business Plan
AFAP	Projects Administrative and Fiduciary Agency
AFD	French Development Agency ( <i>Agence Française de Développement</i> )
AfDB	African Development Bank
AWPB	Annual Work Plan and Budget
BCM	Central Bank of Mauritania ( <i>Banque Centrale de Mauritanie</i> )
BCEAO	Central Bank of West African States ( <i>Banque Centrale des Etats de l'Afrique de l'Ouest</i> )
BOAD	West African Development Bank ( <i>Banque Ouest Africaine de développement</i> )
CCLME	Canary Current Large Marine Ecosystem
CDD	Community Driven Development
COP12	12th Conference of the Parties of the Abidjan Convention of United Nations Environment
COP21	21st Conference of the Parties of the United Nations Framework Convention on Climate Change
CPF	Country Partnership Framework
CROP	Caribbean Regional Oceanscape Project
CSE	Center for Ecological Monitoring ( <i>Centre de Suivi Ecologique</i> )
CSO	Civil Society Organization
DA	Designated Account
DAREN	Department of Agriculture, Water Resources, and Environment ( <i>Département de l'Agriculture, des Ressources en Eau et de l'Environnement</i> )
DECC	Directorate of Environment
DFIL	Disbursement and Financial Information Letter
DGA	Environment General Directorate ( <i>Direcção Geral do Ambiente</i> )
DGFRN	General Direction of Forests and Natural Resources
DNCMP	National Procurement Control Directorate ( <i>Direction Nationale de Contrôle des Marchés Publics</i> )
ECOWAS	Economic Community of West African States
ESA	European Space Agency
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organization of the United Nations
FFEM	French Fund for the Global Environment
FM	Financial Management
GCF	Green Climate Fund
GCLME	Guinea Current Large Marine Ecosystem
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GPN	General Procurement Notice
IAS	Invasive Alien Species
ICB	International Competitive Bidding
ICZM	Integrated Coastal Zone Management

IGF	General Inspectorate of Finance ( <i>Inspeção Geral das Finanças</i> )
IFR	Interim Financial Report
IPF	Investment Project Financing
IPMU	Integrated Project Management Unit
IPP	Independent Power Producer
IRR	Internal Rate of Return
ISR	Implementation Status and Results Report
IUCN	International Union for the Conservation of Nature and Natural Resources
IUCN-PACO	IUCN's West and Central Africa Program ( <i>Pays de l'Afrique Centrale et de l'Ouest</i> )
JIS	Joint Implementation Support
LCS	Least Cost Selection
LDCF	Least Developed Countries Fund
LME	Large Marine Ecosystem
M&E	Monitoring and Evaluation
MACO	Marine and Coastal Program
MDB	Multilateral Development Bank
MEDD	Ministry of Environment and Sustainable Development
MEF	Ministry of Economy and Finance
MEFR	Ministry of Environment and Forest Resources
MOLOA	West African Coastal Observation Mission ( <i>Mission d'Observation du Littoral Ouest Africain</i> )
MSIP	Multi-sectoral Investment Plan
MTR	Midterm Review
NAP	National Action Plan
NCB	National Competitive Bidding
NDC	Nationally Determined Contribution
NDF	Nordic Development Fund
NGO	Nongovernmental Organization
NPV	Net Present Value
NRM	Natural Resource Management
NSC	National Steering Committee
PAD	Project Appraisal Document
PDO	Project Development Objective
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PPA	Project Preparation Advance
PPP	Public-Private Partnership
PPSD	Project Procurement Strategies for Development
PRCM	Regional Coastal and Marine Area Conservation Partnership
PRLEC	Regional Program for the Control of Coastal Erosion
PROGEP	Senegal Stormwater Management and Climate Change Adaptation Project ( <i>Projet de Gestion des Eaux Pluviales et d'Adaptation au Changement Climatique</i> )
PROGEP-CI	Côte d'Ivoire Obsolete Pesticides Management Project ( <i>Projet de Gestion des Pesticides Obsolètes en Côte d'Ivoire</i> )
PV	Present Value
QCBS	Quality- and Cost-Based Selection
RAP	Resettlement Action Plan
RCP	Representative Concentration Pathway

RFP	Request for Proposal
RFQ	Request for Quotation
RISU	Regional Implementation Support Unit
RMU	Regional Integration Management Unit
RPF	Resettlement Policy Framework
RSC	Regional Steering Committee
SAWAP	Sahel and West Africa Program in Support of the Great Green Wall Initiative
SCD	Systematic Country Diagnostic
SDG	Sustainable Development Goal
SDLAO	West Africa Coastal Areas Management <i>Plan (Schéma Directeur du Littoral d'Afrique de l'Ouest)</i>
SHOM	Hydrological and Oceanographic Marine Service ( <i>Service hydrographique et océanographique de la marine</i> )
SLM-MDTF	Sustainable Landscapes Management Multi-Donor Trust Fund
SN	Senegal
SOE	Statement of Expenditures
SORT	Systematic Operation Risk-Rating Tool
SPN	Specific Procurement Notice
STEP	Systematic Tracking of Exchanges in Procurement
TC	Technical Committee
TDA	Transboundary Diagnostic Analysis
TOR	Terms of Reference
TTL	Task Team Leader
UN	United Nations
UNDB	United Nations Development Business
UNEP	United Nations Environmental Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNIDO	United Nations Industrial Development Organization
WACA	West Africa Coastal Areas
WACA ResIP	West Africa Coastal Areas Resilience Investment Project
WAEMU	West Africa Economic and Monetary Union

Regional Vice President: Makhtar Diop

Country Director: Rachid Benmessaoud

Senior Global Practice Director: Karin Erika Kemper

Practice Manager: Benoit Bosquet

Dahlia Lotayef (Regional and Mauritania Co-TTL)

Peter Kristensen (Regional Co-TTL)

Nicolas Desramaut (Sao Tome and Principe Co-TTL)

Task Team Leader(s): Koffi Hounkpe (Togo Co-TTL)

Medou Lo (Senegal Co-TTL)

Melissa Landes (Côte d'Ivoire Co-TTL)



**BASIC INFORMATION**

Is this a regionally tagged project? Yes	Country(ies) Western Africa, Benin, Cote d'Ivoire, Mauritania, Senegal, Sao Tome and Principe, Togo	Financing Instrument Investment Project Financing
---	--	--

- Situations of Urgent Need of Assistance or Capacity Constraints
- Financial Intermediaries
- Series of Projects

Approval Date 05-Apr-2018	Closing Date 31-Dec-2023	Environmental Assessment Category A - Full Assessment
------------------------------	-----------------------------	--

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	12.00
Component 2: Strengthening the Policy and Institutional Framework	38.77
Component 3: Strengthening National Physical and Social Investments	152.65
Component 4: National Coordination	18.28

**Organizations**

Borrower : Sao Tome and Principe - Ministry of Economy, Commerce and Blue Economy



Implementing Agency :

Benin - Ministry of Economy and Finance  
Togo - Ministry of Economy and Finance  
Mauritania - Ministry of Economy and Finances  
Cote d'Ivoire - Ministry of Economy and Finances  
Senegal - Ministry of Finance  
Sao Tome and Principe - Ministry of Infrastructures, Natural Resources and Environment  
Mauritania - Ministry of Environment and Sustainable Development  
Benin - Ministry of Environment and Sustainable Development  
Togo - Ministry of Environment and Forest Resources (MEFR) (Directorate of Environment)  
Cote d'Ivoire - Ministry of Salubrity, Environment and Sustainable Development  
Senegal - Ministry of Environment and Sustainable Development (Directorate of Environment (DECC))  
Cote d'Ivoire - Ministry of Economy and Finances  
West Africa Economic and Monetary Union  
International Union for Conservation of Nature

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

<input checked="" type="checkbox"/> Counterpart Funding	<input type="checkbox"/> IBRD	<input checked="" type="checkbox"/> IDA Credit	<input checked="" type="checkbox"/> IDA Grant	<input checked="" type="checkbox"/> Trust Funds	<input type="checkbox"/> Parallel Financing
Total Project Cost: 221.70	Total Financing: 221.70		Financing Gap: 0.00		
	Of Which Bank Financing (IBRD/IDA): 190.00				

**Financing (in US\$, millions)**

Financing Source	Amount
Borrower	11.45
Global Environment Facility (GEF)	20.25
IDA-62130	120.00
IDA-D2900	70.00



<b>Total</b>								<b>221.70</b>
<b>Expected Disbursements (in US\$, millions)</b>								
<b>Fiscal Year</b>	2018	2019	2020	2021	2022	2023	2024	
<b>Annual</b>	10.52	32.41	48.82	44.32	43.76	10.17	0.00	
<b>Cumulative</b>	10.52	42.94	91.76	136.07	179.83	190.00	190.00	

**INSTITUTIONAL DATA**

**Practice Area (Lead)**

Environment & Natural Resources

**Contributing Practice Areas**

Social, Urban, Rural and Resilience Global Practice

**Climate Change and Disaster Screening**

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

**Gender Tag**

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

Yes

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

Yes





**SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)**

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

**COMPLIANCE**

**Policy**

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

Yes  No

Does the project require any waivers of Bank policies?

Yes  No

**Safeguard Policies Triggered by the Project**

	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Natural Habitats OP/BP 4.04	✓	
Forests OP/BP 4.36		✓
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11	✓	
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓



Projects on International Waterways OP/BP 7.50

✓

Projects in Disputed Areas OP/BP 7.60

✓

### Legal Covenants

#### Sections and Description

Benin (Schedule 2, Section I.A.2.): The Recipient shall, through the Ministry of Environment and Sustainable Development, not later than three (3) months after the Effective Date, establish, under terms of reference and with qualified and experienced members in adequate number, all satisfactory to the Association, and thereafter maintain throughout Project implementation, the National Steering Committee vested with responsibility for making decisions on the overall direction of the Program and for oversight of the Project Implementation Unit during Project implementation.

#### Sections and Description

Benin (Schedule 2, Section I.A.3.): The Recipient shall, not later than three (3) months after Effective Date, recruit to the PIU to assist the National Project Coordinator: (i) an institutional development specialist; (ii) a communication specialist; (iii) a monitoring and evaluation specialist; (iv) an environmental and safeguards specialist; (v) a social development, safeguards, and gender specialist; (vi) a procurement specialist; (vii) a financial management specialist; (viii) an accountant; (ix) an internal auditor; (x) a civil engineer; and (xi) a deputy coordinator for GEF-financed Project activities, all in a manner satisfactory to the Association.

#### Sections and Description

Benin (Schedule 2, Section I.A.4.): The Recipient shall, through the Ministry of Environment and Sustainable Development, not later than three (3) months after the Effective Date, establish, under terms of reference satisfactory to the Association, and thereafter maintain throughout Project implementation, a Technical Committee comprising the representatives of the sectors and entities concerned with coastal management and involved in Project implementation to ensure smooth technical coordination among them.

#### Sections and Description

Benin (Schedule 2, Section I.H.): The Recipient shall, through the MESD, ensure that the PIU recruit, not later than months six (6) months after the Effective Date, an external auditor, under terms of reference and with qualifications and experience satisfactory to the Association, to oversee the accounting functions of the PIU.

#### Sections and Description

Benin (Schedule 2, Section II.B.(b), (c)): : The Recipient shall: (i) prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about November 15, 2021, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Parts 2, 3, and 4 of Project and the achievement of the objective thereof during the period following such date; and (ii) review with the Association, on or about January 15, 2022, or such later date as the



Association shall request, the aforementioned report and, thereafter, take all measures required to ensure the efficient completion of Parts 2, 3, and 4 of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association’s views on the matter.

**Sections and Description**

Benin (Schedule 2, Section II.C.): The Recipient shall take all action required on its behalf to establish, not later than six (6) months after the Effective Date, and thereafter maintain and operate, a functional grievance handling mechanism for Parts 2, 3, and 4 of the Project, with adequate staffing and processes for registering grievances and acceptable to the Association, thereby ensuring the ongoing improvement on service delivery under Parts 2, 3, and 4 of the Project.

**Sections and Description**

Cote d’Ivoire (Schedule 2, Section I.A.2.): The Recipient shall, through the Ministry of Salubrity, Environment and Sustainable Development, ensure that the Inter-ministerial Committee for the Fight Against Coastal Erosion is maintained throughout Project implementation, under terms of reference and with qualified and experienced members in adequate number, all satisfactory to the Association, to carry out the functions of the National Steering Committee.

**Sections and Description**

Cote d’Ivoire (Schedule 2, Section I.A.3.): The Recipient shall, not later than three (3) months after Effective Date, appoint, recruit, or designate to the PIU to assist the National Project Coordinator: (i) an institutional development specialist; (ii) a communication specialist; (iii) a monitoring and evaluation specialist; (iv) an environmental and safeguards specialist; (v) a social development, safeguards, and gender specialist; (vi) a procurement specialist; (vii) a procurement assistant; (viii) a financial management specialist; (xi) an internal auditor; and (x) an officer accountant, all in a manner satisfactory to the Association.

**Sections and Description**

Cote d’Ivoire (Schedule 2, Section I.A.4.): The Recipient shall, through the Ministry of Salubrity, Environment and Sustainable Development, not later than three (3) months after the Effective Date, establish, under terms of reference satisfactory to the Association, and thereafter maintain throughout Project implementation, a Technical Committee comprising the representatives of the sectors and entities concerned with coastal management and involved in Project implementation to ensure smooth technical coordination among them.

**Sections and Description**

Cote d’Ivoire (Schedule 2, Section II.C.): The Recipient shall take all action required on its behalf to establish, not later than six (6) months after the Effective Date, and thereafter maintain and operate, a functional grievance handling mechanism for Parts 2,3, and 4 of the Project, with adequate staffing and processes for registering grievances and acceptable to the Association, thereby ensuring the ongoing improvement on service delivery under Parts 2, 3, and 4 of the Project.



Sections and Description

Cote d'Ivoire (Schedule 2, Section I.H): The Recipient shall, through the MSED, ensure that the PIU: (i) update, not later than three (3) months after the Effective Date, the configuration of its accounting software to be used for the Project in a manner acceptable to the Association and train its staff to effectively use said updated software; and (ii) recruit, not later than five (5) months after the Effective Date, an external auditor, under terms of reference and with qualifications and experience satisfactory to the Association, to oversee the accounting functions of the PIU.

Sections and Description

Cote d'Ivoire (Schedule 2, Section II.B.(b), (c)): The Recipient shall: (i) prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about November 15, 2021 a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Parts 2, 3, and 4 of the Project and the achievement of the objective thereof during the period following such date; and (ii) review with the Association, on or about January 15, 2022, or such later date as the Association shall request, the aforementioned report and, thereafter, take all measures required to ensure the efficient completion of Parts 2, 3, and 4 of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter.

Sections and Description

Mauritania (Schedule 2, Section I.A.2.): The Recipient shall, through the Ministry of Environment and Sustainable Development, not later than three (3) months after the Effective Date, establish, under terms of reference and with qualified and experienced members in adequate number, all satisfactory to the Association, and thereafter maintain throughout Project implementation, the National Steering Committee vested with the responsibility for making decisions on the overall direction of the Program and for oversight of the Project Implementation Unit during Project implementation.

Sections and Description

Mauritania (Schedule 2, Section I.A.3.): The Recipient shall, not later than three (3) months after Effective Date, appoint, recruit, or designate to the PIU to assist the National Project Coordinator: (i) a deputy coordinator with a law degree; (ii) an institutional development specialist; (iii) a communication specialist; (iv) a monitoring and evaluation specialist; (v) an environmental and safeguards specialist; (vi) a social development, safeguards, and gender specialist; and (vii) a procurement specialist, all in a manner satisfactory to the Association.

Sections and Description

Mauritania (Schedule 2, Section II.C.): The Recipient shall take all action required on its behalf to establish, not later than six (6) months after the Effective Date, and thereafter maintain and operate, a functional grievance handling mechanism for Parts 2, 3, and 4 of the Project, with adequate staffing and processes for registering grievances and acceptable to the Association, thereby ensuring the ongoing improvement on service delivery



under Parts 2, 3, and 4 of the Project.

Sections and Description

Mauritania (Schedule 2, Section I.A.4.): The Recipient shall, through the Ministry of Environment and Sustainable Development, not later than three (3) months after the Effective Date, establish, under terms of reference satisfactory to the Association, and thereafter maintain throughout Project implementation, a Technical Committee comprising the representatives of the sectors and entities concerned with coastal management and involved in Project implementation to ensure smooth technical coordination among them.

Sections and Description

Mauritania (Schedule 2, Section I.H.): The Recipient shall, through the MESD, ensure that the PIU recruit, not later than months (4) months after the Effective Date, one (1) accountant and an external auditor, both under terms of reference and with qualifications and experience satisfactory to the Association, to oversee the accounting functions of the PIU.

Sections and Description

Mauritania (Schedule 2, Section II.B.(b), (c)): The Recipient shall: (i) prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about November 15, 2021, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Parts 2, 3, and 4 of the Project and the achievement of the objective thereof during the period following such date; and (ii) review with the Association, on or about January 15, 2022, or such later date as the Association shall request, the aforementioned report and, thereafter, take all measures required to ensure the efficient completion of Parts 2, 3, and 4 of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter.

Sections and Description

Sao Tome and Principe (Schedule 2, Section I.H.): The Recipient shall, through the Ministry of Finance, Commerce and Blue Economy, ensure that the AFAP recruit, not later than four (4) months after the Effective Date, an external auditor, under terms of reference and with qualifications and experience satisfactory to the Association, to oversee the accounting functions of the PIU.

Sections and Description

Sao Tome and Principe (Schedule 2, Section I.A.1.(b)): The Recipient shall, through the of Ministry of Infrastructure, Natural Resources and the Environment, not later than three (3) months after the Effective Date, establish, under terms of reference and with qualified and experienced members in adequate number, all satisfactory to the Association, and thereafter maintain throughout Project implementation, the National Steering Committee vested with responsibility for making decisions on the overall direction of the Program and for oversight of the Project Implementation Unit during Project implementation.



Sections and Description

Sao Tome and Principe (Schedule 2, Section I.A.1.(c)): The Recipient shall, not later than three (3) months after Effective Date, appoint, recruit, or designate to the PIU to assist the National Project Coordinator: (i) an institutional development specialist; (ii) a communication specialist; (iii) a monitoring and evaluation specialist; (iv) an environmental and safeguards specialist; (v) a social development, safeguards, and gender specialist; and (vi) a procurement specialist, all in a manner satisfactory to the Association.

Sections and Description

Sao Tome and Principe (Schedule 2, Section I.A.1.(d)): The Recipient shall, through the Ministry of Environment and Sustainable Development, not later than three (3) months after the Effective Date, establish, under terms of reference satisfactory to the Association, and thereafter maintain throughout Project implementation, a Technical Committee comprising the representatives of the sectors and entities concerned with coastal management and involved in Project implementation to ensure smooth technical coordination among them.

Sections and Description

Sao Tome and Principe (Schedule 2, Section II.B.(b)): The Recipient shall: (i) prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about November 15, 2021, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Parts 2, 3, and 4 of the Project and the achievement of the objective thereof during the period following such date; and (ii) review with the Association, on or about January 15, 2022, or such later date as the Association shall request, the aforementioned report and, thereafter, take all measures required to ensure the efficient completion of Parts 2, 3, and 4 of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter.

Sections and Description

Sao Tome and Principe (Schedule 2, Section II.C.): The Recipient shall take all action required on its behalf to establish, not later than six (6) months after the Effective Date, and thereafter maintain and operate, a functional grievance handling mechanism for Parts 2, 3 and 4 of the Project, with adequate staffing and processes for registering grievances and acceptable to the Association, thereby ensuring the ongoing improvement on service delivery under Parts 2, 3, and 4 of the Project.

Sections and Description

Senegal (Schedule 2, Section I.A.2.): The Recipient shall, through the Ministry of Environment and Sustainable Development, not later than three (3) months after the Effective Date, establish, under terms of reference and with qualified and experienced members in adequate number, all satisfactory to the Association, and thereafter maintain throughout Project implementation, the National Steering Committee vested with responsibility for making decisions on the overall direction of the Program and for oversight of the Project Implementation Unit during Project implementation.



Sections and Description

Senegal (Schedule 2, Section I.A.3.): The Recipient shall, not later than three (3) months after Effective Date, appoint, recruit, or designate to the PIU to assist the National Project Coordinator: (i) an institutional development specialist; (ii) a communication specialist; (iii) a monitoring and evaluation specialist; (iv) an environmental and safeguards specialist; (v) a social development, safeguards, and gender specialist; (vi) a procurement specialist; (vii) a financial management specialist; and (viii) an internal auditor, all in a manner satisfactory to the Association.

Sections and Description

Senegal (Schedule 2, Section I.A.4.): The Recipient shall, through the Ministry of Environment and Sustainable Development, not later than three (3) months after the Effective Date, establish, under terms of reference satisfactory to the Association, and thereafter maintain throughout Project implementation, a Technical Committee comprising the representatives of the sectors and entities concerned with coastal management and involved in Project implementation to ensure smooth technical coordination among them.

Sections and Description

Senegal (Schedule 2, Section I.H.): The Recipient shall, through the MESD, ensure that the PIU recruit, not later than four (4) months after the Effective Date, an external auditor, under terms of reference and with qualifications and experience satisfactory to the Association, to oversee the accounting functions of the PIU.

Sections and Description

Senegal (Schedule 2, Section II.C.): The Recipient shall take all action required on its behalf to establish, not later than six (6) months after the Effective Date, and thereafter maintain and operate, a functional grievance handling mechanism for Parts 2, 3 and 4 of the Project, with adequate staffing and processes for registering grievances and acceptable to the Association, thereby ensuring the ongoing improvement on service delivery under Parts 2, 3, and 4 of the Project.

Sections and Description

Senegal (Schedule 2, Section II.B.(b), (c)): The Recipient shall: (i) prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about November 15, 2021, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Parts 2, 3, and 4 of Project and the achievement of the objective thereof during the period following such date; and (ii) review with the Association, on or about January 15, 2022, or such later date as the Association shall request, the aforementioned report and, thereafter, take all measures required to ensure the efficient completion of Parts 2, 3, and 4 of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter.

Sections and Description

Togo (Schedule 2, Section I.A.2.): The Recipient shall, through the Ministry of Environment and Forest Resources, not later than three (3) months after the Effective Date, establish, under terms of reference and with qualified and



experienced members in adequate number, all satisfactory to the Association, and thereafter maintain throughout Project implementation, the National Steering Committee vested with the responsibility for making decisions on the overall direction of the Program and for oversight of the Project Implementation Unit during Project implementation.

Sections and Description

Togo (Schedule 2, Section I.A.3.): The Recipient shall, not later than three (3) months after Effective Date, appoint, recruit or designate to the PIU to assist the National Project Coordinator: (i) an institutional development specialist; (ii) a communication specialist; (iii) a monitoring and evaluation specialist; (iv) an environmental and safeguards specialist; (v) a social development, safeguards, and gender specialist; (vi) a procurement specialist; (vii) a financial management specialist and an assistant; (viii) an internal auditor; (ix) an accountant; (x) a civil engineer; and (xi) a deputy coordinator for GEF-financed Project activities, all in a manner satisfactory to the Association.

Sections and Description

Togo (Schedule 2, Section I.A.4.): The Recipient shall, through the Ministry of Environment and Forest Resources, not later than three (3) months after the Effective Date, establish, under terms of reference satisfactory to the Association, and thereafter maintain throughout Project implementation, a Technical Committee comprising the representatives of the sectors and entities concerned with coastal management and involved in Project implementation to ensure smooth technical coordination among them.

Sections and Description

Togo (Schedule 2, Section II.C.): The Recipient shall take all action required on its behalf to establish, not later than six (6) months after the Effective Date, and thereafter maintain and operate, a functional grievance handling mechanism for Parts 2, 3, and 4 of the Project, with adequate staffing and processes for registering grievances and acceptable to the Association, thereby ensuring the ongoing improvement on service delivery under Parts 2, 3, and 4 of the Project.

Sections and Description

Togo (Schedule 2, Section I.H.): The Recipient shall, through the MEFR, ensure that the PIU recruit, not later than six (6) months after the Effective Date, an external auditor, under terms of reference and with qualifications and experience satisfactory to the Association, to oversee the accounting functions of the PIU.

Sections and Description

Togo (Schedule 2, Section II.B.(b), (c)): The Recipient shall: (i) prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about November 15, 2021, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Parts 2, 3, and 4 of the Project and the achievement of the objective thereof during the period following such date; and (ii) review with the Association, on or about January 15, 2022, or such later date as the Association





shall request, the aforementioned report and, thereafter, take all measures required to ensure the efficient completion of Parts 2, 3, and 4 of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter.

Sections and Description

WAEMU (Schedule 2, Section I.A.2.): The Recipient shall establish, not later than three (3) months after the Effective Date, and thereafter maintain throughout Project implementation, the Regional Steering Committee with a composition and under terms of reference developed by the Recipient and the Participating Countries satisfactory to the Association, and which shall be vested with the responsibility of providing overall strategic guidance, supporting policy dialogue with and among the Participating Countries and other countries in Western Africa on regional integration, coordinating cross-boundary Project interventions, facilitating resource mobilization, and assessing the results and impacts of the Project.

Sections and Description

WAEMU (Schedule 2, Section II.B.(b), (c)): The Recipient shall: (i) prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about November 15, 2021, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Part 1.1 of the Project and the achievement of the objective thereof during the period following such date; and (ii) review with the Association, on or about January 15, 2022, or such later date as the Association shall request, the aforementioned report and, thereafter, take all measures required to ensure the efficient completion of Part 1.1 of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter.

Sections and Description

WAEMU (Schedule 2, Section I.H.1.): The Recipient shall, not later than months (4) months after the Effective Date, recruit an external auditor, under terms of reference and with qualifications and experience satisfactory to the Association, to oversee the accounting functions of the Department of Agriculture, Water Resources and Environment.

Sections and Description

WAEMU (Schedule 2, Section I.H.2.): The Recipient shall prepare its annual financial statements in accordance with consistently applied accounting standards in form and manner satisfactory to the Association. Said Annual Financial Statements for each period shall: (i) be audited and published by the Recipient's court of accounts in accordance with consistently applied auditing standards in form and manner acceptable to the Association; and (ii) be furnished to the Association as soon as they are published and not later than eighteen (18) months after the end of each Fiscal Year.

Sections and Description

WAEMU (Schedule 2, Section I.H.3.): The Recipient shall, not later than five (5) months after the Effective Date,



furnish to the Association its first internal audit report, prepared by the Recipient’s internal audit department, in a timely fashion and acceptable to the Association.

Sections and Description

WAEMU (Schedule 2, Section II.C.): The Recipient shall take all action required on its behalf to establish, not later than six (6) months after the Effective Date, and thereafter maintain and operate, a functional grievance handling mechanism for Part 1.1 of the Project, with adequate staffing and processes for registering grievances and acceptable to the Association, thereby ensuring the ongoing improvement on service delivery under Part 1.1 of the Project.

Sections and Description

IUCN (Schedule 2, Section II.C.): The Recipient shall take all action required on its behalf to establish, not later than six (6) months after the Effective Date, and thereafter maintain and operate, a functional grievance handling mechanism for Parts 1.2, 1.3, and 1.4 of the Project, with adequate staffing and processes for registering grievances and acceptable to the Association, thereby ensuring the ongoing improvement on service delivery under Parts 1.2, 1.3, and 1.4 of the Project.

Sections and Description

IUCN (Schedule, Section I.A.1. & 2.): IUCN shall establish, and thereafter maintain, throughout Project implementation, the Regional Implementation Support Unit in its office located in Dakar, Senegal, at all times under terms of reference and with a composition satisfactory to the Association. The RISU shall be headed by the RISU Coordinator and shall comprise the following personnel that shall be appointed by RISU, under terms of reference and with qualifications and experience satisfactory to the Association, not later than three (3) months after the Effective Date: (i) an institutional development specialist; (ii) a communication specialist; (iii) a monitoring and evaluation and reporting specialist; (iv) an environmental and safeguards specialist; (v) a social development, safeguards, and gender specialist; and (vi) a procurement specialist.

Sections and Description

IUCN (Schedule 2, Section II.B.(b), (c)): IUCN shall (i) prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about November 15, 2021, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Parts 1.2, 1.3, and 1.4 of the Project and the achievement of the objective thereof during the period following such date; and (ii) review with the Association, on or about January 15, 2022, or such later date as the Association shall request, the aforementioned report and, thereafter, take all measures required to ensure the efficient completion of Parts 1.2, 1.3, and 1.4 of the Project and the achievement of the objective thereof, based on the conclusions and recommendations of the said report and the Association’s views on the matter.

**Conditions**



Type Effectiveness	Description Benin (Article V, 5.01.(a)): The Recipient, through the Ministry of the Environment and Sustainable Development, shall have adopted the Project Implementation Manual and the Monitoring and Evaluation Manual, both in form and substance satisfactory to the Association.
Type Effectiveness	Description Benin (Article V, 5.01.(b)): The Recipient, through the Ministry of the Environment and Sustainable Development, shall have: (i) established the Project Implementation Unit under terms of reference and with a composition satisfactory to the Association; and (ii) appointed to the PIU the National Project Coordinator under terms of reference and with qualifications and experience satisfactory to the Association.
Type Effectiveness	Description Cote d'Ivoire (Article V, 5.01.(a)): The Recipient, through the Ministry of Salubrity, Environment and Sustainable Development, shall have adopted the Project Implementation Manual and the Monitoring and Evaluation Manual, both in form and substance satisfactory to the Association.
Type Effectiveness	Description Cote d'Ivoire (Article V, 5.01.(b)): The Recipient, through the Ministry of Salubrity, Environment and Sustainable Development, shall have: (i) established the Project Implementation Unit under terms of reference and with a composition satisfactory to the Association; and (ii) appointed to the PIU the National Project Coordinator under terms of reference and with qualifications and experience satisfactory to the Association.
Type Effectiveness	Description Mauritania (Article V, 5.01.(a)): The Recipient, through the Ministry of Environment and Sustainable Development, shall have adopted the Project Implementation Manual and the Monitoring and Evaluation Manual, both in form and substance satisfactory to the Association.
Type Effectiveness	Description Mauritania (Article V, 5.01.(b)): The Recipient, through the Ministry of Environment and Sustainable Development, shall have: (i) established the Project Implementation Unit under terms of reference and with a composition satisfactory to the Association; and (ii) appointed to the PIU the National Project Coordinator under terms of reference and with qualifications and experience satisfactory to the Association.
Type Effectiveness	Description Sao Tome and Principe ((Article V, 5.01.(a))): The Recipient, through the Ministry of



	Infrastructure, Natural Resources and the Environment, shall have adopted the Project Implementation Manual and the Monitoring and Evaluation Manual, both in form and substance satisfactory to the Association.
Type Effectiveness	<p>Description</p> <p>Sao Tome and Principe ((Article V, 5.01.(b))): The Recipient, through the Ministry of Infrastructure, Natural Resources and the Environment, shall have: (i) established the Project Implementation Unit under terms of reference and with a composition satisfactory to the Association; and (ii) appointed to the PIU the National Project Coordinator under terms of reference and with qualifications and experience satisfactory to the Association.</p>
Type Effectiveness	<p>Description</p> <p>Senegal ((Article V, 5.01.(a))): The Recipient, through the Ministry of Environment and Sustainable Development, shall have adopted the Project Implementation Manual and the Monitoring and Evaluation Manual, both in form and substance satisfactory to the Association.</p>
Type Effectiveness	<p>Description</p> <p>Togo (Article V, 5.01.(b)): The Recipient, through the Ministry of Environment and Forest Resources, shall have: (i) established the Project Implementation Unit under terms of reference and with a composition satisfactory to the Association; and (ii) appointed to the PIU the National Project Coordinator and under terms of reference and with qualifications and experience satisfactory to the Association.</p>
Type Effectiveness	<p>Description</p> <p>Senegal (Article V, 5.01.(b)): The Recipient, through the Ministry of Environment and Sustainable Development, shall have: (i) established the Project Implementation Unit under terms of reference and with a composition satisfactory to the Association; and (ii) appointed to the PIU the National Project Coordinator under terms of reference and with qualifications and experience satisfactory to the Association.</p>
Type Effectiveness	<p>Description</p> <p>Togo (Article V, 5.01.(a)): The Recipient, through the Ministry of Environment and Forest Resources, shall have adopted the Project Implementation Manual and the Monitoring and Evaluation Manual, both in form and substance satisfactory to the Association.</p>
Type Effectiveness	<p>Description</p> <p>WAEMU (Article V, 5.01.(a)): The Recipient shall have adopted the Regional Project Implementation Manual and the Regional Monitoring and Evaluation Manual, both in form and substance satisfactory to the Association.</p>



Type Effectiveness	Description WAEMU (Article V, 5.01.(b)): The Recipient shall have: (i) established the Regional Management Unit under terms of reference and with a composition satisfactory to the Association; and (ii) appointed to the RMU the Regional WAEMU Focal Point and its accountant, both under terms of reference and with qualifications and experience satisfactory to the Association.
Type Effectiveness	Description WAEMU (Article V, 5.01.(c)): IUCN shall have, pursuant to the Subsidiary Agreement: (i) established the Regional Implementation Support Unit under terms of reference and with a composition satisfactory to the Association; and (ii) appointed to the RISU the RISU Coordinator under terms of reference and with qualifications and experience satisfactory to the Association.

**PROJECT TEAM****Bank Staff**

Name	Role	Specialization	Unit
Dahlia Lotayef	Team Leader(ADM Responsible)	Engineering	GEN07
Nicolas Benjamin Claude Desramaut	Team Leader	TTL - STP	GEN07
Peter Kristensen	Team Leader	Environment	GEN07
Maurice Adoni	Procurement Specialist(ADM Responsible)	Procurement	GGOPF
Antonio Laquene Chamuco	Procurement Specialist	Procurement	GGOPF
Brahim Hamed	Procurement Specialist	Procurement Mauritania	GGOPF
Kouami Hounsinou Messan	Procurement Specialist	Procurement Togo	GGOPF
Laurent Mehdi Brito	Procurement Specialist	Procurement STP	GGOPF
Mathias Gogohounga	Procurement Specialist	Procurement Benin	GGOPF
Mountaga Ndiaye	Procurement Specialist	Procurement-Sénégal	GGOPF
Aissatou Diallo	Financial Management Specialist	Financial Management	WFACS
Abdoul Ganyi Bachabi Alidou	Team Member	Safeguards Benin/Togo	GEN07
Abdoulaye Gadiere	Environmental Safeguards Specialist	Safeguards	GEN07



Adeba Patrick Joel	Team Member	Cote d'Ivoire	GEN07
Anders Jensen	Team Member	Monitoring and Evaluation	GENOS
Angelo Donou	Team Member	FM Benin/Togo	GGOAW
Annick Lachance	Team Member	Monitoring and Evaluation	GEN07
Anthony Molle	Team Member	Infrastructure Finance	GTPFS
Asferachew Abate Abebe	Team Member	Environment	GEN01
Berengere P. C. Prince	Team Member	Fisheries	GEN01
Caroline Plancon	Team Member	Land Management	GWA07
Claudia M. Pardinias Ocana	Team Member	Project Lawyer	LEGAM
D. Petrus Dahou	Team Member	Benin	GEN07
Dania Mosa	Team Member	Social Development	GENDR
David Maleki	Team Member	Urban Resilience	GEN07
El Houssein Kane	Team Member	Mauritania	GEN07
Emanuella Maria Fernandes Huessy	Team Member	Communications	GEN07
Fadi M. Doumani	Team Member	Economics	GEN05
Faly Diallo	Team Member	FM	WFACS
Fatou Fall	Team Member	FM Mauritania	GSU01
Fatou Fall Samba	Team Member	FM Senegal	GGOAW
Idriss Deffry	Team Member	Costing	GEN07
Isabelle Celine Kane	Team Member	Disaster Risk Management	GSU19
Jayne Angela Kwengwere	Team Member	Operations	GEN07
Jean Charles Amon Kra	Team Member	FM Cote d'Ivoire	GGOAW
Joao Tinga	Team Member	FM STP	GGOAC
Joseph Ese Akpokodje	Team Member	Environment	GEN07
Juan Jose Miranda Montero	Team Member	Economics	GENGE
Junu Shrestha	Team Member	Climate Adaptation	GEN07
Koffi Hounkpe	Team Member	TTL - Togo	GSU19



Komlan Kpotor	Team Member	Togo	GEN07
Leandre Yameogo	Team Member	Safeguards	GEN07
Lelia Croitoru	Team Member	Economics	GEN05
Mamata Tiendrebeogo	Team Member	Procurement Senegal	GGOPF
Margaret Arnold	Team Member	Social Development	GCCRA
Maria Beatriz Garcia	Team Member	Policy	GEN07
Medou Lo	Team Member	TTL - Senegal	GEN07
Melissa C. Landes	Team Member	TTL - Cote d'Ivoire	GEN07
Miguel Antonio Toquica Onzaga	Team Member	Disaster Risk Management	GEN07
Naraya Carrasco	Team Member	Sao Tome and Principe	GFDRR
Nathalie E. Abu-Ata	Team Member	Institutional Development	GEN07
Nevena Ilieva	Team Member	Operations Advisor	GEN07
Nicolas Kotschoubey	Team Member	Safeguards Senegal/Mauritania	GEN07
Nora Patricia FitzGerald	Team Member	Communications	GEN07
Paivi Koskinen-Lewis	Social Safeguards Specialist	Social Development	OPSES
Ruma Tavorath	Team Member	Pollution Management	GEN07
Ruth Jane Kennedy-Walker	Team Member	Engineering	GWA01
Sajid Anwar	Team Member	Disaster Risk Management	GFDRR
Salimata D. Follea	Team Member	TTL - Benin	GEN07
Si-Ambhaivan Sisombat	Team Member	Stakeholder Engagement	GGOPG
Toshihiro Sonoda	Team Member	Disaster Risk Management	GEN07
<b>Extended Team</b>			
<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Location</b>



WESTERN AFRICA  
WEST AFRICA COASTAL AREAS RESILIENCE INVESTMENT PROJECT

**TABLE OF CONTENTS**

<b>I. STRATEGIC CONTEXT .....</b>	<b>21</b>
A. Regional Context .....	21
B. Sectoral and Institutional Context .....	22
C. Higher Level Objectives to which the Project Contributes .....	26
<b>II. PROJECT DEVELOPMENT OBJECTIVES.....</b>	<b>29</b>
A. PDO.....	29
B. Project Beneficiaries.....	29
C. PDO-Level Results Indicators.....	30
<b>III. PROJECT DESCRIPTION.....</b>	<b>30</b>
A. Project Components.....	30
B. Project Cost and Financing.....	38
C. Lessons Learned and Reflected in the Project Design .....	41
<b>IV. IMPLEMENTATION .....</b>	<b>43</b>
A. Institutional and Implementation Arrangements.....	43
B. Results Monitoring and Evaluation .....	47
C. Sustainability .....	48
D. Role of Partners.....	48
<b>V. KEY RISKS .....</b>	<b>49</b>
A. Overall Risk Rating and Explanation of Key Risks.....	49
<b>VI. APPRAISAL SUMMARY .....</b>	<b>51</b>
A. Economic and Financial Analysis.....	51
B. Technical.....	53
C. Financial Management .....	54
D. Procurement .....	56
E. Social (including Safeguards).....	57
F. Environment (including Safeguards) .....	60
G. Other Safeguard Policies (if applicable).....	62





H. World Bank Grievance Redress.....	62
<b>VII. RESULTS FRAMEWORK AND MONITORING .....</b>	<b>63</b>
<b>ANNEX 1: DETAILED PROJECT DESCRIPTION .....</b>	<b>87</b>
<b>ANNEX 2: IMPLEMENTATION ARRANGEMENTS.....</b>	<b>100</b>
<b>ANNEX 3: IMPLEMENTATION SUPPORT PLAN .....</b>	<b>102</b>
<b>ANNEX 4: DETAILED FINANCIAL MANAGEMENT AND DISBURSEMENT ARRANGEMENTS.....</b>	<b>107</b>
<b>ANNEX 5: DETAILED PROCUREMENT ARRANGEMENTS.....</b>	<b>123</b>
<b>ANNEX 6: MONITORING AND EVALUATION .....</b>	<b>137</b>
<b>ANNEX 7: REGIONAL ECONOMIC ANALYSIS.....</b>	<b>139</b>
<b>ANNEX 8: THE REGIONAL ARGUMENT FOR WACA .....</b>	<b>150</b>
<b>ANNEX 9: COMMUNITY DEVELOPMENT, RESILIENCE, AND DECISION MAKING .....</b>	<b>151</b>
<b>ANNEX 10: MAXIMIZING FINANCE FOR DEVELOPMENT.....</b>	<b>156</b>
<b>ANNEX 11: COASTAL GEOMORPHOLOGY AND THE ‘SAND RIVER’ .....</b>	<b>159</b>
<b>ANNEX 12: MAP OF WEST AFRICA.....</b>	<b>161</b>



## I. STRATEGIC CONTEXT

### A. Regional Context

1. **The West African coastline, spanning from Mauritania to Gabon, includes 17 countries<sup>1</sup> that are at varying stages of economic development.** Eight of the countries<sup>2</sup> have a per capita gross domestic product (GDP) below US\$1,000, ranking among the lowest in the world. Many of these countries have gone through conflict or political and social unrest over the last 10 years, and Liberia, Sierra Leone, and Guinea suffered the worst Ebola epidemic in history during 2014–2015. Although the West African economies have been growing steadily,<sup>3</sup> the countries continue to be heavily dependent on natural resources such as fisheries, fossil fuel, minerals, and timber. A very large proportion, about 42 percent, of West Africa’s GDP is generated from its coastal areas. The West African coastal areas (WACA)<sup>4</sup> are home to almost one-third of the countries’ population. 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. In West Africa, rapid urbanization and net migration to the coast increase the demands on the land, its resources, and the services its ecosystem provides to people. Poverty is rampant: 15 out of the 17 coastal countries have national poverty lines above 30 percent, although there are large variations. Oil-producing Ghana has the lowest poverty rate (24 percent), while Equatorial Guinea, also an oil-producing country, has the highest (over 70 percent).<sup>5</sup>

2. **The coastal population is increasingly vulnerable to the effects of climate change, especially 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 threatened by floods and aggravated coastal erosion, and economic losses, for example, have been estimated to be about 2.3 percent of Togo’s GDP in 2013<sup>6</sup> and 3.2 percent of Mauritania’s GDP in 2014.<sup>7</sup> Economic literature suggests that extreme flooding events affect not only poverty but also human capital formation. Flood events cause agricultural losses and damages to infrastructure, which affect household wealth, exacerbating poverty. Similarly, there is evidence of a biological effect of in utero exposure to a negative shock. Seminal work on epidemiology has established that due to disruptions in the prenatal environment, the fetus adapts to increase the likelihood of survival.<sup>8</sup> These adaptations may be irreversible if shocks are intense, causing damages that manifest later in life. Similarly, a negative shock can alter prenatal investments (such as nutrition and

---

<sup>1</sup> The 17 countries are Benin, Cabo Verde, Cameroon, Côte d’Ivoire, Equatorial Guinea, Gabon, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Nigeria, São Tomé and Príncipe, Senegal, Sierra Leone, The Gambia, and Togo.

<sup>2</sup> Benin, Guinea, Guinea-Bissau, Liberia, Senegal, Sierra Leone, The Gambia, and Togo. Source: International Monetary Fund, World Economic Outlook Database.

<sup>3</sup> Between 2010 and 2015, the economies grew at 5 percent annually on average and inflation was low or generally contained despite some spikes.

<sup>4</sup> The term ‘coastal zone’ or ‘coastal areas’ in the context of WACA, as per U.S. Coastal Zone Management Act of 1972, means that the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder) are strongly influenced by each other and near the shorelines of the coastal states and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches.

<sup>5</sup> World Bank data analysis. Source: EMDAT Disasters Database for 17 WACA countries between 2000 and 2017.

<sup>6</sup> World Bank. 2015. *Rapid Cost of Environmental Degradation*. Togo. Background Document for the Systematic Country Diagnostic. Washington, DC : World Bank.

<sup>7</sup> Banque mondiale. 2017. *Coût de la dégradation et de la restauration de l’environnement côtier, marin et maritime en Mauritanie en 2014*. Programme WACA, Banque mondiale et MEDD. Washington, DC.

<sup>8</sup> Barker, D. J. 1995. “Fetal Origins of Coronary Heart Disease.” *BMJ (British Medical Journal)* 311 (6998): 171; Gluckman, P., and M. Hanson. 2005. *The Fetal Matrix: Evolution, Development and Disease*. Cambridge University Press.



health care) by increasing infectious diseases and parental stress, which can affect maternal physical and mental health that further affects fetal development.<sup>9</sup> Preliminary estimates done by the West Africa Coastal Areas Management Program (WACA Program) Team show that a one-standard deviation increase in extreme flooding corresponds to 186 mm or 12 percent of the historical mean calculated over 1981–2015 (1,512 mm). This increased poverty by 2.4 percent, reduced children’s weight by 8.6 percent, and increased infant mortality by 9.6 percent. In 2012, there were approximately 10,600 deaths, meaning that one standard deviation would imply 1,000 more infant deaths.

3. **The Guinea Current Large Marine Ecosystem (GCLME) and the Canary Current Large Marine Ecosystem (CCLME) offshore from West Africa are two of the world’s most productive marine and coastal ecosystems.** The ecosystem with its wetlands and mangroves is rich in fisheries, has high coastal tourism potential, and has significant oil and gas reserves. The total economic value of the GCLME and CCLME was estimated at about US\$17 billion per year and US\$12 billion per year, respectively.<sup>10</sup> The most valuable services are linked to fisheries, coastal protection, carbon sequestration, and biodiversity.

## B. Sectoral and Institutional Context

4. **The sand in the coastal zone of West Africa 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. The destabilization of the sediments has many causes as sand is retained and blocked behind dams, interrupted by harbor jetties, and extracted (mined) for a variety of uses including aggregate in concrete for building infrastructure. Managing the sediment and the ecosystems it supports within the context of climate change is already a transboundary development challenge.

5. **The sandy coastal barrier is eroding at many locations, and the highest rates of retreat (in the order of 10 m per year or more) occur near river mouths and harbor jetties, that is, in the most urbanized areas.**<sup>11</sup> The effect of coastal retreat on people is loss of housing, assets, and land. The situation is further compounded by the lack of coordination of anti-erosion solutions, at local, national, and international levels. The shoreline is subject to severe recession due to construction of major infrastructure interrupting sediment flow; degradation of natural formations serving as buffers against the sea (mangroves); extraction of sand from dunes and the multiplication of dams on rivers; and poorly designed and inadequately managed groynes,<sup>12</sup> seawalls, and breakwaters that deprive these fragile coastal areas of important sediment deposits. While many countries have banned or regulated sand mining, it continues to be a thriving informal or illegal activity in most West Africa countries due to the growing global demand for sand by the construction industry.

6. **The West African coastline is also susceptible to increased flooding caused by storm surges and intense rainstorms.** These phenomena can be perilous for people as well as their coastal environment.

<sup>9</sup> Rosales-Rueda, M. 2016. “Impact of Early-Life Shocks on Human Capital Formation: Evidence from El Niño Floods in Ecuador.” Working Paper, University of California-Irvine.

<sup>10</sup> Interim Guinea Current Commission/UNIDO. 2011. *The Economic and Social Value of The Guinea Current Ecosystem: A First Approximation*; UNEP (United Nations Environment Programme). 2016. “CCLME Project.”

<sup>11</sup> Alessio, Giardino, Schrijvershof Reinier, Brière Christophe, Nederhoff Kees, Tonnon Pieter Koen, and Caires Sofia, 2017. “Human Interventions and Climate Change Impacts on the West African Coastal Sand River.” Washington, DC: World Bank.

<sup>12</sup> A groyne (groin in the United States) is a rigid hydraulic structure built from an ocean shore (in coastal engineering) or from a bank (in rivers) that interrupts water flow and limits the movement of sediment.



Coastal flooding can also be the result of inadequate drainage from inland water. Poor land use planning, construction on floodplains, insufficient infrastructure, poor maintenance of drainage canals, and improper waste management can result in blockage of urban runoffs.

**7. Coastal and marine pollution affects the quality of coast and coastal waters, and over 80 percent of such pollution originates from land-based sources, primarily industrial, agricultural, and urban.<sup>13</sup>**

These include agricultural pesticides, heavy metals, chemicals, and effluents from industries and mining and untreated solid and liquid waste from urban areas. Marine pollution and chemical contamination into the ocean's ecosystem lead to reductions in oxygen levels, the decay of plant life, and decline in the quality of the sea water and, in turn, affect the people who live off marine plants and animals. Offshore oil drilling as well as abandoned oil platforms pose a high risk for oil spills, with transboundary impacts on neighboring countries and major cities. Much of the plastic waste and chemicals have bioaccumulation properties that are harmful to people who ingest these toxins through the food web. The level of marine pollution differs significantly from one country to another depending on which sectors are most active near the coast and on the political, technical, and economic will to address issues.

**8. Degradation of coastal 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, wetlands, and mangroves, which provide important coastal protective and social services (livelihoods, food, protection from storm surges, and timber). Degradation in the transboundary CCLME and GCLME reflects these issues and these are included as the project intervention areas.

**9. 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 tidal waves and storm surges will exacerbate coastal erosion. Inundation of the natural habitats, such as mangroves, will result in loss of key functions (such as stabilizing coastal lands, providing breeding grounds and sheltered habitats for many species) and disruption of the economic activities they support. Tidal waves, storm surges, and hazards are expected to increase and may modify littoral sediment transport and these events are likely to be more frequent and occur with greater intensity in the future.<sup>14</sup> Even in a short time, inundation caused by poor drainage, encroachment on natural habitats, or compacting soils could also be a significant concern and major cities situated at sea level such as Abidjan, Cotonou, and Nouakchott are vulnerable.

**10. Management of coastal ecosystems is complex and requires regionally coordinated and integrated planning, summarized in Multi-Sectoral Investment Plans (MSIPs).**

The MSIPs provide an analysis which prioritizes the physical and social investments, policies, and institutional capacity building needed at national level to combat coastal erosion and flooding. Although some of the anthropogenic interventions have only a local effect, others have a much larger spatial effect. For example, the effect of

<sup>13</sup> UN World Ocean Assessment (WOA-1), 2016, Chapter 25.

<sup>14</sup> As noted in World Bank publications such as Turn Down the Heat

(<http://www.worldbank.org/en/topic/climatechange/publication/turn-down-the-heat>), Shockwaves

(<https://openknowledge.worldbank.org/handle/10986/22787>), and the Africa Climate Business Plan (ACBP)

(<http://documents.worldbank.org/curated/en/229241478495138849/pdf/109807-WP-P156951-PUBLIC-ACBPProgressReportPrintrevised.pdf>).



worsening coastal erosion after 30 years on the port of Lomé extends up to nearly 50 km.<sup>15</sup> When considering coastal degradation in the form of erosion, flooding, and pollution, exacerbated by climate change, and the effects all of that has on society, it becomes clear that it has grown into a major regional development issue requiring multisector solutions. Under the technical assistance (TA) provided by the WACA Program (see paragraph 17 and figure 1), MSIPs were prepared in five countries,<sup>16</sup> providing a prioritized list of physical and social investments, as well as for policy and institutions at the national level. They vary a little in approaches as they are based on existing processes in the concerned countries. Some apply a multi-criteria approach; others are based on local<sup>17</sup> or national development plans for the coastal zone.

**11. Policy, regulatory, and institutional frameworks are not sufficiently developed to govern coastal areas and conserve the environmental assets.** Poor management of coastal areas in West Africa has many causes including lack of or sometimes conflicting regulation, weak enforcement, ill-defined rules about property rights, lack of technical and management capacity, and absence of appropriate tools and decision support systems (for example, data observation systems, early warning systems, valuation methods of natural resources and of environmental degradation, and monitoring and evaluation [M&E] systems).<sup>18</sup> 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 coastal areas. Going forward, the project will work with high-level officials, private sector investors, and opinion leaders in countries as national champions for the project, and as part of the implementation support, leadership development will be provided.

**12. The current arrangements of single institutions each having their separate areas of responsibility for coastal zone management is inadequate.** Coastal management is often the responsibility of institutions with relatively limited convening power or capacity to advance reforms and mainstream the issues and considerations 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.<sup>19</sup> Motivating and enabling concerned institutions and communities is key to achieving the objectives of sound environmental stewardship and preservation of human and natural capital.<sup>20</sup> Countries are engaged and are trying to address these shortfalls. For example, in Senegal, integrated coastal management plans have been prepared, and in Togo, the concept of the Blue Economy was adopted in 2017.<sup>21</sup>

---

<sup>15</sup> Alessio, Giardino, Schrijvershof Reinier, Brière Christophe, Nederhoff Kees, Tonnon Pieter Koen, and Caires Sofia. 2017. "Human Interventions and Climate Change Impacts on the West African Coastal Sand River." Washington, DC: World Bank.

<sup>16</sup> Senegal used existing studies, acceptable to the World Bank, for the identification of its technical assistance and investment needs.

<sup>17</sup> As in the case of Grand Lahou in Côte d'Ivoire.

<sup>18</sup> GEF (Global Environment Facility)/UNIDO/UNDP/UNEP/NOAA (United States National Oceanic and Atmospheric Administration)/NEPAD (New Partnership for Africa's Development)/FAO (Food and Agricultural Organization of the UN) and IMO (International Maritime Organization). 2006. Trans-boundary Diagnostic Analysis. Guinea Current Large Marine Ecosystem.

<sup>19</sup> Coastal West Africa vulnerability Brief: U.S. Agency for International Development, 2015.

<sup>20</sup> World Bank. 2013. *Building Resilience, Integrating Climate and Disaster Risk into Development: The World Bank Group Experience*.

<sup>21</sup> World Bank. 2017. *Togo - vers une économie bleue. Cadre stratégique pour le développement de l'économie maritime et côtière*.



13. **According to the MSIPs prepared with World Bank support and validated in national workshops, the financing needed for coastal protection in six<sup>22</sup> countries is about US\$1.5 billion.**<sup>23</sup> Investment finance is needed for sediment bypass at ports; beach nourishment; management of natural flood zones and mangroves; coastal observation and monitoring of erosion rates; and TA for institutions, governance, and planning efforts.
14. **Regional players are engaged, but the sum of action is not adequate to address the magnitude of the challenge.** World Bank research suggests there is no single institution that has all the capacities or the mandate needed to address the range of issues associated with the coasts of West Africa.
15. **The West Africa Economic and Monetary Union (WAEMU) and the International Union for Conservation of Nature (IUCN) have been instrumental in raising the profile of the issues of coastal zone management, erosion, flooding, and climate change.** The Abidjan Convention (ABC) has the mandate to create a common approach and policy for coastal zone management, and at the 12th Conference of the Parties of the Abidjan Convention of United Nations Environment (COP12) in 2017, countries agreed to address the coastal erosion problem. The Center for Ecological Monitoring (*Centre de Suivi Ecologique*, CSE) is hosting the West African Coast Observation Mission (*Mission d'Observation du Littoral Ouest Africain*, MOLOA), which is a regional cooperation mechanism for the monitoring of the coastline and for the reduction of coastal risks in West Africa. However, there is a need to catalyze better collaboration and coordination, and strengthen the capacity for results-oriented approaches.
16. **In conclusion, no single country alone can fix West Africa's coastal erosion, flooding, and pollution problems.** Solutions require coordination and collaboration among agencies in each country and significant transaction costs. The problems are multi-sectoral in nature, which adds to the complexity at country and regional levels. Solutions are bound to be expensive, beyond one single country's public finances or any single development partner's means. Finally, it requires a long-term vision and commitment at national and regional levels, and that commitment has yet to be achieved. A massive, cross-country coordinated effort is needed to tackle this challenge.
17. **The WACA Program<sup>24</sup> was created in response to countries' request for solutions and finance to help save the social and economic assets of coastal areas and coastal erosion and flooding in particular.** The WACA Program provides TA and investment finance and has announced the launch of a WACA Platform to crowd in additional partners to mobilize the resources at the scale needed. The WACA Platform is proposed to include a mechanism for donor coordination in support of countries' MSIPs. The vision is that with time, the WACA Platform will be housed at a suitable regional institution, and a mosaic of projects, financed by the World Bank and other development partners, and introducing innovative instruments, leveraging public finance, and engaging the private sector, will emerge in an effort to maximize the effect of development finance.

---

<sup>22</sup> Benin, Côte d'Ivoire, Mauritania, São Tomé and Príncipe, Senegal, and Togo.

<sup>23</sup> WACA MSIPs are available at <http://www.worldbank.org/en/programs/west-africa-coastal-areas-management-program#5>.

<sup>24</sup> More details can be found on the program's website [www.worldbank.org/waca](http://www.worldbank.org/waca).



Figure 1. The WACA Program



18. **The WACA Resilience Investment Project (WACA ResIP) is a multi-country regional project that will support the strengthening of resilience of coastal communities and assets in six western African countries—Benin, Côte d’Ivoire, Mauritania, São Tomé and Príncipe, Senegal, and Togo.** These six countries, covering approximately 2,186 km of coastline, have particularly vulnerable coastal areas (erosion, flooding, pollution) and have a degree of readiness through multi-sectoral investment planning processes, culminating in the WACA MSIPs. Additional countries would eventually join the WACA Program, and the World Bank could provide additional resources, based on readiness criteria, including (a) country request received, (b) MSIPs or similar existing plans of acceptable quality, and (c) availability of World Bank finance.

### C. Higher Level Objectives to which the Project Contributes

19. **The project responds to African nations’ commitments to sustainable development and immediate climate change action.**

20. **On a global level, the proposed project supports the United Nations (UN) Sustainable Development Goals (SDGs) through its support to countries in developing their Blue Economy strategies and action plans to enable them to optimize the potential socioeconomic benefits of their coastal and marine areas while sustainably managing them.** This is in line with SDG 14 that refers to “Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.”

21. **In Africa, the project is aligned with The African Union’s Agenda 2063: ‘The Africa We Want’,** which aims for “a prosperous Africa based on inclusive growth and sustainable development” through measures, including, among others, exploiting the vast potential of Africa’s Blue/Ocean Economy and putting in place measures to sustainably manage the continent’s rich biodiversity, forests, land, and waters and to address immediate increased risks of inundation and erosion due to climate change.

22. **The project is also aligned with the Common Environmental Improvement Policy of WAEMU, and its Regional Program for the Control of Coastal Erosion (PRLEC).** The program is implemented by the WAEMU Commission and aims at mitigating the economic, environmental, social, and cultural impacts of coastal erosion in WAEMU’s member states through the sustainable management of coastal areas.



23. **The project supports subregional objectives in West Africa set forth by the Abidjan Convention (ABC),** specifically the focus on coastal development policy. The final Declaration of the ABC COP12 (March 2017) recognized the negative impacts of coastal erosion on the socioeconomic viability of the West African coast and committed to supporting the implementation of the WACA Program. The project supports implementation of National Action Plans (NAPs), in select GCLME countries, which identify priority actions to be implemented in each country to tackle the environmental concerns identified in the Transboundary Diagnostic Analysis (TDA) of 16 countries situated within the natural limits of the GCLME.<sup>25</sup>

24. **At the national levels, the project is consistent with the Nationally Determined Contributions (NDCs) of the countries in western Africa.** The NDCs include coastal zone management for resilience and highlight the role of coastal ecosystems for climate change adaptation with recognition for mitigation co-benefits. In Senegal, the NDC lays out specific adaptation objectives for eight different sectors for 2016–2035. The objectives include making ecosystems more resilient, protecting coastal areas and vulnerable communities, developing an integrated water resource management system, and promoting insurance for fishing communities. The Mauritania NDC lays the groundwork for the future integrated management of ecosystems to mitigate the effects of climate change. Côte d’Ivoire studies the risks of its fast-growing economy as the country’s water sources are further stretched in every sector. The NDC also underscores new efforts toward conservation of coastal areas and support for fisheries. Togo’s NDC seeks to improve the country’s regulatory framework and coastal erosion knowledge management, and mobilizing finance is needed for structural changes in coastal protection. Benin focuses on coastal erosion management and sedimentary imbalance, including the restoration of fragile ecosystems and mangroves in its NDC. São Tomé and Príncipe’s NDC sets a target to implement an innovative system of construction codes incorporating climate change impacts and the risk of flooding associated with the sea level rise and intensified cyclones predicted to occur by 2030. The project forms the basis of coastal management into which climate risks and resilient measures can be suitably integrated.

25. **The project supports the World Bank Group’s goals to decrease the percentage of people who live on US\$1.90 a day to no more than 3 percent by 2030 and to foster income growth of the bottom 40 percent of the population in each country—in a sustainable manner.** 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.

26. **The project is aligned with the World Bank Group Gender Strategy 2016-2023<sup>26</sup>,** which proposes a stronger focus on the frontier areas of more and better jobs as well as ownership and control over key financial and physical assets and recognizes that closing the remaining gender gaps in endowments, enhancing voice and agency, and engaging men and boys are all critical to reducing poverty and boosting shared prosperity. Poor women are often disproportionately affected by natural hazards and climate change because their jobs often rely on natural resources. At the same time, research has also identified women’s empowerment as an important approach to building broader community resilience. The project will contribute to reducing gender gaps as they relate to pillars 2 and 4 on jobs and enhancing women’s voice and agency, particularly as they relate to strengthening local-level resilience and managing climate

<sup>25</sup> GEF/UNIDO/UNDP/UNEP/US-NOAA/NEPAD/FAO and IMO. 2006. Trans-boundary Diagnostic Analysis. Guinea Current Large Marine Ecosystem.

<sup>26</sup> <https://openknowledge.worldbank.org/handle/10986/23425>.





and disaster risk. The project will take advantage of the regional nature of the project to undertake a regional gender assessment early during implementation, summarizing country-specific gaps as identified through the Systematic Country Diagnostic (SCD) and CPF, and based on this provide a uniform approach for addressing gender gaps in coastal resilience efforts at the country level.

27. **The project responds to the World Bank’s forthcoming Africa Region Regional Integration Assistance Strategy,**<sup>27</sup> which noted a need for the management of shared natural resources that transcends borders and requires collaboration to ensure sustainable harvesting and to prevent conflicts. Unless effective collective action is forthcoming, there is a risk that regionally shared natural resources could face the ‘tragedy of the commons’. Specifically, one of the opportunities listed in the strategy (Objective 4.2) is to support sustainable management and financing of transboundary water, coastal and marine resources and include this project as a vehicle.

28. **The project is part of the World Bank Climate Change Action Plan and the Africa Climate Business Plan (ACBP).**<sup>28</sup> As climate change and variability significantly affect Sub-Saharan Africa’s development agenda, the ACBP outlines actions required to increase climate resilience and low-carbon development to maintain current growth and protect future growth and poverty reduction goals.

29. **Benin’s SCD presented to the Board in January 2018 (Report No. 114822-BJ) identified that habitat loss and degradation, including marine areas, mangroves, wetlands, and coastal vegetation, poses sustainability risks associated with the loss of overall natural capital.** Loss of natural habitat also engenders a loss of biodiversity functions and services such as wetlands for flood control, areas for recreation and tourism, or, in the case of mangroves, protection against coastal erosion. The project addresses this loss, through rehabilitation of ecosystems, livelihood diversification, and capacity building to prevent or respond to coastal and marine pollution events such as oil spills.

30. **Côte d’Ivoire’s CPF for FY16–19 (Report No. 96515-CI) under Focus Area 1, “Accelerating sustainable private sector-led growth,” highlights that accelerating private sector growth with investments and improved policies in agriculture and infrastructure rests on better handling of environmental threats,** such as coastal erosion, weather-related disasters, and climate change, that could affect livelihoods and well-being of the Ivorian population in the medium and long term. As such, the World Bank Group committed to supporting the Government’s efforts to conserve and sustainably use marine and coastal resources notably through the WACA Program. The project’s interventions are directly in line with the CPF’s commitment; the investments aim to support the Government in building coastal resilience in selected areas and in its efforts to mainstream climate change adaptation, disaster risk management, and spatial planning in future development plans and strategies for the coast.

31. **Mauritania’s SCD (Report no. 116630-MR, May 2017) identified coastal environmental challenges such as erosion as a constraint to sustainability.** Higher water temperatures, rising seas, ocean acidification, and overexploitation of fisheries deprive coastal communities of vital income resources and improved nutrition. Mauritania has developed and updated its coastal master plan to address climate change and new development challenges.

---

<sup>27</sup> World Bank. 2017. *Supporting Africa’s Transformation: Regional Integration and Cooperation Assistance Strategy for the period FY18–FY23*. December 15, 2017.

<sup>28</sup> <https://openknowledge.worldbank.org/handle/10986/28722>.



32. **São Tomé and Príncipe’s CPF for FY14–18 (Report No. 83144-ST) specifies “Theme 2. Reducing Vulnerability and Strengthening Human Capacity” as an engagement area with the World Bank.** The project will contribute to Outcome 8 of this theme “Increased adaptive capacity of coastal communities and reduced potential loss of assets and lives,” by contributing to the information basis for understanding risks to extreme events in the coastal areas.
33. **According to the draft Senegal SCD (P159672, under preparation), the country is highly vulnerable to shocks associated with coastal erosion and sea level rise, which are increasingly exposing both the urban and rural poor to stress, thus affecting poverty levels and overall growth.** Senegal is among the first West African countries where the World Bank conducted significant analysis on coastal cities adaptation later supported by investments. The project interventions will therefore build on relevant and ongoing World Bank operations in Senegal with the aim to promote overall competitiveness and strengthen the country's investment climate.
34. **Togo’s CPF for FY17–FY20 (Report No. 112965-TG) under Focus Area 3, “Environmental Sustainability and Resilience,” has the objective to strengthen the management of productive natural resources and increase community resilience to climate change.** The project directly responds to this need through the conservation of sensitive coastal ecosystems, introduction of sustainable land management practices, and alternative income-generating activities.
35. **The project supports the World Bank Group’s Environment Strategy.**<sup>29</sup> It focuses on coastal zone management and will leverage green and grey solutions to manage the risks of flooding and erosion to conserve vital natural resources, economic assets, and communities. It also supports the Africa Region Environment Strategy,<sup>30</sup> which calls for the sustainable management of coastal zones and for increasing the resilience of coastal resources.

## II. PROJECT DEVELOPMENT OBJECTIVES

### A. PDO

36. **The Project Development Objective (PDO) is to strengthen the resilience of targeted communities and areas in coastal Western Africa.**
37. The project aims in that respect to enhance the absorptive, adaptive, and transformative capacities of the six beneficiary countries and to reduce the shared risks to which they are exposed, either natural or man-made, and that are similar for all or most countries or transboundary in nature.

### B. Project Beneficiaries

38. **Project activities are estimated to directly benefit approximately 200,000 people at project sites in the six beneficiary countries (Benin, Côte d’Ivoire, Mauritania, São Tomé and Príncipe, Senegal, and Togo), who live along the coast and depend on it for their livelihoods.** These people, including women

<sup>29</sup> Toward a Green, Clean, and Resilient World for All. A World Bank Group Environment Strategy 2012–2022.

<sup>30</sup> Enhancing Competitiveness and Resilience in Africa: An Action Plan for Improved Natural Resource and Environment Management 2012.



and youth, and people living in 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 agroindustry and tourism located 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.

### C. PDO-Level Results Indicators

39. **The proposed PDO indicators are as follows:**

- Households in targeted coastal areas with less exposure to erosion due to the project (disaggregated by country)
- Households in targeted coastal areas with less exposure to flooding due to the project (disaggregated by country)
- Households in targeted coastal areas with less exposure to pollution due to the project (disaggregated by country)
- Share of target beneficiaries with rating 'Satisfied' or above on project interventions (disaggregated by country, sex)
- Regional integration score (score)

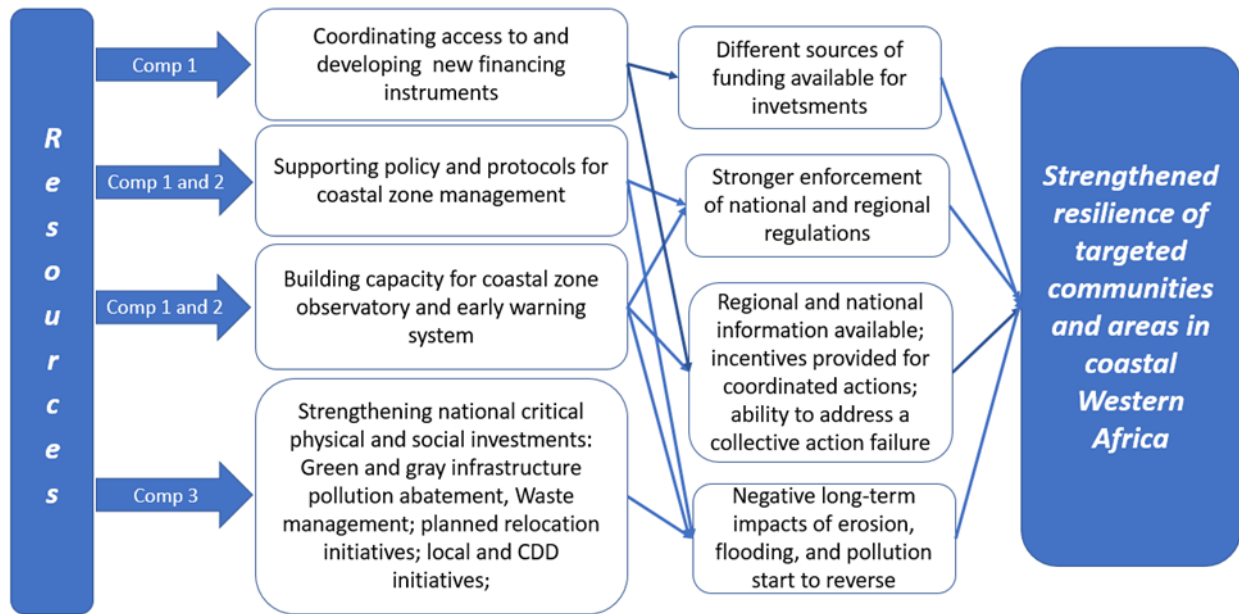
## III. PROJECT DESCRIPTION

### A. Project Components

40. **The vision of the project is to create a dynamic space for coastal countries and partners, where they share knowledge, expertise, and access finance.** The project engages countries through TA to unbundle the complex coastal development challenges into actionable priorities and will mobilize the 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. This dynamic is illustrated in the theory of change (see figure 2).



Figure 2: Theory of Change for the WACA ResIP



41. **The project also establishes the resilience framework, aiming at strengthening the absorptive, adaptive, and transformative capacities of the Governments, institutions, communities, and individuals.** Reducing the risk of exposure of communities and vulnerable areas (hot spots) to erosion, flooding, and even marine pollution is a reflection of their enhanced absorptive capacity to deal with such risks, while planned relocation, proper spatial planning and conservation, and/or restoration of ecosystems providing means of natural protection demonstrate the transformative capacity developed over time. The creation of new livelihood opportunities or the establishment of efficient and well-performing decision support systems can help moderate future risks and eventually take advantage of new opportunities and adjust to new situations as adaptive measures.

42. **The six countries benefiting from this project (Benin, Côte d’Ivoire, Mauritania, São Tomé and Príncipe, Senegal, and Togo) requested technical and financial support from the World Bank.** An MSIP proposes a plan for each country or targeted hot spot for integrated management of the coastal zone that is coherent nationally and aligned with regional-level activities and focused on the sustainable use of the coastal territory and investment options. MSIPs have been developed for Mauritania, Côte d’Ivoire, Togo, Benin, and São Tomé and Príncipe. Senegal, has already developed integrated coastal zone management plans that outline priorities for combating erosion, flooding, and pollution.

43. **The project consists of a combination of physical or thematic interrelated regionally and nationally implemented activities.** The design responds to the need for interventions at policy and institutional levels, demand for physical and social investments, assistance for establishment of integrated support systems, such as coastal observation and early warning, and a Regional Implementation Support Unit (RISU) to help with the communication, exchange of knowledge, scaling up of activities, and monitoring of impacts. At the national level, the project will support municipalities and subnational governments that have made a commitment to sustainable development. Gender will be mainstreamed

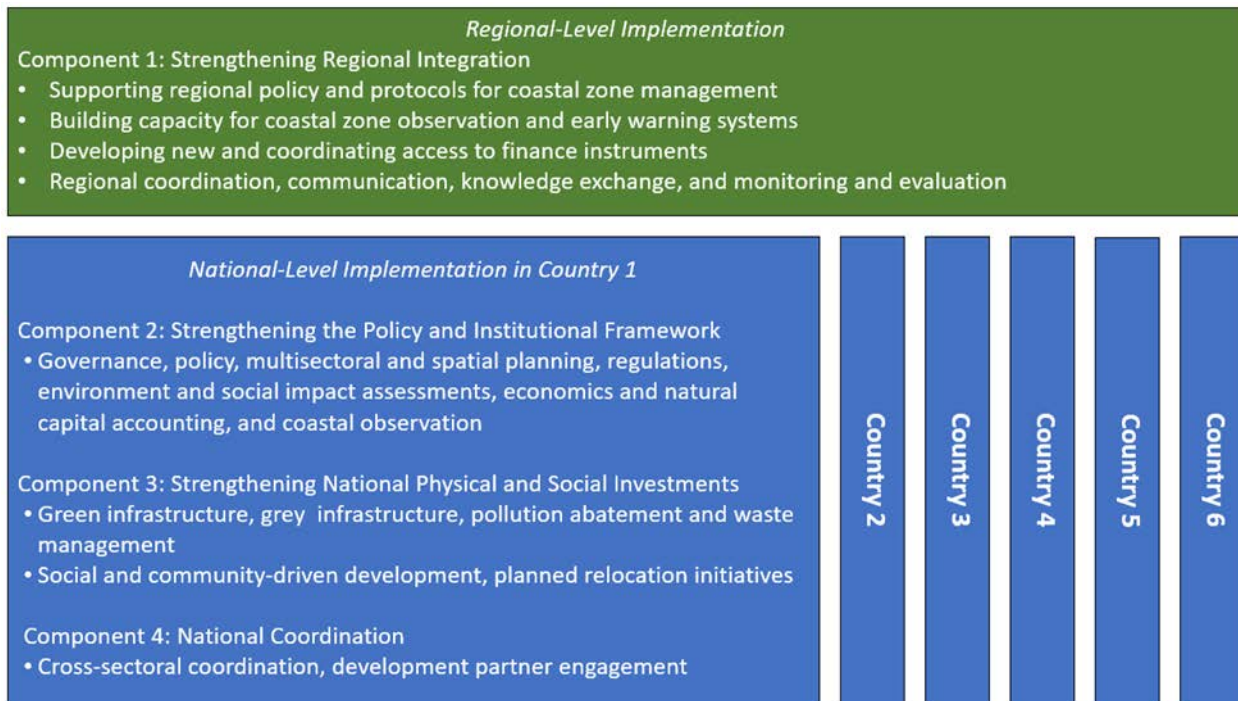


in the project based primarily on the gender assessments conducted by the World Bank in the context of the SCDs and on more specific gender analyses to be developed early during project implementation with the clients at the regional level first and then downscaled to country implementation.

44. **The Global Environment Facility (GEF) financed activities will contribute to achieving the project’s theory of change and the overall PDO.** They complement the IDA-financed activities by fulfilling the incremental costs to achieve transboundary and global environmental benefits. Overall, the IDA-financed activities provide green/grey infrastructure in the most populated/urbanized centers along the coast to manage the severe and urgent effects of erosion and flooding in Togo, Benin, and São Tomé and Príncipe. GEF funds complement these activities by supporting green infrastructure and land management measures in the adjoining areas targeted by IDA. Therefore, the project addresses the major erosion and flooding issues on the coast through direct interventions that consider a broader landscape context. This involves a variety of land uses (for example, urban, agriculture, forests, wetlands) and takes a holistic approach to coastal management. Similar GEF-supported activities will be considered in subsequent phases of implementation of the project.

45. **Each country has however established its own priorities** based on a set of criteria including, among others, the operational readiness, the availability of technical and financial resources, the complementarity with other activities, the anticipated impact in the short and long term, and the level of acceptance of the measures. Each beneficiary country has therefore identified the scope of interventions of the project from the following components and the specific activities to be implemented during project implementation, as described in annex 1.

Figure 3: Links between the Regionally and Nationally Implemented Activities





### **Component 1: Strengthening Regional Integration (US\$12.0 million IDA)**

46. **Based on its experience in implementing the PRLEC, and by virtue of its status as an economic and monetary organization, WAEMU will play a strategic role in the implementation of the regional component.** High-level and technical meetings will be organized to enhance country dialogues and collaboration with other regional organizations (such as ECOWAS) and encourage regional and transboundary initiatives. WAMU will focus on identifying innovative financing instruments and helping countries adopt them, developing directives for the harmonization of regulations for integrated coastal zone management in western African countries and implementing a sound communication and awareness-raising plan. Special emphasis will be put on the role of the private sector in financing this agenda, and on women and their role in strengthening local-level resilience.

47. **WAEMU will establish a Regional Integration Management Unit (RMU) to implement those activities and to manage Component 1 of the project.** The RMU will support WAEMU in integrating coastal issues in the work done under the political leadership of the Commission, to help with the scaling up of the project. The scaling approach has two complementary components: (a) a strategic component, including regional integration, and (b) a technical component to help countries, through the Regional Implementation Support Unit.

48. **The project will support countries implementing regional conventions and protocols for marine and coastal zone management developed under the auspices of the ABC.** It provides the means to continue coastal policy dialogue at the regional level and ensure that national regulations for coastal zone management are harmonized and mutually supportive, to not cause harm to neighboring countries and avoid negative ‘spillover’ situations. This component will also support countries as they work to meet their obligations toward international and regional agreements, including, among others, their commitment toward the Declaration of the ABC COP12 and its protocols, as well as other conventions and partnerships related to saving coastal environmental assets.

49. **The project will provide the necessary technical and financial resources for the effective operationalization of the West Africa Coastal Observatory** and its regional cooperation mechanism for the monitoring of the coastline and for the reduction of coastal risks, known as the MOLOA. The observatory will provide regional and national policy makers and institutions with coast-related and climate change information and the necessary knowledge base to improve coastal zone management. The project will more specifically strengthen the capacity of national institutions to collect, assess, and share coastal zone data and information in a timely and coordinated manner through binding protocols between the members of the MOLOA, develop a framework for national and regional coastal observation indicators used to generate the annual ‘State of the Western Africa Coast’ report, establish regional coastal areas’ information-sharing platforms and monitoring systems, and develop knowledge products. It will also provide support to enhance coastal inundation forecasting and early warning systems at the national and regional scale with the aim of reducing the risk of disaster.

50. **A RISU will be established to support implementation of national and regional activities.** The RISU will coordinate activities among participating countries, support them as needed in the implementation of their activities by providing the necessary technical expertise and establishing a monitoring system of large contracts, enhance communication and knowledge exchange between them, manage the regional M&E system, and evaluate the project’s overall regional impacts. The RISU will also act as the technical secretariat of the project’s Regional Steering Committee.



51. The RISU will technically support WAEMU and the countries in scaling up the project through three main elements: (a) sensitizing countries not yet committed to regional integration through dialogue; (b) assist with developing Multi-Sector Investment Plans in requesting assistance; and (c) engaging development partners willing to provide additional funding or TA.

**Component 2: Strengthening the Policy and Institutional Framework (US\$38.8 million: US\$26.9 million IDA, US\$6.1 million GEF, US\$5.8 million counterpart contribution)**

52. **This component will help countries develop the adequate policy framework and the necessary tools for the development and/or operationalization of their coastal management strategies and plans, both at the national and regional levels.** It will more specifically provide support to develop and operationalize coastal management and land use strategies, taking into account land right security and action plans at the central and local levels and promote effective management of transboundary coastal ecosystems and spatial planning. Support will also be provided toward designation of areas with high ecosystem value such as Ramsar sites.<sup>31</sup> The implementation of such plans requires the development of efficient and adaptable regulatory instruments and tools. The project will provide TA to review existing coast-related laws and regulations and make recommendations to harmonize them and fill any existing gaps. Emphasis will be put on strengthening the Environmental and Social Impact Assessment (ESIA) systems, on developing ESIA guidelines for coastal planning and infrastructure, including guidelines for regional and strategic assessments, and providing support toward developing contingency plans for events with transboundary impacts, such as oil spills. The TA will provide support on land issues expected to emerge when planned relocation of communities will be necessary: (a) land socio-legal diagnostic will be set up to identify all kinds of land tenure rights including informal ones in the place the people will leave, (b) new places for relocation will be identified in accordance with existing land regimes, and (c) propositions will be discussed to secure land tenure rights in the new places, in coordination with Governmental authorities in charge of land issues (more efficient processes and land documents). The project will help in identifying and creating the enabling environment for the establishment of public-private partnerships (PPPs) to help mobilize additional resources to finance the integrated coastal management agenda. Given that the communication is key for land issues, the project will produce some knowledge sheets on the land process to flag key steps and questions in the critical paths to secure land tenure rights.

53. **Some countries also expressed the need to develop their Blue Economies and requested financial and technical assistance to do so.** The model will follow the most recent Togo Blue Economy Strategy, which focuses on the Blue Economy broadly, including maritime security. For reference, Mauritius, a pioneer in the ocean economy, is focusing its strategy on a few key sectors, including fisheries, information communication and technology, marine energy and ports, and applying marine spatial planning and improved governance.

54. **Coastal inundation forecasting products can be improved and effectively coordinated with warning services provided by the National Meteorological and Hydrological Services.** The project aims to improve the interaction of the national hydrological and meteorological agencies with disaster

---

<sup>31</sup> A Ramsar site is a wetland site designated of international importance under the Ramsar Convention. The Convention on Wetlands, known as the Ramsar Convention, is an intergovernmental environmental treaty established in 1971 by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and came into force in 1975.



management units. This collaborative disaster risk management can be achieved through an integrated coastal management strategy that includes the development of preparedness, response, and management strategies associated with coastal inundation. National-level disaster risk and meteorological information will feed into the regional monitoring, while regional trends and statistics will be reported back to the countries. The project will also support the establishment and strengthening of national disaster risk management structures in the beneficiary countries and flooding early warning systems.

**55. The GEF funds will complement the IDA-financed activities by strengthening local regulations, policies, and institutions to address major perceived problems and issues in the coastal ecosystems along Western Africa's coastal zone.** The activities include (a) training government institutions at the local level to deal with major coastal problems, such as loss of ecosystem integrity due to expansion of agriculture and invasive species in shared fragile ecosystems (for example, Chenal de Gbaga in Togo and Benin), deterioration in water quality due to pollution from oil spills or leakage (for example, oil platforms offshore Benin), and coastal habitat destruction due to floods and erosion (for example, São Tomé and Príncipe); (b) reviewing and updating the regulatory framework for management of shared natural resources, including national contingency plans for events with transboundary impacts, such as oil spills; (c) raising community awareness about transboundary coastal issues (for example, oil spills, erosion, floods); (d) developing management options and co-management plans for better management of transboundary coastal natural resources; and (e) supporting efforts for designation of Ramsar sites (Benin/Togo).

**Component 3: Strengthening National Physical and Social Investments (US\$152.6 million: US\$134.9 million IDA, US\$13.1 million GEF, US\$4.7 million counterpart contribution)**

**56. This component will finance coastal investments, or subprojects, to protect vulnerable areas from coastal erosion and flooding, to support pollution control and waste management operations, and to promote climate-resilient coastal development.** The countries either have existing coastal management strategies or plans of acceptable quality with priority investments identified or have undertaken, in the context of the WACA TA Program, new studies and analyses resulting in the development of MSIPs, which list priority actions for mitigating climate change impacts on the coast while also addressing sound and sustainable coastal zone management. All projects proposed in the investment programs are aligned with the strategic objectives of key plans such as NAPs and the NDCs. Investments include support for restoring or preserving healthy and functioning ecosystems and protecting coastal economic assets, emergency measures to prevent further degradation of hotspots, and long-term planning and management of the coast, based on sector priorities, scenarios, pre-feasibility studies, cost-benefit analysis, environmental and social impacts, and public consultations.

**57. In terms of erosion control, the project will be financing** (a) 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; (b) grey infrastructure such as construction of breakwaters, seawalls, revetments, groynes, and dikes; (c) land claim and reclamation; and (d) management of natural habitats, including reduction of invasive species encroachment.

**58. Flood control under the project focuses on** (a) rehabilitation of flood banks; (b) rehabilitation and management of natural flood areas, including dredging to maintain natural flow in lagoons; (c) infrastructure, including culverts, for better drainage in cities and towns; and (d) sustainable land





management practices in transboundary sub-watersheds and areas of high ecosystem value that drain into the coastal areas.

59. **In some countries, pollution control will be undertaken, including** (a) coastal pollution control through improved management of sewage and wastewater (installation and maintenance of wastewater treatment plants, effluent management); (b) management of solid waste, leachate, and plastic debris (through improved collection, segregation, and disposal practices in coastal urban centres); (c) chemical and heavy metal pollution, such as improved practices for reduction of mercury usage in artisanal gold mining; (d) management and reduction of marine litter resulting from insufficient waste management and lack of sufficient recycling and recovery of solid and industrial waste, which has the dual benefit of recycling and prevention of clogging drainage canals; and (e) prevention and management of oil spills and oil decontamination and reduction of oil spill risks from oil platforms.

60. **The project will also support community-driven climate resilience planning.** The project will enable dialogue and active engagement of communities in risk management and development planning in the face of a changing climate. Community-driven resilience planning is an ongoing participatory process that is context specific and may lead to different outcomes depending on the local circumstances; one outcome of community-driven climate resilience planning could be planned relocation. Specific tasks may include conducting awareness-raising activities targeting the populations at risk; participatory risk assessments; a dialogue about environmental changes experienced by the community; workshops on perceived imminent climate change risks (such as sea level rise and higher levels of precipitation) and the respective adaptation options, as a basis for expected future risks and long-term adaptive measures; dialogue on the possible need for planned relocation of high-risk communities in the longer term; the development of a participatory process for relocation planning and decision making; the implementation of a socio-environmental monitoring system for the implementation of decisions on relocation; and participatory exercises that facilitate communities to consider the future. These activities will focus on ensuring full inclusion of women, persons with disabilities, elders, youth, and other marginalized groups in the dialogue and decision making.

61. **In certain cases, the project may provide financing to assist with such planned relocation of persons at high risk** in certain hot spots within the project area and who have to move from their current places of residence and/or work due to persistent coastal flooding or erosion. Should the project finance the implementation of such planned relocation, the potential social risks and impacts of such project interventions would need to be adequately addressed, in line with the safeguards policy OP 4.12 (Involuntary Resettlement). Such assistance can include the construction of residential housing and infrastructures (roads, social infrastructures, and so on) and the provision of material and the restoration of livelihoods, as per the community-level and Community Driven Development (CDD) initiatives described in paragraph 62. However, the project will not finance any expenditures for the cost of land acquisition related to the activities to be carried out under the project, nor expenditures for cash payments for compensation or other cash payments for assistance due to a person relocating under the project. The size and scope of assistance to planned relocation will be determined on a case-by-case basis, depending on available resources within the project. A request for assistance for planned relocation has been received from São Tomé and Príncipe to support the completion of the process undertaken under the Least Developed Countries Fund (LDCF)-funded Adaption to Climate Change Project. The planned relocation in São Tomé and Príncipe as well as the implementation of the consultation process that will take place in each participating country under the project, will generate lessons learned, and provide solid



ground to guide decision making and implementation. A stock-take exercise will be conducted to draw lessons from São Tomé and Príncipe and other relevant cases (for example, Senegal's Saint-Louis Emergency Recovery Project), to assess whether other countries are in need of support for planned relocation, and whether the necessary conditions are met in these countries to achieve the project's developmental benefits and minimize risks. Such assistance, if requested, will be provided in accordance with the respective legal agreements. The World Bank will also engage with borrowers and development partners to see if additional resources can be mobilized.

62. **Local-level initiatives will be financed by the project as a tool to strengthen resilience and improve the livelihoods and well-being of people and communities.** These activities can either be implemented by the local municipalities or communes or else by local groups, associations, or nongovernmental organizations (NGOs), following a CDD approach. Its overall objective is to enhance community health, safety, and livelihoods through community development solutions including alternative livelihoods aligned with natural resource management (NRM) and small works or preparedness activities for climate and disaster risk reduction and diversification of livelihoods. Eligible local-level activities include rehabilitation of small public infrastructures damaged by floods or erosion (health care facilities, maternity hospitals, schools, markets, small and compact water supply and water drainage systems, and so on); cleaning natural canals (through removal of overgrown vegetation to restore the natural flow of the waterways and reduce the risk of flooding in surrounding areas); cleaning and improving the performance of drainage canals, mangroves, and tree planting; and desilting and reforestation of vulnerable areas prone to river and/or oceans flooding. The project can also support income-generating activities of relevance to the project objectives (salt extraction, fishing, and so on) and business development for communities to adopt new market products and services that reduce their vulnerability to coastal erosion and/or flooding. The local-level activities can be implemented by local government, municipalities, communes, or similar local government structure. The project will support local or national associations, NGOs, and/or beneficiary groups organized in a recognized structure for the implementation of standard Community-Driven Development initiatives. All such activities will be inclusive of women and other marginalized groups to ensure that benefits reach those most in need.

**Component 4: National Coordination (US\$18.28 million: US\$16.3 million IDA, US\$1.0 million GEF, US\$1.0 million counterpart contribution)**

63. **At the national level, a Project Implementation Unit (PIU) will be established in each beneficiary country to manage the project.** This unit will ensure that the project is implemented in accordance with the Project Appraisal Document (PAD) and the country-specific project description and that the WACA MSIPs or an agreed alternative national strategy or plan continues to form the basis for coordinated support from technical and financial partners to address the most pressing needs for management of the coastal zone. The PIU will convene national workshops and meetings and implement priority communication activities needed to ensure that the role of the project is understood by the stakeholders.

64. The countries will also establish Technical Committees (TCs) comprising the representatives of the sectors and entities concerned with coastal management and involved in the project's implementation to ensure smooth technical coordination with them. For that purpose, they will either retain the existing multi-sectoral TC established during the preparation phase for the development of the MSIP or establish a new committee.



65. **GEF funds will finance the additional support required for the GEF-specific interventions,** including the M&E system for the GEF, reporting requirements, and sharing of results and knowledge gained through the project by participation in International Waters learning activities.

## **B. Project Cost and Financing**

66. **IDA18 financing will be provided from national IDA allocations topped up with regional IDA at a ratio of 1:1 for Côte d'Ivoire and Mauritania and 1:2 for Benin, Togo, São Tomé and Príncipe, and Senegal.** The project is deemed eligible for regional IDA funds (see annex 1) because of the common large marine ecosystem (LME), environmental flows and connectivity between countries, the need for innovation and capacity-building across countries, implementation of cross-border solutions to manage positive or negative externalities, and the need for harmonized coastal and marine regulatory frameworks and shared integrated support systems such as coastal observation and early warning systems. This is coupled with the importance of building the capacity of regional organizations such as WAEMU and establishing partnerships with other institutions and stakeholders with a political and/or technical mandate for integrated coastal management, which are essential for a continued sustainable development of the coastal zone in West Africa.

67. **All six participating countries have requested and received Project Preparation Advances (PPAs).** The activities to be implemented through the PPAs include: the establishment of the Project Implementation Unit (PIU) in the implementing organization; the preparation and validation of the technical documents informing project components; the preparation of the environmental and social safeguards instruments; and providing the necessary technical assistance and operational support, operating costs and training required for timely project preparation.

68. **GEF resources are provided to a subset of the countries as per their System of Transparent Allocation of Resources allocations and contributions from the International Waters Focal Area.** GEF resources will be directed toward target areas that have been selected in Togo, Benin, and São Tomé and Príncipe in consultation with the Government counterparts. These areas have many common challenges, for example, severe coastal erosion, flooding, sedimentation, unsustainable land use, lack of data and information services on coastal systems and events, and overlapping policies affecting coastal governance including land tenure rights and regimes. In Togo and Benin, the focus will be on implementing a landscape approach toward strengthening management of the wider Chenal de Gbaga ecosystem, located in the transboundary Mono River basin, which is highly degraded and contributes toward erosion and flooding issues along the coast. In Benin, the financing will allow for capacity-building and preventive measures against potential oil spill from abandoned offshore oil platforms. In São Tomé and Príncipe, GEF resources will support the reviews of the policy, legal, and institutional frameworks related to coastal erosion and floods; harmonize the existing policy and actions linked to coastal risk; and map coastal areas that are most vulnerable to floods and erosion.

69. **The Nordic Development Fund (NDF) is providing a total of US\$10.0 million (€8.0 million) in parallel cofinancing to the project in the form of NDF credits on IDA terms.** The objective of the NDF finance is to support climate-resilient coastal plans and management interventions in Benin and Senegal and is complementary to and fully aligned with the project.

70. **The Green Climate Fund (GCF) has indicated interest in providing finance for the WACA Program in a regional coordinated approach and matching the IDA allocation.** A proposal is envisaged to be



submitted to the GCF Board. Adaptation approaches to be submitted to the GCF will focus on restoring or preserving healthy and functioning ecosystems, and protecting the coastal economic assets. In addition, the GCF will support upgrading grey infrastructure in response to changes in climate effects. Green infrastructure will be managed to maximize ecosystem services to reduce climate change impacts, for example, storm impacts, flooding, and saltwater intrusion. GCF financing will also be used to support national and regional level institutions (such as the West Africa Coastal Observatory) to generate, collect, assess, and share climate change-relevant data and develop climate information services so that the countries and the region have adequate information to make informed decisions regarding projected climate change effects.

71. **Other parallel cofinanciers are expected to support the WACA Program**, including the French Fund for the Global Environment (FFEM), the African Development Bank (AfDB), and the French Development Agency (*Agence Française de Développement*, AFD).

**Table 1. Project Cost by Component and Financier (US\$, millions)**

Component	IDA	GEF	Government	Total
Component 1: Strengthening Regional Integration	12.0	—	—	12.0
Component 2: Strengthening the Policy and Institutional Framework	26.9	6.1	5.8	38.8
Component 3: Strengthening National Physical and Social Investments	134.9	13.1	4.7	152.6
Component 4: National Coordination	16.3	1.0	1.0	18.3
<b>TOTAL</b>	<b>190.0</b>	<b>20.2</b>	<b>11.5</b>	<b>221.7</b>

**Table 2. Project Cost by Recipient and Financier (US\$, millions)**

Country	National IDA	Regional IDA	GEF	Government	Total
WAEMU	—	12.0	—	—	12.0
Benin	15.0	30.0	11.6	2.0	58.6
Côte d'Ivoire	15.0	15.0	—	3.0	33.0
Mauritania	10.0	10.0	—	2.0	22.0
Senegal	10.0	20.0	—	1.3	31.3
São Tomé and Príncipe	2.7	5.3	1.1	0.2	9.3
Togo	15.0	30.0	7.5	3.0	55.5
<b>TOTAL</b>	<b>67.7</b>	<b>122.3</b>	<b>20.2</b>	<b>11.5</b>	<b>221.7</b>

**Table 3: Project Cost by Country and Component (US\$, millions)**

Regional Integration	Total IDA	Total GEF	Total Government	Total
Regional Strategic Leadership (WAEMU)	3.2	—	—	3.2
Regional Integrated Coastal Zone Management (ABC)	1.5	—	—	1.5
Regional Coastal Observation (CSE)	1.5	—	—	1.5
Regional Implementation Support Unit (hosted by IUCN)	5.7	—	—	5.7
<b>Total Regional Integration</b>	<b>12.0</b>	<b>—</b>	<b>—</b>	<b>12.0</b>
<b>Benin</b>				



<b>Regional Integration</b>	<b>Total IDA</b>	<b>Total GEF</b>	<b>Total Government</b>	<b>Total</b>
Component 1: Strengthening Regional Integration	—	—	—	—
Component 2: Strengthening the Policy and Institutional Framework	6.7	3.3	0.5	10.5
Component 3: Strengthening National Physical and Social Investments	34.2	7.7	1.5	43.4
Component 4: National Coordination	4.1	0.6	—	4.7
<b>Total Benin</b>	<b>45.0</b>	<b>11.6</b>	<b>2.0</b>	<b>58.6</b>
<b>Côte d'Ivoire</b>				
Component 1: Strengthening Regional Integration	—	—	—	—
Component 2: Strengthening the Policy and Institutional Framework	3.1	—	0.3	3.4
Component 3: Strengthening National Physical and Social Investments	24.0	—	2.4	26.4
Component 4: National Coordination	2.9	—	0.3	3.2
<b>Total Côte d'Ivoire</b>	<b>30.0</b>	<b>—</b>	<b>3.0</b>	<b>33.0</b>
<b>Mauritania</b>				
Component 1: Strengthening Regional Integration	—	—	—	—
Component 2: Strengthening the Policy and Institutional Framework	7.5	—	2.0	9.5
Component 3: Strengthening National Physical and Social Investments	11.0	—	—	11.0
Component 4: National Coordination	1.5	—	—	1.5
<b>Total Mauritania</b>	<b>20.0</b>	<b>—</b>	<b>2.0</b>	<b>22.0</b>
<b>Senegal</b>				
Component 1: Strengthening Regional Integration	—	—	—	—
Component 2: Strengthening the Policy and Institutional Framework	2.2	—	0.4	2.6
Component 3: Strengthening National Physical and Social Investments	25.8	—	0.8	26.5
Component 4: National Coordination	2.0	—	0.2	2.2
<b>Total Senegal</b>	<b>30.0</b>	<b>—</b>	<b>1.3</b>	<b>31.3</b>
<b>São Tomé and Príncipe</b>				
Component 1: Strengthening Regional Integration	—	—	—	—
Component 2: Strengthening the Policy and Institutional Framework	2.3	0.7	—	3.0
Component 3: Strengthening National Physical and Social Investments	4.5	0.4	—	4.9
Component 4: National Coordination	1.2	0	0.2	1.3
<b>Total São Tomé and Príncipe</b>	<b>8.0</b>	<b>1.1</b>	<b>0.2</b>	<b>9.3</b>
<b>Togo</b>				
Component 1: Strengthening Regional Integration	—	—	—	—
Component 2: Strengthening the Policy and Institutional Framework	5.0	2.1	2.7	9.8
Component 3: Strengthening National Physical and Social Investments	35.4	5.0	—	40.4
Component 4: National Coordination	4.6	0.4	0.4	5.4



Regional Integration	Total IDA	Total GEF	Total Government	Total
Total Togo	45.0	7.5	3.0	55.5
Grand Total	190.0	20.2	11.5	221.7

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

72. **The project draws on the results and recommendations of the World Bank and the United Nations Department of Economic and Social Affairs report on the Blue Economy.**<sup>32</sup> The report defines the Blue Economy as one that “promotes economic growth, social inclusion, and the preservation or improvement of livelihoods while at the same time ensuring environmental sustainability of the oceans and coastal areas.” The project seeks to address changes to the environment that prevent communities from employing services provided by marine and coastal ecosystems.

73. **Infrastructure-based solutions to coastal erosion and flooding risks can be extremely expensive.** For example, the cost of protecting the 100 km. coastline of Dar es Salaam, Tanzania, with a sea wall would be US\$270 million.<sup>33</sup> In Keta, Ghana, new groynes for protection of 4.3 km. cost US\$22 million. Costs such as this may be unaffordable to both the local and national economies in poorer countries, and not easily financed by the private sector. It is imperative to develop accountable and responsive governance systems that can reduce risk through capacity building and land use planning. The project incorporates TA to strengthen laws and regulations related to coastal zone management.

74. **World Bank research<sup>34</sup> says that organized communities should be recognized as partners with expertise in resilience building.** People living in coastal zones are at high risk of losing their land and livelihoods due to environmental degradation and extreme weather events. Providing adequate measures while ensuring a participatory approach with all affected stakeholders from the start is essential to reduce risks, empower coastal populations, and build their capacity. The experience has shown that community leaders can set priorities, inform Government policies, and design and implement activities that are responsive to their needs. The project highlights social resilience and aims at developing a framework and enable dialogue for community-led partnerships for risk management, resilience planning, and decision making related to adaptation options, including planned relocation.

75. **Community resilience needs to emphasize socially inclusive approaches to disaster and climate risk management.** Children, persons with disabilities, displaced people, elders, indigenous peoples, migrants, youth, and women suffer disproportionately from hazard events and should have equal access to necessary resources and services to manage risk. Yet, women are often the designers and builders of resilience at the local level. Many marginalized groups also have unique perspectives or skills that contribute to community resilience. Community-driven activities and resilience planning supported by the

<sup>32</sup>

<https://openknowledge.worldbank.org/bitstream/handle/10986/26843/115545.pdf?sequence=1&isAllowed=y>.

<sup>33</sup> Kithiia, J. 2011. “Climate Change Adaptation and Mitigation in East African Coastal Cities: Need, Barriers, and Opportunities.” In *Megacities and the Coast: Transformation for Resilience*, edited by M. Pelling. Helmholtz-Zentrum Geesthacht, Geesthacht, Germany.

<sup>34</sup> See, for example, Arnold, Margaret, Robin Mearns, Kaori Oshima, and Vivek Prasad. 2014. “Climate and Disaster Resilience: The Role for Community-Driven Development.” Social Development Department. World Bank, Washington, DC



project will take an inclusive approach to identify and engage marginalized and vulnerable groups, including women, so that all voices are heard.

76. **Specific projects from which lessons have been learned are as follows:**

- (a) **Caribbean Regional Oceanscape Project (CROP; P159653).** During the implementation of CROP, the World Bank's convening power was a critical asset to foster cooperation across sectors and boundaries and to create new partnerships for the benefit of the region. The regional ocean policy provided the Eastern Caribbean with a regional framework to guide the future use of the marine and coastal resources to transition to a Blue Economy. CROP countries convened around the Mapping Ocean Wealth Initiative which aggregates marine and coastal data to better evaluate ecosystem services in the region improve planning to enhance the value of ocean and coastal assets. WACA will build on CROP's experience by providing regional integration activities under Component 1 to help manage a regionally shared economic resource in the interest of countries.
- (b) **India Integrated Coastal Zone Management Project (P097985).** The project required a large-scale planning effort among a variety of institutions covering different state governments and stakeholders from different sectors. WACA seeks to replicate the project's approach to provide adequate support to stakeholders during planning and implementation and to incentivize active participation. The India project was also successful in developing an ambitious agenda on community engagement, with the creation of job opportunities proving particularly challenging and transformative. WACA's design incorporates community involvement through different channels and emphasizes the protection of livelihoods.
- (c) **Indonesia Sustainable Landscapes Management Multi-Donor Trust Fund (SLM-MDTF; TF 072735) and Indonesia Integrated Landscapes Programmatic AAA (P156489).** The SLM-MDTF supports the Indonesian Government in its efforts to improve multi-sectoral coordination and integration of landscape management. It is governed by a Steering Committee of key agencies involved in sustainable landscapes management, includes donors, and is co-chaired by the Government and the World Bank as trustee of the funds. A Steering Committee holds oversight of the supported activities. Adequate resources for program administration proved key for smooth operations with donors and the Government. WACA will therefore ensure that resources and dedicated staff are sufficient for effective communications with all stakeholders and adequate logistics. The World Bank will facilitate this as a focal point for donors to allow them to leverage their investments for strategic impact.
- (d) **West Africa Regional Fisheries Program (P126773).** From this project, the World Bank has learned that a Regional Coordination Unit with a project implementation support role helps maintain momentum in implementation; ensures consistency in project approaches, M&E, and reporting; and importantly facilitates regional integration and dialogue at the technical level while assisting with convening events and harmonization at the ministerial level. The WACA ResIP will establish a similar RISU.
- (e) **Brazil Marine Protected Areas Project (P128968).** This project included significant coastal monitoring elements, with each state undertaking data collection that was then centralized for holistic analysis. This allowed monitoring the system status and trends over long periods, incorporating the conclusions into MPA management frameworks, and delivering reports with regionally integrated information back to states. WACA will take advantage of the project's



experience on integrating and disseminating coastal monitoring information from geographically disbursed institutions when designing the setup for the coastal observatory.

#### IV. IMPLEMENTATION

##### A. Institutional and Implementation Arrangements

77. **WAEMU will establish the project's Regional Steering Committee (RSC) in consultation with the six participating countries. The RSC is co-chaired by WAEMU and one of the countries on a rotational basis. The terms of reference and operating procedures of the committee will be prepared and finalized on the basis of consultations between the countries and WAEMU and will be integrated into the regional procedures manual.** The RSC provides overall strategic guidance to the project, supports policy dialogue with countries for regional integration, coordinates cross-boundary interventions, facilitates resource mobilization, and assesses the results and impacts of the project. That committee, co-chaired by WAEMU and a participating country on a rotating basis, will approve the annual work program at the regional level, consisting of four distinct regional technical functions required for the project: (a) WAEMU will take on the regional integration of project-related activities and development of financial tools, (b) the Secretariat of the ABC will be contracted to assist the six participating countries in technical matters related to the ratification and implementation of regional and international coastal and marine protocols, (c) the CSE will be contracted to assist countries in technical matters related to the establishment and operationalization of coastal observation systems, and (d) IUCN will be contracted to establish the RISU providing technical support to project implementation in the six WACA countries under the project and managing contracts for regional contractors (such as the CSE and ABC). These regional functions are financed by a regional IDA grant.

78. **WAEMU will establish an RMU to manage Component 1 of the project.** The RMU will more specifically manage the relation between WAEMU, IUCN, and other parties involved in the project's implementation and manage WAEMU's activities and budget.

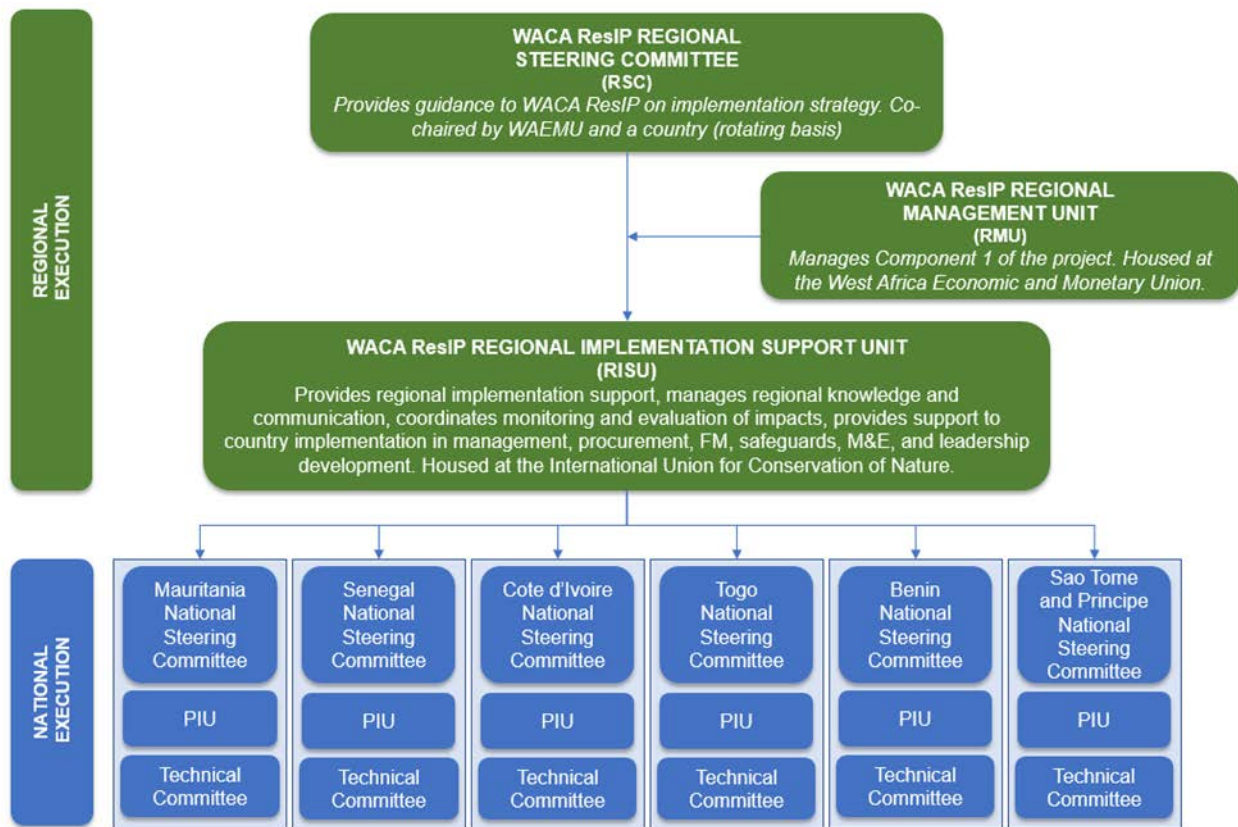
79. **An RISU will be established to ensure timely execution of activities at regional and national levels.** The RISU will support implementation of country projects and coordinate regional technical activities, facilitate access to high-level expertise, promote exchanges of know-how for fiduciary support to the countries, and support country leadership development. The RISU will act as the technical secretariat of the RSC and prepare periodic progress reports on the state of implementation of the project in general and of Component 1 in specific. The reports will be made public on a website to ensure full transparency in project execution.

80. **At the national level in each of the six countries, a PIU, guided by a national multi-sectoral National Steering Committee (NSC), is set up to manage the project on a day-to-day basis.** The PIU will prepare annual work plans and budgets (AWPBs), manage procurement for national needs of institutions, and provide support to counterpart institutions in the implementation of activities. The reporting line of the PIU will vary with the type of activity. Policy and governance activity will be reported directly at the ministerial level whereas other activity may be reported to the technical director or other persons designated by the Minister in charge. Each country will also establish a multi-sectoral TC to ensure smooth technical coordination and engagement of all coastal management stakeholders.





Figure 4. Institutional Arrangements for the WACA ResIP



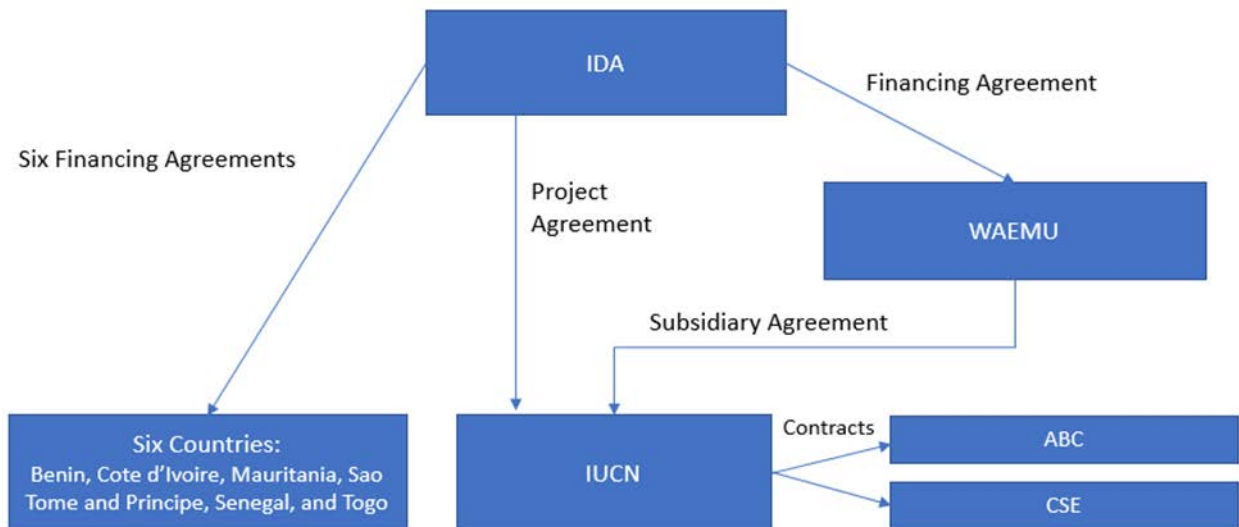
81. **WAEMU, with the support of IUCN, will work on regional integration activities, supported by consultancy services of the ABC Secretariat and CSE.** This setup is chosen because currently there is no single regional institution with capacity to convene and coordinate the actions required to adequately incorporate coastal erosion, flooding, and pollution into sustainable development plans in countries. The trio of organizations (ABC Secretariat, CSE, and IUCN) each have their mandate related to coastal zone management (see Box 1) and will work to improve their collaboration so that action is taken timely to address the coastal zone issues. WAEMU fulfills the explicit IDA18 criteria to receive an IDA regional grant for regional organizations, since WAEMU qualifies as “a bona fide regional organization that has the legal status and fiduciary capacity to receive grant funding and the legal authority to carry out the activities financed.” In the past, such criteria had not excluded the implementation of some of the regional activities financed by the regional grant through a project implementing entity and the on-granting of a small amount of the grant proceeds to other implementing entities. However, under the proposed implementation arrangements, most of the proceeds of the regional grant (US\$8.75 million out of US\$12 million) are proposed to be on-granted to IUCN, an entity that would not be otherwise eligible to receive a regional IDA grant. IUCN, a global organization, has been selected as the Project Implementing Entity for Subcomponents 1.2, 1.3, and 1.4 of the project because of its recognized technical expertise and its past engagement on coastal issues in West Africa. This implementation arrangement has been proposed because WAEMU does not currently have the capacity to execute the totality of the regional integration component. The regional integration activities are critical to the success of the project, as they will allow



the project to support countries immediately, while the capacities of WAEMU, implementing protocols of ABC, and the West Africa Coastal Observatory, managed by CSE, are supported under the project as regional efforts to address coastal erosion over time. A specific indicator to this end has also been added at the PDO level. To make this happen, the Association will conclude a Financing Agreement with WAEMU and a Project Agreement with IUCN, while WAEMU and IUCN will enter into a subsidiary agreement whereby WAEMU will make available a portion of the IDA regional grant to IUCN so IUCN carries out Subcomponents 1.2, 1.3, and 1.4 of the project and provides technical-level capacity building to WAEMU and retains the consultancy services of the ABC Secretariat (backstopped by UNEP) and the CSE. It must be emphasized that the proposed implementation arrangements for the regional component are to be regarded as an exceptional case and should not be considered a precedent to be replicated in future regional operations. As a matter of fact, the proposed arrangement can only be exceptionally justified as it is the only workable option and to the extent it dovetails with the IDA regional grant window objective of providing support in the initial phase of a regional program focused on generating regional public goods by assisting technical regional organizations—such as WAEMU—with coordination functions in the management of the environment and natural resources. The project will work with WAEMU, IUCN, the ABC Secretariat, and CSE as a start and, during implementation, gradually engage other regional institutions such as the Economic Community of West African States (ECOWAS) and the Manu River Union.

82. As part of the readiness for implementation, in each country, a **Project Implementation Manual (PIM)** is prepared that explains the strategic rationale, references 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.**<sup>35</sup> An M&E Manual will also be prepared by effectiveness, including, among others, the means of channeling the results and outcomes from the country level to the regional level. At the regional level, a **Regional Project Implementation Manual (R-PIM)** is prepared by WAEMU and IUCN that reflects the rationale for regional integration and describes the modalities at the regional level for implementation, including the RSC.

Figure 5. Financing and Contractual Arrangements



<sup>35</sup> Each country has developed its own country PAD during preparation, in its own language.



**Box 1. Regional Institutions Related to Coastal Zone Management in West Africa**

**At the regional level, a World Bank review of regional institutions concluded that no organization meets all the criteria required to lead the project on its own. Nonetheless, WAEMU, ABC (UN Environment), the CSE, and IUCN stand out as institutions with a continued commitment and involvement to coastal issues in West Africa, each exhibiting different expertise and mandate.**

**WAEMU** is an organization of eight, mainly French-speaking, states within the ECOWAS that share a customs union and a currency union. Established in 1994, WAEMU's headquarters are located in Ouagadougou, Burkina Faso. The union's objective is to build a harmonized and integrated economic space in West Africa. The union supports the implementation of joint action related to spatial planning, transport and telecommunications, environment, energy, industry, and mining. WAEMU's programs are supported by the union's specialized institutions, which are the Central Bank of West African States (*Banque Centrale des Etats de l'Afrique de l'Ouest*, BCEAO) and the West African Development Bank (*Banque Ouest Africaine de développement*, BOAD) as well as other development partners. WAEMU has been instrumental in raising the profile of coastal management in West Africa as it funded and prepared the first Regional Shoreline Monitoring Study and the drawing up of the West African Coastal Areas Management Plan (*Schéma Directeur du Littoral Ouest Africain*, SDLAO, in French) in 2010. It also cofinanced the WACA Erosion and Adaptation Project (2015–2017), together with the NDF, which focused on Benin, Côte d'Ivoire, Ghana, and Togo. A recent update of the first Regional Shoreline Monitoring Study was conducted in 2016. In addition, WAEMU provided financial support for the launch of the first MOLOA following the adoption of the Dakar Declaration in 2011 by 11 environment ministers in the region.

**ABC** (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 Southern Africa Region) is a legal framework agreement supporting regional collaboration around coastal policy and management. Adopted in 1981, the convention covers all Atlantic coast African countries, including all six countries beneficiaries of the WACA project. ABC is part of the United Nations for the Environment and its Secretariat is based in Abidjan. The convention addresses data exchange, information sharing, and scientific and technological collaboration on environmental issues. Areas of thematic focus include the fight against pollution especially in cases of emergency, Blue Economy, marine spatial planning, marine protected areas, and illicit traffic of marine flora and fauna. The convention has adopted Regional Contingency Plans and other Means of Preventing and Combatting Pollution Incidents in 2011, as well as an additional Protocol to the Convention (the LSBA Protocol) in 2012. A Regional Coordination Centre for Marine Pollution Emergency of ABC is now in place. ABC is or has been an executing agency for the GEF LME projects including the Benguela Current LME, the CCLME, and the GCLME. During COP12 to the convention, held on March 27–31, 2017, in Abidjan, ministers from Africa's Atlantic seaboard countries approved an amended text of ABC and three new protocols that relate to integrated coastal zone management, sustainable management of mangroves, and environmental norms and standards for the exploration and exploitation of oil and gas.

**CSE** was established in 1986 to collect, treat, analyze, and disseminate environmental data and information on natural resources and infrastructure in view of improving environmental management and related decision-making processes. The CSE is based in Dakar, Senegal, and has a status of a public utility association. It collaborates with numerous partners including the European Space Agency (ESA), the International Development Research Centre, and the Agricultural Research for Development. To achieve its mandate, CSE has a professional staff of 50 experts, engineers, and technicians working on geomatics, environmental monitoring and information, environmental assessment, research and development, and information and training. Following the Dakar Declaration in 2011, which officially validated the SDLAO, CSE was entrusted with the coordination of a coastal observation mechanism (MOLOA) covering 11 countries in West Africa. Some of the major projects implemented by CSE include the Master Framework for Management of the West Africa Coast (SDLAO) in 2007 and the 2015 update, financed by WAEMU. Other achievements and projects include mapping of land use for planning and environmental management purposes, environmental long-term monitoring, ESIA's, studies on environmental and natural resources management and conservation, contribution to the implementation of international conventions related to the environment, and capacity development of local partners. CSE is accredited for the



Adaptation Fund and the GCF.

**IUCN** is an international organization, whose vision is “a just world that values and conserves nature.” The organization publishes the IUCN Red List, which assesses the conservation status of species. IUCN supports scientific research, manages field projects globally, and brings Governments, NGOs, United Nations agencies, companies, and local communities together to develop and implement policy focusing on good governance and nature-based solutions with the aim of meeting the global challenges. Created in 1948, IUCN is the world’s oldest and largest global environmental network, with nearly 11,000 scientists and volunteers and more than 1,000 professionals working in 45 offices around the world. Over 1,200 organizations are members of IUCN, located in 140 countries. In West and Central Africa, IUCN established the Marine and Coastal program (MACO), which focused on supporting subregional institutions and organizations notably those active in marine and coastal resource management, that is, the West Africa Regional Coastal and Marine Area Conservation Partnership (PRCM) and the Network of Marine Protected Areas of West Africa. The IUCN Dakar office collaborated with WAEMU for the implementation of the SDLAO in 2012 and 2015. This collaboration was facilitated by the geographical proximity of CSE and IUCN MACO, both based in Dakar, Senegal. The PRCM and its IUCN-led mobilization and coordination unit were also mobilized for communication, networking and organizational aspects. IUCN has also supported WAEMU in the implementation of the WACA Erosion and Adaptation Project (2015–2017). Endowed with significant convening power, IUCN is accredited as a Project Agency for GEF and is an Accredited Entity for GCF.

## B. Results Monitoring and Evaluation

83. **An RISU will be established to ensure timely execution of activities at regional and national levels.** The RISU will support implementation of country projects and coordinate regional technical activities, facilitate access to high-level expertise, promote exchanges of know-how for fiduciary support to the countries, and support country leadership development. The RISU will support the RSC with reporting on progress, which is made public on a website to ensure full transparency in project execution.

84. **M&E in the project is designed for accountability, communication, learning, and project management support.** M&E activities will (a) generate information on progress of the project; (b) analyze and aggregate data generated at regional, country, and local levels; and (c) document and disseminate key lessons to users and stakeholders across the participating countries and elsewhere together with the communication function of WACA.

85. **M&E will be undertaken at two levels: (a) at the regional level by RISU, informed by WAEMU, ABC and CSE, and (b) at the national level by the six participating countries through the respective PIUs.** The RISU will have the overall coordinating role of the M&E function of WACA and will ensure that data and information from all countries are produced on time and of sufficient and necessary quality. The RISU will also design and implement data collection efforts that are best done at the regional level. In the Results Framework, it is indicated whether the designated M&E units in the six countries have the delegated responsibility to collect data on the WACA indicators or whether this responsibility rests with the RISU. In doing so, the M&E function of the RISU will provide overall coordination based on one M&E manual describing the requirement for all countries and the regional level. The RISU will also provide technical backstopping to the countries on M&E, put in place a data quality assurance mechanism as well as to undertake data collection on its own, and encourage cross-country learning.



### C. Sustainability

86. **At the regional level, the project will build the capacity of WAEMU and other regional organizations and will reinforce the role of entities such as ABC and CSE so that their mandates in relation to the coastal erosion, flooding, and pollution issues are strengthened to better coordinate potential future financing provided through the WACA Platform.** There is not complete clarity and understanding on the mix of the convention's work seeking ratification of Integrated Coastal Zone Management (ICZM) protocols, WAEMU's role in harmonizing policy, and the CSE's regional monitoring of environmental health inform policy change. Therefore, the project has introduced a specific performance indicator, in the form of a score, that will show the incremental progress made in these areas. Future sustainability depends much on how much the project can achieve in establishing processes and institutions, continued commitment on the part of leaders, and whether the WACA Platform will take off as planned.

### D. Role of Partners

87. **At the national level, the project will engage national agencies and development partners in support of the WACA ResIP and MSIPs.** This will be achieved by setting up a diverse Steering Committee, by refining a project implementation strategy to reflect emerging development priorities, and by engaging resilience and climate change communities of practice around the learning derived from national and regional implementation of the project. The costing of the MSIPs is much higher than what this project can support, and other partners, discussed in Section III.B (Project Cost and Financing) of this PAD, have committed financing (NDF) or are expected to do so in future (GCF, AfDB).

88. **Beyond WACA ResIP, synergies will be sought with the existing World Bank portfolio and pipeline, for which a detailed list can be found in annex 10.** The aim is for all World Bank-financed operations to become resilient to climate change and climate variability and avoid exacerbating coastal erosion, flooding, and pollution. In addition, future Development Policy Operations provide opportunities for creating an enabling policy environment in support of coastal resilience. In addition to the World Bank portfolio, the project will coordinate with the UN agency-led project focusing on the GCLME, "Strengthening of the Enabling Environment, Ecosystem-based Management and Governance to support Implementation of the Strategic Action Program of the Guinea Current Large Marine Ecosystem," which aims to strengthen the regional governance and ecosystem-based management of the GCLME.

89. **As demonstrated by certain World Bank-financed projects, fisheries and coastal zone management are linked, and both need to be addressed for coastal communities to sustain their livelihoods.** The World Bank-financed West Africa Regional Fisheries Program<sup>36</sup> aims to capture the economic benefit from renewable ocean natural fishery resources and through a value chain approach that seeks to retain the wealth in terms of jobs and investments within countries. The proposed WACA ResIP aims to help countries manage the spatial areas of land in the coastal zone so that it is used

---

<sup>36</sup> In 2009 the World Bank Board of Executive Directors approved the WARFP as a nine-country, multi-phase program. Implementation began in 2010 in Cabo Verde, Liberia, Senegal, and Sierra Leone (P106063), and continued in 2011 with the approval of the Guinea-Bissau project (P119380). Since then, Ghana joined in 2012 (P124775), and Guinea and Mauritania (P126773) joined in 2015. Second phase WARFP projects are currently being prepared, adding The Gambia, with discussions ongoing with the Government of Cote d'Ivoire on joining the program.



efficiently for the development needs of the country while ensuring that the effects of climate change are considered, including ongoing coastal erosion and coastal flooding. The two projects are complementary.

## V. KEY RISKS

### A. Overall Risk Rating and Explanation of Key Risks

90. **Based on the application for the Systematic Operation Risk Rating Tool (SORT), the overall risk rating of the project is High.** Information and mitigation strategies for the risks that have been rated substantial or high are provided in the following paragraphs.

91. **Political and governance (Substantial).** Coastal management requires a strong engagement and an inter-sectoral coordination mechanism between all primary and secondary stakeholders at the national level, which are either lacking or not formalized in all six participating countries. Gaps in the institutional and regulatory frameworks also exist and need to be filled through the technical assistance components of the project. In addition, lack of collaboration among countries and regional integration has prevented countries from making sound economic, social, and environmental decisions related to their connected coastal areas. Most decisions were taken unilaterally, with neither consultation of the neighboring countries at political or technical levels nor consideration of potential adverse impacts of the interventions from one country to another. The project will develop binational, transboundary committees with political and technical representatives to provide an adequate space for dialogue. Also, the project will build the capacity of WAEMU, as a start, and it will facilitate refinement of institutional mandates and deepen engagement of countries and other regional institutions (such as ECOWAS) and reinforce the role of certain institutions and initiatives such as ABC and CSE.

92. **Sector strategies and policies (Substantial).** At the national level, many sectors are involved in the management of the coastal areas, with very often overlapping mandates. The project will provide TA to assess the current legal situation in each country and support the development and strengthening of the missing legal and technical instruments (for example, preparation of decrees, agencies, and observatories). To manage these risks, the Steering Committees of the project at the national levels will be positioned at higher levels, very often under the Presidency or the Prime Minister, to ensure the necessary arbitrage among sectors (including land use and land tenure policies).

93. **Technical design of project (Substantial).** The project is technically and operationally complex, with activities under each component varying from one country to another. The countries have already identified the physical and social investments during the preparation of their MSIPs. However, in some cases, further studies may be required to verify the feasibility of the identified options. Where possible, activities for each country will draw from lessons and experiences from other participating countries, and activities will be packaged together in larger contracts wherever it is feasible to do so.

94. **Institutional capacity for implementation and sustainability (Substantial).** Some of the national implementing agencies have relatively weak implementation capacity, particularly due to limited human resources and technical capacity. This risk will be mitigated through the support provided by the RISU. At the country level, significant training and capacity development have been included. At the regional level, a capacity-building program has been included. The World Bank, through implementation support, will support close dialogue between the regional integration staff and the country-level coordinators. It will



also ensure regular and intensive implementation support missions and help identify success stories that could be replicated in other countries, along with areas for further improvement that would require additional capacity building or cross support from other countries.

95. **Fiduciary (Substantial).** The rating is substantial because of the wide-spanning fiduciary transactions in several countries coupled with regional-level interventions. The overall residual Financial Management risk rating of the project is Substantial, and will be mitigated with implementation by adding fiduciary support functions at country and regional levels.

96. **Environment and social (High).** The project has been rated category A for safeguards policies in view of its potential environmental and social impacts. Poorly designed interventions could exacerbate erosion downstream or create a sense of false security that would incentivize people to settle in still risky areas. Also, any potential resettlement due to project-financed works could cause major disruptions to social conditions in the communities. Environmental risks arising from planned relocation should be limited and manageable. The strategies to mitigate these risks are described in detail in the safeguards section of this document (Sections VI.E and VI.F). Specialists, both for environmental and social safeguards, will be employed full-time in the national PIUs. The RISU will provide additional support. Dedicated trainings will be organized from the beginning of project implementation to ensure that PIU staff and other stakeholders, including contractors, will have sufficient capacity to address environmental and social risks.

97. **Given the nature of the project, the intervention zones of the project are highly exposed to natural hazards-like coastal erosion and coastal flooding.** The occurrence of disasters during project implementation might reduce the potential of project interventions in that zone. If such events occur somewhere else along the coastline, they might divert the attention of the main actors important for the implementation of the project. During implementation, the project will support the preparation of contingency plans for the main agencies involved, both for project duration and beyond. This will help these institutions develop the capacity to absorb the shock, respond to it adequately in the short term, and be prepared to build back better following such events.

98. **Stakeholders (High).** Both physical and social investments would have high impacts on coastal communities. Some long-term strategies for resilience may involve life-changing interventions, such as planned relocations. Safeguard instruments and targeted communication strategies, with specialists recruited by the national PIUs, will be put in place to ensure a continuous engagement of the population in the identification of the risks, as well as an adequate identification and final selection of adaptation strategies. Environmental and Social Management Frameworks (ESMFs) have been prepared and disclosed, and Resettlement Policy Frameworks (RPFs) have as well been prepared and disclosed to address key issues such as the socioeconomic composition of the population. Exchange of knowledge and experience will be facilitated so countries benefit from lessons learned and to promote success stories, for example, on communities' engagement, such as in São Tomé and Príncipe.

99. **Also, the coastal areas attract a wide range of different stakeholders, some with conflicting interests, such as oil exploration.** Without proper identification of these actors and a dialogue to present and develop resilience strategies, some blockages might arise. Stakeholder analysis has been performed in Benin, Cote d'Ivoire and Togo as part of technical assistance funded by the NDF, and will be expanded



to the three remaining ones during implementation now that additional resources have been mobilized with this project.

## VI. APPRAISAL SUMMARY

### A. Economic and Financial Analysis

100. **The economic analysis of the project is based on the cost-benefit approach.** The overall results show that the project is economically viable, with an internal rate of return (IRR) of 14 percent, a net present value (NPV) of US\$184 million, and a cost-benefit ratio of 1.9 (see Table 4). The analysis uses a discount rate of 6 percent<sup>37</sup> and considers a time horizon of 30 years, to account for the project's long-term benefits related to adaptation to climate change. As several benefits have not been estimated in monetary terms, the overall result largely underestimates the real extent of project benefits. The overall result combines two levels of analysis at the regional level (Component 1) and the country level (Components 2, 3, and 4):

- **Regional level.** The analysis accounts only for the costs and benefits related to the regional activities, captured in Component 1. These activities (for example, development, validation, and promotion of financing instruments, development of tools supporting the regional coastal observatory) provide the six countries with a common regional framework for improved coastal observation that builds on national coastal observatory synergies to extend the scope of observation at the regional level. The benefits of this component are estimated in terms of cost savings for the six countries, owing to the regional component. As a result, this analysis provides an NPV of US\$184 million and an IRR of 14 percent.
- **Country level.** These analyses consider the costs and benefits related to the national level activities in the six countries covered by Components 2, 3, and 4. A wide range of benefits are estimated. Some are common benefits among countries, for example, avoided losses in fisheries and agriculture; protection of buildings on lands threatened by erosion; forgone GDP per hectare in urban, rural, transport, industrial, and natural areas; improved efficiency of early warning systems; and coastal protection provided by green and grey investments. Other benefits are specific to individual countries (for example, saved time in traffic due to road reconstruction in Senegal, generated revenues from ecosystem conservation and eco-tourism in Mauritania) or group of countries (for example, improved income of communities at high risk due to erosion and flooding in Côte d'Ivoire and Senegal). The analyses include investment costs (for example, plantations, studies, and observatories) and maintenance costs related to the activities envisaged by the project. The results show that the project is economically viable also at the country level, with IRR varying from 10 percent (Togo) to 27 percent (Mauritania).

---

<sup>37</sup> World Bank. 2016. *Discounting Costs and Benefits in Economic Analysis of World Bank Projects*. Guidance Note. Washington, DC: World Bank.





**Table 4. Results of Cost-Benefit Analysis (Base Analysis - 2017 Prices)**

Level of Analysis	NPV (US\$, millions)	IRR (%)	Cost-Benefit Ratio
<b>Regional level</b>	0.6	+11	1.1
<b>Country level</b>			
• Côte d’Ivoire	21	+14	1.8
• Senegal	24	+12	1.7
• São Tomé and Príncipe	10	+14	2.3
• Benin	45	+12	1.8
• Togo	21	+10	1.4
• Mauritania	62	+27	4.1
<b>Overall project</b>	<b>184</b>	<b>+14</b>	<b>1.9</b>

101. A sensitivity analysis shows that the project remains economically viable at changes in the discount rate (4 percent and 8 percent), an increase in the project cost (by 10 percent), and reduction of project benefits (by 10 percent). Results are quite robust to adverse changes in the key parameters. The IRR decreases by 1 percentage point, while the cost-benefit ratio decreases to 1.5 in the worst-case scenario, when the discount rate increases to 8 percent (see Table 5).

**Table 5. Results of the Project’s Sensitivity Analysis**

Scenario	Change (%)	NPV (US\$, millions)	IRR (%)	Cost-Benefit Ratio
Baseline	6	184	+14	1.9
Decrease in discount rate	4	298	+14	2.3
Increase in discount rate	8	109	+14	1.6
Increase in project costs	+10	164	+13	2.1
Decrease in project benefits	-10	145	+12	1.7

**Public Sector Relevance**

102. The relevance of a public-sector vehicle is instrumental to increase the opportunity and reduce the vulnerability of the people at risk in the coastal zone while increasing the opportunities and resilience of the stakeholders in the six countries. Improving the mobility of people and goods along the coast in terms of both time and space, while reducing the risks of coastal erosion through multipronged interventions (road proofing, dune management, and mangrove enhancement), will increase coastal adaptation and resilience with significant benefits accruing to the poor (low laying areas). Building and harmonizing knowledge across relevant sectors and services through a network of observatories coordinated by a Regional Observatory (MOLOA) will help better monitor and analyze coastal data that will allow for a concerted coastal management and prediction of disturbing events in the future. Setting up a network of observatories is a local public good that requires significant investments and TA, especially since the network will be expanded to cover all 17 WACA countries in the future. Moreover, all targeted institutions, which require capacity building, are of a public nature and provide public goods and services. Hence, the purpose of the overall project is to develop the West Africa coast sustainable and resilient management by federating, increasing the capacity, and furthering the interaction of these entities so that they will be able to increase their interactive capabilities and manage coastal risks.



## World Bank Value Added

103. **Many initiatives have been carried out in the past to address coastal management of West African countries in general and coastal erosion/pollution, in particular by multilateral, bilateral, and regional organizations that can be scaled up through a World Bank intervention.** Hence, the World Bank value added can be considered at two levels. First, the World Bank objectivity and legitimacy could play a catalyzing role that will help accomplish such an endeavor. Second, the complexity and technicality of increasing the adaptability and resilience of the West African coast gives the World Bank a unique edge in providing the necessary technical expertise, syndicating funds, and achieving the desired outcome through cross-country multi-sectoral projects' implementation.

## B. Technical

104. **The project adopts an ecosystem approach toward the planning, development, and management of the coastal zones in a consultative manner that addresses the multiplicity of societal needs and environmental constraints.** It aims to achieve its objective by reducing existing risk through financing green and grey infrastructure for coastal defense and coastal adaptation while also preventing future risk and promoting resilient development through strengthening spatial and land use planning. The project is technically complex due to the multifaceted nature of the coastal ecosystem itself; sectoral interlinks at regional, national, and local levels (fisheries, transport, trade); and the regional nature of the phenomena involved.

105. **The key technical challenge is to design this approach combining the specificities of each country with the transboundary constraint and to develop the necessary social consensus and public-private financing, where possible.** The project will build upon the existing technical capacity within the implementing agencies in the participating countries, which will be further reinforced with the international technical expertise, especially in the handling and analyzing complex data sets to support decision making.

106. **Having a regional implementation support mechanism in WACA, as well as support to the West Africa Coastal Observatory, will ensure the access and exchange of the relevant information to increase the impacts of the investments at the regional level.** Investments will be analyzed with the regional lens, the most appropriate for impact assessment, as the consequences of coastal infrastructures could spill over boundaries. Investments will fit under the regional strategy on coastal zone management and will be aligned with the policy and standard harmonization.

107. **In most of the countries, the WACA intervention zones have already been subject to feasibility studies.** Some coastal protection options have even already been proposed. The MSIPs collected and examined these existing studies and plans and assessed the needs to fill the gaps to reach levels of design that would both fulfill international standards. The multi-hazard risk assessments and cost of environmental degradation study completed this analysis in Togo and Benin, by stress-testing the different adaptation strategies ('hold the line', 'accommodate', and 'retreat') for different future climate scenarios, with an evaluation of the impacts (both positive and negative) on different aspects (including environmental degradation and social well-being). Both levels of analyses, which would be further developed for the final designs of the investments, investigate the viability of the investments, from both



the technical (including under a changing environment) and the financial (with the estimation of maintenance cost and financing mechanisms) aspects.

108. **Hence, the resource intensive monitoring, control, and surveillance activities will benefit from new technologies and timely regional information exchange.** Collaboration will be fostered to increase cost-effectiveness and deterrence and draw upon recent regional experiences (either negative or positive ones). All works and investments made under the project will be subject to technical scrutiny to ensure that they meet international performance criteria and engineering standards. They will follow international best practices in environmental infrastructure but also look for innovative strategies, to provide additional benefits from the investments, compared with the traditional only grey options. The project will ensure competitive hiring of qualified competent consultants and contractors to design, implement, and monitor works.

109. **During preparation, the team developed a framework for community-driven resilience planning at the national level to help Governments work in partnership with communities on the potential for making decisions on and comanaging relocation of high-risk communities,** while respecting national legislation and the World Bank Group's safeguard requirements. As the project implementation starts, the team will explore the regional dimensions of the resilience planning, including opportunities for policy harmonization, understanding and addressing the social complexities, and facilitating dialogue with and among key stakeholders.

110. **Climate change adaptation co-benefits in this project is determined to be 100 percent using the Joint Multilateral Development Bank (MDB) Methodology for Tracking Climate Finance, while greenhouse gas emission reductions are estimated to be at 4.5 million tons of carbon dioxide equivalent over 20 years.**<sup>38</sup> Climate change adaptation co-benefits are calculated for each project component. The key arguments were that the project aims to build coastal resilience against climate risks by (a) restoring wetlands, forests, and mangroves; and (b) extending dikes, constructing canals, and implementing erosion protection works. The project aims to conserve 179,918 ha of forests, sustainably manage 348,110 ha of land, and restore a total of 855 ha of mangroves, which together lead to the estimated emission reductions.

### C. Financial Management

111. **An assessment of the financial management (FM) arrangements for the regional coordination entities (WAEMU and IUCN) and for the implementing entities at the national level.** The assessment was done in Benin for the Ministry of Urban Planning, Habitat, and Sanitation, through the General Direction of Forests and Natural Resources (DGFRN) which is now the Ministry of Environment and Sustainable Development (MESD); in Togo for the Ministry of Environment and Forest Resources (MEFR), through the Directorate of Environment; in Côte D'Ivoire for the Integrated Project Management Unit (IPMU) at the Ministry of Environment and Sustainable Development (MEDD); in São Tomé and Príncipe for the Ministry of Infrastructure, Natural Resources, and Environment, through the Directorate General of Environment; in Mauritania for the MEDD; and in Senegal for the MEDD, through the Directorate of Environment (DECC). At the regional level, WAEMU will establish an RMU within its headquarters in Ouagadougou, Burkina

---

<sup>38</sup> <http://pubdocs.worldbank.org/en/266191504817671617/2016-joint-report-on-mdbs-climate-finance.pdf>.



Faso, to manage Component 1 of the project and will cause IUCN to establish an RISU responsible for Subcomponents 1.2, 1.3, and 1.4 of the regional activities.

112. **The objective of the assessment was to determine** whether (a) these implementing entities have adequate FM arrangements (planning, budgeting, accounting, internal control, funds flow, financial reporting, and auditing arrangements) to ensure that project funds will be used for purposes intended in an efficient and economical way; (b) project financial reports will be prepared in an accurate, reliable, and timely manner; and (c) the project's assets will be safeguarded. The FM assessment was carried out in accordance with the FM Manual for World Bank Investment Project Financing Operations that became effective on March 1, 2010, and as last revised on February 10, 2017. In this regard, a review of the FM arrangements has been conducted for the abovementioned entities, as further detailed in the following paragraph.

113. **There are adequate FM arrangements in all the implementing entities at the regional and national levels.** At the regional level, the evaluation revealed that WAEMU has a financial policy called "Regulation No. 01/2008/CM/UEMOA Bearing Financial Regulations of the WAEMU Organs," which defines the 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*, DAREN), which is the executing department of the project, is familiar with the implementation of World Bank-financed projects such as the Regional Biosafety Project in West Africa (P096058). 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. However, the following areas will need to be strengthened as detailed in the FM Action Plan (refer to annex 4).

- (a) **Accounting staff.** All implementing entities at the national-level will recruit qualified accounting staff. Benin and Togo will recruit a qualified and experienced financial expert and a qualified and experienced accountant, while Côte D'Ivoire and Mauritania will recruit one accountant each. For WAEMU, an accountant with acceptable qualification and experience in World Bank FM procedures will be assigned to work exclusively on the WACA Program.
- (b) **Accounting software.** Implementing entities in Côte d'Ivoire, Mauritania, and São Tomé and Príncipe as well as WAEMU will update their accounting software. The PCUs in Benin, Togo, and Senegal will purchase and install an accounting software with multiproject, multisite, and multidonor features, customized to generate its financial reports. The installation of the software has to be completed within three months after project effectiveness.
- (c) **FM Procedures Manual.** Implementing entities in Benin, Togo, and Senegal will develop an FM Procedures Manual while the implementing entities in Côte D'Ivoire, Mauritania, and São Tomé and Príncipe as well as WAEMU will update their existing FM Manuals to reflect specific requirements of the WACA Program.
- (d) **Internal control and internal audit**
  - (i) **Internal control.** The audited financial statements of the WAEMU Commission have not been provided to the World Bank. Thus, the WAEMU Commission will be required to provide its annual audited financial statements. In addition, the terms of reference



(TOR) of the external audit of the project will include an annual interim review of the institutional internal controls applicable to the project.

- (ii) **Internal audit.** Implementing entities in Benin and Togo will need to recruit a qualified and experienced internal auditor within three months of project effectiveness. For WAEMU, WACA activities will be included in the annual work program of the internal audit department of WAEMU and copies of mission reports will be shared with the World Bank.
- (e) **External audit.** All implementing entities will recruit an external auditor on TORs acceptable to the World Bank for project funds including those implemented by WAEMU. For WAEMU's financial statements, the audit will be conducted by the Court of Accounts of WAEMU.

114. **The overall conclusion of the FM Assessment is that the project's FM arrangements in place meet the World Bank's (IDA) minimum FM 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 FM risk rating of the Project is Substantial.

#### D. Procurement

115. **The borrowers will carry out procurement for the proposed project in accordance with the World Bank's 'Procurement Regulations for IPF Borrowers' (Procurement Regulations), dated July 2016 and revised in November 2017, under the New Procurement Framework (NPF) and the 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants', dated October 15, 2006 and revised in January 2011 and as of July 1, 2016, and other provisions stipulated in the Financing Agreements.**

116. **Procurement shall be carried out** (a) at the regional level by WAEMU and IUCN and (b) at the national level by PIUs in Benin, Côte d'Ivoire, Mauritania, São Tomé and Príncipe, Senegal, and Togo. A detailed procurement description and institutional arrangements can be found in annex 5. Specifically, on the capacity at regional level, IUCN will employ a dedicated procurement specialist, receive training on Bank procurement procedure and the use of STEP, and enhance procurement planning and record-keeping, as part of the subsidiary agreement between WAEMU and IUCN.

117. **All procuring entities as well as bidders, and service providers, that is, 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 paragraph 3.32 and Annex IV of the Procurement Regulations.

118. **As part of the preparation of the project, the borrowers (with assistance from the World Bank) prepared Project Procurement Strategies for Development (PPSD), which describe how procurement activities will support project operations for the achievement of PDOs and deliver value for money.** The procurement strategies will be linked to the project implementation strategy at subregional, country, and the state levels, ensuring proper sequencing of the activities. They will consider institutional arrangements



for procurement, roles and responsibilities, thresholds, procurement methods, and prior review; and the requirements for carrying out procurement. They will also include a detailed assessment and description of state government capacity for carrying out procurement and managing contract implementation, within an acceptable governance structure and accountability framework. Other issues taken into account will include the behaviors, trends, and capabilities of the market (that is, Market Analysis) to respond to the Procurement Plan.

### E. Social (including Safeguards)

119. **Empowering local communities to assess risks and identify feasible solutions is essential for establishing community support for mitigation measures and to build on autonomous risk management strategies.** Coastal communities are dealing with localized, recurrent ‘everyday’ disasters that are the results of persisting poverty, environmental degradation, social marginalization, and other factors in addition to natural disasters. Meaningful community participation allows communities to play an active role in risk management, helping them understand their exposure and vulnerabilities to hazards, including flooding; recognize and accept certain risk mitigation measures and how those will be implemented; and contribute to a shared understanding of the responsibilities of each stakeholder in reducing the risk. This also gives voice to those most vulnerable to environmental degradation, such as fishermen and female fish processors, whose livelihoods suffer, and other people living on the coast including those most at risk (including, for example, persons with disabilities, the elderly, and female-headed households). Participatory scenario development can help communities validate and understand climate scenarios at a local level and inform these with their experience. This can facilitate discussions about adaptation options to identify what forms of public policy or investments are needed to facilitate effective adaptation measures at the local, regional, and national levels. Options include adapting in situ and incentivizing self-relocation or planned relocation of communities. Potential planned relocation, just like resettlement, is fraught with social risk and has various dimensions: physical, legal, economic, social, cultural, psychological, environmental, political, and territorial. Although relocation is a complex undertaking that needs to respect national legislation and relevant safeguards policies,<sup>39</sup> it has the potential to save lives and improve living standards and livelihoods of affected communities when implemented well.

120. **This project distinguishes between planned relocation of communities that have made the decision to move and any involuntary resettlement that may be required due to land acquisition as a result of infrastructure investments planned under the project.** For decision making on the potential need for planned relocation in the longer term, community-driven resilience planning has been identified as a tool to engage those living in vulnerable areas to understand and address increasing risks due to environmental and climate change. Understanding current risks and future climate scenarios and the subsequent impacts on lives and livelihoods is a key component of elaborating feasible solutions at the community levels. Communities living in coastal areas already have coping mechanisms, but these may not be sustainable, such as moving a few meters each time the water levels rise. Whereas community-driven resilience planning is about participatory risk management, the gray infrastructure planned for coastal protection may require social safeguards measures to ensure any adverse social impacts are addressed. The tool will take into account issues regarding communities’ land tenure rights in their

---

<sup>39</sup> The applicable safeguards policies will depend on whether the World Bank or other partners are financing the relocation. If the World Bank finances any planned relocation under the project, it will apply OP 4.12 and the Borrower will prepare a RAP before the implementation.



departure place and their new places with respect to landowners in coordination with governmental institutions in charge of land issues. Even as communities discuss planned relocation, the project may, at the request of Governments, finance the relocation process of people affected by persistent flooding, erosion, and so on. However, the project will not finance any expenditures for the cost of land acquisition related to the activities to be carried out under the project, nor expenditures for cash payments for compensation or other cash payments for assistance due to a person relocating under the project. Such implementation of 'planned relocations' under the project will be undertaken in accordance with national laws and regulations and World Bank safeguards policies, including, in particular OP 4.12. A Resettlement Action Plan (RAP) will need to be prepared and implemented before the execution of any planned relocation.

121. **Citizen engagement.** The project explicitly seeks to support the engagement of people living in and deriving their livelihood from the hot spots that are targeted for physical investments under the project, that is, target beneficiaries. Engagement of target beneficiaries aligns to and supports the project's approach to demand-side social accountability. Through consultative processes, engagement in local-level planning and feedback mechanisms, the approach to coastal resilience, and planned relocation will be elaborated and adjusted. Feedback mechanisms will be developed to ensure transparency, accountability, and learning as well as a continuous dialogue with target beneficiaries and other stakeholders. Particular attention will be given during implementation to improve the capacity of the local and national structures to close the feedback loop and report on action taken to address concerns and issues. The specific elements of the framework for citizen engagement include (a) support to engagement of local communities in and around the hot spots in the planning and development of planning instruments, (b) support to community engagement in determining local investment priorities, (c) support to a feedback mechanism from target beneficiaries, (d) support to build the capacity at local and national structures in engagement with target beneficiaries to address concerns and issues raised as well as to reflect these in the revisions of the MSIPs and to inform the regional platform, and (e) specific third-party monitoring of project activities that will be supported three times during project implementation (in the first year, at midterm, and at completion) to ensure transparency and feedback on these activities. It includes a sample-based perception survey administered by a third party and an engagement forum with the target beneficiaries. Through focused discussions on the results of the perception survey, a feedback loop will be created. The protocol and mechanisms for elements of this citizen engagement framework will be detailed in the Project Operational Manual, which will be prepared by effectiveness. The quality of its implementation and progress will be monitored both at regional and national levels through supervision and dialogue.



Table 6. Citizen Engagement Framework

Contribution to PDO	Citizen Engagement Activities	Citizen Engagement Results and Approach to Management
<p>PDO is supported by citizen engagement as</p> <p>(a) An integrative tool for demand-side social accountability in coastal resilience and planned relocation, revision of MSIPs, and capacity building of local and national government institutions and</p> <p>(b) As a means to provide a voice and engage with target beneficiaries to ensure that local, national, and regional planning and investments respond to local problems, demands, and needs.</p>	<p>(a) Feedback mechanism across landscapes (third-party monitoring) and closing of the feedback loop through forums for engagement (focus group discussions)</p> <p>(b) Capacity building of local and national government structures in citizen engagement and delivery of interventions to take account of concerns and issues</p>	<p>PDO Indicator 4: Share of target beneficiaries with rating ‘Satisfied’ or above on project interventions (disaggregated by country and sex)</p> <p>Data source: Field-based perception survey based on a sample by a third party</p>

122. **Understanding the different needs and capacities of women and men is critical for effective risk management and resilience strengthening.** The World Bank experience and global research has confirmed that women typically outnumber men among those dying from natural disasters, often because of cultural and behavioral restrictions on women’s mobility and socially ascribed roles and responsibilities (for example, caring for young, elderly, or sick household members). Women often have less access to credit and savings to absorb shocks and lack access to relief and recovery resources. Moreover, in the aftermath of disasters, women’s burden increases (for example, caring for injured, children, and elders), and they are often expected to do unremunerated work in recovery. Their property and inheritance rights may not be adequately recognized or understood to protect their assets.<sup>40</sup>

123. **Research has also identified women’s empowerment as an important approach to building broader community resilience.** There are numerous documented cases where grassroots women have led the charge to strengthen community resilience. In Saint Louis, Senegal, local civil society organizations (CSOs) including women’s groups, youth associations, and *dahiras* (religious groups) have been brought together by an NGO to raise community awareness of the adverse health and other effects of flooding, including diarrhea and malaria. They help dig and maintain drainage channels, disinfect stagnant water, and place sandbags to assist residents to safely move about the neighborhood.<sup>41</sup> There is also mounting evidence at the country level that improving gender equality contributes to policy choices that lead to better environmental governance, through increased representation and voice of women within their communities and in their Governments and through increased labor force participation.<sup>42</sup> This project aims to address the differential vulnerabilities of men and women by ensuring that women are actively engaged and/or lead community-level risk assessments and community-driven resilience activities.

<sup>40</sup> Global Facility for Disaster Reduction and Recovery. 2015. *Gender Action Plan, 2016–2021*. World Bank.

<sup>41</sup> Diagne, Khady. 2007. “Governance and Natural Disasters: Addressing Flooding in Saint Louis, Senegal.” *Environment and Urbanization* 19 (2): 552–62.

<sup>42</sup> World Bank. 2011. *Gender and Climate Change: Three Things You Should Know*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/274081468183862921/Gender-and-climate-change-three-things-you-should-know>.





Moreover, it aims to promote women's empowerment both at the community level through the risk management activities and at the national level by ensuring that the RSC, RISU, NSC, and PIUs make concerted efforts to recruit or appoint qualified women to promote gender-balanced management and decision making.

124. **Any option chosen to address spatial planning, fishery rights allocation, or planned relocation of communities will require management of the associated social risk.** Social tension due to ineffective communication, perceived or real bias or injustice, or other grievances could prevent interventions from achieving the objectives of inclusive, resilient socioeconomic development. To manage such social risks, the decisions taken by Governments on the type of options to support will be based on a process of open dialogue with all stakeholders, including national and local governments, service providers, donors, neighboring communities/countries, and the private sector.

125. **Given that the infrastructure investments planned in the participating countries may require some limited land acquisition, which in turn may cause small-scale physical or economic resettlement, OP 4.12 on Involuntary Resettlement is triggered for the project.** Since the design and exact locations of activities are not yet known, RPFs have been prepared for each country. The RPFs, which have been consulted upon, contain (a) project description and identification of potential impacts; (b) an assessment of the country regulatory and institutional framework for land acquisition and compensation, including a gap analysis; (c) likely categories of affected assets and parties, including an entitlement matrix; (d) eligibility criteria and a compensation framework consistent with OP 4.12 and the national legislation; (e) measures to assist vulnerable groups; (f) a consultation framework to enable the participation of affected populations in the preparation of specific resettlement plans; (g) an institutional framework to implement the RPF; (h) a grievance redress mechanism established in the context of the project; and (i) an M&E framework as well as a budget. The RPFs have been approved by the World Bank and were all disclosed by the countries and the World Bank on or before December 6, 2017. The RPFs guide the preparation of RAPs as necessary during project implementation. The RAPs will need to be implemented before starting civil works.

126. **The borrowers' institutional capacity for safeguard policies varies considerably among the six countries.** Some of the countries have relatively mature environmental ministries and agencies, sufficient staffing, and an adequate regulatory framework, while other countries' institutions are relatively young and understaffed and the legal framework is missing important elements (annexes and executive regulations). Most of the borrowers have implemented previous World Bank-funded projects and related safeguards requirements. Therefore, where possible, this project will build upon any existing institutional capability for program management and safeguards supervision. Capacity assessment/capacity-building activities were recommended in the ESMF of each country, targeting the parties involved in the project's implementation, and have been included in the overall capacity-building activities of each country's program activities and AWPBs. Each country will be requested to hire two safeguards specialists (environmental and social) to work closely and under the technical oversight of the World Bank's environmental and social safeguards specialists.

#### **F. Environment (including Safeguards)**

127. **The impacts of the program on the target coastal areas and populations are expected to be positive in terms of solutions to coastal erosion and livelihood problems and conservation of**



**biodiversity and physical cultural heritage.** Nevertheless, it is also anticipated that project activities may result in significant negative environmental impacts.

128. **The program is expected to have significant potential impacts and is classified as Environmental Assessment Category A.** WACA triggers four safeguards policies: OP 4.01 'Environmental Assessment' due to civil works and sea defense to be financed; OP 4.04 'Natural Habitats' due to possible interruption of natural habitats as an effect of works; OP 4.11 'Physical Cultural Resources' due to excavations along civil works with possibility of cultural heritage discoveries; and OP 4.12 'Involuntary Resettlement' due to potential land acquisition, which may lead to physical resettlement or losses of assets. Since the very detailed scale and locations of interventions in each country are yet to be defined, the project used a framework approach. Each country has prepared an ESMF and an RPF to guide the preparation of site-specific ESIA and RAPs once program activities and locations have been selected. ESMFs (one per country) have been consulted upon and were disclosed in Benin, Côte d'Ivoire, Mauritania, São Tomé and Príncipe, Senegal, and Togo on November 15, 2017, after which they were disclosed (also on November 15, 2017) on the World Bank's website. The RPFs have been disclosed in Côte d'Ivoire on November 14, 2017, in Mauritania on November 15, 2017, in Senegal and Togo on November 30, 2017, in São Tomé and Príncipe on December 5, 2017, and in Benin on December 6, 2017, as well as on the World Bank's website. Additional ESIAs, including Environmental and Social Management Plans (ESMPs), will be prepared for some investment sub-projects. Similarly, RAPs will be prepared as necessary during project implementation. The World Bank's project team will agree, during implementation and on a case-by-case basis, with the country teams on the specific safeguards documents requiring the World Bank's prior review and clearance before commencement of activities.

129. **To address the impacts of future activities whose location, number, and scale are unknown, the ESMF will contain standards, methods, and procedures specifying how environmental and social issues will be systematically addressed.** The ESMF lays out procedures for screening and mitigating impacts from construction and operations and includes the following: (a) checklists of potential environmental and social impacts and their sources; (b) procedures for participatory screening of proposed sites and activities and the environmental and social considerations; (c) procedures for assessing potential environmental and social impacts of the planned project activities; (d) institutional arrangements for mitigating, preventing, and managing the identified impacts; (e) typical environmental management planning process for addressing negative externalities in the course of project implementation; (f) a system for monitoring the implementation of mitigation measures; and (g) recommended capacity-building measures for environmental planning and monitoring of project activities.

130. **Further, all civil works will be contingent on broad-based and sustained consultation with local communities in the program's intervention areas.** Mitigation measures for identified environmental and social impacts, including the protection of cultural and historical resources and other environmental clauses, will be properly implemented by contractors as specified in the safeguard instruments and bidding documents. Selected contractors and their Resident Engineering Teams will each be required to hire an environmental and social expert whose role is to ensure specific environmental and social clauses are fully and adequately implemented and documented.

131. **Responsibility and oversight of the project's overall compliance with national and World Bank-triggered safeguard policies in each country will be devolved to the environmental and social specialists within the national PIU.** They will serve as the main persons in charge of project implementation and



monitoring of safeguard aspects. In close collaboration with national environmental agencies, they will periodically monitor the program's compliance with proposed mitigation of changes and changes in environmental resources (that is, water and soil quality, flora and fauna, vector ecology, and soil erosion) from the baseline. The national environmental agencies involved are *Agence Béninoise de l'Environnement* (ABE) in Benin, *Agence Nationale de l'Environnement* (ANDE) in Côte d'Ivoire, *Direction du Contrôle Environnemental* (DCE) in Mauritania, Directorate General of Environment (*Direcção Geral de Ambiente*, DGA) in São Tomé and Príncipe, *Direction de l'Environnement et des Etablissements Classés* (DEEC) in Senegal, and *Agence Nationale de Gestion de l'Environnement* (ANGE) in Togo.

#### **G. Other Safeguard Policies (if applicable)**

132. Not applicable.

#### **H. World Bank Grievance Redress**

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



## VII. RESULTS FRAMEWORK AND MONITORING

### Results Framework

COUNTRY : Western Africa

West Africa Coastal Areas Resilience Investment Project

#### Project Development Objectives

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

#### Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
<b>Name:</b> Households in targeted coastal areas with less exposure to erosion due to the project (disaggregated by country)		Number	0.00	16998.00	Annually	Field survey	Regional Implementation Support Unit M&E function
Benin		Number	0.00	4100.00			
Côte d'Ivoire		Number	0.00	1711.00			
Mauritania		Number	0.00	4879.00			



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
São Tomé and Príncipe		Number	0.00	210.00			
Senegal		Number	0.00	1500.00			
Togo		Number	0.00	4598.00			
<p><b>Description:</b> The indicator measures resilience to erosion by design through infrastructure solutions, nature-based solutions and/or planned relocation. It captures absorptive capacity of resilience due to the protection provided against erosion, and transformative capacity due to the planned relocation and creation of new livelihood opportunities.</p> <p>Definition of a household varies slightly between the six participating countries. In general, 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 grouping of people.</p> <p>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 (such as water flow and/or wind) that remove soil, rock, or dissolved material from one location to another.</p> <p>Targeted coast areas and specific activities to reduce danger of erosion are: Benin Targeted areas: Hillacondji – Grand Popo Activities: beach nourishment. Cote Ivoire: Targeted areas: Lahou-Kpanda to Groguida strip Activities: fixation of the river mouth through sand filling, opening of a new mouth in another place and improved channeling of the water from the river. Mauritania: Targeted areas: El Mina, Ndiago, beni Chab Activities: mangrove rehabilitation, and dunes fixation (mechanical and biological). Sao Tome: Targeted areas: Santa Catarina, Micoló, Praia Melao, Io Grande, Malanza, Praia Burra and Praia Abade Activities: beach nourishment, vegetation (mangroves, palm trees, grass planting) and rocks revetments; support of planned relocation. Senegal: Targeted areas: slope stabilization for the Corniches de Dakar, rock revetment in île de Gorée. Togo: Agbodrafo-Aného-border (Togo/Bénin)- groins and breakwaters (rehabilitation and building), beach nourishment</p> <p>Cumulative targets.</p>							
<b>Name:</b> Households in targeted coastal areas with less exposure to flooding due		Number	0.00	53378.00	Annually	Field survey	Regional Implementation Support Unit M&E



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
to the project (disaggregated by country)							function
Benin		Number	0.00	1600.00			
Côte d'Ivoire		Number	0.00	5925.00			
Mauritania		Number	0.00	41581.00			
São Tomé and Príncipe		Number	0.00	306.00			
Senegal		Number	0.00	900.00			
Togo		Number	0.00	3066.00			
<p><b>Description:</b> The indicator measures resilience by design to flooding through infrastructure solutions, nature-based solutions and/or planned relocation. It captures absorptive capacity of resilience due to the protection provided against flooding, and transformative capacity due to the planned relocation and creation of new livelihood opportunities.</p> <p>Less exposure to flooding means decreased likelihood and intensity of flooding, due to project-related investments for houses and other immovable assets. Flooding is defined as a general and temporary condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal waters from the unusual and rapid accumulation or runoff of surface waters from any source.</p> <p>Targeted coast areas and specific activities to reduce danger of flooding are: Benin: Targeted areas: Gbékon, Mono Lagoon. Activities: periodic opening of the river mouth, and others. Cote Ivoire: Targeted areas: Grand-Lahou. Activities: drainage system on the Plateau. Mauritania: Targeted areas: Sebkhah, El Mina, Tevragh Zeina, N'Diogo, Nouadhibou. Activities: Dikes rehabilitation and extension, improved drainage, early warning systems. Sao Tome: Targeted areas: Santa Catarina, Micoló, Pantufo, Praia Melao, Ribeira Afonso, lo Grande, Malanza, Praia Burra and Praia Abade. Activities: drainage and earthwork, protection form (vegetation, walls); support of planned</p>							



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
relocation. Senegal: N/A. Togo: Targeted areas: Prefectures of Lacs and Vo. Activities: improved drainage, water retention structures, dikes stabilization, as well as dredging, improved drainage for transport infrastructure, installed a lock under the bridge of the Aného Lagoon to regulate the dynamics of the mouth of Lake Togo.							
Cumulative targets.							
<b>Name:</b> Households in targeted coastal areas with less exposure to pollution due to the project (disaggregated by country)		Number	0.00	12277.00	Annually	Field survey	Regional Implementation Support Unit M&E function
Benin		Number	0.00	6900.00			
Côte d'Ivoire		Number	0.00	0.00			
Mauritania		Number	0.00	0.00			
São Tomé and Príncipe		Number	0.00	306.00			
Senegal		Number	0.00	0.00			
Togo		Number	0.00	5071.00			
<b>Description:</b> The indicator measures resilience by design to pollution through infrastructure solutions and/or nature-based solutions. It captures the absorptive capacity of resilience due to the protection against pollution provided as well as the adaptive capacity due to change in behavior e.g. waste collection, planting and biological							



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
<p>pollution control.</p> <p>Pollution is defined as the introduction of chemical substances into the natural environment that cause adverse change.</p> <p>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.</p> <p>Targeted coast areas and specific activities to reduce danger of flooding are: Benin: Targeted areas: Gbaga channel. Activities: planting along canals, biological pollution control, awareness raising on environmentally friendly practice. Cote Ivoire: N/A Mauritania: N/A. Sao Tome: N/A Senegal: N/A Togo: Targeted areas: Prefectures of Golfe and Lacs Activities: treatment of polluted water, beach clean up, household waste collection, biological pollution control.</p> <p>Cumulative targets.</p>							

<b>Name:</b> Share of target beneficiaries with rating 'Satisfied' or above on project interventions (disaggregated by country, sex)		Percentage	0.00	72.00	Biennial	Perception survey	Regional Implementation Support Unit M&E function
Benin		Percentage	0.00	65.00			
Côte d'Ivoire		Percentage	0.00	70.00			
Mauritania		Percentage	0.00	75.00			
São Tomé and Príncipe		Percentage	0.00	75.00			
Senegal		Percentage	0.00	75.00			





Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Togo		Percentage	0.00	70.00			
<p><b>Description:</b> 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. The indicator is a proxy measurement of resilience in coastal areas and captures absorptive capacity through target beneficiaries’ perception of improved protection, preparedness and/or recovery; adaptive capacity through the target beneficiaries’ perception of change in systems, planning and behaviors; and transformative capacity through target beneficiaries’ perception of creation of new systems for instance relocation and creation of new livelihoods.</p> <p>Annual targets.</p>							
<b>Name:</b> Regional integration score		Number	0.00	16.00			
<p><b>Description:</b> Score = A + B + C + D, as per the following:</p> <p>A: Collaborative Agreement between WAEMU, CSE, and ABC for Coastal Zone Management in place. Scoring: 1 = No legal agreement/cooperation framework in place; 2 = Regional legal agreement negotiated but not yet signed; 3 = Institutions signed legal agreement; 4 = Legal agreement ratified by the three institutions and entered into force;</p> <p>B: Regional Strategic Action Plan (RSAP) commitments adopted into Multi-Sectoral Investment Plans: Scoring: 1 = RSAP not developed; 2 = RSAP developed including targets, commitments, and time frames addressing transboundary coastal erosion, flooding, and pollution concerns; 3 = RSAP endorsed by all participating countries at ministerial level; 4 = RSAP commitments adopted in MSIPs and/or RSAP commitments incorporated within national sectoral plans of all participating countries.</p> <p>C: Mechanisms in place to monitor Coastal Erosion, Flooding, and Pollution (CEFP) reduction measures. Scoring: 1 = No mechanisms in place to monitor and report change; 2 = Basic national and/or regional monitoring mechanisms in place but not satisfying CEFP reduction measures; 3 = Monitoring mechanisms in place for a subset of CEFP reduction measures; 4 = Monitoring mechanisms in place for long-term monitoring of CEFP reduction measures at national and regional levels.</p> <p>D. The regional observatory, i.e. MOLOA, is established and operational. Scoring: 1 = legal foundation for MOLOA drafted; 2 = MOLOA legally established and supported</p>							



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
with infrastructure; 3 = MOLOA receiving and processing data; 4 = MOLOA shares data on public platform.							
The indicator on regional integration is an indirect measurement of absorptive, adaptive and transformative capacity by providing a legal, institutional, planning and monitoring base to strengthen resilience in coastal areas.							

**Intermediate Results Indicators**

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
<b>Name:</b> Countries that timely submit datasets to the Regional Coastal Observatory		Number	0.00	6.00	Annually	Review of entry data	Regional Implementation Support Unit M&E function
<p><b>Description:</b> Datasets will be determined through agreement protocols signed between the regional center and the national antennas. 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.</p> <p>Annual targets.</p>							
<b>Name:</b> Countries with national Multi-Sector Investment Plans updated to integrate regional environmental considerations		Number	0.00	6.00	Annually	Review of national Multi-Sectoral Investment Plans	Regional Implementation Support Unit M&E function



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
<p><b>Description:</b> The indicator measures the number of countries that update their national MSIPs to include regional considerations, i.e. coastal area investments in one country will take account of and mitigate potential negative environmental in neighboring countries. The indicator is an indirect measurement of strengthened capacity (absorptive, adaptive and transformative) in resilience through improved planning for resilience in coastal areas.</p> <p>Cumulative targets.</p>							
<b>Name:</b> Score on policy instruments and legal framework (disaggregated by country)		Number	0.00	0.00	Annually	Policy and legal review	Regional Implementation Support Unit M&E function
Benin		Number	0.00	5.00			
Côte d'Ivoire		Number	0.00	5.00			
Mauritania		Number	0.00	5.00			
São Tomé and Príncipe		Number	0.00	3.00			
Senegal		Number	0.00	2.00			
Togo		Number	0.00	5.00			
<p><b>Description:</b> The indicator is an indirect measurement of strengthened capacity (absorptive, adaptive and transformative) in resilience through improved policy</p>							



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
instruments and legal framework for resilience in coastal areas.							
Enabling environment for management of coastal resilience on policy and legal framework; based on the sum of scorings on five dimensions:							
<ul style="list-style-type: none"> <li>Coastal Management Plan elaborated and under implementation (1)</li> <li>Coastal Multi-Sector Management Plan operational (1)</li> <li>Multi-Sector Investment Plan operational (1)</li> <li>Laws and regulations for management of coastal areas in place (1)</li> <li>Dissemination campaign on multi-sectoral coastal management designed and implemented (1)</li> </ul>							
The activities underpinning the improvement of the enabling environment varies between the six participating countries.							
Annual targets.							
<b>Name:</b> Inter-Ministerial Coastal Zone established and operational (disaggregated by country)		Yes/No	N	Y	Annually	Institutional assessment	Regional Implementation Support Unit M&E function
Benin		Yes/No	N	Y			
Côte d'Ivoire		Yes/No	N	Y			
Mauritania		Yes/No	N	Y			
São Tomé and Príncipe		Yes/No	N	Y			



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Senegal		Yes/No	N	Y			
Togo		Yes/No	N	Y			
<p><b>Description:</b> The indicator is an indirect measurement of strengthened capacity (absorptive, adaptive and transformative) in resilience through improved coordination. The Committees will be considered established through legal promulgation and operational if meetings are regularly held, minutes produced and decisions monitored and evaluated. The constitution of the committees can vary between the six participating countries and could also include NGOs, research institutions and other stakeholders. For Togo and Benin, a committee comprising both countries will be established.</p> <p>Annual targets.</p>							
<b>Name:</b> National Early Warning System operational		Yes/No	N	N	Annually	Institutional assessment	Regional Implementation Support Unit M&E function
Benin		Yes/No	N	N			
Côte d'Ivoire		Yes/No	N	Y			
Mauritania		Yes/No	N	Y			
São Tomé and Príncipe		Yes/No	N	Y			



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Senegal		Yes/No	N	Y			
Togo		Yes/No	N	Y			
<p><b>Description:</b> 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</p> <p><b>Defined criteria:</b> 1. Target population identified 2. Early Warning System technically established including IT and parameters 3. Dissemination and communication channels established 4. Response mechanism designed.</p> <p><b>Annual targets.</b></p>							
<b>Name:</b> Targeted coastal area with flooding control measures (disaggregated by country)		Hectare(Ha)	0.00	26110.00	Annually	Technical review upon completion of works	Regional Implementation Support Unit M&E function
Benin		Hectare(Ha)	0.00	400.00			
Côte d'Ivoire		Hectare(Ha)	0.00	12000.00			
Mauritania		Hectare(Ha)	0.00	12590.00			
São Tomé and Príncipe		Hectare(Ha)	0.00	25.00			



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Senegal		Hectare(Ha)	0.00	60.00			
Togo		Hectare(Ha)	0.00	1035.00			
<p><b>Description:</b> 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 six participating countries – see PDO indicator #2.</p> <p>Cumulative targets.</p>							
<b>Name:</b> Shoreline with targeted coastal erosion control measures (disaggregated by country)		Kilometers	0.00	110.80	Annually	Technical review upon completion of works	Regional Implementation Support Unit M&E function
Benin		Kilometers	0.00	23.00			
Côte d'Ivoire		Kilometers	0.00	13.00			
Mauritania		Kilometers	0.00	51.50			
São Tomé and Príncipe		Kilometers	0.00	3.50			



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Senegal		Kilometers	0.00	1.80			
Togo		Kilometers	0.00	18.00			
<p><b>Description:</b> The indicator links to PDO indicator #1 and measures absorptive capacity of resilience due to the protection provided against erosion. The specific erosion control measures differ between the six participating countries – see PDO indicator #1.</p> <p>Cumulative targets.</p>							
<b>Name:</b> Sites/zones with pollution control measures (disaggregated by country)		Number	0.00	16.00	Annually	Technical review upon completion of works	Regional Implementation Support Unit M&E function
Benin		Number	0.00	1.00			
Côte d'Ivoire		Number	0.00	0.00			
Mauritania		Number	0.00	0.00			
São Tomé and Príncipe		Number	0.00	10.00			
Senegal		Number	0.00	0.00			





Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Togo		Number	0.00	5.00			
<p><b>Description:</b> The indicator links to PDO indicator #3 and measures absorptive and adaptive capacity of resilience. The specific pollution control measures may differ between the six participating countries – see PDO indicator #3.</p> <p>The indicator aligns with GEF IW 3 Program 6 indicator 6.1.1 "Indicator 6.1.1: Adoption and implementation of ICM plans and reforms to protect coastal zones in LMEs (% of country coastline under ICM, # of countries adopting and applying ICM) as reported in GEF IW tracking tool score card." In Benin target site is Seme Oil Field, where risk of oil spill from abandoned platforms will be reduced.</p> <p>Cumulative targets.</p>							
<b>Name:</b> Critical assets protected		Number	0.00	2.00			
<p><b>Description:</b> The indicator measures critical assets protected because of the project. It concerns Senegal where (1) 1.8 km of urban road located on the Corniche in Dakar and (2) critical cultural infrastructure will be protected on the Ile de Goree, an island close to Dakar and on UNESCO's World Heritage List.</p>							
<b>Name:</b> Natural ecosystems conserved and/or restored (disaggregated by country)		Number	0.00	38.00	Annually	Field survey	Regional Implementation Support Unit M&E function
Benin		Number	0.00	8.00			
Côte d'Ivoire		Number	0.00	11.00			



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Mauritania		Number	0.00	3.00			
São Tomé and Príncipe		Number	0.00	7.00			
Senegal		Number	0.00	1.00			
Togo		Number	0.00	8.00			
<p><b>Description:</b> The indicator counts the number of ecosystems, for instance a wetland, a mangrove forest, that have been conserved and/or restored because of the project. It measures the adaptive capacity of resilience as modification and change in the ecosystem.</p> <p>The indicator aligns with GEF LD3 Program 4 (Indicator 3.2: Application of integrated natural resource management (INRM) practices in wider landscapes); LD2 Program 3 (Indicator 2.2: Land area under sustainable forest management and/or restoration practices); BD4 Program 9 (Indicator 9.1 Production landscapes and seascapes that integrate biodiversity conservation and sustainable use into their management preferably demonstrated by meeting national or international third-party certification that incorporates biodiversity considerations (e.g. FSC, MSC) or supported by other objective data); IW3 Program 6 (Indicator 6.1.1 "Indicator 6.1.1: Adoption and implementation of ICM plans and reforms to protect coastal zones in LMEs (% of country coastline under ICM, # of countries adopting and applying ICM) as reported in GEF IW tracking tool score card)</p> <p>Ecosystems, and the specific measures in conservation and restoration, may differ between the six participating countries. The surface area covered are: Benin 250 ha, Cote d'Ivoire (to be determined), Mauretania 617,170 ha, Sao Tome 5 ha. For Togo:170,110 ha under biodiversity conservation, 500 ha mangrove reforestation, 8,000 ha shoreline reforestation and/or restoration.</p> <p>Cumulative targets.</p>							
<b>Name:</b> Coastal households with access to improved		Number	0.00	53860.00	Annually	Field survey	Regional Implementation



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
livelihood activities (disaggregated by country)							Support Unit M&E function
Benin		Number	0.00	300.00			
Côte d'Ivoire		Number	0.00	2200.00			
Mauritania		Number	0.00	44000.00			
São Tomé and Príncipe		Number	0.00	1860.00			
Senegal		Number	0.00	500.00			
Togo		Number	0.00	5000.00			
<p><b>Description:</b> The indicator covers the social investments in communities under the project. It measures the transformative capacity of resilience as new livelihood options will be created. The improved livelihood activities cover those improvements in existing livelihood activities as well as alternative livelihood activities, and could also include livelihood activities in new settlements (linked to planned relocation).</p> <p>The indicator aligns with GEF indicator LD-2 Program 3 (Indicator 2.3: Value of resources flowing to SFM from diverse sources (e.g. PES, small credit schemes, voluntary carbon market)).</p> <p>Cumulative targets.</p>							



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
<b>Name:</b> Local level planning committees in coastal resilience with female representation of 40% or more		Number	0.00	6.00			
Description:							



**Target Values**

**Project Development Objective Indicators**

<b>Indicator Name</b>	<b>End Target</b>
Households in targeted coastal areas with less exposure to erosion due to the project (disaggregated by country)	16998.00
Benin	4100.00
Côte d'Ivoire	1711.00
Mauritania	4879.00
São Tomé and Príncipe	210.00
Senegal	1500.00
Togo	4598.00
Households in targeted coastal areas with less exposure to flooding due to the project (disaggregated by country)	53378.00
Benin	1600.00
Côte d'Ivoire	5925.00
Mauritania	41581.00
São Tomé and Príncipe	306.00
Senegal	900.00



Indicator Name	End Target
Togo	3066.00
Households in targeted coastal areas with less exposure to pollution due to the project (disaggregated by country)	12277.00
Benin	6900.00
Côte d'Ivoire	0.00
Mauritania	0.00
São Tomé and Príncipe	306.00
Senegal	0.00
Togo	5071.00
Share of target beneficiaries with rating 'Satisfied' or above on project interventions (disaggregated by country, sex)	72.00
Benin	65.00
Côte d'Ivoire	70.00
Mauritania	75.00
São Tomé and Príncipe	75.00
Senegal	75.00
Togo	70.00



Indicator Name	End Target
Regional integration score	16.00

**Intermediate Results Indicators**

Indicator Name	Baseline	End Target
Countries that timely submit datasets to the Regional Coastal Observatory	0.00	6.00
Countries with national Multi-Sector Investment Plans updated to integrate regional environmental considerations	0.00	6.00
Score on policy instruments and legal framework (disaggregated by country)	0.00	0.00
Benin	0.00	5.00
Côte d'Ivoire	0.00	5.00
Mauritania	0.00	5.00
São Tomé and Príncipe	0.00	3.00
Senegal	0.00	2.00
Togo	0.00	5.00
Inter-Ministerial Coastal Zone established and operational (disaggregated by country)	N	Y
Benin	N	Y



Indicator Name	Baseline	End Target
Côte d'Ivoire	N	Y
Mauritania	N	Y
São Tomé and Príncipe	N	Y
Senegal	N	Y
Togo	N	Y
National Early Warning System operational	N	N
Benin	N	N
Côte d'Ivoire	N	Y
Mauritania	N	Y
São Tomé and Príncipe	N	Y
Senegal	N	Y
Togo	N	Y
Targeted coastal area with flooding control measures (disaggregated by country)	0.00	26110.00
Benin	0.00	400.00
Côte d'Ivoire	0.00	12000.00





Indicator Name	Baseline	End Target
Mauritania	0.00	12590.00
São Tomé and Príncipe	0.00	25.00
Senegal	0.00	60.00
Togo	0.00	1035.00
Shoreline with targeted coastal erosion control measures (disaggregated by country)	0.00	110.80
Benin	0.00	23.00
Côte d'Ivoire	0.00	13.00
Mauritania	0.00	51.50
São Tomé and Príncipe	0.00	3.50
Senegal	0.00	1.80
Togo	0.00	18.00
Sites/zones with pollution control measures (disaggregated by country)	0.00	16.00
Benin	0.00	1.00
Côte d'Ivoire	0.00	0.00
Mauritania	0.00	0.00



Indicator Name	Baseline	End Target
São Tomé and Príncipe	0.00	10.00
Senegal	0.00	0.00
Togo	0.00	5.00
Critical assets protected	0.00	2.00
Natural ecosystems conserved and/or restored (disaggregated by country)	0.00	38.00
Benin	0.00	8.00
Côte d'Ivoire	0.00	11.00
Mauritania	0.00	3.00
São Tomé and Príncipe	0.00	7.00
Senegal	0.00	1.00
Togo	0.00	8.00
Coastal households with access to improved livelihood activities (disaggregated by country)	0.00	53860.00
Benin	0.00	300.00
Côte d'Ivoire	0.00	2200.00
Mauritania	0.00	44000.00



---

Indicator Name	Baseline	End Target
São Tomé and Príncipe	0.00	1860.00
Senegal	0.00	500.00
Togo	0.00	5000.00
Local level planning committees in coastal resilience with female representation of 40% or more	0.00	6.00

---



## ANNEX 1: DETAILED PROJECT DESCRIPTION

COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo  
West Africa Coastal Areas Resilience Investment Project

### Component 1: Strengthening Regional Integration (US\$12.0 million IDA)

1. **This component is implemented with a US\$12 million IDA regional integration grant that will be provided to WAEMU, with a US\$8.8 million subsidiary agreement to IUCN.**

#### *Subcomponent 1.1: Strategy and Financial Solutions (US\$3.2 million IDA)*

2. **WAEMU, based in Ouagadougou, Burkina Faso, will co-chair the WACA ResIP RSC and thus play a strategic role in the WACA ResIP.** By virtue of its status as an economic and monetary organization, WAEMU will be focusing on identifying and developing innovative financing instruments and helping countries adopt them to mobilize additional resources for managing coastal risks. Special emphasis will also be put on the role of the private sector in financing this agenda. From an integration perspective, this component will develop directives for the harmonization of regulations in western African countries in general and in the beneficiary countries in particular. Thematic ministerial and regional meetings will be organized to enhance country dialogues and collaboration with other regional organizations (such as ECOWAS) and encourage regional and transboundary initiatives. A sound communication and awareness-raising plan will be developed and implemented to accompany all proposed activities. Due consideration will be given to enhancing women's voices and their role, particularly as they relate to strengthening local-level resilience and managing climate and disaster risk. A regional gender assessment will be undertaken early during implementation, summarizing country-specific gaps as identified through the SCD and CPF, and based on this, the assessment will provide a uniform approach for addressing gender gaps in coastal resilience efforts at the country level.

3. **WAEMU will work to direct existing and new financing solutions for the region.** One example of a new instrument is the Blue Bond<sup>43</sup> that focuses on investment in coastal protection and management to generate revenues and jobs over time for coastal industries, including fishing and tourism, as well as other benefits such as pollution management and protection against extreme weather and coastal flooding, which contributes to improved livelihoods. The project will support a participatory and inclusive process to raise the awareness on the usefulness of such an instrument and provide the necessary guidance to facilitate the issuance of the bonds. Given the regional nature of the project, one option is designating a regional entity with the necessary political capital and shared regional responsibility as a 'market arranger' to lead the issuance of the Blue Bonds into the market. WAEMU will work with the West African Development Bank (*Banque Ouest Africaine de développement*, BOAD) and the African Development Bank (AfDB), among others, on these instruments.

4. **A regional change management and communication strategy will be developed and implemented by WAEMU to support capacity building for effective collaboration and implementation of the project.** The support includes strengthening coordination mechanisms, interventions to build

---

<sup>43</sup> The WACA Program will seek to replicate the recent initiative of Seychelles that is issuing the first ever 'Blue Bond'.



stakeholders' capacity to lead and communication skills, as well as other relevant skills paired with a results-based approach such as the Rapid Results Initiatives. The communication strategy aims to gain broad support for the WACA project among the various constituencies, encourage participation to ensure sustainability of activities, raise awareness on impact of coastal erosion, and initiate change in behavior.

*Subcomponent 1.2: Regional Coastal Zone Agreements and Protocols (US\$1.5 million IDA)*

5. **This subcomponent focuses on getting countries to meet their obligations toward regional protocols and agreements including but not limited to the ABC and signing and ratifying the most recent protocol on integrated coastal zone management adopted by the countries at the ABC COP12 in March 2017.** Specifically, the project will raise awareness on the importance of such agreements, provide TA to countries to identify gaps in their institutional and regulatory frameworks and make recommendations to fill them, and establish an M&E and tracking system for the protocol ratification and implementation. This process will require engagement and regional meetings. For that purpose, the project will—through the RISU—employ the ABC Secretariat (the Secretariat) as a consultant to implement these activities and provide the necessary support to countries. The Secretariat will, in that respect, designate a full-time officer in ABC's office in Abidjan, Côte d'Ivoire, which will manage the day-to-day work on the protocols and any additional work on national law or outreach needed for the specific protocols.

*Subcomponent 1.3: Regional Coastal Observation (US\$1.5 million IDA)*

6. **The project will support the effective operationalization of WACO.** The ministers in charge of environment and coastal erosion of the 11 West African countries covered by WAEMU's study on coastal erosion and monitoring<sup>44</sup> met in Dakar, Senegal, on May 18, 2011, and approved the study and agreed on the establishment of WACO. In 2012, MOLOA was established as a regional cooperation mechanism for the monitoring of the coastline and for the reduction of coastal risks in West Africa, with the financial support of WAEMU. This observation mission is an information decision support system providing regional and national policy makers, local authorities, other national and regional organizations, and development partners with coastal-related and climate change information and the necessary knowledge base to improve coastal zone management. The coordination and facilitation of MOLOA were assigned to the CSE in Dakar, Senegal.

7. **The project will more specifically** (a) develop and establish collaboration protocols between the members of MOLOA setting the terms for data collection, sharing information, and carrying out analyses useful to the governance and coastal zone management in West Africa; (b) develop a framework for national and regional coastal observation indicators that will be used to generate the annual 'State of the Western Africa Coast' report; (c) validate regional coastal areas information-sharing platforms and monitoring systems; and (d) develop knowledge products based on appropriate analysis that can support decisions and can be accessed in a customized manner by various stakeholders, including the development of synthesis publications and products and services to improve communication with various stakeholders. The project will employ CSE as a consultant for the implementation of this subcomponent, to ensure continuity and alignment with MOLOA's working principles.

---

<sup>44</sup> During 2009–2011, IUCN, at the request of WAEMU, led a study on coastline monitoring and elaborated the SDLAO. The study covered 11 West African countries: Benin, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mauritania, Senegal, Sierra Leone, and Togo.



*Subcomponent 1.4: Regional Implementation Support (US\$5.7 million IDA)*

8. **IUCN will house the WACA ResIP RISU, likely with an office in Dakar, Senegal, and thus play a technical and implementation role, building on its existing network of expertise and other programs.** The RISU will be staffed with a WACA ResIP Regional Coordinator, responsible for managing the regional dimensions of the activities planned, and he/she will be supported by seven staff (an Institutional Development Specialist; a Communication Specialist; an M&E and Reporting Specialist; an Environmental and Safeguards Specialist; a Social Development, Safeguards, and Gender Specialist; a Procurement Specialist; and an FM Specialist). IUCN will prepare the regional operational manual and technical guidance notes (How WACA ResIP Works) based on the body of knowledge already existing in WACA and from regional expertise available at IUCN. The RISU will supervise the delivery of subcomponents 1.2 and 1.3 and monitor all related activities. The RISU will also assist new countries join the WACA Program, based on the existing eligibility criteria described in the main text of the PAD. The RISU will support the RSC on organizational matters, including assisting with preparation of the material needed for strategic decision making at the regional level and building on the World Bank Implementation Status and Results Reports (ISRs) and other M&E reports that may be produced by WACA ResIP or available from other organizations associated with WACA, such as FFEM, the Hydrological and Oceanographic Marine Service (*Service hydrographique et océanographique de la marine*, SHOM), ESA, AfDB, and GCF. On safeguards, the RISU will cooperate with all six countries to maintain the executing agencies and all partners, including the World Bank, suitably informed of the progress in the implementation of the appropriate safeguards instruments.

**Component 2: Strengthening the Policy and Institutional Framework (US\$38.8 million: US\$26.9 million IDA, US\$6.1 million GEF, US\$5.8 million counterpart contribution)**

9. **This component provides technical and financial support to countries to develop and operationalize coastal management and land use strategies, taking into account land right security and action plans at the central and local levels, and promote effective management of transboundary coastal ecosystems and spatial planning.** The project will more specifically provide TA to

- Review coast-related laws and regulations and make recommendations to harmonize them and fill any existing gaps;
- Strengthen the ESIA systems and develop the ESIA guidelines for coastal planning and infrastructure, including guidelines for regional and strategic assessments;
- Develop contingency plans for events with transboundary impacts, such as oil spills;
- Analyze land-related issues expected to emerge when planned relocation of communities will be necessary:
  - (a) Land socio-legal diagnostic will be set up to identify all kinds of land tenure rights including informal ones in the place the people will leave.
  - (b) New places will be identified for relocation with respect to land regimes.
  - (c) Propositions will be discussed to secure land tenure rights in the new places, in coordination with governmental authorities in charge of land issues (more efficient processes and land documents).



- Identify and create an enabling environment for the establishment of PPPs to help mobilize additional resources to finance the integrated coastal management agenda;
- Develop and implement a communication strategy in support of the project in specific and the MSIP in general;
- Develop and initiate a Blue Economy strategy;
- Support and enhance collaboration between national meteorological and hydrological services to generate disaster risk and meteorological information;
- Establish and/or strengthen national disaster risk management structures in the beneficiary countries and flood early warning systems;
- Establish and/or strengthen national coastal observatories; and
- Establish and/or strengthen safety-at-sea national systems, including through the distribution of equipment.

10. **The GEF funds will be used to finance complementary activities aligned with the objectives of the International Waters, Biodiversity, and Land Degradation GEF Focal areas.** Support will also be provided toward designation of areas with high ecosystem value such as Ramsar sites. These activities include

- (a) Training government institutions at the local level to deal with major coastal problems, such as loss of ecosystem integrity due to expansion of agriculture and invasive species in shared fragile ecosystems (for example, Chenal de Gbaga in Togo and Benin); deterioration in water quality due to pollution from oil spills or leakage (for example, offshore Benin oil platforms); and coastal habitat destruction due to floods and erosion (for example, São Tomé and Príncipe);
- (b) Reviewing and updating the regulatory framework for management of shared natural resources, including national contingency plans for events with transboundary impacts, such as oil spills; and
- (c) Raising community awareness about transboundary coastal issues (for example, oil spills, erosion, and floods); developing management options and co-management plans for better management of transboundary coastal natural resources; and supporting efforts for the designation of Ramsar sites (Benin/Togo).

11. **The specific activities to be implemented in each of the participating countries are the following:**

- **Benin (US\$6.7 million IDA, US\$3.3 million GEF, US\$0.5 million counterpart contribution).** The project will finance establishment of a transboundary Benin-Togo joint committee for coastal planning and monitoring. A national intersectoral committee will also be established to advance integrated coastal zone management consistently that coordinates with the communal committees in place in the country. The coastal law will be supported and disseminated, as will the development of new policies, consistent with the protocols adopted at the ABC COP12. Capacity of the National Environmental Agency will be strengthened to ensure a strong environmental monitoring of the coastal area including ESIA/ESMP of major coastal investments and the development of a coastal geographical information management system.



Specifically, with the GEF funds, local government institutions and community-based organizations will be established and their capacity will be enhanced to address degradation of transboundary Chenal de Gbaga and wider ecosystems.<sup>45</sup> The funds will support transboundary knowledge-sharing activities between the countries so that management of shared ecosystems is up to the agreed standards by involved countries.<sup>46</sup> Also, work will be undertaken to better manage risk from oil industry pollution. The project will also support spatial planning at national and local scales and strengthening of the national coastal observation system, including ecosystem parameters, to be coherent and adaptable with the regional effort undertaken with the MOLOA. The legal framework in Benin has been reformed recently<sup>47</sup> but should be tested and needs a strong intergovernmental agency coordination and a strong communication plan given the sensitivity of the process. Given that communication is key for land issues, the project will produce some knowledge sheets on the land process to flag key steps and questions in the critical paths to secure land tenure rights.

- **Côte d'Ivoire (US\$3.1 million IDA, US\$0.3 million counterpart contribution).** The project will support the country to set its political, strategic, and regulatory framework as well as an observatory for the coastal zone. Decrees and implementing texts to help operationalize the law on the development, protection, and integrated management of the coastline adopted in June 2017 will be prepared (in particular decrees for articles 7, 26, 37, and 46). The project will support the elaboration of the integrated coastal management and land use plan for of Côte d'Ivoire and the development of Agenda 21 of the commune of Grand-Lahou. A network of coastal cities will be created to encourage the mayors of those cities to share knowledge and experiences and combine their efforts in the search for solutions. The network will also provide training to the mayors on key coastal themes. The project will support the creation of the National Agency for Coastal Management, which will house the national observatory, aligned with the regional efforts from the MOLOA; the strengthening of the Environmental Information Management System; and the acquisition of measuring instruments. Forecasting and early warning systems will also be developed for at least one pilot site.
- **Mauritania (US\$7.5 million IDA, US\$2.0 million counterpart contribution).** The project will support the national institutions by preparing the application instruments and texts of the coastal zone law in accordance with Mauritania's new master plan for coastal management updated in 2017. Among those instruments already defined, land use plans will be developed, both at the national and local levels, under the supervision of a reinforced multi-sectoral national council dedicated to coastal issues. As part of the strategic planning, a marine spatial plan for the country will be prepared covering both the maritime and terrestrial coastal areas. The national observatory will be built, based on a collaborative framework with all relevant national entities. The data collected will inform the decision support tools to mainstream coastal issues in development strategies and plan. In addition, a system will be developed to provide early warnings in case of risks of coastal flooding, due to submersion or breaches of the dunes. Training

---

<sup>45</sup> Participation of women in decision-making processes will be enhanced in these organizations.

<sup>46</sup> Activities include participation in regional and global meetings by the country counterparts and establishment of project portal aligned with overall WACA knowledge management design.

<sup>47</sup> Decree 2016-13 of January 29, 2015, regarding the composition and functioning of public planning enquiry commissions and compensation for expropriations in the public interest.





and capacity building on coastal resilience will be provided to various stakeholders, including ministries and local officials.

- **São Tomé and Príncipe (US\$2.3 million IDA, US\$0.7 million GEF).** The project will support the preparation and the implementation of policy reforms that promote more sustainable and adaptive management of the coastal zones, including the harmonization of coastal zone regulations and policies, the technical support to the new law on sand extraction, the legislative reforms to promote maritime safety, and the development of a new institutional framework for disaster risk management. The project will also reinforce the observatory to provide regular monitoring reports, as well as strengthen the early warning system for coastal hazards, with the installation of additional measuring stations, improved forecasting models, and dissemination method. The safety-at-sea systems will also be improved through the distribution of additional equipment and awareness campaign.
- **Senegal (US\$2.2 million IDA, US\$0.4 counterpart contribution).** The project will support the elaboration of the National ICZM Plan as well as the constitution of the agency in charge of its monitoring and implementation. Because the sector is developing, institutional capacity will be built for evaluation and environmental management of offshore oil and gas extraction activities. The existing Geographic Information System (GIS) will be operationalized to monitor the coastline and support the implementation of the ICZM. The existing early warning system will be strengthened and extended to also cover the maritime phenomena.
- **Togo (US\$5.0 million IDA, US\$2.1 million GEF, US\$2.7 million counterpart contribution).** The project will provide the political institutions and their representatives with the information and knowledge needed to improve the management of the coastal zone in Togo. It will strengthen the political, legal, and institutional frameworks for integrated coastal management. A new law for the coastal zones will be prepared, as well as the subsequent decrees and instruments for its implementation. The development and management strategies of the coastal zones will allow for the preparation of a coastal and marine spatial plan. The GEF financing will support the strengthening and harmonization of management of transboundary Chenal de Gbaga and the wider ecosystem (as described above for Benin). A Togo-Benin cross-border joint committee for coastal planning and surveillance will be created. The national observatory will be set up, because coastal observation and biophysical monitoring of the marine and coastal environment, as well as timely data sharing, are essential for the management of the coastal zone, particularly coastal erosion, riverbank rehabilitation, biodiversity and invasive species management, flood and pollution management, sustainable land management, and ecosystem conservation. In parallel, this information will be used in the newly developed early warning system.

**Component 3: Strengthening National Physical and Social Investments (US\$152.6 million: US\$134.9 million IDA, US\$13.1 million GEF, US\$4.7 million counterpart contribution)**

12. **A range of subprojects will be financed under this component.** Each country will determine its own priorities in view of its allocated budget. Because of the visibility of activities, and potential exposure of people at sites, a tracking system for civil works contracts will be established to ensure that the social grievance mechanism is adequate in each country. The types of subprojects to be financed, that is, eligible for financing under this component, are grouped in the following subcomponents.



*Subcomponent 3.1: Physical Investments*

13. **This subcomponent will finance specific investments identified in the MSIPs and/or similar existing coastal management strategies and plans and their complementary technical studies and the development of the related environmental and social impact assessments and/or management plans, as required to underpin innovative approaches aiming at increasing climate resilience in key coastal areas.** These investments include the following:

- Protection work of coastal areas through
  - Green infrastructures: dune fixation, wetland and mangrove restoration, beach replenishment, natural habitats management (including reduction of invasive species encroachment<sup>48</sup>), and so on
  - Grey infrastructures: construction of breakwaters, seawalls, revetments, groynes, and dikes.
- Flood control operations:
  - Rehabilitation of flood banks
  - Rehabilitation and management of natural flood areas (for example, dredging of lagoons)
  - Rehabilitation and/or improvement of existing drainage systems in coastal, urban, and rural areas
  - Land and water management practices in watersheds and areas of high ecosystem value
- Pollution control and waste management subprojects:
  - Industrial and municipal waste and effluent management
  - Solid waste management in coastal hotspots, with special emphasis on marine litter
  - Improved collection, segregation, and disposal practices of plastic waste
  - Improved practices for reduction of hazardous material (chemicals, heavy metals, and so on)
  - Pollution prevention and control measures of oil spills
- Coastal adaptation measures to climate change (according to the countries' NAPs and NDCs) and along the eligibility of the green and grey infrastructure above
- Assistance with planned relocation.<sup>49</sup>

---

<sup>48</sup> Specifically, in Togo and Benin, the project will include a comprehensive study on understanding the cause of the spread and effective measures of controlling invasive alien species (IAS) and potentially using them for economic benefits. Collaboration could be sought with Forestry Research Center within University of Lome, Togo, on understanding and managing IAS.

<sup>49</sup> The size and scope of such assistance will be determined on a case-by-case basis, depending on available resources within the project. The World Bank will also engage with borrowers and development partners to see if additional resources can be mobilized.



- Construction of residential housing and infrastructures (roads, social infrastructures, and so on)
- Provision of material

*Subcomponent 3.2: Social Subprojects*

14. **Social subprojects and participatory risk assessments will be implemented to enhance community resilience, health, safety, and livelihoods.** Local-level initiatives will be financed by the project as a tool to strengthen resilience and improve the livelihoods and well-being of people and communities. The project will also support community-driven climate resilience planning to enable the dialogue and active engagement of communities in risk management and development planning in the face of a changing climate.

15. **TA will be provided by the project to finance specific activities contributing to the community resilience planned relocation:** conduct of awareness-raising activities targeting the populations at risk; participatory risk assessments; a dialogue about environmental changes experienced by the community; workshops on perceived imminent climate change risks (such as sea level rise and higher levels of precipitation) and the respective adaptation options, as a basis for expected future risks and long-term adaptive measures; dialogue on the possible need for planned relocation of high-risk communities in the longer term; development of a participatory process for relocation planning and decision making; the implementation of a socio-environmental monitoring for the implementation of decisions on relocation; and participatory exercises that facilitate communities to consider the future.

16. **In certain cases, the project may provide financing to assist with such planned relocation of persons at high risks in certain hot spots within the project area and who have to move from their current places of residence and/or work due to persistent coastal flooding or erosion.** Should the project finance the implementation of such planned relocation, the potential social risks and impacts of such project interventions would need to be adequately addressed, in line with the safeguards policy OP 4.12. Such assistance can include the construction of residential housing and infrastructures (roads, social infrastructures, and so on), the provision of material and the restoration of livelihoods and standards of living, according to the community-level and Community Driven Development (CDD) initiatives described below. A request for assistance for planned relocation has been received from São Tomé and Príncipe to support the completion of the process undertaken under the LDCF-funded Adaption to Climate Change Project. The planned relocation in São Tomé and Príncipe as well as the implementation of the consultation process that will take place in each participating country under the project, will generate lessons learned, and provide solid ground to guide decision making and implementation. A stocktaking exercise will be conducted to draw lessons from São Tomé and Príncipe and other relevant cases (for example, Senegal's Saint-Louis Emergency Recovery Project), assess whether other countries are in need of support for planned relocation, and whether the necessary conditions are met in these countries to achieve the project's developmental benefits and minimize risks. Such assistance, if requested, will be provided in accordance with the respective legal agreements. The size and scope of such assistance will be determined on a case-by-case basis, depending on available resources within the project. However, the project will not finance any expenditures for the cost of land acquisition related to the activities to be carried out under the project, nor expenditures for cash payments for compensation or other cash payments for assistance due to a person relocating under the project.



17. **Eligible local-level and CDD activities include**

- Rehabilitation of small public infrastructures damaged by floods or erosion (health care facilities, maternity hospitals, schools, markets, small and compact water supply and water drainage systems, and so on);
- Cleaning of natural canals (through removal of overgrown vegetation to restore the natural flow of the waterways and reduce the risk of flooding in surrounding areas);
- Cleaning and improvement of the performance of drainage canals;
- Desilting and reforestation of vulnerable areas prone to river and/or ocean flooding;
- Income-generating activities of relevance to the project objectives (salt extraction, fishing, and so on); and
- Business development for communities to adopt new market products and services that reduce their vulnerability to coastal erosion and/or flooding.

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

- **Benin (US\$34.2 million IDA, US\$7.7 million GEF, US\$1.5 million counterpart contribution).** The project will finance physical investments in the transboundary site shared with Togo, between Agbodrafo and Grand-Popo. The implementation of the transboundary activities is governed by a constitutive collective agreement between the two countries. Coastal erosion protection will be implemented in two phases for this zone. In the first years of the project, emergency interventions will be financed by the project, while at the same time, further feasibility studies will be conducted to design and build long-term coastal protection infrastructure. In addition, the Mono River basin will be restored with a combination of dredging of lagoons for maintenance, river bank stabilization, revetment as well revegetation of the shores. For nearby communities at the Avlo site, the risk of erosion caused by the river will be reduced with a complementary approach, the regular opening of the Bouche du Roy, and the development of a relocation strategy for the exposed communities. The methodology for planned relocation of communities and links with land issues will be set up as a model for countries facing similar issues regarding land tenure rights for the people who should move. The methodology seeks to secure existing rights and ensure that the process is socially acceptable and identify properly land rights that will need to be compensated through proper procedures for expropriation in the public interest. Finally, in Ouidah, and within the wider Chenal de Gbaga ecosystem, coastal erosion will be managed through a landscape-based approach, with the creation of community biodiversity conservation areas, made of wetlands and mangroves, to act as a buffer for the erosion, as well as to provide income-generating activities for the population.<sup>50</sup> In Benin, the PIU will design and execute all activities. For certain activities, agreements will be signed with national agencies,

---

<sup>50</sup> Options for alternative livelihoods include craft-making; beekeeping; processing of fishery and agricultural products (coconut, cassava, and palm nuts); aquaculture; livestock farming; and ecotourism. The project will support increasing value of products from these activities engaging local private sector entities. All livelihood activities will be designed such that they reduce pressure on natural habitats and encourage women's participation.



including the Beninese Environment Agency, and at the local level with villages directly involved in the project.

- **Côte d'Ivoire (US\$24.0 million IDA, US\$2.4 counterpart contribution).** A series of physical and socioeconomic investments will be made, which will be accompanied by measures to strengthen the political, strategic, institutional, and planning frameworks provided for in the second component of the project. The banks of the Tiagba lagoon will be stabilized by reforestation and rehabilitation of mangroves. This revegetation of the shores will also curb the erosive effect on the coast as well as provide some income-generating opportunities. Further, the project will also support mangrove rehabilitation in the Azagny and Iles Ehotilé National Parks. Both Parks are coastal, Ramsar sites, and exhibit severe mangrove deforestation due to anthropic activities. Feasibility studies and modelling will help determine which kind of coastal infrastructure to build along the sandy bar of Grand-Lahou to best address (1) the displacement of the river mouth and (2) the frontal coastal erosion experienced along the shoreline in the pilot area. Based on the outcome of dialogues with the communities and in the cases where some among the immediate at-risk populations express a desire to voluntarily move from their current location, the project will provide technical assistance to the government in the form of resettlement action plans (RAP) and site viability assessments. In the upper city, exposed to the risk of river flooding, the drainage systems will be improved, with the construction of canals. In the case of Côte d'Ivoire, the Ministry of Environment through the PIU will execute all project activities.
- **Mauritania (US\$11.0 million IDA).** The project will finance the reinforcement of the coastal dunes protecting Nouakchott and the filling of priority breaches with the use of biological and/or mechanical fixation. The delimitation of circulation paths on the dunes will also prevent their degradation by human activities. In the Diawling National Park, one of the existing dikes will be extended and rehabilitated to increase its risk reduction capacity. In the cross-border area with Senegal, mangroves will be planted to act as a buffer to fight the erosion of the shoreline of the Senegal River mouth and eco-tourism will be funded. An in-depth technical study will look into the feasibility of cross-border artificial beach replenishment. In addition to these risk reduction measures, activities for community development will be financed in up to eight communities to manage the development of the coastal areas in a sustainable manner. Consultations around the preparation of long-term resilience and adaptation plans with local communities in Ndiago, a small village affected by coastal erosion in the south, will be supported by the project. Finally, *la Baie de l'Étoile*, a rich yet fragile ecosystem located north of Nouadhibou, will be managed in a sustainable way, including securing for the Baie a protected area status and with ecotourism promotion and biodiversity protection. In Mauritania, all activities are designed and implemented by the Ministry of Environment.
- **São Tomé and Príncipe (US\$4.5 million IDA, US\$0.4 million GEF).** The project will have physical and social intervention in 10 coastal communities, eight on São Tomé island (Santa Catarina, Micoló, Praia Gamboa/Lochinga/Cruz, Praia Melao, Pantufo, Io Grande, Ribeira Afonso, and Malanza) and two in Príncipe (Praia Abade and Praia Burra). For coastal protection, preference will be given to vegetative or natural options, through small community projects, with the adoption of hard/structural options, as part of hybrid solutions, when deemed indispensable. This subproject will fund works, supplies, and small grants in support of the following adaptation



options: medium-scale coastal adaptation, including beach nourishment, improved drainage, breakwaters, and coastal and river bank revetments, when necessary; and community-based adaptation, including beach stabilization and revegetation, mangrove replantation, garbage removal, and routine maintenance of protection works (in collaboration with district governments). In communities where households face high risks of coastal or river flooding, and where they expressed their willingness to voluntarily move to safer areas, the project will help them select a safer expansion area—preferably adjacent to the community to preserve livelihood and social links – to develop growth poles with social infrastructure, and to relocate, with some support for the construction of their houses. Once the expansion sites have been identified and finalized, a plan for resettling the communities, along with a livelihood restoration and/or community development plan, will be prepared during project implementation. The project will finance community activities with value below US\$5,000, which will be executed by the local risk committees, as it was done in a previous project, the Adaptation to Climate Change project (P111669). The PIU, under the Ministry of Infrastructures, Natural Resources and Environment, will receive support on fiduciary matters from the centralized unit under the Ministry in charge of Finance.

- **Senegal (US\$25.8 million IDA, US\$0.8 million counterpart contribution).** The project will finance interventions for the selected sites. The feasibility studies and environmental and social studies will be conducted and erosion protection works will be done for the Goree Island and corniches Est and Ouest of Dakar. In Saint-Louis, on the langue de Barbarie, the project will (a) contribute to the implementation of the sustainable solutions for the protection of the Langue de Barbarie (these would be determined by the ongoing studies funded by another World Bank project, the Senegal Stormwater Management and Climate Change Adaptation Project (*Projet de Gestion des Eaux Pluviales et d'Adaptation au Changement Climatique* [PROGEP], P122841), but could include some works, such as rebuilding the crumbling dyke, the construction of groins or breakwaters, beach nourishment, and revegetation of some sections of the coast line; and (b) engage citizens to develop an engagement plan to help policy makers engage with local communities to develop an inclusive and climate-resilient development plan, enabling the affected population to relocate to another suitable site, in coordination with the Saint-Louis Emergency Recovery Project [SERP] (P166538) that will finance the relocation. Technical and financial feasibility studies will be carried out for adaptation options of the islands on the right bank of the f Casamance River, to attract potential financial donors. In Senegal, the Environment Directorate will execute all activities.
- **Togo (US\$35.4 million IDA, US\$5.0 million GEF).** The project will finance investments for coastal zone management, including management of erosion, flooding, riverbank, and invasive species, as well as pollution risk reduction and climate-resilient urban infrastructure. The interventions on the cross-border zone of the project are planned in two phases: a first phase 'of emergency protection' and a second phase where a long-term solution will be implemented based on the results of a detailed feasibility study. It involves the construction/rehabilitation of new structures (groynes, breakwaters, and revetment); reloading of sand; and mega-reloading of sand between Agbodrafo and Grand Popo to scale up the positive impacts. Other planned investments include the preparation and implementation of management plans in three major sub-



watersheds<sup>51</sup> in the Maritime Region that flow into Chenal de Gbaga and the promotion of sustainable land management. The implementation of the transboundary activities is governed by an agreement between the two countries. In addition, the financing of income-generating activities will reduce the various pressures on these ecosystems. In Togo, the MEFR, through the PIU, will be designing and implementing all project activities.

**Component 4: National Coordination (US\$18.3 million: US\$16.3 million IDA, US\$1.0 million GEF, US\$1.0 million counterpart contribution)**

19. **Benin (US\$4.1 million IDA, US\$0.6 million GEF).** The PMU under the supervision of the MESD will ensure the daily execution of the project. The PMU will organize national meetings and workshops, participate in regional workshops, and conduct 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 monitoring and evaluating project activities.

20. **Côte d'Ivoire (US\$2.9 million IDA, US\$0.3 counterpart contribution).** The Project Coordination Unit, under the ministry in charge of the environment, will ensure that the project is implemented in accordance with the project document, as well as the studies and analysis carried out during the preparatory phase. It will also ensure that the MSIP remains the basis for coordinated support. The PCU will organize national meetings and workshops, participate in regional workshops, and conduct 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 monitoring and evaluating project activities.

21. **Mauritania (US\$1.5 million IDA).** The Ministry of Environment and Sustainable Development will be in charge of implementing the project and coordinating the national actors in accordance with Mauritania's new master plan for coastal management updated in 2017. The PCU will organize national meetings and workshops, participate in regional workshops, and conduct 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 monitoring and evaluating project activities.

22. **São Tomé and Príncipe (US\$1.2 million IDA, US\$0.03 million GEF, US\$0.2 million counterpart contribution).** The PIU, under the Ministry of Infrastructures, Natural Resources and Environment will ensure the daily implementation of the project, the coordination between implementing institutions, and M&E of the project activities. The PIU, under the Ministry of Infrastructures, Natural Resources and Environment, will receive support on fiduciary matters from the centralized unit under the Ministry in charge of Finance.

23. **Senegal (US\$2.0 million IDA, US\$0.2 million counterpart contribution).** The Environment Directorate and classified establishments will ensure the coordination of the project. It will be in charge of organizing national meetings and workshops, participating in regional workshops, and conducting priority communication activities required to ensure that the project issue is understood by the

---

<sup>51</sup> Sub-watersheds include the Aveve, Kodjo-Gati, Asseve, Togodo, Afito, Akissa, and Godje-Godjin (sacred forest area) protected areas in Togo.



beneficiaries and all other stakeholders. It will also be responsible for monitoring and evaluating project activities.

24. **Togo (US\$4.6 million IDA, US\$0.4 million GEF, US\$0.4 counterpart contribution).** The WACA Program will be under the supervision of the MEFR and will be supervised by the General Secretariat of the ministry. Project activities will be coordinated and executed by the PMU to be established. At the prefectural level, the PMU will have to rely on decentralized structures.





## ANNEX 2: IMPLEMENTATION ARRANGEMENTS

**COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo**  
**West Africa Coastal Areas Resilience Investment Project**

- 1. WAEMU will establish an RMU within its headquarters in Ouagadougou, Burkina Faso, to manage Component 1 of the project.** The RMU comprises the following necessary staff: (a) WACA Regional WAEMU Focal Point, (b) a Regional Integration Officer, (c) a Procurement Specialist, and (d) an FM Specialist. The RMU will more specifically manage the relationship between WAEMU, IUCN, and other parties involved in the project's implementation and manage WAEMU's activities and budget.
- 2. A WACA RISU will be established, consisting of a team of technical staff that is responsible for coordination at the regional level and for offering a number of services to countries.** These include (a) provision of TA to countries; (b) access to high-level expertise to support the reform process at the national level on coastal protection policy and legal, regulatory, and institutional frameworks; (c) provision of support for regional collaboration, implementation, and knowledge exchange; (d) ongoing fiduciary and M&E support; and (e) support to countries not included in the project to become investment ready. The aim is to ensure technical quality, ownership and leadership, M&E, consistency in approaches, and knowledge exchange, and to upkeep the cadence in national project implementation. The RISU comprises the following necessary staff: (a) a Project Coordinator; (b) an Institutional Development Specialist; (c) a Communication Specialist; (d) an M&E and Reporting Specialist; (e) an Environmental and Safeguards Specialist; (f) a Social Development, Safeguards, and Gender Specialist; (g) a Procurement Specialist; (h) an FM Specialist; and (i) an Internal Auditor. The Project Coordinator should preferably have a background and necessary technical expertise in environment and coastal management. The recruitment process of the above key staff of the PIU will be competitive and consistent with the World Bank procedures. The RISU is a repository of the institutional memory of WACA activities, and thus, it can serve, when solicited, as a unique and resourceful source of advices to all national PIUs. The RISU will also engage regional experts on an ad hoc basis to guide decision making that goes beyond the national level. The panel of experts will be scientifically and technically outstanding and will be hired at the regional level to provide independent advice on regional development options, regional scientific trends, and governance.
- 3. An RSC will provide overall strategic guidance, support policy dialogue with countries for regional integration, coordinate cross-boundary interventions, facilitate resource mobilization, and assess the results and impacts of the project.** The RSC shall be co-chaired by WAEMU and a participating country on a rotating basis. The terms of reference and operating procedures of the committee will be prepared and finalized on the basis of consultations between the countries and WAEMU and will be integrated into the regional procedures manual. The RSC will be composed of, among others, the chair of the NSC of each participating country, a representative of the scientific community, a representative of the tourism sector, a representative of the port sector, a representative of the urban sector, a subnational government representative (for example, mayor), a representative of the civil society, and a representative of a major regional development partner. The RISU will act as the technical secretariat of the RSC. The RSC meets at least once a year to review and approve the draft AWPB prepared by the RISU, assess project progress against the current AWPB, approve the semiannual project progress reports, take decisions concerning regional and transboundary activities, and instruct all parties, as needed, on potential emerging priority issues of relevance to the project.



4. **The RISU and RSC will make concerted efforts to recruit or appoint qualified women to promote gender-balanced management and decision making.** This will help ensure that policies and programs are tailored to address men's and women's different experiences of environmental and climate change and their different capacities to respond to it.
  
5. **The project will be implemented by a national PIU in each country, embedded within the responsible ministry/technical agency.** Each PIU will be fully mainstreamed into this institution, although fiduciary responsibilities will vary by PIU depending on the capacity of each country. The national PIU in each participating country supports the implementation at the national level and coordination with the RISU and other regional entities. Financing of about 5 percent of the country project cost will be provided for regular M&E and project management. The national PIU will prepare AWPBs, manage procurement for national needs of institutions, and provide support to counterpart institutions in the implementation of activities. The PIU comprises the following necessary staff: (a) a Project Coordinator; (b) an Institutional Development Specialist; (c) a Communication Specialist; (d) an M&E and Reporting Specialist; (e) an Environmental and Safeguards Specialist; (f) a Social Development, Safeguards, and Gender Specialist; (g) a Procurement Specialist; (h) an FM Specialist; and (i) an Internal Auditor. The reporting line of the PIU will vary with the type of activity. Policy and governance activities will be reported directly at the ministerial level whereas other activities may be reported to the technical director or other persons designated by the minister in charge.
  
6. **Each country will also establish a multi-sectoral TC to ensure smooth technical coordination and engagement of all coastal management stakeholders.** The countries will, in that respect, either retain the existing multi-sectoral TC established during the preparation phase for the development of its MSIP or establish a new multi-sectoral TC comprising the representatives of the sectors and entities concerned with coastal management and involved in the project's implementation to ensure smooth technical coordination.
  
7. **In each country, an NSC will be established that comprises relevant Government officials and local stakeholder representatives.** This committee will be chaired by the Secretary General or another high-level designated person, supported by the Project Coordinator of the PIU, acting as the Secretariat of the NSC. The NSC will convene every six months and will make decisions on the overall direction of the project and will be responsible for approving the AWPB. The designated person by the Minister and PIU Coordinator will be responsible for providing summaries of implementation progress and results from M&E to the NSC at each meeting, and the committee will make decisions on any necessary adjustments to the project implementation because of M&E. The committee will also meet whenever there is an urgent issue regarding project implementation that requires their attention.



### ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo  
West Africa Coastal Areas Resilience Investment Project

#### Strategy and Approach for Implementation Support

1. The RISU is a key feature for implementation support provided in the project. It is described under institutional arrangements. This unit will be 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 (a) implementation support missions carried out jointly with the RISU and (b) technical assistance in areas of weaknesses and where new approaches/procedures have been introduced.
3. Implementation support missions. The supervision strategy will use a number of instruments to review progress and respond to implementation issues, including
  - **Implementation support missions.** The World Bank task team will conduct semiannual implementation support missions to review overall WACA ResIP 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 NDF and FFEM.
  - **MTR.** An MTR will be carried out midway in the implementation phase. It will include a comprehensive assessment of the progress in achieving WACA ResIP objectives as laid out in the Results Framework. The MTR 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. Third-party reviews will be especially useful for follow-up of WACA ResIP activities in cross-country or regional areas. Such reviews will be planned for over and above the semiannual JRIS missions.
  - **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. WACA ResIP task team set up. There will be two regional Task Team Leaders (TTLs), one with a strategic role and one with technical role, as well as and country-specific Co-TTLs based in client countries to the extent possible the regional TTL will be supported by one full-time Operational Officer based in Washington. This arrangement will enhance interaction with WACA ResIP countries and improve monitoring of progress. Support from the NDF grant will allow for engaging additional capacity for project supervision. The World Bank is also seeking other possible trust funds to strengthen supervision activities, including from the Global Facility for Disaster Reduction and Recovery and the NDF.



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 (a) review implementation progress by component, including institutional development aspects; (b) provide solutions to implementation problems as they arise; (c) review with the RISU and national PIUs the action plan and disbursement programs for the next six months; (d) review the project's fiduciary aspects, including disbursement and procurement; (e) verify compliance of project activities with the World Bank's environmental and social safeguard policies; (f) 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 (g) 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 various studies.

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

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 (a) expert advice on key infrastructure options (panel of experts) and (b) technical assistance to implementing agencies in the form of hands-on training and mentoring.
7. 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 FM 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 final end of report generation; evaluate the internal control environment, including the internal audit function; review IFRs and/or annual Financial Statements; follow up on ageing of the advance to the Designated Account (DA); follow up on both internal and external audit reports; and periodically assess the project's compliance with the FM 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 (a) reviewing procurement documents, (b) providing detailed guidance on the World Bank’s Procurement Guidelines, and (c) 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. Safeguards. The World Bank specialists in social and environmental safeguards based in Washington or country offices will provide support to the countries to ensure proper implementation of the safeguards instruments. Each year, they will conduct implementation support missions to (a) review safeguards reports on project progress, (b) ensure that procurement arrangements are consistent with the safeguards requirements set out in the project legal agreements, and (c) 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 safeguards compliance as well as environmental and social sustainability.
12. Main focus of implementation. Table 3.1 summarizes the main focus of implementation support during the life of the project.

**Table 3.1. Main Focus of Implementation Support**

Time	Focus of Implementation Support	Skills Needed
<b>First 12 months</b>	<ul style="list-style-type: none"> <li>• Project start-up</li> <li>• Support to preparatory activities (sensitization, community consultations and planning, institution building, strengthening implementation capacity including M&amp;E)</li> <li>• Support to finalization of manuals</li> <li>• Guidance on applying safeguard instruments</li> <li>• Development of impact evaluation methodology and oversight of baseline survey</li> <li>• Procurement, FM, M&amp;E, and safeguards training of staff at all levels</li> <li>• Establishing coordination mechanisms with complementary projects</li> </ul>	<ul style="list-style-type: none"> <li>• Regional TTLs + Operations Officer + Co-TTLs</li> <li>• Engineer</li> <li>• NRM</li> <li>• Coastal policy</li> <li>• Coastal observation</li> <li>• FM</li> <li>• Procurement</li> <li>• Environment safeguards</li> <li>• Social safeguards</li> <li>• Social development</li> <li>• Communications</li> <li>• M&amp;E</li> <li>• Leadership development</li> </ul>
<b>12–48 months</b>	<ul style="list-style-type: none"> <li>• Monitoring implementation performance including progress</li> <li>• Review coastal spatial planning, quality of participatory processes, and capacity building initiatives</li> <li>• Review of annual work plans and disbursement schedule</li> </ul>	<ul style="list-style-type: none"> <li>• Regional TTLs + Operations Officer + Co-TTLs</li> <li>• Engineer</li> <li>• NRM</li> <li>• Coastal policy</li> <li>• Coastal Observation</li> <li>• FM</li> <li>• Procurement</li> </ul>



	<ul style="list-style-type: none"> <li>• Review quality of semestrial/annual reports, data, and various produced studies</li> <li>• Assess quality of implementation process and data collected</li> <li>• Review of audit reports and IFRs</li> <li>• Review adequacy of the FM system and compliance with financial management covenants</li> <li>• Assess quality of safeguards instruments as they are applied</li> </ul>	<ul style="list-style-type: none"> <li>• Environment safeguards</li> <li>• Social safeguards</li> <li>• Social development</li> <li>• Communications</li> <li>• M&amp;E</li> <li>• Leadership development</li> </ul>
--	---	--

**Skills Mix Required**

13. Table 3.2 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 3.2. Skills Mix Needed for Implementation Support**

Skills Needed	Number of Staff Weeks (annually)	Number of Trips	Comments
<b>TTL</b>	10	2	HQ based
<b>Operations Officer</b>	10	2	HQ based
<b>Country-TTLs (x6)</b>	15 for each	2 for each	Country office based and HQ based
<b>Engineers (x2)</b>	6 for each	3 for each	HQ based
<b>NRM</b>	6	2	HQ based
<b>Coastal policy</b>	6	1	HQ based
<b>Coastal observation</b>	6	2	HQ based
<b>FM</b>	6	1	Country office based
<b>Procurement</b>	6	1	Country office based
<b>Environment</b>	6	3	Country office based and/or HQ based
<b>Social development</b>	6	3	Country office based and/or HQ based
<b>Communications</b>	2	1	HQ based
<b>M&amp;E</b>	2	1	HQ based
<b>Leadership development</b>	2	1	HQ based

Note: HQ = Headquarters.



14. Role of partners. The role of partners and their expected inputs are summarized in table 3.3.

**Table 3.3. Role of Partners in Implementation Support**

<b>Name</b>	<b>Institution</b>	<b>Role</b>
Commissioner	WAEMU	Co-chair of WACA ResIP Steering Committee
Executive Secretary	ABC (UN Environment)	Executes ABC-specific activities as per contract (Integrated Coastal Management Policy Protocol)
Coordinator	CSE	Executes CSE-specific activities as per contract (Regional Observatory)
Regional Director	IUCN	Executes RISU-specific activities, and manages relationship with WAEMU



## ANNEX 4: DETAILED FINANCIAL MANAGEMENT AND DISBURSEMENT ARRANGEMENTS

COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo  
West Africa Coastal Areas Resilience Investment Project

- 1. In connection with the preparation of the WACA ResIP, an FM assessment of the regional coordination and implementation entities (WAEMU and IUCN) and of the implementing entity within each participating country has been conducted.** The assessment was done in Benin for the Ministry of Urban Planning, Habitat, and Sanitation, through the DGFRN, now renamed to Ministry of Environment and Sustainable Development (MESD); in Togo for the MEF, through the Directorate of Environment; in Côte d'Ivoire for the MEDD; in São Tomé and Príncipe for the Ministry of Infrastructures, Natural Resources, and Environment, through the Directorate General of Environment; in Mauritania for the MEDD; and in Senegal for the MEDD, through the DECC.
- 2. The objective of the assessment** was to determine whether (a) these units have adequate FM arrangements to ensure that the project funds will be used for the intended purposes in an efficient and economical way; (b) the project financial reports will be prepared accurately, reliably, and on time; and (c) the project's assets will be safeguarded. The FM assessment was carried out in accordance with the Financial Management Manual for World Bank Investment Project Financing Operations that became effective on March 1, 2010 and as last revised on February 10, 2017. In this regard, a review of the FM arrangements has been conducted for the above entities as further detailed below.
- 3. The overall conclusion of the FM Assessment is that the project's FM arrangements in place meet the World Bank's (IDA) minimum FM 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 FM risk rating of the Project is Substantial.

### Planning and Budgeting

- (a) Côte d'Ivoire.** The IPMU will prepare a detailed consolidated AWPB for implementing the Forest Investment Project activities. The AWPB will be submitted to the project Steering Committee for approval and thereafter to IDA for no-objection, not later than November 30 of the year preceding the year the work plan should be implemented.
- (b) Benin and Togo.** The PCU's FM unit in close collaboration with other involved technical units will prepare AWPBs for implementing project activities considering the project's objectives. The AWPBs will identify the activities to be undertaken and the role of the respective parties in implementation. AWPBs will be submitted to the World Bank for no-objection not later than November 30 of each year preceding the year the work plan should be implemented.
- (c) Mauritania and Senegal.** The Sahel and West Africa Project in support of the Great Green Wall Initiative (SAWAP),<sup>52</sup> will prepare an annual budget based on agreed annual work program and procurement plan. The budget will be adopted by the project Steering

---

<sup>52</sup> Mauritania Sustainable Landscape Management Project under the SAWAP (P144183)





Committee before the beginning of the year, and its execution will be monitored on a quarterly basis. The budgeting process and monitoring will be clearly defined in the Administrative and Accounting Manual of Procedures. Annual draft budgets will be submitted for the World Bank's no-objection before adoption and implementation no later than November 15 every year. Periodic reports of budget monitoring and variance analysis will be prepared by the FM team.

- (d) **São Tomé and Príncipe.** The Projects Administrative and Fiduciary Agency (AFAP) will prepare the annual budget based on the AWPBs agreed with the Ministry of Infrastructures, Natural Resources, and Environment and will submit to the World Bank for no-objection no later than November 30 of each year. The AFAP will also be responsible for producing variance analysis reports comparing planned with actual expenditures on a quarterly basis. The periodic variance analysis will enable the timely identification of deviations from the budget. These quarterly variance analysis reports will be part of the Interim Financial Reports (IFRs) that will be submitted to the World Bank on a quarterly basis. The budget preparation and monitoring of budget execution are described in the existing draft Financial Procedures Manual, and formats for annual budget and monitoring reports are included as annexes.
- (e) **WAEMU and IUCN.** The DAREN of WAEMU, with the support of IUCN, will prepare a detailed consolidated AWPB, which will include a budget prepared by IUCN for implementing the WACA activities. The consolidated AWPB will be submitted to the project Steering Committee for approval and thereafter to IDA for no-objection, not later than November 30 of the year preceding the year the work plan should be implemented.

### Internal Control

4. **Governance and anticorruption arrangements.** To enhance transparency and accountability, the PCU will have to deal with fraud and anticorruption. The World Bank Anticorruption Guidelines referred to in the Financing Agreement will apply.

- (a) **Côte d'Ivoire.** An FM Procedures Manual is available to define control activities and an internal audit function to carry out ex post reviews and to evaluate the performance of the overall internal control system. In addition, in line with the new Decree No. 475 governing the modalities of donor-financed project implementation in Côte d'Ivoire, the General Inspectorate of Finance (Inspection Générale des Finances de Côte d'Ivoire) will oversee the internal audit function of the projects managed by the IPMU. To address the weaknesses identified during the implementation of REDD+ (Phase 1) and Côte d'Ivoire's Obsolete Pesticides Management Project (*Projet de Gestion des Pesticides Obsolètes en Côte d'Ivoire* [PROGEP-CI], P131778), the composition, mandate, and frequency of meetings of the Steering Committee will be strengthened to ensure adequate oversight of the project. Further, additional measures will be put in place including the following: (i) the strengthening of the FM team of IPMU+; (ii) the World Bank prior review of all budgets related to workshops and seminars in all projects implemented under the IPMU; (iii) the clarifications on the policies related to per diem, accommodation/hotel costs, and so on for missions and workshops leading to revision of the FM manuals; and (iv) the extension of the scope and size of sample



of transactions reviewed during supervision missions. Implementation of these measures is under way and being monitored during implementation support missions.

- (b) **Benin and Togo.** The internal control policies and procedures will be documented in the Administrative, Accounting, and Financial Manual of Procedures to be included in the PIM, which will be prepared and agreed by the World Bank before project effectiveness. An Internal Audit Unit will be established within the PCU and will implement the project's internal audit annual work program with special attention to operations costs, including per diems and other soft expenditures, to ensure they are used in an economical manner and for the purposes intended. This Internal Audit Unit needs to ensure that the audits are done semiannually using a risk-based approach. These semiannual internal audit reports need to be submitted to the World Bank within 45 days after the end of the semiannual period.
- (c) **Mauritania.** The Administrative and Accounting Procedures Manual will provide a clear description of the approval and authorization processes in respect of the rule of segregation of duties. This manual will be reinforced by an annex for WACA activities. The SAWAP's internal auditor will be required to include the WACA Program's activities in the audit plan.
- (d) **Senegal.** The DEEC should set up the project manual of financial and administrative procedures that (i) clearly defines FM procedures, (ii) gives a clear description of operations documentation, (iii) provides a clear description of the internal control systems that will be used by the project, and (vi) maintains an appropriate safeguard of the assets and funds. However, the manual will be updated to clarify roles and responsibilities of all stakeholders and give clear description of budget monitoring and reporting process. The Ministry of Environment has an Internal Audit Unit called Internal Inspectorate of the Ministry. This unit has limited capacity to carry out the internal audit of the project's activities. This unit will be strengthened and will be requested to include the project in its audit work program.
- (e) **São Tomé and Príncipe.** The General Inspectorate of Finance (*Inspecção Geral das Finanças*, IGF) would normally conduct internal audit reviews of the activities of this project because its mandate is to carry out internal audit reviews of the entire government entities. However, the project activities may not be subject to internal audit review by the IGF due to its limited capacity and some constraints on their work program. For this project, regular supervision through desk reviews (quarterly review of IFRs) and field visits (at least once a year) will be carried out by the World Bank to ensure that the implementing agency is maintaining adequate systems of internal controls and key procedures are complied with. The finance and administrative procedures to be employed by the agency in the implementation of the project are documented in the existing draft FM Procedures Manual. This draft manual will be revised by March 30, 2018 and approved before effectiveness.
- (f) **WAEMU and IUCN**
  - (i) For WAEMU, an FM Procedures Manual is available to define control activities and an internal audit function to carry out ex post reviews and to evaluate the performance of the overall internal control system. Further, additional measures were put in place including the following: strengthening the FM team of the DAREN with the



appointment of one accountant who is familiar with World Bank FM procedures and requirements and the inclusion of the periodic review of the WACA activities in the annual work program of the internal audit department of WAEMU. The reports of the Internal Audit Department related to WACA activities will be shared with the World Bank. In addition, the audited financial statements of the WAEMU Commission have not been provided to the Association. Thus, audited financial statements will be provided annually per the World Bank General Conditions and Terms for Lending Operations. In addition, the terms of reference of the external audit of the project will include an annual interim review of the institutional internal controls applicable to the project.

- (ii) For IUCN, the Internal Auditor - Headquarter and IUCN's West and Central Africa Program (*Pays de l'Afrique Centrale et de l'Ouest, PACO*) Financial Controller will oversee the internal audit function of the project. The internal audit function will carry out ex post reviews to evaluate the performance of the overall internal control system. The FM Manual currently in use by the IUCN Senegal office is satisfactory and will be used by IUCN for this operation. The project will furnish to IDA, through WAEMU, no later than 45 days following the end of each semester, a copy of the internal audit report, which summarizes the key findings of the reviews completed during the semester.

### **Accounting**

- (a) **Côte d'Ivoire.** The prevailing accounting policies and procedures in line with the West African Francophone countries accounting standards—SYSCOHADA<sup>53</sup>—in use in Côte d'Ivoire for ongoing World Bank-financed operations will apply. The accounting systems and policies and financial procedures used by the new project will be documented in the project's Administrative, Accounting, and Financial Manual. The IPMU will customize the existing accounting software to meet the new project requirements.
- (b) **Benin and Togo.** The PCU will prepare a PIM with adequate FM arrangements that are acceptable to the World Bank as an effectiveness condition. The accounting systems, policies, and administrative and financial procedures will be documented in the PIM. The PCU will retain staffing resources that are adequate for the level of project operations and activities and are sufficient to maintain accounting records relating to project-financed transactions and to prepare the project's financial reports. The FM function will be carried out by a team composed of a qualified and experienced FM expert in charge of the supervision of all FM activities of the project and a qualified and experienced Accountant. These staff will be recruited through a competitive process in compliance with the World Bank's Procurement Regulations. The team will have the overall FM responsibility over budgeting, accounting, financial reporting, flow of funds, internal control, and auditing. The FM staff capacity will be strengthened over the project implementation period through the deployment of training on IDA disbursement procedures and financial reporting

---

<sup>53</sup> Accounting system adopted by OHADA (Organization for the Harmonization of Corporate Law in Africa, *Organisation pour l'Harmonisation en Afrique du Droit des Affaires*),



arrangements. The PCU will purchase an accounting software with multi-project, multisite, and multi-donor features, customized to generate its financial reports. The installation of the software is expected to be completed within three months after the project's effectiveness. The PCU will use SYSCOHADA accounting standards, which are commonly used among West African Francophone countries. Accounting procedures will be documented in the PIM.

- (c) **Mauritania.** The current accounting standards (*plan comptable de Mauritanie*) in use in Mauritania for ongoing World Bank-financed projects will be applicable. Project accounts will be maintained on an accrual basis, supported with appropriate records and procedures to track commitments and to safeguard assets. Annual financial statements will be prepared by the PIU.
- (d) **Senegal.** The DEEC has a mono-project computerized accounting system, which is not adequate to take into account the project activities. The DEEC will set up an adequate accounting and reporting system acceptable to the World Bank. The current SYSCOHADA accounting standards in use in WAEMU for ongoing World Bank-financed projects will be applicable. Annual financial statements will be prepared by the implementing entity in compliance with World Bank standards and SYSCOHADA.
- (e) **São Tomé and Príncipe.** The AFAP will account for funds, expenditures, and resources of the proposed project using the existing accounting software. This accounting software is adequate because it can produce reliable financial reports required to monitor and manage effectively the progress of the project. The accounting software will be customized to maintain separate records and ledger accounts for the proposed project and allow preparation of financial reports required to monitor and manage the project effectively. The overall responsibility of the project FM matters rests with the AFAP financial manager reporting to the coordinator and supported by an accountant and financial assistant. The AFAP finance team has experience in handling FM and disbursement matters of World Bank-financed operations and is capable of performing its duties and responsibilities. The AFAP FM staff will be strengthened by the deployment of the project Accountant from the Ministry of Infrastructure, Natural Resources, and Environment, who is handling FM of the ongoing Adaption to Climate Change Project. The FM staffing arrangements are adequate with this additional finance staff.
- (f) **WAEMU and IUCN**
  - (i) For WAEMU, the prevailing accounting policies and procedures in line with the West African Francophone countries accounting standards—SYSCOHADA—will apply. The accounting systems and policies and financial procedures used by the new project will be documented in the project's Administrative, Accounting, and Financial Manual. The DAREN of WAEMU will customize the existing accounting software to meet the new project requirements.
  - (ii) For IUCN, the project accounts will be maintained on a cash basis, supported with appropriate records and procedures to track commitments and to safeguard assets.



IUCN's computerized accounting system (Microsoft NAVision ERP) acquired in 2015 will be used by IUCN in the Senegal Office to record all project financial transactions and automatically generate periodic financial statements. Further, while the IUCN Office is adequately staffed to take on the operation, its staff will be assisted by the Finance and Administrative Unit of the IUCN-PACO, which has experience in managing World Bank-financed operations.

## Financial Reporting

- (a) **Côte d'Ivoire.** The unaudited IFRs will be prepared every quarter and submitted to the World Bank regularly (for example, 45 days after the end of each quarter) and on time. The frequency of IFR preparation as well as its format and content will remain unchanged. The consolidated quarterly IFR for the project includes the following financial statements: (i) Statement of Sources of Funds and Project Revenues and Uses of Funds; (ii) Statement of Expenditures (SOE) classified by project components and/or disbursement category (with additional information on expenditure types and implementing agencies as appropriate), showing comparisons with budgets for the reporting quarter, the year, and cumulatively for the project life; (iii) cash forecast; (iv) explanatory notes; and (v) designated account (DA) activity statements. In compliance with SYSCOHADA and IDA requirements, the IPMU will produce annual financial statements. These include (i) a balance sheet that shows assets and liabilities; (ii) a statement of sources and uses of funds showing all the sources of project funds and expenditures analyzed by project component and/or category; (iii) a DA activity statement; (iv) a summary of withdrawals using SOEs, listing individual withdrawal applications by reference number, date, and amount; and (v) notes related to significant accounting policies and accounting standards adopted by management and underlying the preparation of financial statements.
- (b) **Benin and Togo.** The PCU will prepare semiannual unaudited IFRs satisfactory to the World Bank in form and content, which will be submitted to the World Bank within 45 days after the end of the reporting period. The formats and contents of the IFR have been agreed during negotiations. The semiannual IFR will include the following information: (i) Statement of Sources and Uses of Funds; (ii) statement of uses of funds by project activity/component; and (iii) DA activity statement and explanation notes to the IFR. The PCU will prepare the project financial statements in accordance with SYSCOHADA accounting standards applicable in Benin and Togo.
- (c) **Mauritania.** SAWAP will prepare semiannual IFRs for the project satisfactory to the World Bank in form and content. These IFRs will be submitted to the World Bank within 45 days after the end of the semester to which they relate. SAWAP agreed with the World Bank on the format of the IFRs during negotiations. SAWAP will also prepare the project' financial statements in compliance with International Accounting Standards and World Bank requirements.
- (d) **Senegal.** The DEEC will prepare semiannual IFRs for the project satisfactory to the World Bank in form and content. These IFRs will be submitted to the World Bank within 45 days after the end of the semester to which they relate. The DEEC prepared and agreed with the



World Bank on the format of the IFRs during negotiations. The DEEC will prepare the project's financial statements in compliance with SYSCOHADA and World Bank requirements

- (e) **São Tomé and Príncipe.** The AFAP is producing regular quarterly progress reports for the ongoing projects, and these include financial reports. For the proposed project, this agency will produce and submit IFRs to the World Bank within 45 days after the end of the calendar quarter. The contents of these reports should at minimum include a statement showing for the period and cumulatively actual and planned receipts and payments by main income and expenditures categories (comparing budget and actual expenditures) and beginning and ending cash balances of the project. The AFAP will also produce annual project financial statements in accordance with Cash Basis International Public Sector Accounting Standards, which will at a minimum include (i) a statement of sources and uses of funds/cash receipts and payments, which recognizes all cash receipts, cash payments, and cash balances controlled by the entity for this project and separately identifies all payments by third parties on behalf of the agency; (ii) the accounting policies adopted and explanatory notes - presented in a systematic manner with items on the statement of cash receipts and payments being cross-referenced to related information in the notes such as a summary of fixed assets by category of assets; and (iii) a management assertion that IDA funds have been expended in accordance with the intended purposes as specified in the relevant World Bank financing agreement.
  
- (f) **WAEMU and IUCN.** The unaudited IFRs will be prepared every quarter and submitted to the World Bank regularly (for example, 45 days after the end of each quarter) and on time. The consolidated quarterly IFR for the project includes the following financial statements: (i) statement of sources of funds and project revenues and uses of funds; (ii) SOE classified by project components and/or disbursement category (with additional information on expenditure types and implementing agencies as appropriate), showing comparisons with budgets for the reporting quarter, the year, and cumulatively for the project life; (iii) cash forecast; (iv) explanatory notes; and (v) DA activity statements. IUCN-SN will submit unaudited IFRs on time to WAEMU to enable the preparation of a consolidated IFR that will reflect the activities implemented under the oversight of IUCN-SN. In compliance with SYSCOHADA and IDA requirements, the DAREN will produce annual financial statements. These include (i) a Balance Sheet that shows assets and liabilities, (ii) a statement of sources and uses of funds, (iii) a DA activity statement, (iv) a summary of withdrawals using SOEs, and (v) notes related to significant accounting policies and accounting standards adopted by management and underlying the preparation of financial statements. The annual consolidated financial statements will include the annual financial statements compliant with SYSCOHADA and prepared by IUCN for activities managed directly by IUCN.

## **Auditing**

- (a) **All participating countries (Côte d'Ivoire, Benin, Togo, Mauritania, Senegal, and São Tomé and Príncipe).** For each participating country, the IPMU (or PCU) will submit audited project financial statements satisfactory to the World Bank every year within six months after closure of the fiscal year. The audit will be conducted by an independent auditor with qualifications and experience acceptable to the World Bank, and for Benin, the auditor will



work under the supervision of the supreme audit institution. A single opinion on the audited project financial statements in compliance with the International Standards on Auditing issued the International Federation of Accountants and a Management Letter will be required. The Management Letter will contain auditor observations and comments and recommendations for improvements in accounting records, systems, controls, and compliance with financial covenants in the financing agreement. The report will also include specific controls such as compliance with procurement procedures and financial reporting requirements and consistency between financial statements and management reports as well as findings of field visits (for example, physical controls). The audit report will thus refer to any incidence of noncompliance and ineligible expenditures and misprocurement identified during the audit mission (see Table 4.1). The project will comply with the World Bank disclosure policy of audit reports and place the information provided on the official website within two months of the report being accepted as final by the team and the World Bank.

- (b) **WAEMU and IUCN.** WAEMU will submit audited project financial statements (including for IUCN’s activities) in line with World Bank requirements as described above. In addition to the audit report of the project accounts, audited financial statements of WAEMU Commission (Entity Financial Statements) will be submitted to IDA 18 months after the end of each calendar year. These accounts will be audited by the Court of Accounts of the WAEMU Commission.

Table 4.1. Due Dates of the Audit Reports

Audit Report	Due Date	Responsible Party
Audited financial statements for the project including audit report and Management Letter	(a) Not later than June 30, (2000 + N) if effectiveness has occurred before June 30, (2000 + N-1). (b) Not later than June 30, (2000 + N+1) if effectiveness has occurred after June 30, (2000 + N-1)	All PIUs and DAREN/WAEMU
Audited financial statements of the WAEMU Commission	No later than 18 months after the end of the calendar year N-1	DAREN/WAEMU

Funds Flow Arrangements

- (a) **DAs for WAEMU and IUCN.** For WAEMU, which is based in Burkina Faso, the DA will be opened in the BCEAO. IUCN will open a project account, which will receive transfers from the WAEMU DA periodically as further described below.
- (b) **DAs for the participating countries.** Each PCU will open one DA at a financial institution acceptable to the World Bank in U.S. dollars or local currency. In Benin and Côte d’Ivoire, a CFAF-denominated DA will be opened at the BCEAO. In Senegal and Togo, a CFAF-denominated account will be opened in a commercial bank acceptable to IDA. In Mauritania, a U.S. dollar denominated account will be opened at the Central Bank of Mauritania (*Banque Centrale de Mauritanie*, BCM). In São Tomé and Príncipe, a U.S. dollar denominated DA will



be opened in a commercial bank and a project account will be opened in local currency. For all countries, the funds will be released to the project accounts opened in a reputable commercial bank or central bank denominated in local currency. The project account will be managed by each PCU in line with the FM Manual. All withdrawals from the project account will be authorized respectively by the Project Coordinator and the project’s FM Specialist and in line with the accounting manuals for each country. The account is set up to fund eligible expenditures based on the approved annual activity plans. The ceiling for each DA for approximately four months of expenditures has been determined as set out in Table 4.2.

**Table 4.2 DAs (and Ceiling) and Project Bank Accounts**

<b>Institution</b>	<b>DA (Ceiling)</b>	<b>Project Account</b>
<b>Benin</b>	DA.A: 1.2 billion DA.B: 1 billion BCEAO (CFAF (XOF))	Commercial bank DA.A (IDA Credit): BCEAO DA.B (IDA Grant and GEF Grant): BCEAO
<b>Togo</b>	DA.A: 1.2 billion DA.B: 800 million A: Société Générale and B: Orabank (CFAF (XOF))	Commercial bank DA.A (IDA Credit): Société Générale DA.B (IDA Grant and GEF Grant): Orabank
<b>Mauritania</b>	DA: 1,400,000 BCM (US\$)	Commercial bank Central Bank of Mauritania
<b>Senegal</b>	Commercial bank <sup>a</sup> (CFAF)	n.a.
<b>Côte d’Ivoire</b>	DA: 1,15 billion BCEAO (CFAF (XOF))	Commercial bank BCEAO
<b>São Tomé and Príncipe</b>	Commercial bank <sup>b</sup> (US\$)	Commercial bank (new dobras)
<b>WAEMU and IUCN</b>	DA: 600 million BCEAO (CFAF (XOF))	Commercial bank (CFAF) account managed by IUCN BCEAO

*Note:* a. Senegal: At the time of negotiating this project, advances to a DA were not permitted in line with section 5.2 of the Disbursement Guidelines. As the foregoing measure is deemed temporary, disbursement arrangements have been designed to include the use of a DA to the extent such use is permitted at a later date during project implementation, provided that this Disbursement and Financial Information Letter (DFIL) will first need to be amended at a later date to reflect such arrangements.

Once this issue is solved, the following arrangements will be applied. The following summarizes the proposed general terms of such arrangements: One segregated DA will be used to finance expenditures in all categories. The DA will be opened at Ecobank Senegal. A fixed ceiling of XOF 1.15 billion has been determined for the DA.

b. São Tomé et Príncipe: As in the cases above, at the time of negotiating this project, advances to a DA were not permitted.

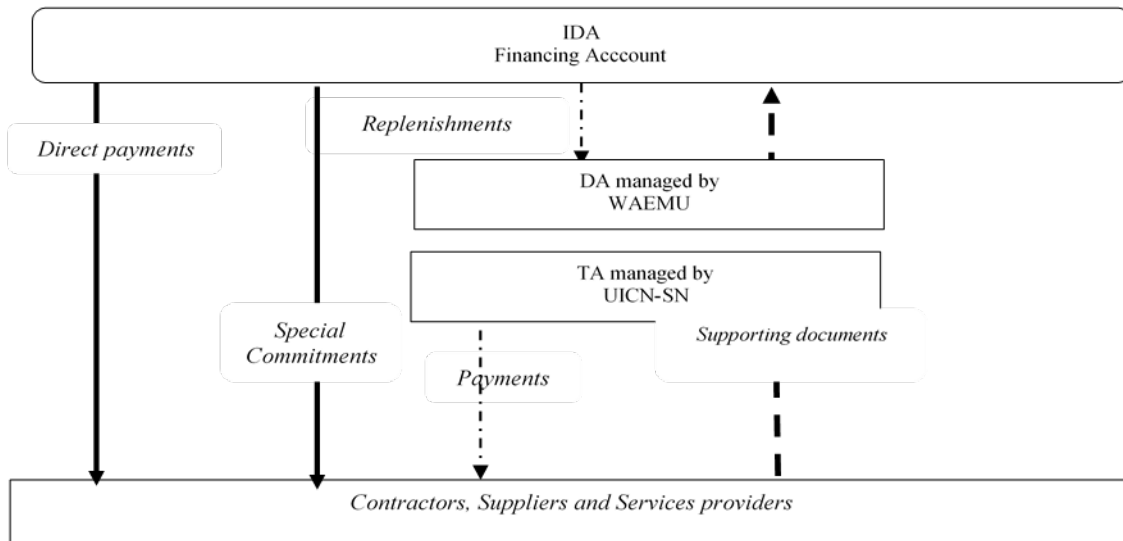
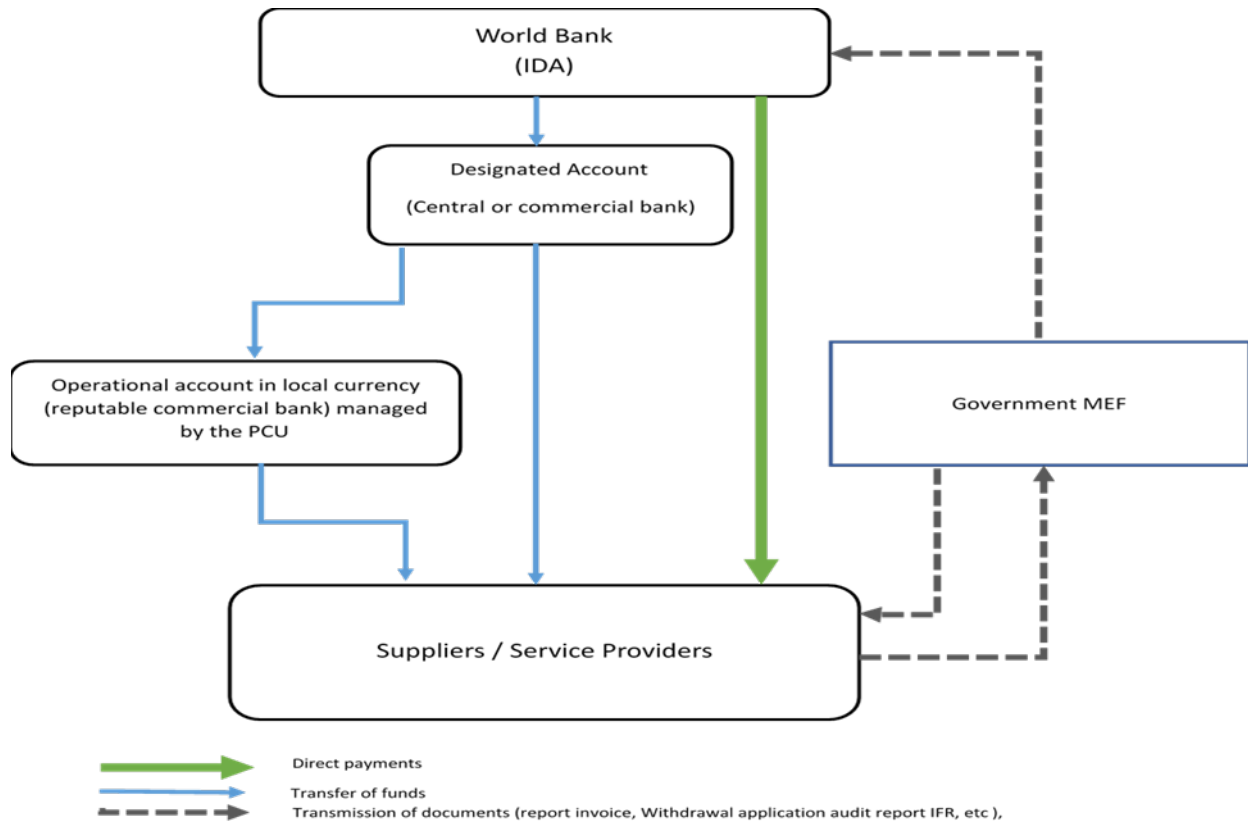
Once this issue is solved, the following arrangements will be applied. The following summarizes the proposed general terms of such arrangements: One segregated DA will be used to finance expenditures in all categories. The DA will be opened at BGFI Bank Benin SA. A combined ceiling of US\$700,000 has been determined for the DA as follow:

- IDA Grant US\$600,000 and GEF Grant TF US\$100,000





Figure 4.1. Funds Flow Diagram





- (c) **Disbursements.** Disbursements will be made in line with the Disbursement Guidelines for Investment Project Financing issued in February 2017. Upon credit effectiveness, transaction-based disbursements will be used. The project will finance 100 percent of eligible expenditures inclusive of taxes. An initial advance up to the ceiling of the DA will be made to each DA, and subsequent disbursements will be made against the submission of the SOE reporting on the use of the initial/previous advance. The option to disburse against submission of quarterly unaudited IFRs (also known as report-based disbursements) could be considered, as soon as the project meets the criteria. Other methods of disbursing the funds (reimbursement, direct payment, and special commitment) will also be available to the project. The minimum value of applications for these methods is 20 percent of the DA ceiling. The authorized signatories of each participating country will sign and submit Withdrawal Applications electronically through the World Bank’s Client Connection website.
  
- (d) **Payments/transfers to IUCN.** The DAREN of WAEMU will make payments to IUCN with regard to the specified activities in the regional component of the project. Payments will be made in accordance with the payment modalities, as specified in the respective contracts/conventions between WAEMU and IUCN and described in the manuals. A total amount of US\$8.8 million will be provided, pursuant to a Subsidiary Agreement from WAEMU to IUCN to run the RISU, the contract with the CSE, and the contract with ABC. In addition to the supporting documents (for example, detailed financial and technical reports), the DAREN will consider the findings of the Internal Audit Department of WAEMU while approving any request for payments. The DAREN will reserve the right to verify the expenditures ex post, and refunds might be requested for noncompliance with contractual clauses. Misappropriated activities could result in the suspension of financing for a given entity. To avoid delays in payment to IUCN, two payments per year will be implemented. Direct payment could be used for the transfer/payment to IUCN and will be prepared by the team of the DAREN. The first tranche will be based on the approved AWPB of IUCN.

**Table 4.3. FM Action Plan**

Remedial Action Recommended	Responsible Entity	Completion	Legal Covenant
<b>Benin and Togo</b>			
Recruit an FM team comprising a qualified and experienced Financial Expert and a qualified and experienced Accountant.	Benin and Togo PCU	Three months after effectiveness	x
Set up a ‘multiproject’ computerized accounting system to fit project needs and generate useful information and financial statements.	Benin and Togo PCU	Three months after effectiveness	
Format, content, and frequency of the IFR were discussed and agreed during project negotiations.	Benin and Togo PCU	Completed during the negotiations	



<b>Remedial Action Recommended</b>	<b>Responsible Entity</b>	<b>Completion</b>	<b>Legal Covenant</b>
Develop an Administrative, Accounting, and Financial Manual of Procedures (as part of the PIM) that also includes detailed procedures describing the system to pay recurrent expenditure with specific sections on anticorruption aspects.	Benin and Togo PCU	Under Project Preparation Advance (PPA) financing	
Recruit a qualified and experienced Internal Auditor who will have to submit semiannual internal audit reports to the World Bank within 45 days after the end of the audit period.	Benin and Togo PCU	Three months after effectiveness	x
Appoint an external auditor acceptable to IDA	Togo PCU	Six months after effectiveness	x
<b>Côte d'Ivoire</b>			
Design a mechanism for sharing the operating costs of the IPMU among the different projects managed by the IPMU; this will allow to reflect the contribution of each project to the overall operating cost of the IPMU.	IPMU/WACA	Two months after effectiveness	
Update the PIM, including fiduciary procedures to reflect specific arrangements related to the new project and the improvements required following the in-depth review of REDD+.	IPMU/WACA	By effectiveness	
Update the configuration of the accounting software	IPMU/WACA	Three months after effectiveness	x
Recruit one Officer Accountant assigned to the new project and with qualifications and experience satisfactory to the World Bank.	IPMU/WACA	By effectiveness	x
Recruit the External Auditor.	IPMU/WACA	Five months after effectiveness	x
<b>Mauritania</b>			
Prepare and agree with the World Bank on the format of the IFRs.	SAWAP project	Completed during negotiations	
Update the existing administrative financial manual of procedures to include the project specificities.	SAWAP project	Completed during negotiations	
Select an accountant with competence and experience satisfactory to the World Bank.	SAWAP project	Not later than four months after effectiveness	x
Select an External Auditor with competence and experience satisfactory to the World Bank.	SAWAP project	Not later than four months after effectiveness	x
<b>Senegal</b>			
Prepare and agree with the World Bank on the format of the IFRs.	DEEC	Completed during negotiations	
Develop the project FM procedures manual.	DEEC	Completed during negotiations	



Remedial Action Recommended	Responsible Entity	Completion	Legal Covenant
Draft the TORs for financial statement audit of the Project,	DEEC	Completed during negotiations	
Select the auditor.	DEEC	Not later than four months after effectiveness	x
<b>São Tomé and Príncipe</b>			
Revise and finalize the draft FM procedures manual acceptable in form and substance to the World Bank.	AFAP	March 31, 2018	
Customize the accounting software to maintain separate records and ledger accounts for the proposed project.	AFAP	Within two months after effectiveness	
Appoint project External Auditors.	AFAP	Not later than four months after effectiveness	x
<b>WAEMU and IUCN</b>			
Update the PIM, including fiduciary procedures to reflect specific arrangements related to the new project.	DAREN/WAEMU	Two months after effectiveness	
Update the configuration of the accounting software to allow recording of the WACA Program activities.	DAREN/WAEMU	Two months after effectiveness	
Assign one Accountant with acceptable qualifications and experience in World Bank FM procedures to work 100% on the WACA Program.	DAREN/WAEMU	By effectiveness	
Include the WACA activities in the annual work program of the Internal Audit Department of WAEMU and share copy of mission reports with the World Bank.	DAREN/WAEMU	First internal audit report due five months following the first disbursement to DSAME/WAEMU	
Recruit the external auditor.	DAREN/WAEMU	Four months after effectiveness	x
Submit the audited annual financial statements of WAEMU to the World Bank.	WAEMU	Every 18 months following the end of the fiscal year	

### Financing Local-level Initiatives Implemented by the Local Government and Municipalities under Subcomponent 3.2 (Social Sub-projects)

5. Local-level activities have either been identified during the preparation phase or will be identified during implementation following a participatory process to be agreed upon with each country. These activities must be within the list of eligible subprojects provided in the Project Implementation Manual. The ceiling for local-level initiatives implemented by the local government is US\$250,000.



6. Conditions precedent to the approval/signing of the subproject will include an FM capacity assessment of the local government or municipality responsible for the implementation of the subproject. Once the subproject is approved, the beneficiary municipality/commune will sign a subproject agreement with the PIU, detailing the subproject activities, the proposed budget, a workplan, a monitoring plan, the fiduciary and safeguards requirements, and so on. A model of such agreements will be provided in the PIM. The beneficiary municipality/commune will open a separate regional subaccount to receive the funds to be used to finance eligible expenditures for activities included in the approved workplan.

7. The PIU will provide the necessary administrative support to the local government structures to undertake the necessary fiduciary responsibilities (training, simplified FM manual and PIM, reviews, and so on). The PIU will retain the overall fiduciary responsibility. Arrangements will be detailed in the PIMs.

### **Local Government and Municipalities Capacity Assessment**

8. At the local government level, for countries with acceptable established processes for the selection, financing, and implementation of subprojects by local governments, the project will rely on existing procedures. For countries where such mechanisms are not in place, the FM assessment should cover the mandate, responsibilities, and fiscal capacities of local government bodies. Elements to be considered are the local governments' financial and accounting regulations, budgeting, accounting, reporting, and auditing arrangements.

9. At the community level, the municipality/commune will be subject to a fiduciary assessment to determine whether mechanisms are in place or will be built to ensure that FM arrangements at the community level are effective and in accordance with the World Bank Policy and Directive for Investment Project Financing operations. In particular, the assessments will ensure the following mechanisms are in place:

- The supporting analysis of a subproject proposal should include the identification of communities' FM strengths and weaknesses and the FM strengthening activities that could be financed by the project.
- The subproject proposal should include a clear financing plan identifying the activities to be financed as well as describing the FM arrangements at the community level.
- The subproject selection criteria should include criteria on the feasibility of the financing plan and the soundness of the FM arrangements at the community level. The financing plan should consider communities' capacity to contribute.
- The project Operational Manual should define minimum financial reporting requirements, and the assessment of the community should help determine whether it is able to meet these requirements. If the community has a reporting format that satisfies these conditions, it should be maintained. Otherwise, a new format may be proposed.



### **Disbursements Procedures and Eligibility**

10. The beneficiary municipality/commune will open a separate regional subaccount to receive the funds to be used to finance eligible expenditures for activities included in the approved workplan.

11. For purposes of disbursing the credit/grant proceeds under the subprojects, the small-scale financial contributions disbursed to the communities on a lump-sum basis will be covered under the disbursement category of the Financing Agreement titled 'Goods, works, non-consulting services, consulting services, training, workshops and Operating Costs under Part 3.2 of the project.

- **Internal audits.** Internal audit by the central government or local government or simply by trained members of the community will be encouraged as an integral part of the internal control system.
- **Ex post audit.** A simple, inexpensive internal ex post audit of community subprojects designed to confirm that funds have been spent on the intended purpose and that the community has received value for money will be included in the FM arrangements.
- **Subproject audits.** The audit of the subproject will be part of the project audit with specific procedures related to the subprojects. As part of the project's overall monitoring system, subprojects implemented by local governments, intermediary entities, or community groups will be audited based on a random sample of low-amount subprojects and all high-amount subprojects will be audited using a risk-based approach. In addition, the auditor will be required to report on compliance with the internal control mechanisms built into the project design. Linking expenditures to physical progress and examining value for money may be integral components of the subproject audit. These requirements will be included in the TORs of the annual financial statement audit of each participating country.

### **Financial Covenants**

12. **For all participating countries and entities, financial covenants related to standard FM requirements are covered under Section 5.09 of the IDA General Conditions and specific FM aspects are included in the DFIL.** Further, additional covenants may be added to the Legal Agreements to reflect actions outlined in the FM action plan.

### **Support to the Implementation Plan**

13. **For all participating countries and entities, FM supervisions will be conducted over the project's lifetime.** The project will be supervised on a risk-based approach. Based on the outcome of the FM risk assessment, the following implementation support plan is proposed. The objective of the implementation support plan is to ensure the project maintains a satisfactory FM system throughout its life.



**Table 4.4. FM Implementation Support Plan**

<b>FM Activity</b>	<b>Frequency</b>
<b>Desk reviews</b>	
IFRs' review	Quarterly
Audit report review of the program	Annually
Review of other relevant information such as interim internal control systems reports	Continuous, as they become available
<b>On-site visits</b>	
Review of overall operation of the FM system (Implementation Support Mission)	Every six months for Substantial risk
Monitoring of actions taken on issues highlighted in audit reports, auditors' Management Letters, internal audits, and other reports	As needed
Transaction reviews	As needed
<b>Capacity-building support</b>	
FM training sessions	Before project effectiveness and during implementation as needed



## ANNEX 5: DETAILED PROCUREMENT ARRANGEMENTS

COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo  
West Africa Coastal Areas Resilience Investment Project

1. **The borrowers will carry out procurement under the proposed project in accordance with the World Bank's Procurement Regulations dated July 2016 and revised in November 2017 under the NPF, and the 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants', dated October 15, 2006 and revised in January 2011 and as of July 1, 2016, and other provisions stipulated in the Financing Agreements.**
2. **All procuring entities as well as bidders and service providers, that is, 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 paragraph 3.32 and Annex IV of the Procurement Regulations.**
3. **The borrowers shall prepare and submit to the World Bank a General Procurement Notice (GPN) and the World Bank will arrange for the publication of the GPN in United Nations Development Business (UNDB) online and on the World Bank's external website.** The borrowers may also publish it in at least one national newspaper.
4. **The borrowers shall publish the Specific Procurement Notices (SPNs) for all goods, works, and non-consulting services and the Requests for Expressions of Interest on their free-access websites, if available, and in at least one newspaper of national circulation in each borrower's country and in the official gazette.** For open international procurement and selection of consultants using an international shortlist, the borrowers shall also publish the SPNs in UNDB online and, if possible, in an international newspaper of wide circulation; and the World Bank arranges for the simultaneous publication of the SPNs on its external website.

### Institutional Arrangements for Procurement

5. **At the regional level, the institutional arrangements are the following:**
  - (a) **A WACA RISU will be established by WAEMU to support the implementation of national and regional activities.** The RISU will 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 impacts. This component will be subject to procurement processes, which shall be carried out by the WAEMU Commission.
  - (b) **WAEMU.** The WAEMU Commission has an internal procurement system that is the basis of the '*Règlement financier*' dated 2008 and the '*Règlement d'exécution sur la passation des marchés*' dated 2009 and revised in 2014. Taking advantage of the '*Projet de réformes des marchés publics*' financed by the AfDB and focusing on procurement reforms within its member states, the WAEMU Commission enhanced its own internal system and procurement procedures. The system comprises a central commission called '*Commission*





*des marchés et des contrats* established within the '*Departement des services administratifs et financiers*', and deconcentrated commissions based in sector departments, which work exclusively for consultant services relevant to their sectors. Each commission is chaired by the Chief of Staff from the relevant department and comprises clearly identified members. The setting up of an administrative complaint mechanism is under way. Models of bidding documents are also being elaborated. The WAEMU Commission is currently staffed with five Procurement Specialists who have a minimum qualification of a master's degree. The assessment found that one of them has already implemented a World Bank-financed project and is experienced in the World Bank procedures. This staff member will be dedicated to the procurement of this project. In addition, this will be the second project to be implemented by WAEMU under the World Bank NPF. WAEMU will sign a subsidiary agreement with the regional representation of IUCN in Dakar. About US\$8.75 million will be delegated to IUCN for the main regional activities.

- (c) **IUCN.** The Administrative and Finances Department is in charge of procurement and assures the filing of all procurement documents. The same officer is covering the function of procurement and FM. IUCN has a procedural manual where procurement functions and procedures are described. This document also gives the thresholds applicable to regional organizations and the country representation. IUCN in Dakar has very limited experience in World Bank projects, though its own procedures are very strong. The coming grant will challenge the institution to (a) prepare a Procurement Plan, (b) conduct bids evaluation, (c) handle complaints, and (d) manage contracts in an efficient way.

6. **Procurement at the national level shall be carried out by the following:**

- (a) **Benin.** Procurement will be carried out by the newly created PMU under the Climate and Environment Directorate of the MESD. The PMU will comprise a competitively hired Procurement Specialist. The documents (Bidding Document, Request for Proposal [RFP], and Bid Evaluation Report) will be jointly prepared by the hired Procurement Specialist and a Procurement Control Commission established in the MESD. Depending on the contract amount, documents will be subjected to the prior review of the Procurement Control Commission of the MESD or of the National Procurement Control Directorate (*Direction Nationale de Contrôle des Marchés Publics, DNCMP*) under the Ministry of Finance.
- (b) **Côte d'Ivoire.** An integrated PIU including the PROGEP-CI and the WACA will be in charge of the implementation of the project to share the implementation costs of the two projects, especially to benefit from the experience of the PROGEP-CI project team, which already has experience of projects financed by the World Bank. The integrated unit has a Procurement Specialist and a Procurement Assistant. The current portfolio and one part from an upcoming World Bank funding for the new project consist of the WACA in preparing and assisting PROGEP-CI. The integrated unit, as with the other PIUs in Côte d'Ivoire, has received training on the NPF, especially on the PPSD.
- (c) **Mauritania.** The project will be implemented by the MEDD. The ministry has a Procurement Department within the Directorate of Administrative and Financial Affairs. The Chief Market Officer is familiar with Mauritanian procurement procedures but has no experience in IDA



procedures. The ministry created a dedicated Implementing Unit for the project, but up to the date of Board submission, only the Coordinator and Assistant Coordinator have been recruited. The Coordinator carried out procurement for the project preparation funds. It has been agreed that a qualified Procurement Officer will be hired and dedicated to the project; in addition, he/she will provide support to another project financed by the World Bank (SAWAP). This Procurement Officer must be assisted by an Assistant designated by the ministry to ensure a transfer of skills for the administration. A manual of procedures with a procurement section has been prepared for the SAWAP; the document will be updated to reflect additional provisions for the WACA Program. In accordance with the client's regulations, the procurement structures will be (i) Multi-Departmental Contracts Commission, which will be in charge of the execution of procurement procedures whose estimate is greater than or equal to MRU 10 million (approximately US\$28,000) for both projects and (ii) Internal Procurement Commission at the ministry level for procurement estimated at less than MRU 10 million (about US\$28,000) for both projects. The updated Procedural Manual should define the composition and modalities of meetings and decision making of the Internal Ministry Commission.

- (d) **Senegal.** The DECC will be responsible for the implementation of the procurement of the project. The DECC has designated the person responsible for the procurement activities of the project as 'DEEC Project Management Officer'. The designated officer will work closely with the World Bank Office Procurement Officer and will be technically supported by an expert/consultant recruited under the project. He/she will be exposed to training clinics organized by the World Bank.
  
- (e) **São Tomé and Príncipe.** The project will be managed by the PIU created under the DGA of the Ministry of Infrastructures, Natural Resources, and Environment. Fiduciary aspects of the project, including procurement activities, will be managed by the AFAP as fiduciary agent for the project. The PIU of the DGA of the Ministry of Infrastructures, Natural Resources, and Environment recently managed the World Bank-funded project, Adaptation to Climate Change (P111669), including procurement activities. While there is some capacity created at the DGA, the Government and the World Bank agreed to use the AFAP as the fiduciary agent, including for procurement activities. The AFAP has been handling fiduciary matters of World Bank-funded projects since its establishment in 2003, which includes social sector, education, and telecommunication projects. Currently, it is supporting the implementation of Quality Education for All Project, Power Sector Recovery Project, and Household Budget Survey. The AFAP has, therefore, adequate capacity to handle procurement activities under this project. Considering that the AFAP will be implementing additional projects in the near future, it will need to reinforce its capacity to provide adequate support to all projects by recruiting additional staff. In this regard, the fiduciary team of the Adaptation to Climate Change (P111669) project, including the Procurement Specialist and the FM Specialist, will be transferred to the AFAP, bringing additional capacity and knowledge of the climate change/environment sector. Specific procedures for the project will be detailed in the Operational Manual of the project, which will be developed under the PPA and will be available not later than three months from the project effectiveness.



- (f) **Togo.** A PMU of the WACA ResIP will be created in the MEFR of Togo and attached directly to the General Secretary Office. The creation will be formalized through a text (*Arrêté*) under preparation and to be signed by the Minister of the MEFR. The MEFR has established a Procurement Commission consisting of five members and chaired by the nominated person in charge of procurement. The person in charge of procurement has his Secretary who also serves as a secretary to the commission. The procurement bidding documents to be elaborated by the PMU of the project and validated by the person in charge of procurement and the Procurement Commission will be submitted for decisions of the Procurement Control Commission of the MEFR consisting also of five members or to the decisions of the DNCMP under the Ministry of Finance depending on the procurement control threshold described in the procurement code. The MEFR has managed two World Bank-financed projects, namely the closed Integrated Disaster and Land Management Project (P123922 and P124198) and the ongoing REDD+ Readiness preparation (P149942), which gave the opportunity of the main entities in charge of the procurement in the ministry to get accustomed to the World Bank procurement procedures. There has been a turnover in the staffing of these entities, which has weakened their procurement capacity. Further, the level of complexity of the procurement activities managed so far is not similar to the one of this current project.

7. **Filing and record keeping.** The Procurement Procedures Manual will set out the detailed procedures for maintaining and providing readily available access to project procurement records, in compliance with the Loan Agreement. The implementing agencies will assign one person responsible for maintaining the records. The logbook of the contracts with a unique numbering system shall be maintained.

8. **The signed contracts as in the logbook shall be reflected in the commitment control system of the borrower's accounting system or books of accounts as commitments whose payments should be updated with reference made to the payment voucher.** This will put in place a complete record system whereby the contracts and related payments can be corroborated.

9. **PPSD.** As part of the preparation of the project, the borrowers (with support from the World Bank) have prepared their PPSD, which describe how fit-for-purpose procurement activities will support the project operations for the achievement of the PDOs and deliver value for money. The procurement strategies are linked to the project implementation strategy at the regional, country, and state levels ensuring proper sequencing of the activities. They consider institutional arrangements for procurement; roles and responsibilities; thresholds, procurement methods, and prior review; and the requirements for carrying out procurement. They also include a detailed assessment and description of state government capacity for carrying out procurement and managing contract implementation, within an acceptable governance structure and accountability framework. Other issues taken into account include the behaviors, trends, and capabilities of the market (that is, market analysis) to inform the Procurement Plan. The activities also require strong technical capability to prepare proper technical specifications to avert lack of, or inadequate, market response. This capability—or a plan to enhance—is considered in the strategies. Also, special arrangements like direct contracting; use of state-owned enterprises, UN agencies, third-party monitors, local NGOs, Force Account, civil servants needs; results-based arrangements; or need for prequalification, if any, are considered and addressed.



10. **The recruitment of civil servants as individual consultants or as part of the team of consulting firms will abide by the provisions of paragraph 3.23 (d) of the Procurement Regulations.**
11. **Special considerations.** Not applicable.
12. **Procurement Plan.** The borrowers and their implementing agencies have prepared and adopted detailed 18-month Procurement Plans, which have been agreed by the Government and the World Bank during the loan negotiations. The Procurement Plans will be updated in agreement with the World Bank team annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.
13. **The implementing agencies will carry out procurement for their needs to implement the project and for the ministries necessary for the project implementation as explained below.** They may also procure goods, works, or services for other institutions and agencies of the health system in their countries for the project as included in the Procurement Plan and agreed with the World Bank.
14. **The scope of procurement is the following:**
  - (a) **WAEMU.** As mentioned in the project documents, ‘the project consists of a combination of physical or thematic interrelated regionally and nationally implemented activities. The design responds to the need for interventions at policy and institutional level, demand for physical and social investments, assistance for establishment of integrated support systems, such as coastal observation and early warning, and a RISU to help with the communication, exchange of knowledge, scaling up of activities and monitoring of impacts. The project will finance the design, installation, and operationalization of WACO. The project will also develop a change management and communication strategy.
  - (b) **IUCN.** The main activities that will be procured by IUCN consist mainly of two direct contracting arrangements with ABC for about US\$1.5 million and the CSE for about US\$1.5 million. The other activities are small contracts for consultant services and supply of goods.
  - (c) **Benin.** Works to be procured under the project include contracts of the Benin-Togo transboundary coastal protection, maintenance works, rehabilitation and restoration works, and minor works. Goods and non-consulting services to be procured under this project are likely to include contracts for acquisition of equipment (computers, printers, office furniture, and so on) for central, deconcentrated, and decentralized institutions; acquisition of equipment and software for the operationalization of the geographical system of environmental information; acquisition of technical and information technology (IT) equipment for ABE to monitor environmental impacts and technical equipment for monitoring the environmental and coastal risk by the project; and acquisition of motorcycles, motorized shacks, and so on. The consulting services under this project are likely to include consulting services for the control of the realization of transboundary coastal protection, rehabilitation, restoration works, technical feasibility study, environmental and social impact study, and so on.
  - (d) **Côte d’Ivoire.** The works to be financed by IDA include the following: plantation of mangroves for banks stabilization and ecosystem rehabilitation; contracts for the flood



prevention works (for example, drainage and ravine stabilization); and contract(s) for coastal protection works. The goods and non-consultant services to be financed will include office furniture, supplies, vehicles, designing, editing, and printing key documents (for example, coastal law, decrees) for dissemination, as well as project promotion supports. They will also include acquisition of equipment and software for the operationalization of the geographical system of environmental information; acquisition of technical and information technology equipment for selected agencies to monitor environmental impacts, and technical equipment for monitoring the environmental and coastal risk by the project and as pertained to piloting the early warning system. For the consultant services, the project will finance activities such as recruitment of firms and individuals for pre-feasibility and feasibility studies (including modelling), various environmental and social safeguards studies, supervision of works, and technical and financial audits.

(e) **Mauritania.** The main procurement activities that are envisaged for the implementation of the project are (i) procurement of computer hardware, office equipment, and other items totaling approximately US\$524,000; (ii) construction works and rehabilitation of infrastructure totaling approximately US\$13,947,500; (iii) acquisition of equipment for certain works and for the community development of the six communes for a total amount of about US\$2,450,500; and (iv) recruiting national and international TA for a total amount of approximately US\$475,500.

(f) **Senegal.** The contracts for works (US\$11,600,000) consisting mainly of the stabilization and protection of the cornices of Dakar and the Coast of Gorée will be procured through open competition—request for bids and the international market approach. Smaller purchases using request for quotation (RFQ) method will be conducted for the purchase of reference data (cartographic support, satellite images, and so on) with equipment and consumables and the supply of accountant software and of materials and equipment (office equipment and furniture, and so on) for GIS. The main consulting activities requiring the use of the quality and cost based selection (QCBS) method with an international approach to the market are (i) selection of a firm for the feasibility study, detailed technical/design study, and bidding documents and control of the protection works of Dakar corniches and Gorée Island hills estimated at US\$960,000; (ii) selection of a firm for the elaboration of the feasibility studies and the adaptation plan of the islands of the Casamance River estimated at US\$1,000,000; (iii) selection of an NGO for the preparation and implementation of civic engagement in Saint Louis (US\$500,000); (iv) recruitment of a firm for the elaboration of the National ICZM Plan and the Ziguinchor Local Plan (US\$370,000); and (v) selection of a firm for the ESIA for the protection of DAKAR corniches and coasts (US\$350,000). Other smaller contracts for firms and individual consultants will be procured using the most appropriate methods.

(g) **São Tomé and Príncipe.** Procurement of sea security kits (estimated at US\$480,000) (goods) will be through open competition—request for bids and the international market approach, considering that there is not enough competition in the country. Servicing works for expansion areas (estimated at US\$540,000) (works) will be procured through open competition—request for bids and national market approach. Smaller purchases using the RFQ method may also be directed for international bidders due to lack of local suppliers, especially purchase of global positioning system equipment and equipment for detection of fishermen. The wave prediction model (estimated at US\$200,000), geomorphological studies (estimated at US\$300,000), and the



detailed adaptation option plans geomorphological studies (estimated at US\$100,000) are the main consulting activities requiring the use of the QCBS method. Except for legal-related activities (coastal legal framework, sea security law, and disaster risk management law), all activities will be on post review by the World Bank.

(h) **Togo.** The procurement includes major infrastructure investments for coastal zone management, including erosion, flooding, and pollution risk reduction, as well as climate-resilient urban infrastructure, with interventions on the cross-border zone of Benin and Togo, of the project in two phases: a first phase of ‘emergency protection’ (US\$17 million), and a second phase (US\$8 million) where a long-term solution will be implemented based on the results of a detailed feasibility study. It involves the construction/rehabilitation of new structures (groynes, breakwaters, and riprap coating), reloading of sand, and mega-reloading of sand between Agbodrafo and Grand Popo to scale up the positive impacts. Other planned investments include preparation and implementation of management plans in three major sub-watersheds in the Maritime Region that flow into Chenal de Gbaga and the promotion of sustainable land management. The consulting firm assignments consist mainly of the supervision of protection works (phase 1: US\$2.5 million, phase 2: US\$2 million), technical and economic feasibility studies for the protection of the coastal area (US\$2.6 million), and environmental and social impact studies (US\$320,000). The contracts of goods to be procured during the project implementation do not need to present specific constraints or require a particular technology.

15. **Training, workshops, study tours, and conferences.** Training activities will comprise workshops and training, based on individual needs, as well as group requirements, on-the-job training, and hiring of consultants for developing training materials and conducting training. Selection of consultants for training services follows the requirements for selection of consultants above. All training and workshop activities (other than consulting services) will be carried out on the basis of approved AWPBs/Training Plans that will identify the general framework of training activities for the year, including (a) the type of training or workshop, (b) the personnel to be trained, (c) the institutions that will conduct the training and reason for selection of this particular institution, (d) the justification for the training and how it would lead to effective performance and implementation of the project and or sector, (e) the duration of the proposed training, and (f) the cost estimate of the training. Reports from the trainee(s), including completion certificate/diploma upon completion of training, shall be provided to the Project Coordinator, will be kept as parts of the records, and will be shared with the World Bank if required.

16. **A detailed training and workshop plan giving the nature of training/workshop, number of trainees/participants, duration, staff months, timing, and estimated cost will be submitted to IDA for review and approval before initiating the process.** The selection methods will derive from the activity requirement, schedule, and circumstance. After the training, the beneficiaries will be requested to submit a brief report indicating what skills have been acquired and how these skills will contribute to enhance their performance and contribute to the attainment of the project objective.

17. **Operational costs:** Operational costs financed by the project will be incremental expenses, including office supplies, vehicles operation and maintenance costs, maintenance of equipment, communication costs, rental expenses, utilities expenses, consumables, transport and accommodation, per diem, supervision costs, and salaries of locally contracted support staff. Such services’ needs will be



procured using the procurement procedures specified in the PIM accepted and approved by the World Bank.

18. **Procurement Manual.** Procurement arrangements, roles and responsibilities, methods, and requirements for carrying out procurement shall be elaborated in detail in the Procurement Manual, which may be a section of the PIM. The PIM shall be prepared by the borrowers and agreed with the World Bank by project effectiveness.

19. **Procurement methods.** The borrowers will use the procurement methods and market approach in accordance with the Procurement Regulations.

20. **The Open National Market Approach is a competitive bidding procedure normally used for public procurement in the country of the borrower and may be used to procure goods, works, or non-consultant services provided it meets the requirements of paragraphs 5.3 to 5.6 of the Procurement Regulations.**

21. **The thresholds for particular market approaches and procurement methods are indicated in Table 5.1.** The thresholds for the World Bank’s prior review requirements are also provided in Table 5.1.

**Table 5.1 Thresholds, Procurement Methods, and Prior Review**

No.	Expenditure Category	Contract (C) Value Threshold <sup>a</sup> (equivalent US\$)	Procurement Method	Contracts Subject to Prior Review (equivalent US\$)
1	Works	Benin and Mauritania: C ≥ 10,000,000 Côte d’Ivoire and Senegal: C ≥ 15,000,000 São Tomé and Príncipe: C ≥ 3,000,000 Togo: C ≥ 5,000,000	Open Competition International Market Approach and Direct Contracting	≥ 10,000,000  São Tomé and Príncipe: ≥ 5,000,000  Togo: ≥ 5,000,000
		Benin and Mauritania: 200,000 < C < 10,000,000 Côte d’Ivoire and Senegal: 200,000 < C < 15,000,000 São Tomé and Príncipe: C < 3,000,000 Togo: 200,000 < C < 5,000,000	Open Competition National Market Approach	None
		C ≤ 200,000	RFQ	None
2	Goods, IT, and non-consulting services	Benin and Mauritania: C ≥ 1,000,000 Côte d’Ivoire and Senegal: C ≥ 3,000,000 São Tomé and Príncipe: C ≥ 500,000 Togo: C ≥ 500,000	Open Competition International Market Approach and Direct Contracting	≥ 2,000,000  São Tomé and Príncipe: ≥ 1,500,000  Togo: ≥ 1,500,000



No.	Expenditure Category	Contract (C) Value Threshold <sup>a</sup> (equivalent US\$)	Procurement Method	Contracts Subject to Prior Review (equivalent US\$)
		Benin and Mauritania: 100,000 < C < 1,000,000 Côte d'Ivoire and Senegal: 100,000 < C < 3,000,000 São Tomé and Príncipe: C < 500,000 Togo: 100,000 < C < 500,000	Open Competition National Market Approach	None
		C ≤ 100,000	RFQ	None
3	National shortlist for selection of consultant firms	Benin and Mauritania: C < 100,000 Côte d'Ivoire and Senegal: C < 300,000 São Tomé and Príncipe: C < 100,000 Togo: C < 100,000	for consulting services	None
		Benin and Mauritania: C ≤ 300,000 Côte d'Ivoire and Senegal: C ≤ 500,000 São Tomé and Príncipe: C ≤ 300,000 Togo: C < 300,000	for engineering and construction supervision	None
4	International shortlist for selection of consultant firms	Benin and Mauritania: C ≥ 100,000 Côte d'Ivoire and Senegal: C ≥ 300,000 São Tomé and Príncipe: C ≥ 100,000 Togo: C ≥ 100,000	for consulting services	≥ 1,000,000 São Tomé and Príncipe: ≥ 500,000 Togo: ≥ 500,000
		Benin and Mauritania: C > 300,000 Côte d'Ivoire and Senegal: C > 500,000 São Tomé and Príncipe: C > 300,000 Togo: C ≥ 300,000	for engineering and construction supervision	≥ 1,000,000 São Tomé and Príncipe: ≥ 500,000 Togo: ≥ 500,000
5	Selection of individual consultants	All values	All approaches	≥ 300,000 São Tomé and Príncipe: ≥ 200,000 Togo: ≥ 200,000





No.	Expenditure Category	Contract (C) Value Threshold <sup>a</sup> (equivalent US\$)	Procurement Method	Contracts Subject to Prior Review (equivalent US\$)
6	Direct contracting	All values		As agreed in the Procurement Plan
7	Training, workshops, and study tours	All values	Based on approved AWPBs	AWPBs

Note: The thresholds are for all countries unless indicated otherwise for specific items.

a. These thresholds are for the purposes of the initial procurement plan for the first 18 months. The thresholds will be revised periodically based on reassessment of risks. All contracts not subject to prior review will be post-reviewed.

22. **Procurement risk rating.** The project procurement risk before the mitigation measures is Substantial. The risk can be reduced to a residual rating of Moderate upon consideration of successful implementation of the mitigation measures. The risks and mitigation measures are provided in Table 5.2.

**Table 5.2. Procurement Risk Assessment and Mitigation Action Plan**

Organization/Country: IUCN – Dakar		Overall Risk Level (Initial/Residual): Substantial/Moderate	
Procurement Risks	Mitigation Measures	Responsibility/Deadline	
One officer is covering the function of procurement and FM.	Separate the functions of FM and procurement to avoid conflict of interest.	IUCN/ as soon as possible	
The procedure manual describes the procurement function, but it does not include the standard bidding document and procurement templates.	Standard bidding document and procurement templates should be included in the procedure manual.	IUCN/before finalization of the procedure manual	
The responsible staff of administrative and finance department ensures procurement record keeping (bidding documents, awards, contracts, invoices, and payments); this situation may be not under control due to the increase in activities.	Use of World Bank procedures on record keeping document system	IUCN/ As soon as needed during project life	



IUCN in Dakar has very limited experience in the World Bank project even if its own procedures are very strong. Also, the responsible staff of administrative and finance department is also involved into the procurement process while his background is more in accounting and finance.	Train IUCN project staff in World Bank procurement procedures, particularly on the World Bank Procurement Regulations dated July 2016 and revised in November 2017, which will be applied to the proposed grant.	IUCN/ As soon as possible
Usually, IUCN prepares an annual work plan; unfortunately, it has declined on a Procurement Plan due of the size of activities.	Train IUCN project staff in World Bank procurement procedures, particularly on using Systematic Tracking of Exchanges in Procurement (STEP).	IUCN/As soon as possible
<b>Organization/Country: WAEMU</b>		<b>Overall Risk Level (Initial/Residual): Moderate/Moderate</b>
<b>Procurement Risks</b>	<b>Mitigation Measures</b>	<b>Responsibility/Deadline</b>
No risks identified	No mitigation measures required.	NA.
<b>Organization/Country: Benin - MESD</b>		<b>Overall Risk Level (Initial/Residual): Substantial/Moderate</b>
<b>Procurement Risks</b>	<b>Mitigation Measures</b>	<b>Responsibility/Deadline</b>
Insufficient procurement capacity in World Bank procurement procedure	Recruit a Procurement Specialist among the recruited staff of the new PMU.	MESD/Within 3 months after signing of the Financing Agreement
Lack of the procurement manual	Elaborate a new manual with the procurement procedure.	MESD/3 months after effectiveness
Non-designation of the person in charge of procurement and non-establishment of the Procurement Commission and the Procurement Control Commission	Nominate the person in charge of procurement and establish the Procurement Commission and the Procurement Control Commission according to articles 10 to 17 of the new procurement code No. 2017-04 dated October 19, 2017.	MESD/Within 3 months after signing of the Financing Agreement
Weak capacity of the Procurement Specialist, the Procurement Commission, the Procurement Control Commission, the National Procurement Control directorate in NPF procedures	Capacity building will be provided by the World Bank on NPF procurement.	MESD and World Bank/During project implementation



<b>Organization/Country: Côte d'Ivoire Integrated Management Unit (PROGEP-CI, FCPF REDD+, FIP, WACA) within the Ministry of Public Health, Environment, and Sustainable Development</b>		<b>Overall Risk Level (Initial/Residual): Substantial/Moderate</b>	
<b>Procurement Risks</b>	<b>Mitigation Measures</b>		<b>Responsibility/Deadline</b>
The Procurement Specialist is overloaded due to the fact he is involved in other projects (integrated unit).	Recruitment of a procurement assistant fully dedicated to the WACA Update the procedure manual to take into account the WACA's procurement arrangements Even if they have received prior training on the NPF, the PCU members are invited to act urgently to revisit and reinforce their knowledge on the Procurement Regulation for Borrowers.		Integrated unit and World Bank/Within 3 months after signing of the Financing Agreement
The information available to us indicates that some of the contracts have not been executed within the deadline. These delays are due in particular to (a) the low capacity of contractors and (b) the poor quality of terms of reference and technical specifications	To mitigate above-listed turnaround times, the following provisions shall be taken: <ul style="list-style-type: none"> <li>• Set realistic time frames</li> <li>• Ensure the existence of effective capacity of the awarded contractors public agencies in certain circumstances</li> <li>• Recruit consultants for the elaboration of terms of reference and technical specifications where need be</li> </ul>		Integrated unit and World Bank/During project implementation
<b>Organization/Country: Mauritania - MEDD</b>		<b>Overall Risk Level (Initial/Residual): Substantial/Moderate</b>	
<b>Procurement Risks</b>	<b>Mitigation Measures</b>		<b>Responsibility/Deadline</b>
Insufficient procurement capacity in World Bank procurement procedure	Recruitment of a qualified Procurement Officer among the recruited staff of the new PMU and appointment by the department of a Procurement Assistant to ensure transfer of authority for the administration		MEDD (PMU)/Within 3 months after signing of the Financing Agreement
Lack of the procurement manual	Updating of the SAWAP Project Administrative and Financial Procedures and Procurement Manual to reflect this new provision		MEDD (PMU)/Within 3 months after signing of the Financing Agreement
Weak capacity of the Pluri-Departmental Contracts Commission, the ministry-level Internal Procurement Commission, and the National Procurement Control Commission in NPF procedures	Capacity building will be provided by the PMU in accordance with the World Bank on NPF procurement.		MEDD (PMU) and the World Bank/During project implementation



<b>Organization/Country: Senegal - DEEC</b>		<b>Overall Risk Level (Initial/Residual): Substantial/Moderate</b>	
<b>Procurement Risks</b>	<b>Mitigation Measures</b>		<b>Responsibility/Deadline</b>
Delay in the elaboration of TORs and lack of implication of the stakeholders	Hire a consultant firm to draft the TOR with the commitment of the beneficiaries.		DEEC/ As needed during project life
Discrepancies on technical specifications (bid) and TOR (RFP)	<p>Improve the technical specification on the draft Bidding Document.</p> <p>Improve the preparation of draft TOR (RFP). Harmonize the draft Contract (bid) and the signed contract.</p> <p>Reinforce the capacity of the entire team on procurement particularly on contract management.</p>		DEEC and the World Bank procurement team/ As needed during project life
Selection qualification criteria (bid) are not fit on purpose in relation to the market.	Optimize the qualification criteria considering the capacity of the market.		DEEC/ As needed during project life
Delay in the procurement process and contract execution	<p>Involve the participation of the project team in the Procurement Board Committee.</p> <p>Request a special authorization to the Regulation Authority to create a specific commission dedicated to the WACA Program.</p> <p>Provide due diligence for IDA no-objection.</p> <p>Ensure effective contract management monitoring.</p> <p>Hire qualified consultants for engineering and contract supervision.</p>		DEEC and IDA/As needed during project life
Virtual risk collusion between bidders during the procurement process	<p>Advertise to a broad audience, through diversified channels</p> <p>Avoid restricted and discriminatory criteria.</p>		DEEC/ As needed during project life
Contracts wrongly awarded/falsified submitted documents	Ensure the control of authenticity of the document provided by the selected bidder/consultant.		DEEC/ As needed during project life
Abnormally low bid /proposal	Seek written clarification from bidder/proposal (refer provision 5.66 from Procurement Regulation)		DEEC/ As needed during project life
Limited qualified contractors on coast erosion protection	Open international market approach should be used accordingly.		DEEC/ As needed during project life
<b>Organization/Country: São Tomé and Príncipe - AFAP</b>		<b>Overall Risk Level (Initial/Residual): High/Substantial</b>	
<b>Procurement Risks</b>	<b>Mitigation Measures</b>		<b>Responsibility/Deadline</b>
Lack of availability of goods in stock may delay contract execution.	Allow enough time in the procurement process and anticipate reasonable time for supply.		Borrower/ As needed during project life



Availability of individual consultants due to a large number of assignments	Ensure advertisement in local newspapers and internationally through STEP/UNDB and be proactive to identify potential consultants (ask reference/long lists to the World Bank, contact other Lusophone countries, and so on).	Borrower /As needed during project life
Both DGA and AFAP will have responsibilities in procurement activities (shared responsibility between the technical and fiduciary entities).	Ensure an effective communication mechanism between DGA and AFAP.	Borrower/During project implementation
<b>Organization/Country: Togo - MEFRP</b>		<b>Overall Risk Level (Initial/Residual): High/Substantial</b>
<b>Procurement Risks</b>	<b>Mitigation Measures</b>	<b>Responsibility/Deadline</b>
An Operational Manual including a section on procurement is not available.	Elaborate and submit to IDA for agreement a satisfactory version of the Operations Manual comprising a section on procurement for use by the project.	MEFR/By project effectiveness
At present, there is no qualified Procurement Specialist within the PMU of the MEFR.	Recruit and maintain a Procurement Specialist, with qualification and expertise satisfactory to the World Bank, within the MEFR.	MEFR / Three months after effectiveness
There is no formal institutional arrangement for the procurement of joint activities covering Togo and Benin, which shall not be split and procured separately.	Creation of a specific institutional arrangement for procurement between the MEFR of Togo and the MESD of Benin, through a memorandum of understanding, to manage the procurement of joint activities covering Togo and Benin, which shall not be split and procured separately.	The MEFR of Togo and the MESD of Benin/Before the beginning of any procurement for a joint activity
Weak capacity of the Procurement Commission, the Procurement Control Commission, and the DNCMP on the NPF procedures of July 2016 and revised in November 2017	Reinforce the capacity of the Procurement Commission, the Procurement Control Commission, and the DNCMP on the NPF procedures of July 2016, and revised in November 2017.	Project Procurement Specialist to be recruited and the World Bank/Before the beginning of any procurement activity and as needed during project life.
Long delay by the Ministry of Economy and Finance (MEF) for the approval of contracts after signature by the MEFR	The MEF shall comply with procurement services standard time for contract approval time.	DNCMP and MEF/As needed during project life
There is no knowledge by the PMU on the World Bank's STEP.	Reinforce the capacity of the PMU of the MEFR on the World Bank's STEP for the need to submit a Procurement Plan and manage procurement activities through STEP.	MEFR and the World Bank/Before the beginning of any procurement activity



## ANNEX 6: MONITORING AND EVALUATION

COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo  
West Africa Coastal Areas Resilience Investment Project

1. **Objective.** M&E in the WACA ResIP has been developed as
  - (a) A tool for results-based management and to ensure that data and information of the progress of the project—or lack of progress—toward achievement of the outcomes under the PDO feed into management and that corrective measures can be taken in time if necessary;
  - (b) A framework for accountability of progress toward national and regional development objectives attributable to interventions and regional actions and national governments implementing the WACA ResIP;
  - (c) An approach to monitor performance of participating countries in the WACA ResIP to ensure a certain level of regional performance and more or less even contribution from the six countries to regional objectives;
  - (d) A means to enable communication of results of the project and benefits generated for coastal communities and societies; and
  - (e) A means to inform the World Bank's routine reporting requirements, that is, the six-monthly ISRs developed for the project and publicly disclosed by the World Bank, and data and information requirements for the midterm review (MTR) of the project.
2. **The WACA ResIP also supports the long-term environmental monitoring of the coastal regions for the six participating countries through the strengthening of the Regional Observatory.**
3. **Context and capacity.** Fulfillment of these objectives in the context of the WACA ResIP is a daunting task. Signs of weak capacity include (but are not limited to) field-level data not being validated, incomplete data sets, missing information, inconsistent reporting, and data and information delivered but not reported and not used in decision making and policy formulation.
4. **Design of results framework.** The peculiarities of the coastal areas and weak government capacity have been taken into account in the design of the M&E of the WACA ResIP and especially in the number and selection of indicators and data sources and methodologies for data collection. The main instrument for M&E in the WACA ResIP is the Results Framework (section VII), which is common to all countries and will be reported in the ISRs. It consists of the PDO statement and five PDO indicators and twelve intermediate indicators. All applicable indicators are disaggregated by country and sex. All the indicators have baselines and targets listed as well as frequency for data collection, data sources, and methodology for calculation of baseline and progress values of indicators and responsibilities for data collections. Sources of data can vary between countries, and a data quality assurance mechanism will be put in place with the RISU. Baselines for the indicators have for some countries been established based on available information from a variety of sources (for example, key informants' interview and one-off field surveys by



donors) and need to be verified and updated as soon as possible by the first-year data collection. Further, in the Results Framework, there is a column for definition of indicators and remarks.

5. **Theory of change and results chains.** The Results Framework has been developed based on the theory of change of a regional project with synergy and complementarity between interventions of the participating countries. The results chains will include clear statements on medium-term outcomes stated in the PDO as well as statements on short-term outcomes, outputs and activities, and interventions in the six countries. The framework will serve as a management tool to help countries, the World Bank, and other relevant stakeholders to assess progress toward the PDO and to adjust the course when necessary during implementation.

6. **M&E arrangements.** M&E in the WACA ResIP will be undertaken at two levels: (a) at the regional level by the RISU, and possibly other regional agencies, especially the CSE, and (b) by the six participating countries through the respective PIUs. The RISU will have the overall coordinating role of the M&E function of the WACA ResIP and will ensure that data and information from all countries are produced on time and are of sufficient and necessary quality. The RISU will also design and implement data collection efforts, which are best done at the regional level. In doing so, the M&E function of the RISU will provide overall coordination based on one M&E manual describing the requirement for all countries and the regional level. The RISU will also provide technical backstopping to the countries on M&E, put in place a data quality assurance mechanism, undertake data collection on its own, and encourage cross-country learning.

7. **M&E activities.** The WACA ResIP M&E activities will (a) generate information on the progress of the project; (b) analyze and aggregate data generated at the regional, country, and local levels; and (c) document and disseminate key lessons to users and stakeholders across the participating countries and elsewhere together with the communication function of the WACA ResIP. It will also be the recipient of all countries' evaluation and progress reports and will be able to share results and best practices across the West Africa coast. The WACA ResIP will put special emphasis on the mapping of project interventions and results through geocoding of activities and overlay with key development indicators.



## ANNEX 7: REGIONAL ECONOMIC ANALYSIS

COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo  
West Africa Coastal Areas Resilience Investment Project

### Introduction

1. **Ex ante economic analysis was carried out to provide reassurance that investments made under the project will generate attractive rates of return compared to alternative investment opportunities that may be available in West Africa (specifically in Côte d'Ivoire, Senegal, São Tomé and Príncipe, Benin, Togo, and Mauritania).**
2. **Activities financed through the project are expected to generate four main benefit streams:**
  - Lower exposure to erosion due to the project
  - Lower exposure to flooding due to the project
  - Lower exposure to pollution due to the project
  - Income-generating activities in sync with the preservation of ecosystem services
3. **Some of these benefit streams lend themselves more readily to valuation than others.** The economic analysis focuses on the first, second, and, in some cases, the fourth benefit streams, which are somewhat easier to measure and value. The economic analysis did not consider the third stream, which is much more difficult to measure and value.
4. **Component 1 will support key regional institutions in operationalizing agreed policies, instruments, and commitments made for a healthy and productive coastal environment that stays resilient to effects of climate change, natural disasters, and other sources of coastal degradation.** This component is the only explicit regional component. Component 2 will help countries develop the adequate policy framework and the necessary tools for the development and/or operationalization of their coastal management strategies and plans.
5. **Correspondingly, Component 3 aims to finance short- and medium-term coastal adaptation investments, or subprojects, to protect vulnerable areas from coastal erosion and flooding, pollution control, and waste management operations and promote climate-resilient coastal development.** The WACA team has an ongoing dialogue with all relevant counterparts to refine prioritized investments based on each MSIP; so, the precise nature, mix, and scope of the investments to be financed cannot be known with certainty at the project onset. Finally, Component 4 corresponds to the national coordination, and it will be established in each beneficiary country to manage the implementation of the project.

### Justification for Public Funding

6. **In addition to calling for the quantitative assessment of project-supported investments, the World Bank's economic analysis guidelines require an assessment of the public funding justification for all World Bank lending operations.**





7. **Public funding is justified when an important market failure is present or when additional investment is needed to remedy a policy/government failure.** In both cases, the intervention to be supported with public funding must address the relevant failure(s) in some convincing way.

8. **Market failures clearly are present in each of the three main areas in which the project will operate.** Flooding and erosion event matters are a classic example of a public good albeit both present a caveat in this region because they are natural phenomena that have been exacerbated by human-made interventions (externalities). They have the two characteristics of public goods: (a) non-excludability: once flood defense is provided for a city, everyone in that city will benefit and be protected and (b) non-rivalry: if somebody enjoys a city defended from rising flood waters or coastal erosion, it does not reduce the amount of flood defense for other people. Further, there is little, if any, incentive for a firm to provide flood defenses through charging local residents. There is also an important free rider problem. People living in flood-prone areas may have a vested interest in better flood defenses, but there is temptation to avoid paying, in the hope that someone else will pay. Thus, public funding is clearly justified from an efficiency standpoint where investments should be provided by public institutions optimizing scarce resources from the Government as well as their citizens.

#### **Analytical Approach to Measure Increased Benefits**

9. **For Component 1, profitability measures were calculated at the regional level.** For Components 2 and 3, the economic analysis was carried out at the country level analysis, incorporating specific countries' realisms and characteristics. The results for all three components were then combined to derive overall measures of project worth.

#### *Component 1*

10. **This component will finance the operation of WACO, the preparation of technical and financing solutions and instruments, and the implementation of regional conventions and protocols.** Specific activities include provision of information related to coastal areas and climate change, as well as the necessary knowledge base to improve coastal zone management. It will also provide support to enhance coastal inundation forecasting and early warning systems at national and regional scale with the aim of reducing the risk of disaster. The project will also assess the feasibility of acquiring and managing regional integrated technical equipment and systems, for use by all beneficiary countries, including but not limited to bypass systems, sand replenishment pumps, lagoons and canals dredging equipment, and so on.

11. **The additional benefits of this component are estimated in terms of cost savings for the six countries, owing to the regional component.** This is based on the following premise: if the regional work does not occur, each country, on average, should invest a similar amount to develop its own coastal observatory as well as its own forecasting system. Benefits are estimated by multiplying by a factor of 6 (due to the number of countries) the total amount related to developing new knowledge and information (for example, regional coastal areas information platform and monitoring systems and development, validation, and promotion of new financing instruments).



### Component 2

12. **Component 2 will help countries develop the adequate policy framework and the necessary tools for the development and/or operationalization of their coastal management strategies and plans.** Emphasis will be put on strengthening coastal inundation forecasting products (for example, early warning systems) that can be improved and effectively coordinated with warning services provided by the National Meteorological and Hydrological Services. The project aims to improve the interaction of the national hydrological and meteorological agencies with disaster management units. This collaborative disaster risk management can be achieved through an integrated coastal management strategy that includes the development of preparedness, response, and management strategies associated with coastal inundation.

13. **The additional benefits of this component vary by country with a strong focus on the benefits from early warning systems.** Strengthening disaster management systems is effectively reducing economic losses. Economic literature suggests that benefits vary from 1:4 to 1:36 per dollar invested according to Hallegatte (2012).<sup>54</sup> Estimates by Hallegatte (2012) incorporate three types of benefits: (a) avoided asset losses due to natural disasters, (b) saved lives per year, and (c) additional economic benefits. The third category is the most important one (representing up to three-fourths of potential benefits), is less robust from an empirical point of view, and does not necessarily apply to poor countries. Thus, in the analysis, a very conservative approach is assumed considering only the benefits derived from (a) and (b). Under this scenario, the benefits per dollar invested decreased from 1:1 to 1:6, with an average of 1:3.5. Based on the context of each country, Togo, Côte d'Ivoire, Senegal, and Mauritania use a ratio of 1:3.5, while in the case of Benin and São Tomé and Príncipe, the ratio is 1:2. In Benin and São Tomé and Príncipe, the attributed benefit is lower because these countries already have national observatories and early warning systems in place, and they will be strengthened under this project. On the other hand, in the other four countries, the development of national observatories and warning systems are at an early stage.

### Component 3

14. **Component 3 will finance short- and medium-term coastal adaptation investments to protect vulnerable areas from coastal erosion and flooding, pollution control, and waste management operations and promote climate-resilient coastal development.** In terms of erosion control, the project will be financing 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), grey infrastructure (such as construction of breakwaters, seawalls, revetments, groynes, and dikes), and management of natural habitats, including reduction of invasive species encroachment. Similarly, flood control investments include rehabilitation of flood banks, rehabilitation and management of natural flood areas, and infrastructure for better drainage in cities and towns.

---

<sup>54</sup> Hallegatte, Stephane. 2012. "A Cost-effective Solution to Reduce Disaster Losses in Developing Countries: Hydro-meteorological Services, Early Warning, and Evacuation." Policy Research Working Paper WPS 6058. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/190261468181486694/A-cost-effective-solution-to-reduce-disaster-losses-in-developing-countries-hydro-meteorological-services-early-warning-and-evacuation>



15. **The additional benefits of this component are more heterogeneous across countries.** Some are common benefits among countries, for example, avoided losses in fisheries and agriculture, protection of buildings on lands threatened by erosion, and coastal protection provided by green investments. Other benefits are specific to individual countries (for example, saved time in traffic due to road reconstruction in Senegal and generated revenues from ecosystem conservation and ecotourism in Mauritania) or groups of countries (for example, improved income of communities at high risk due to erosion and flooding in Côte d'Ivoire and Senegal). See Table 7.1 for countries' specific investments and additional benefits.<sup>55</sup>

**Table 7.1. Main Activities, Benefits, and Valuation Methods under Component 3**

Country	Main Activities	Main Attributed Benefits	Valuation Methods
<b>Côte d'Ivoire</b>	<ul style="list-style-type: none"> <li>• Green investments in communities at risk</li> <li>• Potential grey investments in communities at risk</li> <li>• Dialogue related to relocation of local inhabitants at high risk of coastal erosion</li> <li>• Support to income-generating activities for communities at risk</li> </ul>	<ul style="list-style-type: none"> <li>• Avoided losses of income (agriculture and fishery) and buildings (homes) owing to protection against erosion</li> <li>• Additional benefits from income-generating activities</li> <li>• Coastal protection by mangroves</li> </ul>	<ul style="list-style-type: none"> <li>• Avoided damage cost</li> <li>• Benefits transfer (value of mangroves)</li> </ul>
<b>Senegal</b>	<ul style="list-style-type: none"> <li>• Grey investments (restoration activities) in Dakar and Goree Island</li> <li>• Green investments in the transboundary national park (Senegal/Mauritania)</li> <li>• Support to income-generating activities in Saint Louis</li> </ul>	<ul style="list-style-type: none"> <li>• Saved time in traffic due to road reconstruction (Dakar)</li> <li>• Increased touristic and cultural value of Goree Island</li> <li>• Protection benefits provided by mangrove plantations (Senegal/Mauritania)</li> <li>• Additional benefits from income-generating activities (Saint Louis)</li> </ul>	<ul style="list-style-type: none"> <li>• Market pricing</li> <li>• Avoided damage cost</li> <li>- Benefits transfer (value of mangroves)</li> </ul>
<b>São Tomé and Príncipe</b>	<ul style="list-style-type: none"> <li>• Green investments in 10 communities at risk</li> <li>• Grey investments in 10 communities at risk</li> <li>• Reallocation of local inhabitants in 10 communities at high risk of flooding and coastal erosion</li> </ul>	<ul style="list-style-type: none"> <li>• Saved lives due to distribution of safe equipment for local fishermen</li> <li>• Avoided losses (home destructions as well as home furniture) due to flooding and forgone economic activity</li> <li>• Coastal protection by mangroves</li> </ul>	<ul style="list-style-type: none"> <li>• Avoided damage cost</li> <li>• Changes in production</li> <li>• Benefits transfer (value of mangroves)</li> </ul>
<b>Benin</b>	<ul style="list-style-type: none"> <li>• Coastal flooding</li> <li>• Coastal erosion</li> <li>• Coastal pollution</li> <li>• Ecosystem restoration/protection</li> <li>• Income-generating activities</li> </ul>	<ul style="list-style-type: none"> <li>• Reduced health burden, public/private asset damages, and forgone economic activity</li> <li>• Strengthened resilience of communities and ecosystem services</li> </ul>	<ul style="list-style-type: none"> <li>• Change in production</li> <li>• Change in health</li> <li>• Change in behavior</li> </ul>

<sup>55</sup> Each country's economic analysis specifies clearly all the assumptions and relevant values used in the analysis.



Country	Main Activities	Main Attributed Benefits	Valuation Methods
<b>Togo</b>	<ul style="list-style-type: none"> <li>Coastal flooding</li> <li>Coastal erosion</li> <li>Coastal pollution</li> <li>Ecosystem restoration/protection</li> <li>Income-generating activities</li> </ul>	<ul style="list-style-type: none"> <li>Reduced health burden, public/private asset damages, and forgone economic activity</li> <li>Strengthened resilience of communities and ecosystem services</li> </ul>	<ul style="list-style-type: none"> <li>Change in production</li> <li>Change in health</li> <li>Change in behavior</li> </ul>
<b>Mauritania</b>	<ul style="list-style-type: none"> <li>Coastal flooding</li> <li>Coastal erosion</li> <li>Ecosystem restoration/protection</li> <li>Income-generating activities</li> </ul>	<ul style="list-style-type: none"> <li>Reduced health burden, public/private asset damages, and forgone economic activity</li> <li>Strengthened resilience of communities and ecosystem services</li> </ul>	<ul style="list-style-type: none"> <li>Change in production</li> <li>Change in health</li> <li>Change in behavior</li> </ul>

### Combined Analysis for All Three Components

16. For the project-level analysis, project management costs to be financed under Component 4 were allocated to each component on a prorated basis. Using this approach, the overall results show that the project is economically viable, with an IRR of 14 percent, an NPV of US\$184 million, and a cost-benefit ratio of 1.9 (see Table 7.2). The results also show that the project is economically viable at the country level, with IRR varying from 10 percent (Togo) to 27 percent (Mauritania). The analysis uses a discount rate of 6 percent<sup>56</sup> and considers a time horizon of 30 years, to account for the project’s long-term benefits related to climate change. As several benefits have not been estimated in monetary terms, the overall result largely underestimates the real extent of project benefits.

**Table 7.2. Main Activities, Benefits, and Valuation Methods under Component 3**

Country	NPV Benefits	NPV Costs	NPV Net Benefits	Cost-Benefit Ratio	IRR (±%)
	(US\$, millions)				
Côte d'Ivoire	47	26	21	1.8	+14
Senegal	57	33	24	1.7	+12
São Tomé and Príncipe	18	8	10	2.3	+14
Benin	104	59	45	1.8	+12
Togo	68	48	21	1.4	+10
Mauritania	83	20	62	4.1	+27
Overall project	382	200	182	1.9	+13

### Sensitivity Analysis

17. Sensitivity analysis was carried out to test the robustness of these results to changes in the values of the following key parameters: (a) increasing project costs by 10 percent, (b) reducing project benefits by 10 percent, and (c) varying the default discount factor by a decrease and an increase of 2 percentage units (that is, 4 percent and 8 percent, respectively). The sensitivity analysis revealed that the

<sup>56</sup> World Bank. 2016. *Discounting Costs and Benefits in Economic Analysis of World Bank Projects*. Guidance Note. Washington, DC: World Bank.



measures of project worth are quite robust to adverse changes in the key parameters. The IRR decreases by 1 percentage point, while the Present Value (PV) cost-benefit ratio decreases up to 1.5 in the worst-case scenario (when discount rate increases to 8 percent).

**Table 7.3. Results of the Overall Project’s Sensitivity Analysis**

Scenario	Change (%)	NPV (US\$, millions)	IRR (±%)	PV Cost-Benefit Ratio
Baseline	6	184	+14	1.9
Decrease in discount rate	4	298	+14	2.3
Increase in discount rate	8	109	+14	1.6
Increase in project costs	+10	164	+13	2.1
Decrease in project benefits	-10	145	+12	1.7

18. **Table 7.4 also shows the results at the country level.** The results also show that the project worth for all countries is also quite robust to adverse changes in the key parameters. However, Togo’s results are strongly affected when benefits decrease by 10 percent or costs increase by 10 percent. Nevertheless, the IRR is greater than the baseline discount factor (6 percent).

**Table 7.4. Country Results of the Project’s Sensitivity Analysis**

Scenario	Change (%)	NPV (US\$, millions)	IRR (±%)	PV Cost-Benefit Ratio
<b>Côte d'Ivoire</b>				
Baseline	6	20.5	+14	1.8
Decrease in discount rate	4	33.2	+14	2.2
Increase in discount rate	8	12.1	+14	1.5
Increase in project costs	+10	17.9	+12	1.6
Decrease in project benefits	-10	15.9	+12	1.6
<b>Senegal</b>				
Baseline	6	24.3	+12	1.7
Decrease in Discount rate	4	42.1	+12	2.2
Increase in Discount rate	8	12.6	+12	1.4
Increase in project costs	+10	20.9	+10	1.6
Decrease in project benefits	-10	18.5	+10	1.6
<b>São Tomé and Príncipe</b>				
Baseline	6	10.7	+14	1.6
Decrease in discount rate	4	17.1	+14	1.9
Increase in discount rate	8	6.5	+14	1.4
Increase in project costs	+10	9.0	+12	1.8
Decrease in project benefits	-10	7.9	+12	1.4
<b>Benin</b>				
Baseline	6	45.8	+12	1.7
Decrease in discount rate	4	77.9	+12	2.0
Increase in discount rate	8	24.8	+12	1.4
Increase in project costs	+10	38.9	+11	1.8



Scenario	Change (%)	NPV (US\$, millions)	IRR (±%)	PV Cost-Benefit Ratio
Decrease in project benefits	-10	34.3	+11	1.5
<b>Togo</b>				
Baseline	6	21.4	+10	1.4
Decrease in discount rate	4	41.3	+10	1.7
Increase in discount rate	8	8.5	+10	1.2
Increase in project costs	+10	15.7	+9	1.5
Decrease in project benefits	-10	13.6	+9	1.2
<b>Mauritania</b>				
Baseline	6	63.0	+27	3.1
Decrease in discount rate	4	89.2	+27	3.7
Increase in discount rate	8	45.1	+27	2.7
Increase in project costs	+10	60.0	+24	3.4
Decrease in project benefits	-10	53.7	+24	2.8

## Conclusions

19. **The ex ante economic analysis suggests that the project-supported investments will generate substantial benefits for beneficiaries in areas targeted by the project, as well as substantial benefits for West African societies as a whole.** Overall, the NPV is projected to reach US\$184 million, an IRR of 14 percent, and a PV benefit/cost ratio of 1.9. The economic analysis thus shows that if project implementation is effective and efficient, project-supported investments will bring substantial economic benefits to coastal communities in the project. As several benefits have not been estimated in monetary terms, the overall result largely underestimates the real extent of project benefits.

20. **It is important to keep in mind that relevant data, for all countries, is scarce and not easily available.** Therefore, this economic analysis, and its results, should be interpreted with caution. More data collection at the coastal community level during project implementation is essential to have a better picture of the associated benefits.

### *Economic Considerations of GEF-funded Activities*

21. **Incremental cost reasoning.** The proposed GEF activities will contribute directly to the project components and its PDO. These activities complement the IDA-financed activities (baseline activities) by fulfilling the incremental costs to achieve transboundary and global environmental benefits. In addition, the project builds other GEF-financed projects including the Community-based Coastal and Marine Biodiversity Management Project in Benin, which focused on improving sustainable management and biodiversity of the coastal zone; the Integrated Disaster and Land Management Project in Togo, which reinforced the country’s institutional capacity to manage risk of flooding and land degradation; and Forests and Adjacent Lands Management Project in Benin, which laid down the foundation for a collective integrated ecosystem management system. Overall, the IDA-financed activities provide green/grey infrastructure in the most populated/urbanized centers along the coast to manage the severe and urgent effects of erosion and flooding. The GEF funds complement them by supporting green infrastructure and land management measures in the adjoining areas targeted by IDA. Therefore, without GEF funding, the



project's green infrastructure will be limited only to urban/populated centers, without consideration of a broader landscape context, which involves several land uses (for example, urban, agriculture, forests, and wetlands) and takes a holistic approach to coastal management. In improving the management of coastal and transboundary natural resources, the project will coordinate with, among others, recently financed GEF projects focusing on building coastal resilience in the target countries such as Strengthening Resilience and Adaptive Capacity to Climate Change in São Tomé and Príncipe's Agricultural and Fisheries and the protection of the coastline and resilience of coastal communities to sea level rise in Benin.

22. **Theory of change.** Under the baseline scenario, the degradation of the coastal resources of the GCLME will accelerate due to increasing population (growth and migration toward the coast), demand for resources, unplanned coastal development, and climate change, leading to significant and potentially irreversible loss of critical ecosystems such as beaches, wetlands, and mangroves, which provide important coastal protective and social services (livelihoods, food, fiber, and timber). The alternative scenario will address the major perceived problems and issues highlighted in the TDA by mainly supporting the achievement of the Environmental Quality Objective, 'Balanced habitats for sustainable ecology and environment' through the following activities (recommended in the TDA):

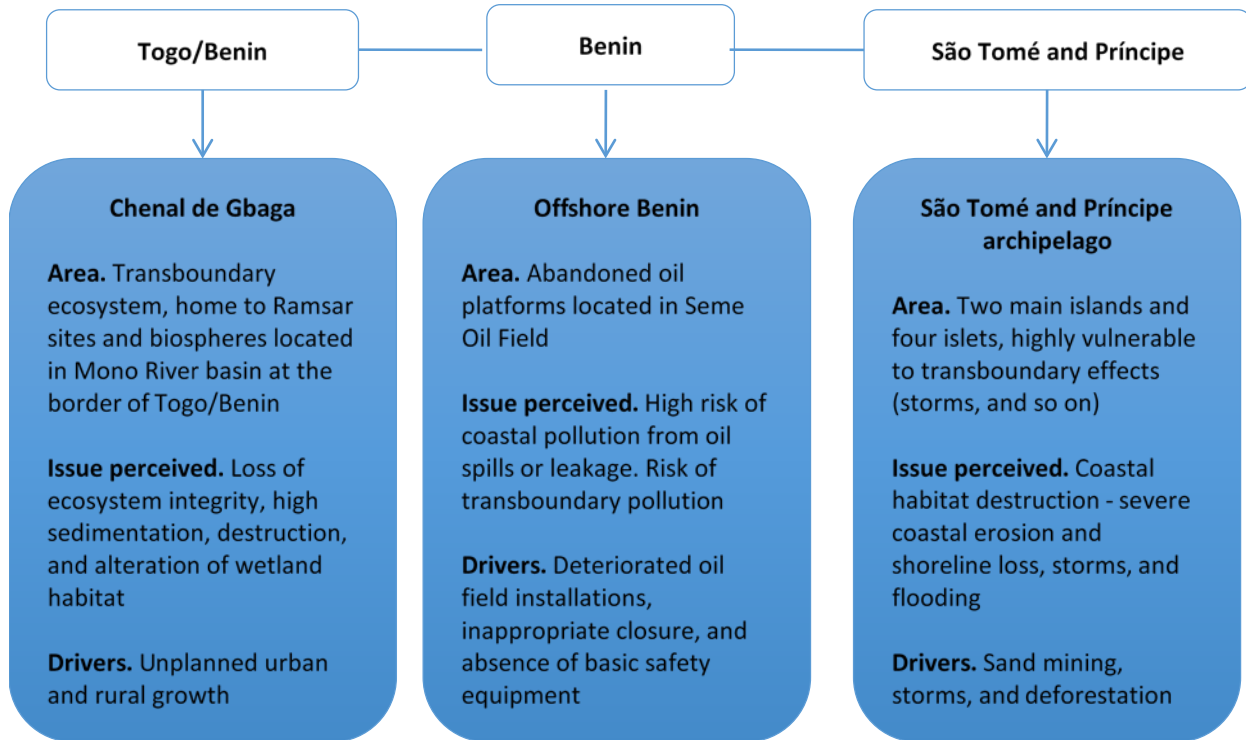
- Strengthening the national analytical basis for specific interventions
- Strengthening local coastal zone planning and management and associated institutions
- Investing in green infrastructure/coastal ecosystem restoration/stabilization, especially wetlands and mangroves
- Investing in communities to promote alternative livelihoods to reduce pressure on coastal resources
- Investing in information management systems and early warning and responsiveness systems
- Supporting in-country investments complementary to and in coordination with the UN agencies led project 'Strengthening of the Enabling Environment, Ecosystem-based Management and Governance to Support Implementation of the Strategic Action Program of the Guinea Current Large Marine Ecosystem'.

23. **This theory of change is integrated within that of the overall WACA ResIP illustrated in Figure 2, in Section III.A (Project Components).**

24. **Scope of the analysis.** The GEF activities will intervene in three target areas that have been selected in the three pilot countries in consultation with the Government counterparts. These areas have many common challenges, for example, severe coastal erosion and shoreline loss, flooding, rapid urbanization and unsustainable land use, and overlapping policies affecting coastal governance (Figure 7.1).



Figure 7.1. Target Areas and Major Problems and Issues Addressed in the Three Countries



25. **Approach.** Improving the coastal zone management in a transboundary context requires institutional strengthening, to provide the capacity needed for a sustainable governance of the coastal areas, and on-the-ground investments, to reduce the major drivers of degradation in each country. The proposed project uses this approach, by investing in actions that address the following major problems: loss of ecosystem integrity through the destruction and alteration of the wetland habitat (for example, riparian wetlands, mangroves, and lagoon systems) due to unplanned urban and rural growth (in Togo/Benin); deterioration of water quality from land and sea-based activities/externalities, such as oil spill and leakage (in Benin); and coastal habitat destruction due to floods and coastal erosion (in São Tomé and Príncipe). Through this approach, the project aims at diversifying the local economies and restoring ecosystems, while providing opportunities for sustainable growth.

26. **Incremental cost analysis.** The project covers multiple activities financed by several donors (IDA, NDF, and Government counterparts) (baseline scenario). Overall, this scenario will have a budget of US\$185.9 million for regional coordination among stakeholders in the six countries toward effective collaboration and implementation of the project's activities; strengthening national policies and the institutional framework related to coastal issues at the national levels; and building national physical and social infrastructure in the most populated/urbanized centers along the coast.

27. **The GEF alternative complements the above activities by strengthening local regulations, policies, and institutions to address major perceived problems and issues relevant to coastal ecosystems and implementing the landscape approach to reducing sedimentation and erosion issues at the targeted areas on the coast selected by the baseline project activities.** Therefore, without the GEF funding, the project's green infrastructure and other interventions will be limited only to urban coastal





centers. The GEF alternative is critical to this project, by adopting a broader landscape context, which involves several land uses (for example, urban, agriculture, forests, wetlands, and so on) and taking a holistic approach to shared NRM. It proposes to achieve this objective at an incremental cost of US\$20.25 million. The GEF-funded activities will contribute to the following focal areas:

- **Biodiversity. *BD4*,**<sup>57</sup> by developing and implementing management and co-management plans for ecologically significant areas like biospheres and sacred forests and piloting activities that will improve the health of mangroves in Benin/Togo. This entails careful targeting of highly ecologically significant and at-risk coastal areas to mainstream biodiversity conservation and sustainable use in production landscape and seascape to maintain ecological integrity and support nature-based economic activities sustainably (Togo/Benin). In addition, the project contributes indirectly to the focal area ***BD1***, through activities that will support the project area Chenal de Gbaga to be designated a Ramsar site, and ***BD2***, through activities focused on management of IAS. These activities will contribute toward Aichi biodiversity targets 7, 9, and 19.
- **Land degradation. *LD2*,**<sup>58</sup> by adopting and replicating sustainable land management practices (for example, agro-forestry, use of organic fertilizer, improved soil management techniques prioritized in previous projects, and improved management of lowlands/rangelands)<sup>59</sup> and introducing income-generating activities that reduce pressure on coastal forests and increase market value of agricultural and forestry products to improve livelihoods; and (***LD3***),<sup>60</sup> ensuring local communities adopt the SLM practices piloted through previous projects and contribute toward scaling up of best practices.
- **International waters. *IW1*,**<sup>61</sup> by building foundational capacity building and supporting cross-country learning through exchange of lessons learned and best practices on management of transboundary issues (for example, wetlands in Togo/Benin and coastal erosion and flooding in São Tomé and Príncipe) as well as the most appropriate approaches of ecosystem restoration (for example, mangrove restoration in Togo/Benin)<sup>62</sup> and ***IW3*,**<sup>63</sup> by building capacity to prevent and address pollution events such as oil spills (Benin) and by implementing investments that restore and protect mangrove areas, thus improving the

---

<sup>57</sup> “Mainstreaming biodiversity conservation and sustainable use into production landscapes/Program 9. Managing the Human-Biodiversity Interface.”

<sup>58</sup> “Generate sustainable flows of ecosystem services from forests, including in drylands/Program 3: Landscape Management and Restoration.”

<sup>59</sup> Identified in the ‘Integrated Disaster and Land Management Project’ in Togo.

<sup>60</sup> “Reduce pressures on natural resources by managing competing land uses in broader landscapes/Program 4: Scaling-up sustainable land management through the Landscape approach.”

<sup>61</sup> “Catalyze sustainable management of trans-boundary water systems by supporting multistate cooperation through foundational capacity building, targeted research and portfolio learning/Program 1: Foster Cooperation for Sustainable Use of Transboundary Water Systems and Economic Growth.”

<sup>62</sup> In restoration and management of mangroves in Togo and Benin, parameters for mangroves growth including but not limited to hydrology and salinity will be considered. Effects on these critical parameters due to ongoing and expected anthropogenic stressors will be considered.

<sup>63</sup> “Enhance multi-state cooperation and catalyze investments to foster sustainable fisheries, restore and protect coastal habitats, reduce pollution of coasts and LMEs/Program 6: Prevent Loss and Degradation of Coastal Habitats.”



spawning and breeding grounds for fisheries that depend on these ecosystems (Togo/Benin).

28. **GEF financing.** Table 7.5 presents the distribution of GEF funds by country, component, and focal area.<sup>64</sup>

**Table 7.5. GEF Funding by Country, Component, and Focal Area (US\$)**

	IW	BD	LD	Total
<b>Benin</b>				
Component 1	0	0	0	0
Component 2	2,771,137	527,836	0	3,298,973
Component 3	3,107,443	613,915	3,961,634	7,682,992
Component 4	314,080	61,001	211,662	586,743
<b>Total Benin</b>	<b>6,192,661</b>	<b>1,202,752</b>	<b>4,173,295</b>	<b>11,568,708</b>
<b>São Tomé and Príncipe</b>				
Component 1	0	0	0	0
Component 2	708,789	0	0	708,789
Component 3	404,000	0	0	404,000
Component 4	34,000	0	0	34,000
<b>Total STP</b>	<b>1,146,789</b>	<b>0</b>	<b>0</b>	<b>1,146,789</b>
<b>Togo</b>				
Component 1	0	0	0	0
Component 2	1,380,073	690,037	0	2,070,110
Component 3	2,083,074	1,041,537	1,913,389	5,038,000
Component 4	206,578	103,288	114,134	424,000
<b>Total Togo</b>	<b>3,669,725</b>	<b>1,834,862</b>	<b>2,027,523</b>	<b>7,532,110</b>
<b>GEF (all countries)</b>				
Component 1	0	0	0	0
Component 2	4,859,999	1,217,873	0	6,077,872
Component 3	5,594,517	1,655,452	5,875,023	13,124,992
Component 4	554,658	164,290	325,796	1,044,743
<b>Total</b>	<b>11,009,174</b>	<b>3,037,615</b>	<b>6,200,818</b>	<b>20,247,607</b>

<sup>64</sup> The distribution of funds by component differs from that presented in at the PCN stage primarily because of the re-organization of the components and of the activities they include.



ANNEX 8: THE REGIONAL ARGUMENT FOR WACA

COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo  
West Africa Coastal Areas Resilience Investment Project

Regional Dimension	Illustrative Examples
<p><b>Environmental flows.</b> Management of coastal ecosystems is complex and requires watershed, land use, coastal, and marine regionally coordinated and integrated planning.</p>	<ul style="list-style-type: none"> <li>• RISU (Management, Procurement, FM, M&amp;E, Leadership Development, and Communications)</li> <li>• RSC</li> <li>• Technical expert and political groups for decision making that has regional positive or negative externalities</li> </ul>
<p><b>Innovation and capacity building.</b> Countries are constrained by poor coordination and insufficient resources to manage multicountry challenges, climate change adaptation, and management of shared natural resources in the coastal zone.</p>	<ul style="list-style-type: none"> <li>• Piloting and testing new approaches such as soft and hard engineering (nature-based or hybrid solutions), planned relocation, and financing instruments to tackle erosion, flood, and pollution</li> <li>• Regional knowledge exchange, evaluation, and planning to scale up the solutions and cross-support</li> <li>• Policy and regulation harmonization</li> </ul>
<p><b>Cross-border solutions (positive or negative externalities).</b> Although some of the 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 50 km in neighboring Benin.</p>	<ul style="list-style-type: none"> <li>• Activities that seek to manage coastal erosion, flooding, and pollution at the national level and cross-border levels</li> <li>• Activities that seek to manage cross-border important ecosystem areas (wetlands, mangroves, and lagoons)</li> </ul>
<p><b>Early warning systems.</b> Early warning is required for pollution, flooding, tidal waves, migration, and movement of people. Most of the extreme events affecting coastal areas in West Africa come from international zones (that is, ocean) and could be predicted from regional models. Responses to warnings are more efficient when coordinated between zones.</p>	<ul style="list-style-type: none"> <li>• Staffing and capacity building, to develop common practice and interoperable standards</li> <li>• Equipment and reporting, to gain by economy of scales and common set of equipment (maintenance is made easier)</li> <li>• Knowledge exchange, to share best practices and lessons learnt from events (improvements always come after disasters)</li> <li>• Communication</li> </ul>
<p><b>Coastal observation.</b> Monitoring of trends in biophysical data (geomorphology, vegetation, biodiversity, and land use) is essential to 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 have a common vision of the situation.</p>	<ul style="list-style-type: none"> <li>• Staffing and capacity building, to develop common practice and interoperable standards</li> <li>• Equipment and reporting to gain by economy of scales and common set of equipment (maintenance is made easier)</li> <li>• Knowledge exchange, to share best practices and facilitate cross-support, and communication</li> <li>• Data collection and procurement and analysis, to benefit from economy of scale, for example, when equipment need to be brought from remote places</li> </ul>
<p><b>Institutional capacity building.</b> 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.</p>	<ul style="list-style-type: none"> <li>• TA to the ABC and other regional organizations to engage countries on coastal zone management</li> </ul>



## **ANNEX 9: COMMUNITY DEVELOPMENT, RESILIENCE, AND DECISION MAKING**

**COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo**  
**West Africa Coastal Areas Resilience Investment Project**

### **Overview and Guiding Principles**

1. The main objective of community-driven resilience planning for coastal areas is to protect the lives and livelihoods of the poor from the potential impacts of environmental changes, natural hazards, and climate change. Essential pieces of the puzzle include acquiring solid information on risks and options and understanding who should be involved and what is needed in terms of capacity and funding. There is much to consider, especially complex, deep rooted issues related to people's livelihoods, culture, and identity.
2. The project proposes to develop a community-led planning and decision-making framework in partnership with the WACA countries to ensure that any risk management<sup>65</sup> or adaptation options, including potential planned climate resilience relocation is a pro-poor, people-centered process in which communities drive the decision making. If the decision to relocate is taken by communities, then it would need to comply with national legislation and the World Bank Group's or other donors' safeguards requirements.
3. Rather than provide prescriptive instructions, the framework would help stakeholders at all levels understand the inputs needed to identify options and make decisions and questions to consider regarding who needs to be involved and how to assess and identify the resources needed. The proposed community-led planning and decision-making framework provides a general road map for the process and it would then be adapted to specific country contexts.
4. To have the best chance of success for whichever path is chosen, the following guiding principles are proposed to ensure that communities are meaningfully engaged in the decision-making process:
  - Pro-poor, people-centered process in which communities drive the decision making
  - Transparency, with accountability mechanisms integrated into the process
  - Anchored in a long-term vision of inclusive, climate-resilient development

### **Project-Financed Activities**

5. Specific activities financed by the project may include conducting awareness-raising activities targeting the populations at risk; participatory risk assessments; a dialogue about environmental changes experienced by the community; workshops on perceived imminent climate change risks (such as sea level rise and higher levels of precipitation) and the respective adaptation options, as a basis for expected future risks and long-term adaptive measures; dialogue on the possible need for planned relocation of high-risk communities; developing a participatory process for relocation planning and decision making;

---

<sup>65</sup> Risk management activities include the establishment and or strengthening of national disaster risk management structures in the beneficiary countries, early warning services provided by national meteorological and hydrological Services, local communication and transmission mechanisms of the early warnings and preparedness activities to deal with natural disasters.



the implementation of a socio-environmental monitoring for the implementation of decisions on relocation; participatory exercises that facilitate communities to consider the future.

6. In certain cases, the project may provide financing to assist with such planned relocation of persons at high risks in certain hot spots within the project area and who have to move from their current places of residence and/or work due to persistent coastal flooding or erosion. Should the project finance the implementation of such planned relocation, the potential social risks and impacts of such project interventions would need to be adequately addressed, in line with the safeguards policy OP 4.12, Involuntary Resettlement. However, the project will not finance any expenditures for the cost of land acquisition related to the activities to be carried out under the project, nor expenditures for cash payments for compensation or other cash payments for assistance due to a person relocating under the project.

### ***Required Inputs for Decision Making***

#### *Risk Profile*

7. To decide what options could be supported for a coastal population living in at-risk areas, there is a great deal of information needed on the current and future state of the environment within and surrounding the community to consider. This includes clearly understanding issues such as coastal erosion and its impacts over time, how development in and around the community has or will affect the community's safety and well-being, and future changes that may occur due to climate change and increasing exposure to natural hazards. Similarly, it is critical to understand the social dynamics of a community, in addition to the political economy of certain decisions. There are many tools and resources to gather the information that can help assess the scale of the issue (that is, how many communities are affected and where are they?), who is affected and how, and the potential social and political risks involved. The risk profile is also linked to the overall spatial plans of the area, as land use plans, tenure systems, and land availability will greatly affect the decision on whether to relocate or not. If the community wants to relocate, that is, if the project supports any 'planned relocation', this will be done in accordance with World Bank's policy, including OP/BP 4.12, and available land of good quality and accessibility is the first prerequisite before any resettlement planning can take place.

#### *Stakeholders*

8. Stakeholders engaged in making the decision and implementing actions include the affected households and local and national governments, as well as service providers, the private sector, donor and UN agencies, and neighboring communities or even neighboring countries that may be affected by the actions undertaken. Affected households should be the ones who ultimately take the decision on adaptation options, as they are the ones facing the direct risks and consequences related to coastal erosion and climate change. Authorities at the local and national levels need to be involved as they can help the communities develop plans for climate-resilient adaptation and to ensure these are integrated into municipal/national-level development strategies. They also need to be involved in the implementation process.
9. Regardless of whether they are directly affected or not, all actors that can contribute to developing solutions by bringing in useful technical or financial resources should be actively engaged. It is critical to



consider the power dynamics among different stakeholders and within communities themselves to avoid creating or exacerbating social tensions or conflict.

#### *Resources*

10. The fundamental resource for facilitating this kind of decision making is having the political will and commitment of the Government to work in partnership with communities and other stakeholders on identifying and planning options to address increasing risk and climate change. This is a pioneering area of work, and there are few cases around the world where this has been undertaken. Particularly regarding planned relocation, there are no existing legal or institutional frameworks to support this process. Government agencies at the national, state, and local levels often lack the technical capacity and financial resources to plan and implement relocation processes or even providing in situ assistance to improve resilience for communities affected by climate change. Capacity building of key personnel in relevant ministries and agencies is needed so that they can support communities that may want to explore adaptation options. Capacity building will target authorities and agencies at various levels to have a good understanding of the various factors that contribute to a certain community's risk profile, which requires both socioeconomic and environmental assessment and monitoring of relevant areas. Donors, such as the World Bank Group, may provide assistance in planning and implementing relocation plans in line with their safeguard requirements. Engaging regularly with affected communities to raise awareness about climate risks in coastal areas can help identify their needs and concerns in addition to having a shared understanding of the risks and identification of risk management strategies.
11. For a government, the challenges related to these processes include finding suitable relocation sites, ensuring affected people can sustain or restore their livelihoods, and building trust with the affected and host communities to reduce social conflict. If the new sites are not properly designed or constructed with adequate infrastructure and access to services and livelihoods, this can lead to increased poverty, cultural alienation, and lost sense of belonging, as well as the risk of people returning to their original location.
12. Estimating the costs of an in situ adaptation or planned relocation program needs to consider the costs related to the built environment (provision of housing, infrastructure, basic services) in addition to those related to less tangible but critical aspects of governance, livelihoods, and citizen engagement (continuous participatory approach, training and skills development, potential safety net interventions, livelihood support, community-driven activities). Given that the costs of planning and implementing such programs are high, Governments may want to seek funding from various sources. One such source could be the private sector, which could contribute, for instance, to infrastructure construction. Part of the planning process is to ensure that the budget includes all necessary elements of a relocation program.
13. Once a government, jointly with the concerned population, has been able to gather and process the abovementioned types of information, they can follow different possible pathways in adapting to environmental and climate change. The pathways described in the following paragraphs could be used in various combinations or on their own, depending on the context and what the population chooses for itself.



### ***Potential Pathways***

#### *Adapt in Situ*

14. Adaptation in situ refers to actions that enable communities to remain where they are while successfully maintaining a satisfactory level of well-being in the face of environmental and climate change. In many cases, people would understandably prefer in situ adaptation as their livelihoods, culture, and very sense of identity are deeply rooted in the land they live on and the communities they build. Poor people often have no choice but to settle in highly exposed areas and thus, over time, develop their own mechanisms for coping and adapting to a higher level of risk. Adaptation has its limits, however; it can reduce the impacts of extreme events and changing trends but cannot reduce them to zero. Building structural protection measures such as levees or sea walls may create a perception of false safety and lead to further settlement and increased risk in the longer term. When considering in situ adaptation, it is important to understand how long adaptation measures are actually viable before reaching a tipping point when staying is no longer an option. In the latter case, any planning and budgeting done for relocation should also take into account that some people may change their minds during the process and may later want to opt in for the resettlement plans, as well as people having to agree to resettlement at a point in time when staying where they are simply becomes impossible. Further points to consider when supporting in situ adaptation include (a) how to prevent further growth of high risk areas, (b) how to create pull factors to incentivize either self-relocation or planned relocation program, and (c) how to avoid ‘trapping’ people in unsustainable circumstances by allowing them to remain where they are.
15. Ensuring that new development only occurs in safe areas or in areas that can be easily protected could be done by enacting land use regulations that are risk sensitive; however, enforcement of such regulations poses a major obstacle in most countries. Furthermore, land use regulation can have unintended negative consequences on the poorest households. Instead of only presenting risk maps of no-go areas that are flood prone, the Government could complement those with maps of safe areas overlaying them with maps of high-potential underdeveloped areas, which should attract future investments by the Government or the private sector.
16. Disaster risk management measures aimed at reducing losses can assist communities who choose to adapt in situ. These include, for instance, developing early warning systems to inform people ahead of time of extreme events so they can try to plan accordingly; improving weather forecasting and communication about risks and protection measures; investing in emergency preparedness; building more resilient structures that effectively withstand the impacts of weather extremes; and investing in infrastructure that will help control the impacts of disasters (building stabilization/retaining walls, sea walls, improving drainage canals, raising embankment levels).

#### *Incentivize Self-Relocation*

17. Encouraging people to relocate from unsafe areas may also require shifting the conversation from climate change issues to better access to services and economic opportunities elsewhere. This is especially important if a restoration program is in place that would help increase the affected community’s resilience and reduce its vulnerability. Offering communities better standards of living and accompanying them in the journey has proved to be efficient to incentivize relocation. The risk remains that communities are too attached to leave despite the dangers presented to them or that they return to the affected area after



relocation. This resonates differently depending on demographics and the level of understanding of the risks. A generational gap between older and younger populations can also affect the perception of climate change induced migration/relocation needs. For example, younger members of the population tend to move where job opportunities are available, and they may be less attached to land for cultural or traditional reasons. Older community members may be harder to convince as they are more attached to their lands, livelihoods, and their traditions.

18. While pull factors such as livelihood opportunities, availability of socioeconomic infrastructure, and access to services have the potential to encourage people to self-relocate, this also requires extensive planning and investment on the part of Governments in, for example, improved territorial planning, enforcement of building standards, and the development of growth poles.

*Planned Climate Resilience Relocation Program*

19. Relocating entire communities is a highly complex process with substantial social risks and potential significant impacts on the population. Relocation is inherently an extremely disruptive experience upending the normal routines of life. It can shatter the social fabric of a community, not to mention the adverse impact it may have on livelihoods. However, if planned and executed carefully together with the affected communities driving the process, it can prove to be a part of inclusive, climate-resilient development plans. Planned relocation should essentially be a people-centered process and an integrated part of national resilience planning or disaster risk management strategy. Managed relocation therefore works best when the people see the benefits or request this type of intervention when informed of the risks of staying in an extremely vulnerable place.
20. Planned relocation is about not only moving people to safer areas; providing infrastructure and services in the new location as well as opportunities for either continuing with the same livelihood activities or new ones are crucial elements of a relocation plan. If the World Bank supports through the project the implementation of planned relocation, such a relocation plan or RAP should fully incorporate the requirements of OP 4.12. While planning for these elements, there is an opportunity to turn the new areas into growth centers for future expansion and development, which would attract other people to move there as well.
21. Given that relocation is such a disruptive activity, some people try to return to the old areas and new families may want to move into that area once it is vacant. Preventing return or settlement of new people in these vulnerable areas is an integral part of the risk management strategy. Activities such as demolishing all structures in the old area to prevent people from moving in, prohibiting all construction in the area and enforcing this, and community monitoring the area may be used to avert return and newcomers. After the decision to relocate has been made, the community can, for instance, participate in protecting the coastal area from being reoccupied. If possible, it would be beneficial to maintain the area as a communal or leisure space; social infrastructure and small commerce without permanent habitation could also be encouraged to enable the community to continue to enjoy the seaside but without the risks involved in living there. If the new relocation area is distant, transport links (such as footpaths or roads) may need to be provided to ensure continued access to marine resources for fishing, tourism, and other coastal-based livelihoods.





## **ANNEX 10: MAXIMIZING FINANCE FOR DEVELOPMENT**

**COUNTRY: Benin, Côte d'Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo**  
**West Africa Coastal Areas Resilience Investment Project**

1. The project will apply the World Bank's 'Maximizing Finance for Development' approach to make the most impact of scarce public resources. It first seeks to mobilize commercial finance, enabled by upstream reforms where necessary to address market failures and other constraints to private sector investment at the country and sector levels. Where risks remain high, the priority will be to apply guarantees and risk-sharing instruments. Various financing options available to develop IPF operations are described in this annex.
2. Commercial financing raised by the Government/public sector. As an alternative to traditional lending, the World Bank can support its clients in their commercial financing efforts. If the Government or the state-owned enterprise is not creditworthy enough to have access to competitive commercial financing, the World Bank can provide support through recommendations on country/sector policy reforms as well as by supporting institutional capacity building. This preliminary assistance will consist of TA aimed at supporting Governments in bringing well-structured and bankable projects to market. Once these reforms have been implemented, the objective is for the borrower to gain access to commercial financing on competitive terms. On the back of this TA, the World Bank can provide risk mitigation instruments that can help the Government/state-owned enterprise access commercial financing on attractive terms. The World Bank can provide partial loan/bond guarantees to backstop the credit risk of the borrower. By providing such guarantees, the World Bank crowds in commercial financing that would not have otherwise been mobilized.
3. With partial loan/bond guarantees, the World Bank leverages its resources to mobilize commercial financing. For instance, a World Bank guarantee can have a face value of 40–60 percent of the total amount of commercial financing raised. This means that a US\$40–60 million guarantee could raise up to US\$100 million from the commercial market. For the World Bank's IDA clients, there is an additional 'internal' incentive to use guarantees rather than straight loans/credits; only 25 percent of the guarantee value is booked against the country allocation (for IBRD clients, other constraints may apply). Therefore, using an IDA guarantee of US\$60 million to raise up to US\$100 million only requires US\$15 million from the country allocation (25 percent of US\$60 million). In this specific example, the country allocation is leveraged 6.7 times (US\$100 million raised with US\$15 million).
4. For IPF projects, a loan guarantee may equally be used to help a state-owned enterprise raise commercial financing on terms that would not have been otherwise available (longer tenure, lower interest rate). In such cases, the World Bank team ensured that the Government/state-owned enterprise can service its debt and that is financially viable (or that sufficient actions have been taken to ensure its financial viability in the future, see examples below).

### **Recent examples:**

- Pakistan: US\$350 million loan guarantee to the Pakistan Water and Power Development Authority for the Dasu Hydropower Project (US\$210 million IDA guarantee)



- Kenya: US\$500 million refinancing for the Kenya Power and Lighting Company (US\$200 million IDA guarantee)

### **Project Finance by the Private Sector**

5. Involving the private sector to develop, finance, and operate a project when it is cost-effective allows the client to optimize its use of scarce public resources and to allocate them to other projects/sectors that may not be commercially viable/financeable. Again, preliminary technical assistance would generally be needed in supporting Governments in bringing well-structured and bankable projects to market.<sup>66</sup>
6. For instance, the World Bank can support a project developed by the private sector by mitigating the counterparty risk where such counterparty is public (Government/SOE). Examples of this kind of projects include Independent Power Producers (IPPs) who sell power to public offtakers but can work for any operation where payments are owed by the Government/SOE to a private investor, and such payments are intrinsic to the viability of the project. To mitigate the risk that the public offtaker may not honor its contractual payment obligation, the World Bank can provide a payment guarantee to the project. By enhancing the creditworthiness of the public offtaker, the World Bank provides the level of comfort necessary for the private investor and their lenders to finance the project.
7. In addition to such payment guarantees, the World Bank can offer loan guarantees that protect commercial lenders to a private project against events of defaults caused by the Government or the public offtaker. Such guarantees allow commercial lenders to extend the maturity or volume of the loans they provide as well as reduce the interest rate they charge. The savings made possible by the improvement of the lending terms can then translate into lower overall costs of the project and thus the impact on the public offtakers and the public generally.

### **Recent examples:**

- **Argentina:** US\$3.2 billion of renewable energy IPPs (US\$480 million IBRD payment guarantee)
- **Zambia:** US\$60 million solar IPP (US\$3.5 million IDA payment guarantee)
- **Ghana:** US\$8.0 billion Sankofa gas project (US\$500 million IDA payment guarantee)
- **Nigeria:** US\$900 million thermal IPP (US\$275 million combined IBRD loan and payment guarantees)

### **Blue Bonds**

8. With the increased scarcity of public financial resources and investable capital, coupled with negative impacts of climate change on coastal zones, it is ever more crucial to incentivize countries to take on a transformative approach to catalyzing investments, providing the leeway to more inclusive and sustainable development pathways. More than US\$50 billion in debt funding has been provided to issuers

---

<sup>66</sup> Funding from, for example, the Global Infrastructure Facility could be considered to assist with the upstream preparatory assistance. [www.globalinfrafacility.org](http://www.globalinfrafacility.org).



on the Green Bond market to finance projects that have positive environmental and/or climate benefits. This market has been driven by a large and growing investor base with a specific mandate to invest in sound investment propositions that also create clear social and environmental benefits. Issuance in this market is guided by the Green Bond Principles, which are best practice guidelines that highlight the importance of allocating funds to eligible projects, tracking proceeds, and providing periodic reporting on use of proceeds.

9. The recent initiative by Seychelles to issue the first ever 'Blue Bond' amounting to US\$15 million supports marine spatial planning and the Mahé Plateau fisheries management plan for the sustainable development of the country's Blue Economy. The WACA Program will seek a similar approach that focuses on investment into coastal protection and management to generate revenues and jobs over time for coastal industries, including fishing and tourism, as well as other benefits such as pollution management and protection against extreme weather and coastal flooding, contributing to improved livelihoods.
10. The project will leverage IDA funding and GEF grants and will increase efforts to attract sovereign and sub-sovereign investors that support projects with positive environment impacts, who focus on integrating environment, social, and governance factors into their investment processes.
11. Given the regional nature of the project, one option to be envisaged is designating a regional entity with the necessary political capital and shared regional responsibility, as a 'market arranger' to lead the issuance of the Blue Bonds into the market. Possible entities include WAEMU, West African Development Bank, and AfDB.
12. The World Bank team will provide technical assistance to the designated regional entity and participating countries of the WACA Program. The assistance will include conducting dialogue with the designated regional entity and investors and market outreach to set the ground for an enabling environment that is consistent with the project objectives; direct support in the design of the Blue Bond, including the coordination of IDA commitments, GEF contribution, and possible credit enhancement, if needed; and documentation of the transaction involving coordination of legal teams of the arranger and client.



## **ANNEX 11: COASTAL GEOMORPHOLOGY AND THE ‘SAND RIVER’**

**COUNTRY: Benin, Côte d’Ivoire, Mauritania, São Tome and Príncipe, Senegal, and Togo**  
**West Africa Coastal Areas Resilience Investment Project**

### **The West Africa ‘Sand River’**

1. In 2016, the World Bank concluded the study ‘Human Interventions and Climate Change Impacts on the West African Coastal Sand River - A Preliminary Quantitative Assessment’.<sup>67</sup> The objective was to develop a quantitative and consistent large-scale sediment budget for the West African coastal system (that is, Ivory Coast, Ghana, Togo, and Benin) based on one numerical modeling framework. The study provided quantitative information of the alongshore sediment transport. Furthermore, the modeling framework was utilized to provide estimates of the effects of the major man-made interventions and climate change (that is, sea level rise, changes in wave climate, as well as precipitation and temperature in the river catchments) on the alongshore sediment transport and shoreline changes.
2. The West African coastal barrier is maintained by a strong wave-driven longshore transport of sand that can be compared to a ‘sand river’. This sand originates from rivers and from large coastal sand deposits. Today, however, much of the fluvial sand is retained behind river dams and/or interrupted by harbor jetties. For these reasons the sandy coastal barrier is eroding; the highest rates of retreat (in the order of 10 m per year or more) occur near river mouths and port jetties, that is, in the most urbanized areas. On top of that, sea level rise enhances coastal retreat and may be the major factor for coastal retreat by the end of the century. This will lead to the disruption of the coastal barrier if no erosion control measures are taken.
3. The study has shown how some of the man-made interventions have had major effects on the large-scale sediment budget and consequent shoreline changes. As an example, the effect of the port of Lomé in Togo may extend up over 50 km, therefore beyond the border between Togo and Benin. A large amount of sediment is also retained behind river dams. The modeling system has shown that, if this sediment is released from the dams, this could promote sediment accretion at the coast up to several meters per year. This is especially evident at the Volta River, which used to carry the highest sediment discharge at the coast and where major river dams (for example, the Akosombo Dam) have now been built.
4. The effects of the current major ports on coastal erosion will be of the same order of magnitude than the effect of sea level rise, when considering lower sea level rise scenarios (Representative Concentration Pathway [RCP] 4.5). However, sea level rise may overrule the effect of the other man-made interventions by the end of the century when considering the largest predicted sea level rise scenarios (RCP 8.5). This of course will depend on the actual sea level rise that is going to take place, as well as the possible developments of new structures along the coast and at the river basins, which may lead to additional side erosion.

---

<sup>67</sup> Alessio, Giardino, Schrijvershof Reinier, Brière Christophe, Nederhoff Kees, Tonnon Pieter Koen, and Caires Sofia. 2017. Human Interventions and Climate Change Impacts on the West African Coastal Sand River. World Bank, Washington, DC.



5. Possible changes in offshore wave conditions induced by climate change (that is, wave height and incoming wave direction) may lead to changes in gradients of longshore transport, which in turn will cause a response (that is, local accretion or erosion) of the shoreline up to 1–2 m per year. Finally, possible changes at the river catchments related to climate change (for example, changes in precipitation or temperature) will only result in localized changes at the coastline.

6. The study clearly pointed out the interdependency between different interventions, either along the rivers or at the coast, on the overall sediment budget. As these effects do not know geographical boundaries and considering the severity of the current coastal erosion problems in the region, it is highly advisable that a large-scale sediment management plan of the entire region will be set up. The setting up of such a sediment management plan will be especially important, in view of the new expected infrastructural developments in the region, not to worsen the already critical current situation.

### **Toward a Coastal Sediment Management Plan for West Africa**

7. As the countries come together under WACA, and fully internalize the effects of ports, dams, sand mining, oil, and gas infrastructure, a regional sediment management plan with national action plans will need to be developed.

8. The implementation of such a plan would involve a coordinated effort among stakeholders to establish, maintain, evaluate, and carry out sediment recommendations. For example, recommendations may involve continuation of existing activities, such as the ongoing dredging and opportunistic beach nourishment efforts, whereas others would be entirely new projects or planning processes that would require additional funding, staffing resources, and additional feasibility studies. The regional sediment plan would provide many potential benefits from a regional perspective through stakeholder coordination and cross-jurisdictional collaboration.

9. The implementation of a sediment plan would provide local stakeholders with strategies for coastal zone management, policy, and guidance; these will help restore, preserve, and maintain coastal beaches and other critical areas of sediment deficit. It would help sustain recreation and tourism, enhancing public safety and access and restoring coastal sandy habitats. With proper economic analysis, cost-effective solutions for restoration of areas affected by erosion can be identified. The culmination of the sediment plan will be in the sustainable management of future investments, urban expansion, and infrastructure projects.



ANNEX 12: MAP OF WEST AFRICA

