



Appraisal Environmental and Social Review Summary

Appraisal Stage

(ESRS Appraisal Stage)

Date Prepared/Updated: 01/22/2026 | Report No: ESRSA04713

**I. BASIC INFORMATION****A. Basic Operation Data**

Operation ID	Product	Operation Acronym	Approval Fiscal Year
P509153	Investment Project Financing (IPF)	WACA+	2026
Operation Name	West Africa Coastal Areas Blue Economy and Resilience Program		
Country/Region Code	Beneficiary country/countries (borrower, recipient)	Region	Practice Area (Lead)
Western and Central Africa	Benin, Mauritania	WESTERN AND CENTRAL AFRICA	Environment, Natural Resources & the Blue Economy
Borrower(s)	Implementing Agency(ies)	Estimated Appraisal Date	Estimated Board Date
Islamic Republic of Mauritania, Republic of Benin	Ministry of Environment and Transport (Benin), Ministry of Environment and Sustainable Development (Mauritania)	21-Jan-2026	17-Mar-2026
Estimated Decision Review Date	Total Project Cost		
17-Dec-2025	212,000,000.00		

Proposed Development Objective

To strengthen coastal management and climate resilience, and improve job access in the blue economy in targeted countries in West Africa

B. Is the operation being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project Activities

The program will strengthen the health and resilience of coastal and marine assets through infrastructure investments, including nature-based solutions, ecosystem restoration, and improved management and monitoring of marine and coastal resources. These investments, alongside activities to enhance government capacity, will provide the enabling conditions and groundwork for job growth. It will also create jobs in the blue economy by facilitating financing, technical assistance, and market development for the scale up and creation of blue enterprises, alongside infrastructure



investments in relevant sub-areas. WACA+ is structured around three interlinked components, each aligned with relevant national coastal development plans and blue economy strategies. These components are: (i) strengthening governance and institutions; (ii) enhancing coastal resilience; and (iii) facilitating coastal economic development.

D. Environmental and Social Overview

D.1 Overview of Environmental and Social Project Settings

In Benin, project activities will focus on the Bouche du Roy and Donaten marine protected areas as well as another 12 existing legally protected biodiversity and community conservation areas (Togbin-Adouanko, Vodounto, the Toho and Aheme lakes, Naglanou forest, Adjame, Togbadji, Deve, the Tannou pond, the Gbaga channel and the Ouidah lagoon) and the future “Riviere Noire” protected area. Bouche du Roy and the Mono River are designated Ramsar sites. In Mauritania, interventions will be concentrated along the Nouakchott coast, the artisanal fishing port of Nouadhibou (studies only), the Port of Tanit, the Transboundary Biosphere Reserve of the Senegal River as well as the Bay of the Etoile Nature Reserve and the Dawling National Park, the latter being designated a RAMSAR site. Overall, the project areas are characterized by high ecological value, with mangroves, wetlands, fish nurseries, and migratory bird habitats, alongside important economic activities such as artisanal fisheries and fish processing.

The project will also finance minor civil works and other soft activities in Mauritania. This includes the rehabilitation of the Nouakchott dune belt to mitigate coastal flooding risks. These interventions will employ soft engineering techniques such as planting native dune vegetation and installing fences, brushwood barriers, or palisades to trap sand, reduce wind erosion, and strengthen dune ridges at critical points. No other physical infrastructures are envisaged.

Activities in protected areas in both Benin and Mauritania will include technical assistance for mangrove restoration, hydrological rehabilitation, and the control of invasive plant species. Finally, the project will finance matching grants for MSMEs in the fisheries sector in Mauritania and aquaculture and ecotourism in Benin. The project will continue to support community infrastructure in the vicinity of the Dawling National Park and a dedicated fisheries and blue-MSME window through the Mauritania Guarantee Fund (FGM) in Mauritania.

D.2 Overview of Borrower’s Institutional Capacity for Managing Environmental and Social Risks and Impacts

Each country will maintain a Project Implementation Unit (PIU) with overall responsibility for project management, including environmental and social (E&S) aspects. The PIU in Benin will operate under the Ministry of Living Environment and Transport in charge of Sustainable Development, and the PIU in Mauritania under the Ministry of Environment and Sustainable Development. Both PIUs are staffed with environmental and social specialists who oversaw the implementation of WACA RESIP1 P162337, which closed in June 2025 in Benin and is expected to close in December 2025 in Mauritania. Both projects were under the former World Bank Safeguard Policies. The Benin PIU team gained experience with the Environmental and Social Framework (ESF), as they are currently implementing the Gazetted Forest Management Project (P508182). In Mauritania, the Environmental and Social Specialist remains in place; however, the team will be strengthened through the recruitment of a full-time environment specialist.

Overall, the E&S performance of WACA RESIP1 in Benin, Mauritania, and WAEMU was rated Satisfactory. In Benin, all key E&S mitigation measures were successfully implemented. These included: two Resettlement Action Plans (RAPs), a Livelihood Restoration Plan (LRP), four Environmental and Social Impact Assessments (ESIAs), a biodiversity monitoring plan for the Sèmè-Kpodji oil platforms, mangrove and coconut tree reforestation, conversion of invasive water hyacinth



into compost, and habitat preservation for turtles, manatees, and crocodiles along the West African coast. The project also implemented chance find procedures for marine discoveries and ensured the protection of cultural heritage sites, including temples uncovered during construction. An independent RAP implementation audit confirmed full compliance, and all registered grievances were resolved prior to project closure. In Mauritania, E&S implementation measures have been satisfactorily delivered, though the scope has been less complex, as no resettlement, livelihood restoration, biodiversity, or cultural heritage measures were required. Grievance management, while operational, has faced challenges—particularly in maintaining systematic documentation of the process.

The project will support Borrower Framework strengthening. In Mauritania, the project will support the adoption of industrial wastewater effluent standards, the development of Environmental, Social, and Governance (ESG) standards applicable to the banking sector as well as guidelines for MFIs for adopting and implementing Environmental and Social Management Systems (ESMS). In Benin, the project will finance trainings for inspectors specialized in monitoring chemical and industrial waste.

II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

High

A.1 Environmental Risk Rating

High

Although the project is expected to deliver major environmental benefits through coastal ecosystem restoration—particularly mangroves—and biodiversity conservation, it is classified as High Environmental Risk given the scope, nature, and ecological sensitivity of the project areas, which hold high biodiversity and/or ecological value (Bouche du Roy and Mono Delta in Benin and the Diawling National Park and the Natural Reserve of the Bay of the Etoile in Mauritania). Key risks and adverse impacts include potential habitat loss, impacts on marine species, especially non-mobile or less adaptable species. Civil works may also generate air, soil, and water pollution, as well as dust and emissions from equipment. During operation, waste from project-financed MSMEs in aquaculture and fish processing could cause water contamination, algal blooms, oxygen depletion, OHS and safety issues and improper disposal of solid fish-processing and dredged solid waste and used oil.

A.2 Social Risk Rating

Substantial

The social risk is rated Substantial, given the likelihood of significant adverse impacts that can be mitigated through reliable mitigation measures. Key risks include potential restrictions of access to natural and marine resources in protected areas, which could lead to tensions with communities if not properly managed. Job creation, grants, and training activities also carry risks of social tension and grievances if benefits are perceived as unevenly distributed, particularly along gender or youth lines. Additional risks relate to occupational and community health and safety, such as hazards of manipulating heavy equipment and working in coastal/marine environments. Finally, the activities related to the financing of credits for the fishing and processing industry carry present risks of child or forced labor, and overall poor labor conditions (cramped sleeping quarters, excessive working hours, etc....).

Public Disclosure



B. Environment and Social Standards (ESS) that Apply to the Activities Being Considered

B.1 Relevance of Environmental and Social Standards

ESS1 - Assessment and Management of Environmental and Social Risks and Impacts

Relevant

The Environmental and Social risks of the project are rated as High given their potential to adversely impact natural habitats and biodiversity through soil and water pollution during construction and the sustainability of marine species. Moreover, project activities are expected to pose health and safety risks to workers and the communities, lead to moderate restrictions of access to natural resources in legally protected areas, which if not properly managed, could lead to tensions with the communities. Consistent with the ESF streamlining approach, the Bank prioritized site-specific assessments over the use of framework instruments and approved the following: 1. The ESIA for the stabilization and development work in the Bouche du Roy estuary of the Mono river in Benin (disclosed on September 16, 2025) 2. The Stakeholder Engagement Plan (SEP) of each national PIU (disclosed locally). 3. The Labor Management Procedures (LMP) of each national PIU (disclosed locally and on the Bank's website). 4. The Process Framework for each national PIU (disclosed locally and on the Bank's website). Moreover, in line with the Interim Guidance Note on Documentation and Review Requirements for High and Substantial Risk Projects Prior to Appraisal (2023), the Bank disclosed the national ESIA for the sand dune stabilization works in Nouakchott, Mauritania, prepared following the national legislation (October 17, 2025). While the Bank review confirmed that the national study does not contain any information that contradicts or is materially inconsistent with the ESF, it advised the preparation of an ESMP that would follow all its requirements. Additional instruments to be prepared during implementation include (i) the ESIA and waste management plan for the dredging and maintenance works in the Tanit Port (Mauritania); (ii) waste management plan for the dredged waste from the Bouche du Roy stabilization works (Benin); (iii) the ESMP for the sand dune stabilization works in Nouakchott (Mauritania); (iv) the Biodiversity Management Plan for the Bouche du Roy stabilization works (Benin); (v) each beneficiary financial intermediary will prepare an ESMS. Finally, all terms of reference for technical assistance activities, at both national and regional levels, will be reviewed by the Bank for E&S considerations in accordance with the ESF and Operations Environmental and Social Review Committee Advisory Note. The implementation of project activities in the two countries (Benin and Mauritania) will follow relevant WBG EHS guidelines. The TA activities will comply with OESRC Advisory Note on Technical Assistance and the ESF, May 21, 2019. These obligations and the sequencing and deadlines are reflected in each country's Environmental and Social Commitment Plan (ESCP).

ESS10 - Stakeholder Engagement and Information Disclosure

Relevant

Key project-affected stakeholders include MSME owners and workers in fisheries, aquaculture and eco-tourism, financial intermediaries, as well as direct and indirect coastal community beneficiaries in both countries. Other concerned stakeholders comprise national and local authorities and civil society organizations. Vulnerable groups include individuals without formal land rights, poor communities heavily dependent on natural resources for their livelihoods in protected areas, migrant fishers whose activities may be disrupted by civil works, and female entrepreneurs in the project's target sectors, who often face greater barriers to market access and capital. Each participating country prepared a Stakeholder Engagement Plan (SEP) that has been disclosed before appraisal. The SEPs summarize the consultations conducted to date with key beneficiary groups and communities surrounding protected areas. Moreover, they describe each country's grievance mechanism—building on existing WACA RESIP1 structures—and set out engagement tools tailored to different stakeholder groups.



ESS2 - Labor and Working Conditions

Relevant

The project will engage : (i) direct workers (PIU staff); (ii) contracted workers (employees of civil works contractors, service providers, consultants for studies, technical assistance, and training); (iii) primary supply workers (suppliers and manufacturers of IT equipment, vehicles, and construction materials such as sand, cement, iron, and stone) and (iv) community workers for mangrove restoration and dune maintenance in Mauritania. Key labor risks during construction include strenuous working conditions and occupational health and safety hazards such as traffic accidents, injuries or falls, exposure to dust and noise, common biological hazards (e.g., snake bites), and exposure to high temperatures. Workers involved in the construction and operation of coastal infrastructure may also face risks of drowning, exposure to waterborne pathogens and parasites, and health hazards related to handling biocides, fish feed, nets, antibiotics, and disinfectants. To manage these risks, in addition to ensuring that occupational health and safety risks are integrated in all the ESMPs, the PIUs in Benin and Mauritania prepared Labor Management Procedures (LMPs). These instruments were disclosed prior to appraisal on October 20, 2025 in Mauritania and November 12, 2025 in Benin.

ESS3 - Resource Efficiency and Pollution Prevention and Management

Relevant

The construction of the proposed civil works in or near sensitive areas, is expected to generate adverse impacts such as air, soil, and water pollution, waste generation, dust, and exhaust emissions from equipment. Dredging activities, whether as part of the stabilization and development work in the Bouche du Roy estuary of the Mono river in Benin or the access improvement of the Port of Tanit in Mauritania will generate solid waste. The project also includes the support of priority sectors, such as fish processing, which can be a source of large quantities of waste and contamination of the aquatic environment. Waste management measures have been integrated into the ESIAs prepared in both countries. Specific waste management plans for dredged waste will be prepared during project implementation. Moreover, the ESMS for the dedicated fisheries and blue-MSME financing window through the Mauritania Guarantee Fund (FGM) will include waste mitigation requirements (see ESS9 below). These measures will be consistent with ESS3 and in line with the sector-specific World Bank Group Environmental, Health and Safety (EHS) Guidelines for the fishing industry. These requirements have been reflected in each country's ESCP.

ESS4 - Community Health and Safety

Relevant

The project is expected to pose community health and safety risks in the project area, including exposure to dust, noise, and vibration, as well as potential for accidents involving vehicles, trucks, and heavy machinery during construction of infrastructure, particularly the stabilization works in Benin. In addition, matching-grant and training to MSMEs may generate grievances related to real or perceived unfair selection processes as well as risks of sexual exploitation and abuse or sexual harassment (SEA/SH). The project is expected to generate low labor influx during construction. Finally, the use of security forces is not considered as the project will not intervene in unsafe areas ESS4 mitigation measures, including for SEA/SH, have already been included in the ESIAs and the LMPs prepared in both countries. For risks associated with matching-grants and trainings, the project will ensure eligibility criteria are clear, and the selection process transparent, and this information is effectively disseminated to all potential beneficiaries. These requirements will be included in the matching-grant and training manual.

ESS5 - Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Relevant



No physical or economic resettlement have been identified for the stabilization work in the Bouche du Roy estuary of the Mono river in Benin, nor the sand dune restoration in Nouakchott, Mauritania. However, the project will be financing activities in legally protected areas which will have minor impacts on access to natural resources, such as mangrove restoration activities in both countries, which will restrict temporarily foraging in these areas, and- potentially- the construction of water retention dikes in Mauritania, which may limit access to water resources. All existing protected areas but the Baie de l'Etoile Reserve (RNBE) in Mauritania already have legislated participatory management plans in place with local communities to balance conservation and livelihoods goals. For example, in Benin, the Bouche du Roy marine protected area allows for artisanal fishing and shellfish/crab collection under national/communal rules. Local riverine communities in the vicinity of the Diawling National Park in Mauritania currently have access rights to traditional resource uses (such as fishing, grazing, artisanal harvesting, and small-scale gardenings), as well as have a role in decision-making, planning, and oversight of the park's governance structure. However, given that some protected areas do not have such measures yet in place (i.e. RNBE), and to ensure additional restrictions on mangroves or water resources posed by the project remain in compliance with ESS5, the Borrowers have prepared a Process Framework (PF) that sets out a process for affected communities to participate in decisions concerning access restrictions and mitigation measures refer to the existing management plans, propose additional mitigation measures as well as more robust grievance mechanisms. The PFs have been cleared and disclosed by the Bank.

ESS6 - Biodiversity Conservation and Sustainable Management of Living Natural Resources

Relevant

Project activities will take place in or close to biodiversity rich and critical habitats. To assess the key risks associated with the project, Rapid Critical Habitat Assessments (CHA) were conducted for both countries in September 2025. In Benin, the CHA indicates that the stabilization and development work in the Bouche du Roy estuary of the Mono river will take place in the Ramsar Site 1017 and the Mono Transboundary Biosphere Reserve, both internationally recognized for their diverse biodiversity and ecosystems, with the presence of at least eight critical habitat species (e.g. marine turtles, manatees, sitatungas, and migratory terns). In order to minimize a mitigate impacts, the project will develop a Biodiversity Management Plan (BMP) during implementation that will outline: (i) review the history of past conservation initiatives for critical habitat species; (ii) identify current or planned initiatives for these species; (iii) assess opportunities for collaboration and (iv) propose mitigation measures to avoid, minimize, restore and offset impacts. In Mauritania, the CHA identified mitigation measures such as prioritizing natural-based solution, restoring the wetland, replenishing the protective vegetation cover, improving the ecological connectivity between habitats, and controlling the Typha invasive plant species. These measures are budgeted in WACA+ but are not outlined in the Nouakchott dune-belt national E&S assessment. They will be included in the ESMP to be prepared during implementation. In line with the Bank's Interim Good Practice Note on Managing Risks in Protected Areas (2025), the Borrowers have each prepared an Institutional Assessment on Law Enforcement Functions, which identified shortcomings recommended : the adoption of and training on conflict resolution and grievance mechanism and disciplinary procedures, as well as ensuring that rules of engagement and the use of force are in line with good international practices. Key recommendations of the institutional assessments will be implemented by the project. This has been reflected in each country's ESCP.

ESS7 - Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

Not Currently Relevant



This standard is currently not considered relevant as they are no groups that meet the ESS7 criteria involved in the project.

ESS8 - Cultural Heritage

Relevant

In both countries, chance-find procedures have been integrated in the ESIA's and will continue to be included in the instruments to be prepared during implementation. This has been reflected in the ESCPs. While there are sacred natural landscapes and water bodies in the project area of influence in Benin, none are in the immediate proximity of the civil works of Bouche du Roy.

ESS9 - Financial Intermediaries

Relevant

ESS9 is relevant for the program as it will support financial intermediaries (FIs) in Mauritania and Benin providing loans to Micro, Small and Medium Enterprises (MSMEs) in aquaculture and ecotourism in Benin and in fish processing in Mauritania (Component 3). The participating FIs have not been confirmed at this stage. Once they are, the national PIUs will assess their E&S procedures and recommend whether to maintain, upgrade or establish an Environmental and Social Management System (ESMS) that includes: (i) environmental and social policy; (ii) clearly defined procedures for the identification, assessment and management of the environmental and social risks and impacts of subprojects, including impacts on working conditions, child and forced labor, waste management and pesticide and antibiotic management; (iii) organizational capacity and competency; (iv) monitoring and review of environmental and social risks of subprojects and the portfolio; and (v) external communications mechanism on environmental and social matters proportionate to the risks and impacts. These requirements are outlined in each country's ESCP.

B.2 Legal Operational Policies that Apply

OP 7.50 Operations on International Waterways

Yes

OP 7.60 Operations in Disputed Areas

No

B.3 Other Salient Features

Use of Borrower Framework

No

The program is High risk, and the use of borrower framework is not planned for in the 2 countries.

Use of Common Approach

No

Although IFC support the implementation of a technical training program to financial intermediaries, it will not co-finance the project. The KfW will co-finance the project and will apply the World Bank ESF.

C. Overview of Required Environmental and Social Risk Management Activities

C.1 What Borrower environmental and social analyses, instruments, plans and/or frameworks are planned or required by implementation?

Each country has disclosed by appraisal:



- Environmental and Social Commitment Plan (ESCP) for each country
- Stakeholder Engagement Plan (SEP) disclosed in each country
- ESIA for the Bouche du Roy estuary stabilization and development works in Benin disclosed on 16 September 2025
- ESIA for the dune stabilization work in Nouakchott, Mauritania (national document) disclosed on 17 October 2025
- Labor Management Procedures (LMP) disclosed on 20 October 2025 (Mauritania) and 12 November 2025 (Benin)
- Rapid Critical Habitat Assessment (CHA) finalized in September 2025 for each country (not disclosable)
- Process Framework (PF) cleared and disclosed on December 1, 2025 for Mauritania and December 4, 2025 for Benin.
- Institutional Assessment of Law Enforcement Functions finalized for both Benin and Mauritania (not disclosable)

Each country will prepare and disclose post appraisal and prior to the implementation of the relevant civil works/activities:

- ESMP for the dune stabilization works (Mauritania)
- ESIA with Waste Management Plan for the dredging activities at the Tanit Port (Mauritania)
- Waste Management Plan for the dredged waste of the Bouche du Roy estuary stabilization and development works (Benin)
- Biodiversity Management Plan (Benin)

III. CONTACT POINT

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IV. FOR MORE INFORMATION CONTACT



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V. APPROVAL

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