

REPORT No. 181161-AFR

# INSPECTION PANEL INVESTIGATION REPORT

## REPUBLIC OF TOGO

### WEST AFRICA COASTAL AREAS RESILIENCE INVESTMENT PROJECT (P162337), ADDITIONAL FINANCING (P176313) AND GLOBAL ENVIRONMENT FACILITY (GEF) (P092289)



APRIL 20, 2023



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## Abbreviations and Acronyms

AFD	<i>Agence Française de Développement</i> – French Development Agency
ANGE	<i>Agence Nationale de Gestion de l’Environnement</i> – National Environmental Management Agency
COMEX	<i>Comité d’Expropriations</i> – the national expropriations committee
BP	Bank Procedures
EA	Environmental Assessment
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
E&S	Environmental and Social
FCFA	<i>Franc de la Communauté Financière Africaine</i> – African Financial Community Franc
GC	Grievance Committee
GCF	Green Climate Fund
GDP	Gross Domestic Product
GRM	Grievance Redress Mechanism
HSE	Health, Safety, and Environment
H&S	Health and Safety
IDA	International Development Association
IPCC	Intergovernmental Panel on Climate Change
ISR/s	Implementation Status and Results
LACE	Local Action and Citizen Engagement
MEFR	Ministry of Environment and Forest Resources
OP	Operational Policy
PAD	Project Appraisal Document
PAP/s	Project-Affected Person/People
PK	<i>Point Kilométrique</i> – Kilometer Marker
PPE	Personal Protective Equipment
PIU	Project Implementing Unit
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SLR	Sea Level Rise
USD	United States Dollars
WACA	West Africa Coastal Areas
WACA-ResIP	West Africa Coastal Areas Resilience Investment Project

## **Executive Summary**

### **Introduction**

1. On August 4, 2021, the Inspection Panel (the “Panel”) received a Request for Inspection (the “Request”) of the West Africa Coastal Areas Resilience Investment Project, Additional Financing – West Africa Coastal Areas Resilience Investment Project, and Global Environment Facility (jointly referred to as WACA or the “Project”) in Togo. The Panel registered the Request on September 7, 2021.

2. Management’s Response to the Request (the “Management Response” or the “Response”), dated October 7, 2021, stated that the Bank had followed policies and procedures applicable to the matters raised in the Request. In the Response, Management committed to time-specific actions to address the concerns raised. In its first Report and Recommendation, dated November 8, 2021, the Panel recognized the importance of the Project and recommended deferring its recommendation on whether to investigate the Project for six months to allow for implementation of these actions. On April 19, 2022, Management provided the Panel an update of their implementation. The Panel acknowledged the positive steps Management had taken to address the issues raised. However, on June 8, 2022, following a second field visit to Togo, the Panel remained concerned about the Bank’s compliance and therefore recommended an investigation.

3. The Board approved the Panel’s recommendation on June 23, 2022. The Panel Investigation commenced after the Accountability Mechanism Secretary informed the Board and Panel that the Requesters and Borrower chose not to engage in a dispute resolution process. The Panel posted its Investigation Plan on its website on September 13, 2022.

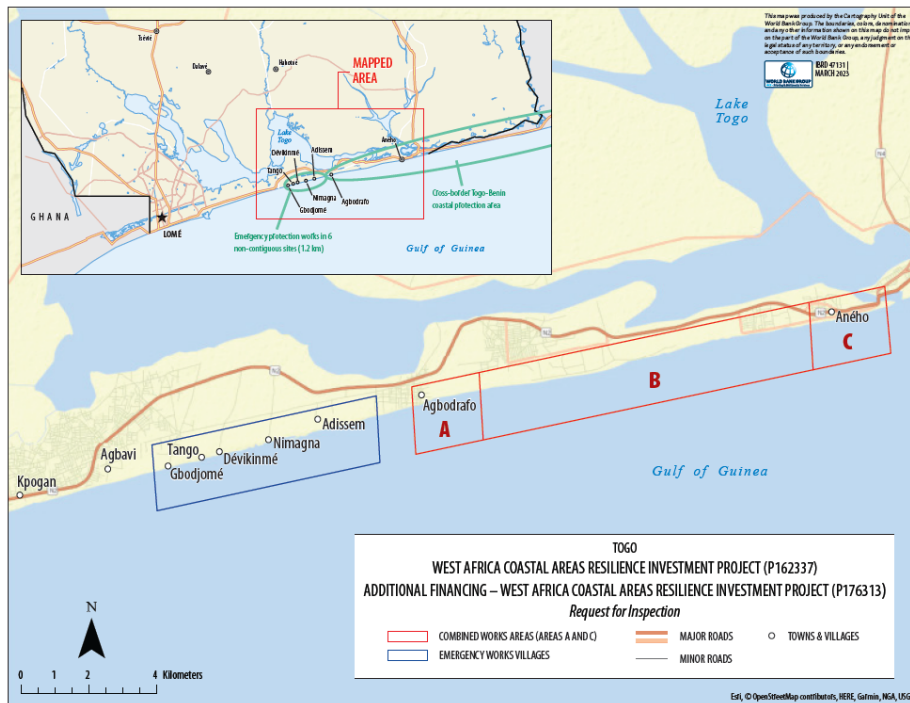
### **Context, Project Rationale, and Project Description**

4. West African economies are heavily dependent on natural resources such as fisheries, fossil fuel, minerals, and timber. These countries are under severe pressures from rapid urbanization along the coast, which has increased the pressure on land, water, and other natural resources. Coastal areas are undergoing significant environmental degradation due to floods, air and water pollution, loss of land, loss of assets, and damage to critical ecosystems. Coastal erosion is the main source of land loss on Togo’s coastal barrier, where most people live and the majority of economic productivity for the nation is derived. The 56-kilometer-long Togo coastline retreats an average of 2.5 meters per year.

5. The Project in Togo is part of the WACA Program, which includes 17 countries and consists of country projects, regional integration, and support activities. The Project was approved on April 9, 2018. Its objective is to strengthen the resilience of communities and areas in Togo and coastal West Africa, thereby enhancing the absorptive, adaptive, and transformative capacities of these countries to manage their shared, often transboundary, natural and human-made risks.

6. The Panel Investigation pertains to the WACA Project activities in Togo only and covers two subprojects – the Combined Coastal Protection Works (“Combined Works,” see

the red box in the Map, below) and the Emergency Protection Measures (“Emergency Works” for Coastal Protection, see the blue box in the Map, below). The Combined Works comprise structures, mainly groynes, built to protect the coastal segment from Agbodrafo to Aného; they are part of a cross-border, coastal protection system that extends to Grand-Popo, Benin. The Emergency Works aim to provide short-term protection, in the form of concrete pipe walls, against erosion. The six Emergency Works sites are in Gbodjomé, Tango, Nimagna, Adissem, and two sites in Dévikinmé.



Map showing the locations of the Emergency Works and Combined Works

7. **Project Status.** The Panel notes that the December 2022 Aide Mémoire stated that the rehabilitation of the groynes in Aného was completed. It added that preparation works for the groynes in Agbodrafo had started and the PIU was awaiting the RAP completion report before the works begin.

### Request for Inspection, Management Response, and Management Update

8. **Request for Inspection.** The Requesters represent affected communities living in the villages of the Combined Works area and the Emergency Works sites. These communities raised concerns about alleged impacts on their artisanal fishing and livelihoods, lack of Project-related information and consultation, inadequate resettlement process, and the absence of a functioning grievance redress mechanism (GRM). Additionally, the Requesters from the Combined Works area raised concerns about the consideration of Project alternatives and the Project-related involuntary resettlement process.

9. **Management Response.** In its Response, dated October 7, 2021, Management stated that the Project would neither cause permanent, adverse impacts on artisanal fishing activities in the Combined Works area nor limit access to the shore or fisheries, and that Management



was committed to actions to improve Project implementation. Management also stated that the Resettlement Action Plan (RAP) would undergo further consultations and will require the Bank's no-objection before it is considered ready for implementation. With regard to the Emergency Works, Management noted that the measures would help retain beach sand and provide a short-term solution in Tango, Gbodjomé, Nimagna, Adissem, and Dévikinmé.

10. Management's Update on the implementation of actions, dated April 19, 2022, stated it intensified implementation support for the Combined Works, with specific attention on the finalization of the RAP and the Environmental and Social Impact Assessment (ESIA). Management provided updates on four actions concerning the Emergency Works – the commissioning of a Social Audit, the decluttering of zones to enable boat landings, the implementation of the Local Action and Citizen Engagement initiative, and support for an ongoing, Project-related, information campaign.

### **Context of Coastal Erosion and Fishing in Togo**

11. The underlying factors that cause coastal erosion and impact communities and infrastructure in Togo are an important context for this investigation. Among these are the coastal barrier system and the sediment transport supplying Togo's coastal barrier beach. It is also important to understand the fishing techniques used by the coastal communities, and their associated value chain.

12. **Physical Setting and Togo's Coastal Land.** Togo's coastal barrier is made of longshore sandbars composed of unconsolidated-to-very-weakly-consolidated sand between five and 20 meters thick, five meters above current sea level on average. Most of this system overlies silts, clays, and intermittent sandstones.

13. The dominant coastal landform upon which Togo's coastal communities are built is called the West African Coastal Barrier. Barrier beaches and barrier islands are common landforms flanking many of the world's wave-dominated coasts. These barriers are not static landmasses; they are dynamic, low-lying landforms built of sand. They migrate and change shape, adjusting their lateral position and elevation relative to the adjacent land in response to longshore drift, changes in sediment supply, and sea level rise. Continued growth of sandy coastal barriers relies on large increases of sediment to create a net positive input to the barrier beach. In Togo, this sediment is then transported by a strong, west-to-east, longshore drift. The sand supply has been severely curtailed by human activities including sand extraction, river dams that reduce fluvial sediment inputs to the coast, and the building of ports and coastal protection measures, such as groynes, which block the longshore transport of sediment. This reduced sediment supply further diminishes the resilience of Togo's coastal barrier to existing and future coastal climate change pressures. As a result, the sandy coastal barrier is eroding almost everywhere along its length.

14. **Extent of Fishing and Its Associated Value Chain in Togo.** Marine, artisanal fishing in Togo is highly specialized and organized. It includes the *senne de plage*, *senne tournante*, and *Tonga* techniques. Some of these techniques are common to several villages and others appear to be unique to particular villages. These traditional, intergenerational

techniques are part of the living heritage of these communities. They require strong understanding of the sea and the movement and direction of currents and tides.

15. The microeconomy surrounding artisanal fishing involves all segments of the population including young and old people. Fishing activities enable many in Togo to feed their families and send their children to school. Although it is difficult to measure exactly the microeconomy related to fishing activities and their associated value chain, the Panel observed and assessed such activities to come to a better understanding of the impact of the Project on the people involved in the process. The value chain includes fishers, fishmongers (*mareyeuses* – wholesale traders, typically women, also known as fish transformers), fishing crews, net pullers or haulers, motorcycle and taxi drivers, basket weavers, net menders, and other community members.

16. The beach seine fishery, or *senne de plage*, is the third-largest contributor to Togolese fisheries; it is the most labor-intensive fishery, with 3,638 fishers, employing on average in a single team or activity 25-45 fishers and another 50-150 community members, who assist fishers by hauling the long nets in exchange for some fish and/or pay. This fishing technique is operated from the shore, where one end of a two- to five-kilometer-long net is roped to a stick and the other end is taken by a pirogue to the far side of the beach. After several hours, the ends are pulled by two groups. During this time-consuming procedure, these groups approach each other as they haul in and close the net on the catch. The beach seine fishery yields 10-20 buckets (35 liters each) on each haul. The *mareyeuses*, food and water vendors, and transporters arrive near the end of the hauling operation. Beach seine groups have geographically assigned zones, which are not interchangeable.

17. Fishing is the main source of income for fishers. Depending on the technique, each fisher is trained for a specific task and plays a different role during the activity. In beach seine fishing, for example, certain fishers oversee the direction of the currents, some monitor the nets, and others sing motivational chants. Some fishers swim, subject to currents and waves, to haul the fishnets to shore.

18. The *mareyeuses* make up the second-largest component of the artisanal fishing value chain in Togo and were estimated at 12,000 women in 2016. They process and trade the fish. Their own organizations are paired with fishers' associations. Being a *mareyeuse* is a traditional and intergenerational occupation. The income earned from *mareyage* typically covers children's expenses, such as school fees and materials, food, and healthcare costs.

## **Project Scenarios and Identification of Environmental and Social Risks**

19. **Combined Works: Analysis of Alternatives and Impact Assessment.** The choice of coastal protection is important as it affects the natural functioning of the coast and its evolution. The coast responds to combined human impacts on sediment supply, development pressures on land, and climate change, such as sea level rise. Soft options for coastal protection are those that enhance natural processes, such as by adding large quantities of sand and vegetation. Hard options are structures (including groynes, wave-breakers, seawalls, and dykes) built to reduce risks of land loss through erosion or the risk of flood impacts from storms. Groynes disrupt the naturally unconstrained morphology of the coast, changing the

coastal system from one open in both longshore and cross-shore directions, to one that is segmented.

20. The Project analyzed various protection measures scenarios. This initially led to selection of three options for further study. The best two, according to the multicriteria (i.e., economic, social, environmental and technical) analysis conducted by the Project, were scenarios that involved massive-beach-replenishment (soft options). Neither of these options was retained as the Project moved to the next stage of analysis. Instead, a decision was made to consider only combined hard and soft options as a resilience measure for the Project, even though these options scored worse in the multicriteria analysis. The Panel received no information supporting this decision, and the selected scenario implemented under the Project was not modelled. However, the ESIA analyzed alternatives of the retained option and the no-project scenario.

21. The Panel considered whether the Project met the specific requirements of Bank Policy on Environmental Assessment (OP 4.01) to analyze alternatives and a no-project scenario. The Panel notes the Policy provides no requirements as to which alternative to select. **The Panel notes the two best options identified by the multicriteria analysis at the Phase 1 feasibility stage were not carried forward. However, the ESIA analyzed three alternatives and the no-project scenario. Therefore, the Panel finds Management is in compliance with OP 4.01, paragraph 2, and with OP 4.01 Annex B, paragraph 2(f).**

22. The Panel understands that massive beach replenishment scenarios was considered under the Phase 1 feasibility studies but was not taken forward, even though it scored better in the multicriteria analysis. The Panel notes that a massive-beach-replenishment scenario would have impacted beach seine fishing less.

23. **Area of Influence and Impact of the Combined Measures on the Coast.** The Panel notes that the initial consideration of the Combined Works design included the area from Kpémé to the groyne farthest west of Aného (Area B). The communities living in this area were consulted during the feasibility and preliminary ESIA phases of project preparation and include some of the Requesters in this complaint. However, this area was later excluded from the planned works without considering the impacts the constructed groynes westward would cause on it.

24. **The Panel observes that the Combined Works as described in the ESIA will curtail the longshore transport of sediment to the area from Kpémé to the groyne farthest west at Aného, causing increased erosion and flooding. The Panel finds that Management did not ensure the ESIA adequately assessed the Project's adverse impact on Area B and included no measures to mitigate this impact, which is in non-compliance with OP 4.01, paragraph 2.**

25. **Environmental and Social Screening for the Emergency Works and their Construction.** The Panel reviewed the Environmental and Social screening for the Emergency Works, which was based on field observations by the Project Implementing Unit (PIU), the engineer who designed the technology, two fishers, and a community member. The screening noted that the Emergency Works will have minimal impact on the habitat of

marine turtles, destruction of cultural and archeological sites, risk to the health and safety of workers and community members, and risk of gender-based violence. Management reviewed the screening and approved its classification as Category C, which meant that no further environmental assessment was required, and consequently no consultation process took place that could have helped identify the environmental and social impacts that materialized later.

26. The Panel observes that the screening failed to identify key aspects or implications of the Emergency Works, including i) the suitability of the pipes to withstand the strength of waves and storms, ii) pipe maintenance, and iii) the decommissioning of the pipes, whose design life is three years.

27. The Panel notes that earlier feasibility studies showed that protection structures parallel to the shore, like seawalls, would not protect against beach erosion and would not withstand wave impact. The analysis from the feasibility studies was available to Bank staff and was not considered to determine the suitability of the pipes to withstand the strength of waves and storms. The Panel also notes that no maintenance plan was included in the Environmental and Social screening document to address any structural failures of the pipes once constructed. The Panel observed during its visits the damage to the structural integrity of the Emergency Works and many had collapsed or were broken causing injuries and damage. The Panel further notes there was no consideration by the Project of the decommissioning phase. The Panel finds this to be a serious omission in the Environmental and Social screening since the emergency measures were temporary in nature, their decommissioning was expected, and that it should have been planned.

**28. On this basis, the Panel observes that Bank classification of the Emergency Works as Category C, which requires no further EA action, led to a lack of meaningful consultation and the absence of an appropriate environmental and social impact assessment of these Works. The Panel finds this classification is in non-compliance with OP 4.01, paragraph 8. As a result, the Panel finds Management failed to ensure the Emergency Works are environmentally sound and sustainable, which is in non-compliance with OP 4.01, paragraph 1.**

29. The Panel observes that some workers claimed to have outstanding wages due to them for work carried out during construction of the pipes. Workers also claimed to have experienced hazardous working conditions, and lacking health and safety measures. The Social Audit acknowledged the weak health and safety measures and the occurrence of accidents. The Panel heard accounts of serious injuries to workers and were also shown evidence of this. The Panel observed throughout its three visits that the pipes continued to break and that the broken parts were not being removed. The Panel notes these broken parts continue to pose a risk of accident to fishers and immediate residents, including children. **The Panel finds that the working conditions for the construction of the Emergency Works lacked adequate human health and safety considerations. This is in non-compliance with OP 4.01, paragraph 3.**

## **Involuntary Resettlement**

30. The Combined Works in Agbodrafo and Aného require a small, permanent, land-take for the anchor of each groyne. During construction, they also require the temporary acquisition of land for the storage of rocks and the maneuvering of the machinery used to construct and rehabilitate the groynes and breakwater.

31. **Minimization of Involuntary Resettlement and Moving Baseline.** The Panel reviewed four versions of the RAP, dated December 2021, April 2022, June 2022, and December 2022. The Panel observes that the RAPs were designed to minimize involuntary resettlement to the extent possible by exploring all possible options during preparation of the protection works.

32. **The Panel finds that, in the context of this resettlement, several survey confirmation exercises were undertaken between May 2021 and October 2022 in order to ensure that the Project area was limited to that which was strictly necessary for groyne construction, which minimized resettlement. The Panel finds Management is in compliance with OP 4.12, paragraph 2(a).**

33. The Panel notes that coastal erosion continues after the engineering works plans were drawn and therefore works may need to be repositioned inland due to the extent of erosion at the time of construction. This may require additional land-take. During discussions, the contracting engineers informed the Panel that the position of the groynes would have to be adjusted at the time of construction if further erosion has taken place. The Panel observes that this factor was not specifically considered in the RAP. The Panel recognizes the RAP provides for a comprehensive and participatory audit of all impacts once RAP implementation is completed.

34. **Identification of Project-Affected People (PAPs), Census, and Socioeconomic Data.** The Panel reviewed the PAP eligibility criteria, the socioeconomic survey used to identify household composition, impacted PAPs, and dependents, including vulnerable PAPs, and their sources of formal and informal income. The Panel notes that the socioeconomic survey was structured to identify all affected households and consider all assets potentially present at the site – land, plantations, dwellings, craftsmen's workshops, community facilities, etc.

35. The Panel notes that both the June and December 2022 RAPs considered several categories of PAPs as vulnerable, including households headed by women, households whose heads were destitute or nearly so, senior citizens whose monthly income was below the minimum wage, and people living with physical or mental disabilities. The Panel notes that Bank policy considers as vulnerable, among others, the landless, those living below the poverty line, the elderly, women, and children, and that particular attention needs to be paid to them. The Panel notes the socioeconomic data shows that only the elderly, women-led households, and persons with a physical or mental disability were provided a vulnerability compensation in the RAP. The Panel notes that even though landless people and people living below the poverty line were identified in the socioeconomic data, no analysis of their

vulnerability was conducted to determine whether they would be entitled to vulnerability compensation.

36. The Panel finds that not all PAP characteristics of vulnerability identified in the socioeconomic data were considered for compensation. The Panel also finds no evidence that a vulnerability analysis was conducted which would have considered landless people and people living below the poverty line as part of this analysis. **The Panel finds Management is not in compliance with OP 4.12, paragraph 8.**

37. The Panel observes that data concerning dependents is incomplete in all RAPs. The verification process identified additional sources of income, albeit without completely describing them and a lump sum payment of one minimum salary was attributed to each PAP. The Panel notes that main sources of income are described in the December 2022 RAP.

38. Furthermore, the Panel finds that the socioeconomic data did not take into consideration some income streams, such as that of the *mareyeuses* whose economic activities are homebased. The Panel finds that the verified socioeconomic data failed to describe the production systems and livelihoods of the *mareyeuses*, some of which are based on operating smokehouses. This meant they were not compensated for the expected losses related to their occupation.

39. In addition, the Panel finds that some displaced PAPs were not provided transitional support, including rent allowance, to enable them to restore their livelihoods and standards of living. **The Panel finds that not all PAPs were provided sufficient support to improve their livelihoods and standards of living or at least to restore them. The Panel finds Management is in non-compliance with OP 4.12, paragraph 2(c) and paragraph 6(c)(i).**

40. **RAP Implementation.** The Panel was told during its May 2022 visit, that the RAP was being implemented. It was also informed that the national expropriations committee (COMEX – *Comité d'Expropriations*) had signed agreements with 41 heads of households. These agreements were based on the entitlement matrix of the December 2021 RAP, which was not yet cleared by the Bank. During the same visit the Bank informed the Panel that the data would require verification and that the June 2022 RAP was not yet finalized. In November 2022, the Panel learned that implementation continued and the RAP was about 90 percent implemented although it was not yet cleared by the Bank.

41. The Panel is unclear whether these agreements were updated with the verified data included in the December 2022 RAP. The Panel observes that RAP implementation based on incomplete data could result in PAPs not receiving their full entitlements. Furthermore, without a complete socioeconomic baseline, such RAPs cannot be used to establish whether livelihood restoration is achieved.

42. **The Panel finds that by the time the December 2022 RAP was reviewed and approved, the implementation of the previous RAP was essentially 90 percent complete. The Panel finds Management was not in compliance with OP 4.12, paragraph 29, for not having ensured that the satisfactory RAP was submitted for approval prior to acceptance of the works for Bank financing and therefore before RAP implementation.**

43. The Panel finds it encouraging that three months after completion of the works the PIU will conduct a comprehensive and participatory audit of the RAP implementation to identify all impacts of resettlement and implement mitigation measures, and additional compensation as needed. The Panel is also encouraged that Bank financing will cover gaps identified between Bank policy requirements and national requirements, as required by the Resettlement Policy Framework.

44. **PAP Participation in Resettlement and the Grievance Redress Mechanism (GRM).** The Panel notes that the Project held a series of consultations regarding the RAP with the PAPs and vulnerable community members. The Panel observes that the resettled PAPs with whom it spoke considered the resettlement process to be unclear. They said they were offered no opportunity to participate in the development of the RAP. The Panel notes that the final RAP was cleared in December 2022 after compensation was paid to most of the resettled PAPs.

45. **The Panel finds that consultation with the resettled PAPs on the RAP regarding resettlement options was not meaningful. The Panel finds that resettled PAPs were only offered an opportunity to participate in the planning and implementation of the resettlement process during the negotiations of compensation, which took place after resettlement decisions had been made. The Panel finds this is in non-compliance with Bank Policy on Involuntary Resettlement, OP 4.12, paragraph 2(b).**

46. The Panel observes that resettled PAPs had insufficient information about the GRM or how to use it. The Panel notes that COMEX manages a separate mechanism to receive complaints or appeals concerning the eligibility and valuation of assets. This mechanism is not included as a step in the Project-related GRM and the RAP does not provide information about it.

47. The Panel observes that most resettled PAPs used the COMEX mechanism, which was explained to them only at the time of compensation payment. However, this mechanism is not designed to address all types of grievances that could arise from the impacts of the Project. **The Panel finds Management is in non-compliance with Bank Policy on Involuntary Resettlement, OP 4.12, paragraph 13(a).** In September 2022, Management reported that the GRM had seen increased use by communities, especially during the compensation payment process.

### **Impact on Fishing Communities**

48. **Identification and Consultation of Fishers as Stakeholders.** The Panel reviewed the relevant safeguard documents, including the RAP drafts, how Project impacts on fisheries were identified and mitigated, and whether compensation was planned for any losses to livelihoods. The Panel observes that the consultations related to the December 2021 and June 2022 RAPs indicated that the groynes could have a negative, temporary impact on the beach seine fishery during construction.

49. The Panel notes that during meetings with PAPs, most fishers claimed they had not participated in any consultation regarding the construction of the groynes and their impact on their livelihoods. They claimed that consultation meetings were only conducted with selected individuals, such as community leaders and local authorities in the municipal townhalls (*préfectures*). The Panel observes that the PAPs did not know the geographic scope of the Project. They mentioned that Project studies and their analyses were never disclosed to them, and they were unaware of basic Project information such as the location, timing, and duration of the groyne construction.

50. The Panel finds that the consultation process did not target fishers and their associated value chain, which constitute distinct categories of stakeholders with unique, specific potential impacts. The Panel notes that after submission of the Request, a series of consultation meetings took place with fishers. **The Panel finds that the Project's consultations were not meaningful before submission of the Request, as per Bank policy, and was in non-compliance with Bank Policy on Environmental Assessment, OP 4.01, paragraph 15. The Panel finds that after the submission of the Request the Project's consultations targeted fishers and mareyeuses, which brought the Combined Works back into compliance with Bank Policy on Environmental Assessment, OP 4.01, paragraph 15.**

51. **Impact from the Combined Works on the Fishing Community.** The Panel observes that fishers and *mareyeuses*, in particular those involved in occupations that rely on the beach seine fishing technique, will suffer impact to their livelihoods. The Panel also observes that such impact was not adequately captured in the safeguard documents. The Panel observes that these documents determined that the impact to the fishers would be temporary and limited to the construction phase of the Combined Works. However, they did not sufficiently assess the adverse impact of these works beyond the construction phase, especially on those practicing beach seine fishing or on its associated value chain, which include many affected people. The Panel notes that the fishing community and Government officials, with the exception of officials in Aného, believe the beach seine fishery in the Project area is unlikely to continue because of the Project. On the other hand, Management states that beach seine is likely to continue depending on the fishing net dimensions and the half-kilometer distance between the groynes.

52. The December 2021 and June 2022 RAPs required compensating asset and revenue losses prior to the start of the works. The RAPs also included measures for the groups or associations of fishers and *mareyeuses*. These measures were no longer included in the December 2022 RAP. The December 2022 RAP stated that the fishing and *mareyeuses* associations will be involved in a participatory activity to identify and implement income-generating activities allowing them to maintain or improve their living conditions. Hence, fishers and *mareyeuses* need to propose income-generating activities to be implemented under Subcomponent 3.2 of the PAD.

53. The Panel observes that since the fishers, particularly the beach seine fishers and members of their associated value chain, are not specifically targeted by the Subcomponent, it is therefore incumbent upon them to propose an income-generating activity project. The Panel observes that it will be challenging for the fishers and *mareyeuses* to design, develop,



and have approved a project that would ultimately restore their livelihoods. The Panel is not convinced the adverse socioeconomic impact likely to be felt by fishers and members of their associated value chain will be appropriately addressed by the Project. The Panel observes that the impact on fishers and members of their value chain was not adequately analyzed or mitigated.

54. The Panel notes that Bank policy on Environmental Assessment (OP 4.01) requires consideration of a project's natural and social aspects in an integrated way. **The Panel finds the Project is not in compliance with OP 4.01, paragraph 3, for not having assessed adequately the potential environmental risks and socioeconomic impacts of the Combined Works on the fishing community, especially those practicing beach seine fishing, in the Project area.**

55. The Panel observes that since fishers, particularly beach seine fishers and members of their associated value chain, are not targeted by the Subcomponent it will be challenging for this community do so and thus restore livelihoods. **The Panel finds that, by requiring the fishers to propose income generating activities as livelihood restoration measures under Subcomponent 3.2, Management did not ensure that the Project's adverse socioeconomic impacts on the fishing community and members of its associated value chain is mitigated. This is in non-compliance with OP 4.01 paragraph 2, and OP 4.12 paragraph 3, footnote 5.**

56. **Impact from the Emergency Works on the Fishing Communities.** The Environmental and Social (E&S) screening categorized the Emergency Works as environmental Category C, requiring no further environmental assessment or consultations; therefore the impact of the Emergency Works on fishers was not assessed. The screening identified the temporary disruption of fishing activities during construction. It recommended regular evaluation of the means of subsistence of the affected fishers and discussions with fishing communities, and identified the resumption of fishing as a value added.

57. The Panel notes that the E&S screening did not identify the impact of the concrete pipes on fishing activities from the time of construction to installation, maintenance, and decommissioning. **The Panel finds that, due to inadequate screening and categorization of the Emergency Works, as noted above, Management failed to ensure that the Project prepared an environmental assessment for the Emergency Works to ensure they are implemented in an environmentally sound and sustainable manner; this is in non-compliance with OP 4.01, paragraph 1.**

## **Project Supervision**

58. **Frequency of Supervision.** The Panel notes that the frequency of supervision of the Project by the Bank was adequate. The Bank undertook the regular, biannual supervision visits. In addition, the Bank conducted monthly visits and weekly meetings with the PIU. The Panel considers the frequency of the Bank Project team's supervision adequate and in accordance with Bank policy.

59. **The Panel finds that Management periodically assessed the Project and reviewed the Borrower’s monitoring of results, risks, and implementation status. The Panel finds Management is in compliance with the Directive on Investment Project Financing, paragraph 43.**

60. **Technical Expertise Deployed for Supervision.** The Panel analyzed the technical expertise deployed for supervision missions before and after submission of the Request. The Panel observes that the Bank Project team lacked a fisheries expert, which may have contributed to the shortcomings in the ESIA regarding the identification of fishing communities and their associated value chain. The Panel also observes that the Bank Project team’s supervision lacked consistent involvement of a social scientist, which may have contributed to the need for extensive revisions of the RAP and the confusion around its implementation without Bank approval, and the delayed functioning of the GRM. **The Panel finds the expertise on social aspects and fisheries was not commensurate with the complexity, risks, and challenges of the Project’s social aspects.**

61. **Quality of Project Supervision.** The Panel finds that the performance of supervision varied. Supervision documents adequately reported on the preparation of safeguard instruments and the problems managing and establishing a functional GRM. However, they did not adequately report on the impact on fishing communities, and on health and safety issues relating to the Emergency Works. Furthermore, the Panel finds that Management’s supervision was not effective since it did not ensure the proper sequencing of RAP implementation, which needs to take place only after approval.

62. **Therefore, the Panel finds that Management did not ensure that the impact on fishing communities, health and safety issues, and challenges in RAP implementation were identified and addressed in an effective manner. The Panel finds Management is not in compliance with the Bank policy on Investment Project Financing, paragraph 20.**

## **Conclusion**

63. The WACA Program was created in response to several West African countries’ request to help save the social and economic assets of coastal areas and to address coastal erosion and flooding in particular. The Requesters recognized the importance of building resilience to coastal erosion but were concerned about the potential impact of that effort on their livelihoods, the adequacy of the RAP, and the availability of information concerning the Project. The Panel concludes the issues discussed in this Report stem from a combination of shortcomings and omissions, which led to unsatisfactory analysis of the two subprojects, weaknesses in the consultation and supervision processes, and a lack of understanding of the complexity of the fishing activities and their associated value chain in the Project area.

64. Togo’s coastal population and their assets lie on a barrier composed of sand having low resilience to the effects of waves and storms. Its low-lying topography makes it highly vulnerable to climate change impacts, including sea level rise. While the Project is implementing coastal protection measures and increasing sand supply to the Project area, the barrier beach system remains vulnerable to sea level rise.

## Chapter 1 - Introduction

### 1.1. Background to the Request for Inspection

1. On August 4, 2021, the Inspection Panel (the “Panel”) received a Request for Inspection (the “Request”) of the West Africa Coastal Areas Resilience Investment Project (P162337), Additional Financing – West Africa Coastal Areas Resilience Investment Project (P176313), and Global Environment Facility (P092289) (jointly referred to as WACA or the “Project”) in Togo. Two residents of the villages of Kpogan<sup>1</sup> and Kpémé on the coast of Togo who represent Project-affected communities submitted the Request. On August 27, 2021, a third person, living in Agbodrafo, signed the Request. That same day, the Panel received additional signatures from 27 project-affected people (PAPs) living in nine villages,<sup>2</sup> as well as from a community-based organization authorized by the Requesters to represent them. The Requesters asked the Panel to keep their identities confidential, fearing intimidation and reprisals.

2. The Panel notes that the Requesters and the communities with whom it met welcome and support the Project’s objective and acknowledge its importance. The Requesters do not oppose the Project, but rather raised concerns about the involuntary resettlement process, losses to their livelihoods, consultation, information disclosure, and insufficient analysis of project alternatives. They alleged that the Project inadequately identified the negative impacts to the fishers, residents, and property-owners along the Togolese coast. Some of these alleged impacts relate to the construction of new and the rehabilitation of existing groynes stretching from Agbodrafo to Aného. Other alleged impacts relate to the emergency protection works implemented to reduce temporarily coastal erosion in the area running from Gbodjomé to Adissem, which is located close to Agbodrafo.<sup>3</sup>

3. The Panel registered the Request on September 7, 2021, and Bank Management (“Management”) submitted its Response (the “Management Response” or the “Response”) to the Request on October 7, 2021. In its Response, Management stated that the Bank had followed the policies and procedures applicable to the matters raised in the Request. The Response included several time-bound actions to address the concerns raised. The Response noted that a site-specific Resettlement Action Plan (RAP) was being prepared, guided by the Resettlement Policy Framework (RPF) approved by the Bank, to cover impacts directly related to groyne construction and any associated with the creation of a safety zone around these groynes. It added that the RAP would require the Bank’s clearance, i.e. a no-objection decision, before it was considered ready for implementation.

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<sup>1</sup> The Panel observes that, although Kpogan village is outside the Project area, its members participate in fishing activities in the Project area.

<sup>2</sup> The nine villages are Adjissenou, Agbavi, Agbodrafo, Alimagna, Djéké, Follygah, Gbodjomé, Kpémé, and Kpogan.

<sup>3</sup> Inspection Panel. [Second Report and Recommendation on a Request for Inspection Togo West Africa Coastal Areas Resilience Investment Project \(P162337\), Additional Financing – West Africa Coastal Areas Resilience Investment Project \(P176313\), and Global Environment Facility \(P092289\)](#), June 8, 2022, (“Second Report and Recommendation”), p. 1, para 3.

4. In its first Report and Recommendation, dated November 8, 2021, the Panel recognized the importance of the Project and recommended deferring for six months its recommendation on whether to investigate the Project to allow for the implementation of a list of specific, time-bound actions to which Management had committed. These included the preparation of a social audit, the clearance of space for boat landing, and enhancing Project-related information-sharing.

5. On April 19, 2022, Management provided an update on the implementation of its actions, following which the Panel conducted a second field visit to Togo, in May 2022. In its second Report and Recommendation, dated June 8, 2022, the Panel acknowledged the positive steps taken by Management to address some of the issues raised. Nonetheless, the Panel remained concerned about the Bank's compliance with its policies on Environmental Assessment (OP 4.01), Involuntary Resettlement (OP 4.12), and the Investment Project Financing Policy and its Directive. Hence, the Panel recommended an investigation.

6. The Board approved this recommendation on June 23, 2022. The Panel Investigation did not commence until the Accountability Mechanism Secretary informed the Board and Panel that the Requesters and Borrower chose not to engage in a dispute resolution process. The Panel posted its Investigation Plan on its website, on September 13, 2022, which outlines the key questions to be addressed and includes a brief description of the investigation's methodology.<sup>4</sup>

## 1.2. Contextual Information and Project Description

7. **The West Africa and Togo Contexts.** West Africa's coastal zone is home to one-third of the region's population and generates 56 percent of its Gross Domestic Product (GDP).<sup>5</sup> In sub-Saharan Africa as a whole, the urban population is increasing four percent per year, almost double the world average (2.1 percent).<sup>6</sup> Although the West African economies have been growing steadily, these countries remain heavily dependent on natural resources such as fisheries, fossil fuels, minerals, and timber.<sup>7</sup> About 42 percent of West Africa's GDP is generated by its coastal areas.<sup>8</sup>

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<sup>4</sup> Inspection Panel. [Togo: West Africa Coastal Areas Resilience Investment Project \(P162337\), Additional Financing \(P176313\), and Global Environment Facility \(GEF\) \(P092289\) – Investigation Plan](#), September 2022.

<sup>5</sup> World Bank. [Management Response to Request for Inspection Panel Review of the Togo, Western Africa: West Africa Coastal Areas Resilience Investment Project \(P162337\); Additional Financing – West Africa Coastal Areas Resilience Investment Project \(P176313\); Global Environment Facility \(P092289\)](#), October 2021, (“Management Response”), p. 2, para 6.

<sup>6</sup> World Bank. Project Appraisal Document on Proposed IDA Credits to the Republic of Togo in the Amount of €24.1 Million (Us\$30 Million Equivalent), Proposed IDA Grants to the 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 Republic Of Togo in the Amount of Us\$7.53 Million for a West Africa Coastal Areas Resilience Investment Project, (“PAD”), p. 21, para 1.

<sup>7</sup> PAD, p. 21, para 1.

<sup>8</sup> Ibid.

8. Coastal areas are undergoing significant erosion<sup>9</sup> and environmental degradation due to floods, air and water pollution, loss of land, loss of assets, and damage to critical ecosystems.<sup>10</sup> The 56-kilometer-long Togolese coastline retreats an average 2.5 meters per year.<sup>11</sup> Erosion is the most damaging factor in Togo, primarily due to loss of high-value, urban land.

9. In Togo, the West African Coastal Barrier is the only land between the Atlantic Ocean and Lake Togo (a coastal lagoon), where more than 28 percent of Togo's population lives and 70 percent of the country's GDP is derived.<sup>12</sup> This population depends on coastal waters for their subsistence and socioeconomic wellbeing. Approximately 8,240 artisanal fishers contribute nearly 20,000 tons of fish annually, with a gross landed value of 5.314 billion CFA francs (FCFA)<sup>13</sup> (about USD 8.72 million).<sup>14</sup>

10. Since the 1960s, significant human activity on the Togolese coast, in Ghana, and on the major rivers of the region (the Volta and the Mono) have disturbed the natural sediment supply, disrupting transport pathways and geomorphic functioning of the coastal system. This activity includes the construction of dams, extraction of marine aggregates, construction of the groynes against the Port of Lomé's main pier, excavation of a third container terminal, as well as the construction of groynes since 1987 between Kpémé and Aného. These human interventions reduced sediment inputs and limited the sediment that flows eastward.<sup>15</sup>

11. **WACA Project.** The Project is part of the WACA Program, which consists of country projects, regional integration, and support activities.<sup>16</sup> The Project was approved on April 9, 2018, and includes six countries – Benin, Côte d'Ivoire, Mauritania, São Tomé and Príncipe, Senegal, and Togo. The Project Development Objective is to strengthen the resilience of communities and areas in Togo and coastal West Africa,<sup>17</sup> enhancing the absorptive, adaptive, and transformative capacities of these countries to manage their shared, often transboundary, natural and humanmade risks better.

12. The Project costs USD 221.70 million equivalent, of which USD 120 million equivalent is an International Development Association (IDA) Credit, and USD 70 million equivalent is an IDA Grant. Togo is the recipient of USD 30 million equivalent in IDA Credit

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<sup>9</sup> Erosion results from both natural and human factors. Few areas have no erosion at all; others have land losses (erosion), and yet others have land gains (accretion).

<sup>10</sup> World Bank. [The Cost of Coastal Zone Degradation in West Africa Benin, Cote d'Ivoire, Senegal, and Togo](#), March 2019, p. ix.

<sup>11</sup> Management Response, p. vii, para xi.

<sup>12</sup> World Bank. [The Cost of Coastal Zone Degradation in West Africa. West Africa: Benin, Côte d'Ivoire, Senegal and Togo](#), March 2019, p. 2.

<sup>13</sup> The Franc CFA is the currency for many west and central African countries. CFA stands for *Communauté Financière Africaine*, African Financial Community.

<sup>14</sup> Notes from meetings with Government officials, October 2022. See also, Sezdro et al. [Pêcheries Maritimes Artisanales Togolaises: Analyse des Débarquements et de la Valeur Commerciale des Captures](#), May 2016 (Sezdro 2016), p. 1.

<sup>15</sup> Artelia. *Etudes Conjointes de Faisabilité Technique de la Protection Côtière du Segment Frontalier Togo-Benin*, Phase 1, October 2020, (Artelia 2020a) pp. 66-69.

<sup>16</sup> World Bank. [The West Africa Coastal Areas Management Program](#), 2019.

<sup>17</sup> PAD, p. 29, para. 36.

and USD 15 million equivalent in IDA Grant. In addition, the Global Environment Facility (GEF) is providing a Grant of USD 7.53 million to Togo.

13. On June 18, 2021, the Board approved an additional IDA Credit of USD 18 million equivalent and a corresponding additional IDA Grant to cover cost overruns. The additional financing is to strengthen national physical and social investments, protect vulnerable areas from coastal erosion and flooding, support pollution control and waste management operations, and to promote climate-resilient coastal development. Togo is the recipient of a USD six million equivalent additional IDA Credit, and an equal additional IDA Grant. The Borrower is the Ministry of Economy and Finance, and the implementing agency is the Directorate of Environment at the Ministry of Environment and Forest Resources (MEFR). The Project Implementing Unit (PIU) – the West Africa Coastal Areas Management Program – is part of the Directorate of Environment.

14. WACA is an environmental Category A project, which has triggered Bank safeguard policies on Environmental Assessment (OP/BP 4.01), Natural Habitats (OP/BP 4.04), Physical Cultural Resources (OP/BP 4.11), and Involuntary Resettlement (OP/BP 4.12). The Project was 13.1 percent disbursed at the time of receipt of the Request. The expected closing date of the Project is December 31, 2023.

15. According to the Project Appraisal Document (PAD), the Project has the following components:<sup>18</sup>

- Component 1 – Strengthening Regional Integration, which supports regional policy and protocols for coastal zone management, capacity building for coastal zone observation and early warning systems, and develops and coordinates access to finance instruments;
- Component 2 – Strengthening the Policy and Institutional Framework, which helps countries develop the adequate policy framework and the necessary tools to develop and/or operationalize their coastal management strategies and plans, at both the national and regional levels;
- Component 3 – Strengthening National Physical and Social Investments, which finances 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, and,
- Component 4 – National Coordination, which aims to ensure that the Project is implemented in accordance with the PAD and the country-specific project description, and that the Project’s multisectoral investment plan – or an agreed alternative national strategy or plan – continues to form the basis for coordinated support from technical and financial partners addressing the most pressing needs for management of the coast.

16. The Panel investigation pertains the WACA Project activities in Togo and covers two subprojects under Component 3 – the Combined Coastal Protection Works (or the “Combined Works”)<sup>19</sup> and the Emergency Protection Measures (or “Emergency Works”).<sup>20</sup>

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<sup>18</sup> Ibid., pp. 33-37.

<sup>19</sup> The red box in Figure 1.

<sup>20</sup> The blue box in Figure 1.

A separate contractor was hired for the works in each of these.<sup>21</sup> As shown in the map below, the Project is building and rehabilitating groynes between Agbodrafo and Aného (see the red box in Figure 1, below). The Combined Works comprise structures, mainly groynes, built and maintained to protect the cross-border, coast segment from Agbodrafo (Togo) to Grand-Popo (Benin). To mitigate the loss of sand between the groynes, the sand will be replenished through extraction from the Atlantic Ocean. The Emergency Works aim to provide short-term protection against erosion between Gbdjomé and Agbodrafo until longer-term protective measures can be put in place. They are located in six sites – Gbdjomé, Tango, Nimagna, Adissem, and two sites in Dévikinmé (see the blue box in Figure 1, below).

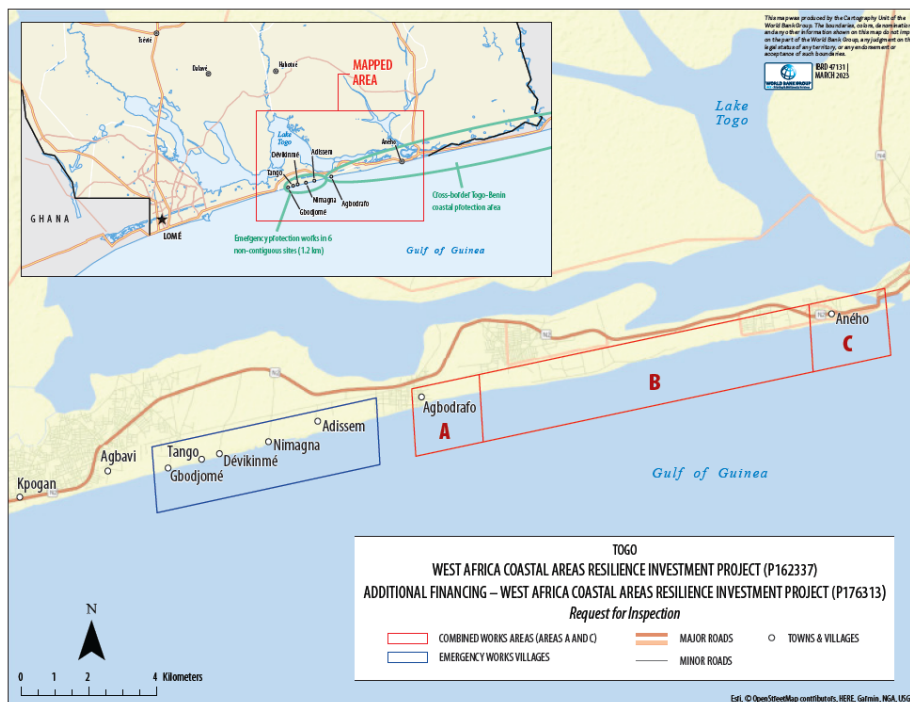


Figure 1: Map showing the locations of the Combined Works (in the red box) and the locations of the Emergency Works (in the blue box)

### 1.3. Request for Inspection, Management Response, and Management Update

17. The paragraphs below briefly introduce the issues raised in the Request and addressed in the Management Response. The specifics of these issues, the Bank’s detailed response to them, and the Panel’s in-depth analyses are in Chapters 2 to 6 of this Report.

18. **Request for Inspection – Concerns about the Involuntary Resettlement Process.** The Requesters were concerned about the Project-related involuntary resettlement process. They alleged that some houses had been marked for resettlement without explanation. They claimed the PAPs were not adequately informed about the resettlement process and related compensation. They indicated the results of a survey conducted with some of the PAPs was not made available to them. The Requesters were concerned about communications

<sup>21</sup> These are defined as the contractor for the Emergency Works area and the main contractor for the Combined Works area.

concerning evictions. In its report after its October 2021 visit, the Panel determined that evictions were not related to the Project. It also noted Management's assurance that the Project will not support any evictions.

19. **Alleged Impact on Artisanal Fishing Livelihoods.** The Requesters claimed the Project will impair fishing activities. They said some of the Project's planned resilience measures against the decades-long, coastal erosion process would adversely affect their communities, especially the livelihoods of fishers and community members who rely on fishing as their main source of livelihood. They claimed the fishers will have access to smaller stretches of beach, which will impede their fishing activities and reduce the landing area for their boats and their beach-operated equipment.

20. **Alleged Lack of Information and Consultation.** The Requesters claimed insufficient, Project-related information was provided to the PAPs. The Requesters also claimed that while isolated meetings took place with selected individuals, including community leaders, meaningful consultations with the communities were not held.

21. **Project Alternatives.** Additionally, the Requesters claimed the Project was disregarding the alternative of dredging and replenishing the sand beach areas that they said would stabilize coastal erosion and allow fishers and community members to remain on the beach and continue their fishing and related activities.

22. **Management Response – Concerns about the Involuntary Resettlement Process.** Management stated that the Project will not adversely affect fishers, residents, or property.<sup>22</sup> Management asserted that the Project's civil works are not expected to require significant, permanent, physical or economic displacement and that such impacts will be assessed in line with Bank policy.<sup>23</sup> Management noted that a RPF for Togo was prepared and approved in November 2017, and a site-specific RAP was being prepared and will cover impacts directly related to groyne construction, as well as any temporary impact related to the creation of a safety zone around these groynes.<sup>24</sup> Management stated that the RAP census and surveys of the potential PAPs had begun but were not yet completed.<sup>25</sup> Management noted that the marking of houses described in the Request was not Project-related since the physical resettlement processes for the Project had not yet started and the draft RAP will be carefully reviewed by a Bank team and will require a no-objection before it was considered ready for implementation.<sup>26</sup> Management stated that consultation will be carried out on the RAP once it is ready.<sup>27</sup> Management noted that agreement on the compensation package must be obtained from any person or household affected by the implementation of the civil works prior to the start of the works.<sup>28</sup>

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<sup>22</sup> Management Response, Annex 1, p. 22.

<sup>23</sup> Ibid., p. 11, para. 36.

<sup>24</sup> Ibid., para. 37.

<sup>25</sup> Ibid., p. 15, para. 52.

<sup>26</sup> Ibid., para. 51.

<sup>27</sup> Ibid., p. vi, para. ix.

<sup>28</sup> Ibid., pp. 15-16, para. 52.



23. Management stated that two types of shore protection structures, having a “*relatively small footprint,*” were selected “*based on feasibility studies: (i) small-scale emergency coastal protection consisting of vertically sunk-in concrete pipes; and (ii) coastal protection works to rehabilitate and expand breakwaters and existing groynes, fill abandoned lagoon arms with sand and revegetation, and the construction of new groynes.*”<sup>29</sup> Management noted that an Environmental and Social (E&S) screening was conducted to identify E&S measures to be taken prior to installing the small-scale emergency coastal protection measures.<sup>30</sup>

24. Management considered the Project-level Grievance Redress Mechanism (GRM) operational and noted that it will remain available to all stakeholders during the RAP’s preparation and implementation, as well as throughout the Project’s lifecycle.

25. **Alleged Impact on Artisanal Fishing Livelihoods.** Management stated that the Project will cause no permanent, adverse impacts on artisanal fishing activities as the civil works for the groynes will neither limit access to the shore or fisheries nor block access to the seafront, but rather will increase beach by about 30 meters, preventing an expected 40-meter loss from erosion over the next 15 years.<sup>31</sup> According to Management, the Project aims to strengthen targeted communities’ resilience by securing the beach, providing greater access to fishing activities, and protecting an estimated 4,600 households from the impacts of coastal erosion.<sup>32</sup> Management claimed that any potential, temporary access restrictions will be assessed and compensated, as may be warranted.<sup>33</sup>

26. Management stated that six small-scale, emergency coastal protection sites – the Emergency Works, which consist of precast, concrete pipes made of multiple rings (“*faux puits,*” approximately 1.5 meters in diameter and one-to-two meters high)<sup>34</sup> – are installed upright on the beach, anchored to bedrock, and filled with sand for immediate, short-term protection of homes and livelihoods.<sup>35</sup> According to Management, these *faux-puits* will help retain beach sand behind them and provide a temporary solution in Tango, Gbodjomé, Nimagna, Adissem, and Dévikinmé.<sup>36</sup>

27. Management noted that, on December 31, 2021, as per local fishers’ request, the contractor put in place two 50-meter-wide corridors that allow their boats to land for maintenance in Adissem.<sup>37</sup> Management further noted that, on January 15, 2022, the contractor also repositioned the pipes and cleaned up the two sites in Dévikinmé that had been completed but were damaged by strong tides.<sup>38</sup>

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<sup>29</sup> Ibid., p. 12, para. 42.

<sup>30</sup> Ibid., p. 13, para. 46.

<sup>31</sup> Ibid., Annex 1, p. 19.

<sup>32</sup> Ibid., p. 12, para. 41.

<sup>33</sup> Ibid., para. 41.

<sup>34</sup> Ibid., pp. 12-13, para. 43.

<sup>35</sup> Ibid., p. 12, para. 43.

<sup>36</sup> Ibid.

<sup>37</sup> Ibid., p. 13, para. 45.

<sup>38</sup> Ibid., para. 45.

28. **Alleged Lack of Information and Consultation.** According to Management, the consultations mentioned in the Request refer to the preparation process for the Project’s framework documents – the Environmental and Social Management Framework (ESMF) and RPF – which were conducted in several locations in the broader Project area and in Lomé in October 2017.<sup>39</sup> Management noted that neither Project sites nor activities had been finalized at that point; therefore the consultations were neither site-specific nor focused on specific activities.<sup>40</sup> According to Management, the approved RPF and ESMF were publicly disclosed in-country and at the Bank’s Infoshop in 2017 and contained details regarding potential categories of PAPs and sites, possible livelihood impacts, and details on the process to be used in each WACA country to prepare the site-specific RAPs.<sup>41</sup> Management added that the local communities were consulted on March 10, 2020, regarding the selection of the six small-scale, emergency coastal protection sites.<sup>42</sup>

29. Management stated that consultations for the site-specific Environmental and Social Impact Assessment (ESIA) and RAP for the Agbodrafo-Aného coastal protection works had just begun at the time the Response was submitted on October 6, 2021.<sup>43</sup> According to Management, these initial consultations were carried out by the Borrower and have now been stopped at the Bank’s request until the Bank-cleared RAP is ready for consultations.<sup>44</sup> Management explained that, “*once the surveys and draft RAP are prepared, they will be discussed and consulted with PAPs as part of the RAP consultation process, and then finalized.*”<sup>45</sup> Management stated that the Bank was working with the Borrower to enhance communication and outreach.<sup>46</sup>

30. Management discussed the sharing of Project-related information with community members. Management indicated it is supporting the Local Action and Citizen Engagement (LACE) initiative in Togo to enhance information-sharing, capacity building, and dialogue with local communities as part of a community-based resilience approach. Under this initiative a consultant would be recruited to prepare a workplan which would include community consultations to identify priority activities and interventions. The workplan was to have been submitted by December 31, 2021.<sup>47</sup>

31. **Project Alternatives.** The Management Response stated the reported loss of beach access was due to coastal erosion, a natural and human-induced phenomenon that predates the Project and has gradually worsened due to construction on the coast over the years.<sup>48</sup> According to the Response, the Project considered a series of alternatives as part of a feasibility study.<sup>49</sup> These options were further analyzed with detailed modelling of their

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<sup>39</sup> Ibid., Annex 1, p. 27.

<sup>40</sup> Ibid.

<sup>41</sup> Ibid., p. 15, para. 49.

<sup>42</sup> Ibid., Annex 1, p. 21.

<sup>43</sup> Ibid., p. vi, para. ix.

<sup>44</sup> Ibid., p. 15, para. 51.

<sup>45</sup> Ibid., para. 52.

<sup>46</sup> Ibid., p. vi, para. ix.

<sup>47</sup> Ibid., pp. 17-18, para. 58.

<sup>48</sup> Ibid., p. vii, para. xi.

<sup>49</sup> Ibid., Annex 1, p. 23.

performance over time.<sup>50</sup> Management noted that the beach-replenishment-only option suggested in the Request was unviable according to scientific and technical studies.<sup>51</sup> Management noted that, without groynes to slow or block the sediment flow, the replenished sand would “*quickly vanish*” and fail to protect the coastal communities from continued erosion.<sup>52</sup> Management stated the Project will finance beach replenishment, with sand obtained from deep-sea dredging, to fill the spaces between the groynes.<sup>53</sup>

32. **Management Commitments.** To address the concerns raised in the Request, the Management Response committed to (i) conducting a social audit to assess any unintended impact resulting from the temporary access restrictions from the Emergency Works, (ii) providing adequate options to ensure free access to the beach and limit any interference with fishing activities, (iii) piloting the LACE initiative to support information-sharing, capacity building, and dialogue with local communities as part of a community-based, resilience approach, and (iv) targeting stakeholders and local communities with a proactive information campaign regarding coastal zone development challenges.

33. Management noted in its Response that a site-specific RAP was being prepared to cover impacts directly related to groyne construction and creation of a safety zone around these groynes.<sup>54</sup> Management stated that a final version of the RAP would be reviewed by the Bank and would require a no-objection before it was considered ready for implementation.<sup>55</sup>

34. **The Management Update.** On April 19, 2022, Management reported on the actions to which it committed in its Response.<sup>56</sup> In that update Management indicated there had been intensified implementation support for the Project, with specific attention to completing the RAP and the Environment and Social Impact Assessment (ESIA). According to Management, the December 2021 RAP was finalized and disclosed in Togo on February 4, 2022, and the ESIA was finalized and disclosed on February 17, 2022.<sup>57</sup>

35. Management provided updates on four actions relating to the Emergency Works: the preparation of the Social Audit, boat landing, the LACE initiative, and the information campaign.<sup>58</sup> In short, the Social Audit recognized damage to boats caused by broken pipes and the need to develop a “Maintenance Management Plan” for the emergency structures. Management stated that two 50-meter-wide corridors within the 500-meter-wide emergency coastal protection area in Adissem were created for landing boats.<sup>59</sup>

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<sup>50</sup> Ibid.

<sup>51</sup> Ibid., p. vii, para. x.

<sup>52</sup> Ibid., p. 16, para. 54

<sup>53</sup> Ibid., p. vi, para. x.

<sup>54</sup> Ibid., p. 11, para. 37.

<sup>55</sup> Ibid., p. 15, para. 51.

<sup>56</sup> World Bank. [Update on Management Actions to its Response to a Request for Inspection Panel Review of the Togo, Western Africa: West Africa Coastal Areas Resilience Investment Project \(P162337\); Additional Financing – West Africa Coastal Areas Resilience Investment Project \(P176313\); Global Environment Facility \(P092289\)](#), (“Management Update”), April 2022.

<sup>57</sup> Ibid., p. 1.

<sup>58</sup> Ibid., p. 4.

<sup>59</sup> Ibid.

36. Management stated that the LACE initiative workplan was prepared and included (i) supporting the PIU to strengthen information-sharing through activities which solicit citizen feedback, inform communities about the feedback received and actions taken, and tailor communications to vulnerable groups, (ii) supporting the PIU to develop a participatory approach to ensure that community views were reflected in the selection of social subprojects, and (iii) conducting a Bank-facilitated, learning and exchange workshop with Togolese CSOs and stakeholders for citizen engagement on coastal resource management in Togo.<sup>60</sup> The information campaign would raise awareness about coastal zone development challenges, share information about the Project, and position WACA “*as a reliable partner.*”<sup>61</sup>

#### **1.4. Focus and Design of the Investigation**

37. In line with its Investigation Plan, the Panel focused on questions relating to (i) coastal protection and resilience measures and their impacts on communities and their livelihoods, (ii) involuntary resettlement, its effect on livelihoods, and compensation measures, and (iii) disclosure of information, consultation, and grievance redress. The Panel’s investigation also assessed Bank supervision over the years. The Panel reviewed Project-related documents and considered actions taken by the Bank since its receipt of the Request.

38. The Panel’s investigation team was led by Panel Member Mark Goldsmith (Lead Inspector) and included Panel Chairperson Ramanie Kunanayagam; they were supported by Senior Operations Officer Serge Selwan, Investigations Officer Camila Jorge do Amaral, and three consultants – Dr. William Partridge, expert on involuntary resettlement, Dr. Larissa Naylor, expert on coastal erosion, adaptation, and resilience measures, and Dr. Dyhia Belhabib, expert on fisheries and their associated value chain in West Africa (see biographies in Annex 4).

39. The investigation was conducted in two parts. The first phase included extensive examination of documentation and individual interviews with Bank staff and consultants. The second phase involved a November 14-24, 2022, factfinding field visit to Togo. The visit was conducted by Mark Goldsmith, Serge Selwan, Camila Jorge do Amaral, Larissa Naylor, and Dyhia Belhabib. In Lomé, Togo, the Panel team met with officials from Togo’s Ministry of Economy and Federal Ministry of Regional Development, the Ministry of Environment and Forest Resources, the Ministry of Maritime Economy, Fisheries, and Coastal Protection, and the PIU. The Panel team met with the respective mayors of Agbodrafo and Aného. The Panel team also met with Bank staff at the Country Office, consultants hired by the Project, the Requesters, and other potentially affected community members in Gbodjomé, Tango, Nimagna, Adissem, Dévikinmé, Agbodrafo, Kpémé, and Goumou Kopé.<sup>62</sup> On January 17, 2023, the Panel held a virtual meeting with the Agbodrafo Village Development Committee and its members.

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<sup>60</sup> Ibid., p. 5.

<sup>61</sup> Ibid.

<sup>62</sup> Goumou Kopé can be spelled differently Goumou-Kope, Goumoukope, and Goumou Kope.

40. The Panel team is grateful to all who shared their views and provided information. The Panel also thanks the staff of the World Bank's Country Office in Lomé for assisting with logistical arrangements, and Bank Management and the Project team for providing information and updates.

41. In this Report the Panel assesses whether the Bank complied with its Operational Policies and Procedures, including the:

- Environmental Assessment Policy (OP/BP 4.01);
- Involuntary Resettlement Policy (OP/BP 4.12), and
- Project Investment Finance Policy and its Directive.

42. This Report is structured as follows to explain the issues raised in the Request, the Bank's response to each, and the Panel's analyses and findings:

- Chapter 1 (this chapter) introduces the Report and briefly presents the background of the case, the Project, and its context. This chapter also summarizes the Request and the Management Response, and outlines the Panel's investigation process;
- Chapter 2 describes the physical, geographic context of the coastal erosion and the extent of fishing and its associated value chain in Togo;
- Chapter 3 explores the Project's design decisions and the identification of environmental and social risks in the Combined Works and the Emergency Works. This section also covers the construction, working conditions, and the GRM at the Emergency Works;
- Chapter 4 examines the involuntary resettlement processes, the efforts to minimize involuntary resettlement, whether livelihood restoration would be achieved for PAPs, and the participation of resettled PAPs in resettlement process consultations and the GRM;
- Chapter 5 describes the impact of the Combined Works and the Emergency Works on the fishing communities and their associated value chain;
- Chapter 6 analyzes Management's supervision of the Project and the specific actions it took in response to the concerns raised in the Request, focusing on the frequency of supervision, technical expertise made available, and quality of supervision, and
- Conclusions presents the Panel's high-level observations stemming from this investigation.

## Chapter 2 - Context of the Coastal Erosion and Fishing in Togo

43. This chapter introduces the elements of coastal erosion and its impact on communities and infrastructure in a country like Togo. It describes the physical geography and key climate change drivers shaping the coastal system, including the sediment transport supplying Togo's coastal barrier beach (for more technical details on the risks and impacts of coastal erosion on coastal processes including climate change drivers, see Annex 5). This chapter presents the fishing techniques used by the communities on the Togolese coast and their associated value chain, which is relevant to understanding fully the Project's effect on the communities.

### 2.1. Physical Geographic Context of Coastal Erosion in Togo

44. **Physical Setting and Togo's Coastal Land.** Togo's coastal barrier, which runs the length of its coastline, is a 56-kilometer-long, one-to-three-kilometer-wide, low-lying, sandy beach deposit that rises to a maximum seven meters above sea level.<sup>63</sup> The barrier is made of longshore sandbars composed of unconsolidated-to-very-weakly-consolidated sand between five and 20 meters thick averaging five meters above current sea level. Most of this system overlies silts, clays, and intermittent sandstones.<sup>64</sup>

45. The Gulf of Benin coastal system is classified as a micro-tidal (less than two-meter daily tidal range), sedimentary, wave-dominated, open coast system directly exposed to southerly swell waves generated on the far side of the Atlantic Ocean.<sup>65</sup> The dominant coastal landform upon which Togo's and Benin's coastal communities are built is called the West African Coastal Barrier. Barrier beaches and barrier islands are common landforms flanking many of the world's wave-dominated coasts.<sup>66</sup> These barriers are not static landmasses; they are dynamic, low-lying landforms built of sand. They migrate and change shape, adjusting their lateral position and elevation relative to the land due to longshore drift, changes in sediment supply, and rising sea levels. Natural, undeveloped, barrier beaches provide important, natural, coastal flood and erosion protection between the open coast and the land behind it. The marshes and lagoons between these beaches and the mainland provide physical space for the barrier to move inland in response to the tide. The beaches are formed where there is a strong, longshore sediment transport system, as is the case for the West African Coastal Barrier (see Figure 2, below).

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<sup>63</sup> World Bank. Updated Environmental and Social Management Framework ("ESMF"), March 2021, p. 37. Also, Amieux, P., Bernier, P., Dalongeville, R., Medwecki, V. [Cathodoluminescence of Carbonate-cemented Holocene Beachrock from the Togo Coastline \(West Africa\) an Approach to Early Diagenesis](#), 1989. *Sedimentary Geology*, 65: 261-272 (Amieux 1989), p. 262.

<sup>64</sup> Amieux 1989, 65: 261-272, p. 262.

<sup>65</sup> Giardino, A. et al. [A Quantitative Assessment of Human Interventions and Climate Change on the West African Sediment Budget](#), 2018. *Ocean & Coastal Management*, 156: 249-265, (Giardino 2018) pp. 251-252.

<sup>66</sup> This is notably the case in western Africa, the eastern Seaboard of America, in New South Wales, Australia, and along the eastern coast of South America. See Davidson-Arnott, R. Chapter [3.04 Wave-Dominated Coasts](#), 2011. In [Treatise on Estuarine and Coastal Science](#), Elsevier. 73-116 (Davidson-Arnott 2011), p. 103.

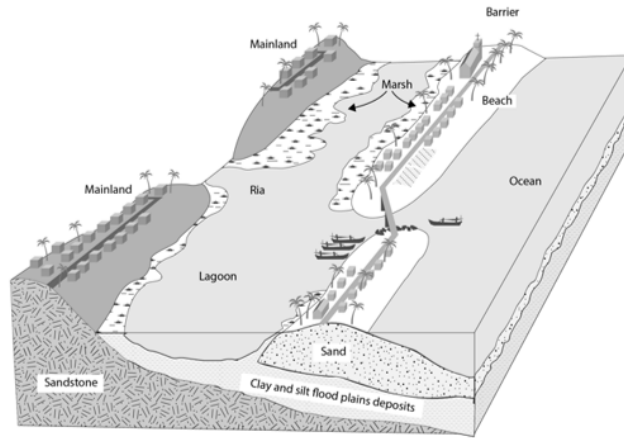


Figure 2: Illustration of a developed Coastal Barrier System

46. The risk and impact of erosion are amplified for developed barrier systems. The natural response of the barrier beach system to extensive human developments is erosion and flooding (also called marine submersion) of people and assets built on this highly unstable and vulnerable, sandy land.<sup>67</sup> Erosion narrows the barrier systems. The loss of two national highways in Togo to such erosion over the past few decades clearly illustrates the fragility of the sandy barrier and the precarious condition of the people and assets currently occupying it. The narrowing of the barrier is due to reduced sediment supply and climate change. Over time, these low-lying barrier systems become more prone to retreating and fully submerging as storminess increases and sea levels rise.<sup>68</sup>

47. Togo's geological conditions create minimal resistance to oceanographic stressors like strong currents, waves, storms, and sea level rise (SLR). This renders the natural coastal barrier geologically weak and highly vulnerable to erosion by waves. Storm surges and SLR amplify these risks. Its low-lying topography and unconsolidated, sandy composition (see Figure 2, above), makes it highly susceptible to erosion and temporary flooding which coastal climate change, including SLR and increased storminess, will accelerate and amplify. In Togo, the West African Coastal Barrier is the only land between the Atlantic Ocean and Lake Togo (a coastal lagoon) and is low-lying and highly erodible. Togolese coastal communities thus have low resilience and extremely high vulnerability to coastal erosion, flooding, and climate change pressures.

48. **Togo's Wave Climate.** Ocean waves are especially strong in Togo as they are propagated between 40 and 60 degrees south in the Atlantic Ocean<sup>69</sup> with no landmasses or large islands to shield them from the coast. These southwesterly waves have relatively long intervals between them ("wave period"), lasting approximately 10 seconds,<sup>70</sup> which allows

<sup>67</sup> Lorenzo-Trueba, J, Ashton, AD. [Rollover, Drowning, and Discontinuous Retreat: Distinct Modes of Barrier Response to Sea-level Rise Arising from a Simple Morphodynamic Model](#), 2014. JGR Earth Surface, p. 779.

<sup>68</sup> Mariotti, G. Hein, CJ. [Lag in Response of Coastal Barrier-island Retreat to Sea Level Rise](#), 2022. Nature Geoscience 15, 633-638, p 633. Also, Nienhuis, J. H., & Lorenzo-Trueba, J. [Can Barrier Islands Survive Sea-level Rise? Quantifying the Relative Role of Tidal Inlets and Overwash Deposition](#), 2019. Geophysical Research Letters, 46, 14613-14621.

<sup>69</sup> World Bank. [Effects of Climate Change on Coastal Erosion and Flooding in Benin, Côte d'Ivoire, Mauritania, Senegal and Togo – Technical Report](#), 2020 (World Bank 2020), p. 71.

<sup>70</sup> Ibid.

them to accumulate more energy and travel faster than shorter period waves. They are also more powerful than short period waves of the same height. When these ocean waves hit shallow water at the Togolese coast they break more abruptly, with greater energy causing erosion and temporary flooding. Their southwesterly orientation generates mainly eastward-flowing, longshore currents that drive sediment transport from west to east.<sup>71</sup> On average, there are at least 10 days per year where wave heights exceed two meters.<sup>72</sup> Modelled data<sup>73</sup> for 1979-2018 shows the strength of Togo's waves increasing through time, where the frequency of large waves (higher than 2.5 meters) has grown since 1996.<sup>74</sup>

49. **Sediment Supply to Togo's Coastal Barrier.** Maintenance and potential growth of sandy coastal barriers like the West African Coastal Barrier rely on large provision of sediment to create a net positive input to the barrier beach.<sup>75</sup> Togo's coastal barrier receives sand from three main sources: 1) the offshore seabed, where Togo's nearshore shelf surface is primarily sand-to-muddy-sand,<sup>76</sup> 2) fluvial sediments from rivers and lagoons, and 3) erosion of coastal landforms along the coast. These sediments are then transported by a powerful, longshore drift system from west to east (see Figure 3, below).<sup>77</sup> In Togo, the sand supply has been severely curtailed by human activities including sand extraction, damming of rivers that has reduced fluvial sediment inputs to the coast, and the building of ports and coastal protection measures like groynes, which block the longshore transport of sediment.<sup>78</sup> This reduced sediment supply further diminishes the resilience of Togo's coastal barrier to current and future coastal climate change pressures. As a result, the sandy coastal barrier is eroding almost everywhere along its length.<sup>79</sup>

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<sup>71</sup> Orme, A.R. [Africa, Coastal Geomorphology](#). In: Schwartz, M.L. (eds) *Encyclopedia of Coastal Science*, 2005. Encyclopaedia of Earth Science Series. Springer, Dordrecht, p. 5.

<sup>72</sup> Acciona, 2018. Development of a West Africa Coastal Areas Regional Proposal to the Green Climate Fund (GCF): Institutional and Policy Gap Analysis and Recommended Measures for Climate Resilient Coastal Zone Management in West Africa. Climate Change Assessment Report (Acciona, 2018)..

<sup>73</sup> European Centre for Medium-Range Weather, ERA-interim grid point 5b (5.25 degrees North, 1.5 degrees East), via: <https://www.ecmwf.int/en/forecasts/datasets/reanalysis-datasets/era-interim>.

<sup>74</sup> Acciona 2018.

<sup>75</sup> Davidson-Arnott, p. 109.

<sup>76</sup> Anthony, E.J. Et al. [Response of the Bight of Benin \(Gulf of Guinea, West Africa\) Coastline to Anthropogenic and Natural Forcing, Part 2: Sources and Patterns of Sediment Supply, Sediment Cells, and Recent Shoreline Change](#), 2019. Continental Shelf Research, 173: 93-103, p. 93.

<sup>77</sup> Giardino 2018, p. 250.

<sup>78</sup> Ibid.

<sup>79</sup> Ibid., p. 249.



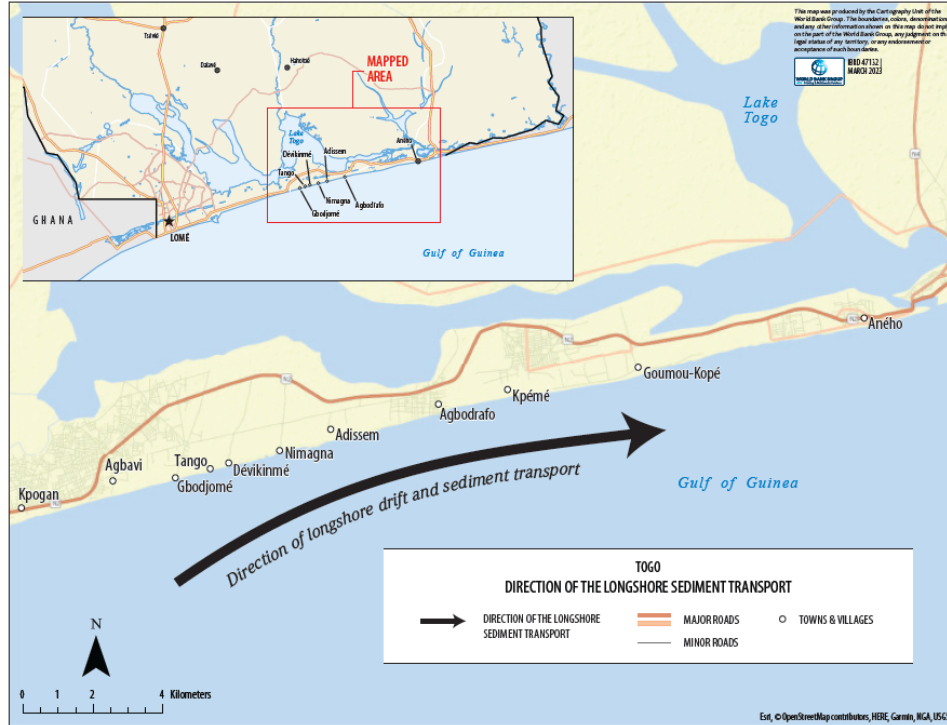


Figure 3: Simplified geological and oceanographic map of Togo

50. **Sea Level Rise Affecting Togo.** Global SLR has accelerated over the past century. The 20-centimeter rise since 1901 is unprecedented (see Figure 4, below). Data included in the sixth Intergovernmental Panel on Climate Change (IPCC) report<sup>80</sup> shows that annual increases in SLR between 2006 and 2018 are 3.7 millimeters per year, nearly triple<sup>81</sup> the rate in the period of 1901-1990 (1.35 millimeters per year). The IPCC<sup>82</sup> calls this a “*robust acceleration (high confidence) of global mean sea level rise over the 20th century.*” In line with the global trend reported in the IPCC,<sup>83</sup> a 3-time increase of Togo’s SLR rates would be

<sup>80</sup> The Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, Chapter 9, Table 9.5. Fox-Kemper, B., H.T. Hewitt, C. Xiao, G. Aðalgeirsdóttir, S.S. Drijfhout, T.L. Edwards, N.R. Golledge, M. Hemer, R.E. Kopp, G. Krinner, A. Mix, D. Notz, S. Nowicki, I.S. Nurhati, L. Ruiz, J.-B. Sallée, A.B.A. Slangen, and Y. Yu, 2021: Ocean, Cryosphere and Sea Level Change. In *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1,211–1,362, doi:10.1017/9781009157896.011, p. 1,289.

<sup>81</sup> Global mean sea level increased by 150-250 millimeters between 1901 and 2018. The average rate of sea level rise between 1901 and 1971 was 1.3 (between 0.6 and 2.1) millimeters per year. The increase between 1971 and 2006 was 1.9 (between 0.8 and 2.9) millimeters per year. Between 2006 and 2018 it was 3.7 (between 3.2 and 4.2) millimeters per year, almost three times of the rate between 1901 and 1971.

<sup>82</sup> IPCC 6AR, Chapter 9, p. 1287.

<sup>83</sup> IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 3–32, doi:10.1017/9781009157896.001, (IPCC Summary for Policymakers 2021) p. 5.

on the order of 7.5 millimeters per year, twice the current global average rate. Importantly, projections of future global SLR have also increased. There is concurrence between the IPCC modelling methods concerning these projections; successive IPCC reports show the rate of SLR is already accelerating and is predicted to speed up more this century.

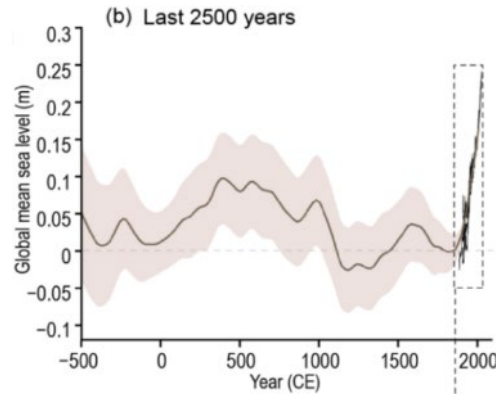


Figure 4 – The global mean sea level over the past 2500 years, showing the unprecedented rate of rise in the last century compared to the long-term average; source: IPCC AR6 Fig. 2.28b<sup>84</sup>

51. **Storminess.** Trends in global storminess have more modelling uncertainties than SLR, due to the complex interactions between the oceans and atmosphere, and regional variation. Nevertheless, there is “*very high confidence*” that rising SLR will lead to higher storm surges during most storms.<sup>85</sup> Similarly, the frequency of such surges will also increase; “*extreme sea level events that previously occurred once in 100 years could happen every year by the end of this century.*”<sup>86</sup> Strong storm waves and storm surges bring higher waves in the tidal frame, increasing erosion and the risk of flooding in the stormier period. In Togo, this occurs between June and September.

<sup>84</sup> IPCC, 2021. Figure 2.28 in IPCC, 2021: Chapter 2. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Gulev, S.K., P.W. Thorne, J. Ahn, F.J. Dentener, C.M. Domingues, S. Gerland, D. Gong, D.S. Kaufman, H.C. Nnamchi, J. Quaas, J.A. Rivera, S. Sathyendranath, S.L. Smith, B. Trewin, K. von Schuckmann, and R.S. Vose, 2021: Changing State of the Climate System. In Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 287–422, doi: [10.1017/9781009157896.004](https://doi.org/10.1017/9781009157896.004).

<sup>85</sup> IPCC, 2019, SROCC, Chapter 6 - Collins M., M. Sutherland, L. Bouwer, S.-M. Cheong, T. Frölicher, H. Jacot Des Combes, M. Koll Roxy, I. Losada, K. McInnes, B. Ratter, E. Rivera-Arriaga, R.D. Susanto, D. Swingedouw, and L. Tibig, 2019: Extremes, Abrupt Changes and Managing Risk. In: IPCC Special Report on the Ocean and Cryosphere in a Changing Climate [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 589–655. <https://doi.org/10.1017/9781009157964.008>.

<sup>86</sup> IPCC, 2021. [Sixth Assessment Report, Press Release](#). August 2021.

52. In Togo, large coastal storms and the risk of marine flooding recur regularly (once or twice annually).<sup>87</sup> In the past 15 years, there have been at least five large coastal storms – 2007, 2009, 2012, 2014 (which flooded across one kilometer of beach), and 2020 (in Baguida) – that caused extensive erosion and temporary flooding.<sup>88</sup> The risk of flooding is predicted to increase with SLR, with 25-30 percent more coastal areas subject to coastal flooding in the future than at present.<sup>89</sup> The Phase 1 feasibility study<sup>90</sup> noted that while short-term, seasonal, storm erosion can be reversible, the net erosion trend associated with SLR is observed more frequently and is expected to grow.

53. **Adaptation and Resilience Through Hard or Soft Options.** Togo’s coastal population, assets, and economic productivity are built on coastal barrier formed mainly of sand. This barrier has a naturally low resilience to storm effects and its low-lying topography makes it highly vulnerable to climate change impacts. The type of approach a project takes to mitigate such vulnerability is important as it can affect natural coastal processes, notably the natural, geomorphic functioning of the coast and how it responds to combined human- and climate-change-related impacts, such as reductions in sediment supply and SLR, respectively.

54. Coastal protection is achieved with a combination of soft and hard measures. Soft measures mimic or support natural processes, such as adding sand to mitigate deficits in sediment supply and vegetation. Hard measures are structures – including groynes, breakwaters, seawalls, and dykes – that are built to resist erosion or flooding by waves and storms. Groynes disrupt the naturally unconstrained morphology of the coast, changing its shape from an open system, to one segmented by the groynes.

55. The physical setting of a coastal barrier, the related wave climate, sediment supply, estimated SLR, and storminess are some of the factors that should be considered in the context of projects requiring modelling and analysis for climate-change-resilient development and coastal adaptation pathways (see Annex 5).

## 2.2. Extent of Fishing and Its Associated Value Chain in Togo

56. This section discusses the importance of fisheries in West Africa and particularly in Togo. It describes the various fishing techniques utilized in Togo and the value chain that develops as a result of fishing activities. Their relevance to the fishing communities is important to fully understanding Project impact on these communities.

57. **Fisheries in West Africa.** In West Africa – from Morocco to Angola – the fishing industry is a key source of employment, revenue, and social wellbeing, contributing 15-17

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<sup>87</sup> Antea. West Africa Coastal Areas Management Program (WACA), *Plan d’actions pour le développement et l’adaptation aux changements climatiques du littoral togolais, rapport final* (Avril 2017), p. 35.

<sup>88</sup> Ibid., and various weather reports.

<sup>89</sup> World Bank, 2020. Effects of Climate Change on Coastal Erosion and Flooding in Benin, Côte d’Ivoire, Mauritania, Senegal, and Togo. Technical Report, p. 78.

<sup>90</sup> Artelia 2020a, p. 21.

percent of the GDP and 20 percent of the primary sector's GDP.<sup>91</sup> Around seven million men and women in the region are employed in the small-scale fishing sector.<sup>92</sup> Employment multiplier effects in this sector are significant; for example, every fishing job in Mauritania creates 1.04 additional, onshore jobs. This number reaches 3.15 in Guinea. These numbers illustrate the potential for further job creation through value chain development.<sup>93</sup> The fishing industry in West Africa also represents an important source of food security for the local population as fish constitute 46-53 percent of the average, animal protein intake.<sup>94</sup> In some coastal communities that are highly dependent on fisheries, these resources are often bound with traditional rituals and beliefs aimed at preservation and sustainable use of fish stocks.<sup>95</sup>

58. Artisanal fisheries in the region are rather diverse, using different techniques and equipment depending on the time of the year or the month. Despite this diversity, artisanal fisheries remain relatively selective, often catching what they target. This means they have a low level of unwanted bycatch, and therefore a lower environmental footprint than industrial fisheries. In the Gulf of Guinea, one of the most community-focused fishing methods is the beach seine technique (*senne de plage*), considered a locus for household income and food security. This technique is vital for fishing communities given its social aspect; when practiced in a fishing village, community members collect fish to eat, and many people participate in hauling the beach seines.

59. **Fisheries in Togo.** The Ministry of Maritime Economy informed the Panel, during its November 2022 visit, that the Togolese fishery sector contributes up to four percent of national GDP. Approximately 8,240 artisanal fishers catch nearly 24,000 tons of fish annually,<sup>96</sup> with a gross landed value of FCFA 5.314 billion (about USD 8.72 million). Fishers can use up to seven types of techniques<sup>97</sup> to practice artisanal fishing. According to local authorities, fishing activities enable many in Togo to feed their families and help send their children to school.

60. Togo is deemed comparatively poor in terms of fisheries' production within the West African context, since the equipment and techniques used are not adapted to optimize production and tend to focus on the coastal area. Most fishing canoes (pirogues) cannot venture far enough out to sea to yield significant and larger catches.

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<sup>91</sup> Diouf, 1991, Mendy, 2002, FAO, 2006 in Belhabib, D. (2015). [West African Fisheries: Past, Present, and Futures?](#) University of British Columbia, p. 7.

<sup>92</sup> Ibid., p. 62.

<sup>93</sup> Ibid., p. 69.

<sup>94</sup> Average obtained from Table 1, p. 3, World Fish Center, 2005: [Fish and Food Security in Africa](#), World Fish Center; and Belhabib, [West African Fisheries: Past, Present, and Futures](#), 2014, University of British Columbia, p. 7.

<sup>95</sup> Briones Alonso et al, [Voodoo Versus Fishing Committees: The Role of Traditional and Contemporary Institutions in Fisheries Management](#), 2016, p. 24.

<sup>96</sup> Food and Agriculture Organization of the United Nations. [Fisheries and Aquaculture Country Profile – Togo](#) (2021).

<sup>97</sup> These seven types of techniques are: purse seine or *wacha*, demersal gillnets and pelagic gillnets respectively, called *tonga*, beach seine, handlines, shark nets, and driftnets.

### 2.2.1. Fishing Techniques

61. Marine artisanal fishing in Togo is a highly specialized and organized activity and comprises the following main fishing techniques: purse-seine (*senne tournante* or *wacha*), gillnet fishery (*tonga*), beach seines, and handlines. Artisanal fishing's contribution to the national economy is shown in Table 1, below.

Table 1 – Socioeconomic Contribution of Togolese Fisheries by Technique Type, 2016<sup>98</sup>

Fishing Technique	No. of Fishers	No. of Pirogues	Catches (tonnes)	Value (in million FCFA and in USD)
Purse seine ( <i>Wacha</i> )	2,064	113	16,310	FCFA 4,258.5 USD 6,988,068
Beach seine	3,638	57	1,370	FCFA 271 USD 444,706
Gillnet ( <i>Tonga</i> )	1,829	161	876	FCFA 279.6 USD 458,815
Handlines	393	44	89	FCFA 92.9 USD 152,446
Other (shark nets and driftnets)	316	35	982	FCFA 412.3 USD 676,575

62. **The Purse-Seine Fishery (*Senne Tournante* or *Wacha*).** The purse-seine fishery is the highest contributor of catches at 83.18 percent.<sup>99</sup> Traditionally called *wacha* by fishing communities or *senne tournante* in French, this fishery uses small or large pirogues, which carry 17-25 men. The number of fishers employed by this fishery in Togo was surveyed in 2016 at 2,064 people.<sup>100</sup>

63. The larger *wacha* pirogues are motorized and require money to cover fuel costs, making this fishery the most capital-intensive, traditional fishery in Togo (see Picture 1, below). The purse-seine fishery targets mostly sardinellas, barracudas, croakers, and anchovies. Purse-seine fishers typically leave early in the morning and spend most of the day at sea. They closely monitor the water, searching for schools of fish. Once they spot a catch, they deploy the net and circle the school, returning to where the net was first deployed. The crew then hauls in the net. According to the fishers, this process can take several hours. Once the fishing operation is over, the pirogues are anchored a safe distance from the beach and the catch is put in floating boxes that are taken to the beach. Purse-seine pirogues are only moored on the beach when they require repairs.

<sup>98</sup> Data extracted from Sezdro 2016, p. 7.

<sup>99</sup> Ibid., p. 2.

<sup>100</sup> Ibid., p. 7.



Picture 1: Larger *wacha* pirogues (center) and one smaller *tonga* pirogue (front left)

64. During the high fishing season, purse-seine fishers typically go to sea six times a week, weather permitting. The rest of the year, when conditions at sea are rough, is the low fishing season, coincidentally when fish stocks thrive due to the high concentration of nutrients in the water. According to fishers with whom the Panel spoke, purse-seine pirogues are highly mobile and fish all along the Togolese coast without zone restrictions.

65. **The Gillnet Fishery or *Tonga*.** The gillnet fishery with its four types of gillnets<sup>101</sup> produces 9.20 percent of the total catch in Togo. Traditionally called *tonga* by the fishing community, it uses smaller pirogues, sometimes motorized, and targets smaller fish, such as sardinellas and mullets (see Pictures 2 and 3, below). The *tonga* technique involves six to eight fishers per boat who go to sea early before sunrise, release their nets, and wait three to four hours. This technique allows some of the fishers to take part in other fishing activities.

66. During its field visits, the Panel observed this fishing practice all along the Togolese coast, since it requires relatively little capital. *Tonga* fishers told the Panel that they land three to five kilograms of fish on a good day. The pirogues and catches are hauled on the beach by teams of fishers. During its field visits, the Panel spoke with many fishers who said that while *tonga* is not the most lucrative technique, it is low-cost, making it the more economically viable option for them. *Tonga* fishers told the Panel that as fish catches and fish sizes shrink, fuel costs become prohibitive. They said “*fishermen have to go further and catch less fish.*”

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<sup>101</sup> Ibid., p. 2.



Picture 2: *Tonga Boat*



Picture 3: *Fishnet*

67. **The Beach Seine Fishery or *Senne de Plage*.** Although the beach seine fishery is only the third-largest contributor to Togolese fisheries, representing 7.16 percent<sup>102</sup> of the total catch, it is the most labor-intensive fishery, with 3,638 fishers, employing on average 25-45 fishers and an additional 50-150 community members, per group.<sup>103</sup> Men, women, and children haul the long fishing net in exchange for some fish and pay. This fishery operates from the shore, where one end of a two-to-five-kilometer-long net is roped to a stick and the other end is taken by a pirogue towards the other side of the beach (see Picture 4, below). After several hours, net ends are pulled by two groups of approximately 25 community members on either end who sing traditional chants to set their rhythm and pace (see Picture 5, below). The two groups approach each other as they haul in the net. They eventually meet in the middle and close the net on the catch.



Pictures 4 and 5 – Folding of the kilometer-long beach seine net and community members pulling the net

68. According to local authorities, the beach seine fishery yields 10-20 buckets (35 liters each) per haul and operates daily except Wednesdays. Fishers interviewed in Agbodrafo said

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<sup>102</sup> Ibid.

<sup>103</sup> Ibid., p. 7.

they collected 27 buckets (25 liters each) per group. The *mareyeuses*,<sup>104</sup> food and water vendors, and transport operators arrive towards the end of the hauling operation. Many women and children remove smaller fish from the nets to take home (see Picture 6, below). According to local authorities “*it is with fishing that we are fed, and clothed. Fishing allows the community to live well. It is part of our lives.*”



Picture 6 – Women and children picking fish from the beach seine net

69. During its November 2022 visit, the Panel observed two beach seine fishing operations in Agbodrafo and learned that each fishing group has a chief, who is often the owner of the net or pirogue, as well as a treasurer. Each group in this land-based fishery has assigned, geographically fixed, noninterchangeable, longshore fishing zones.

70. **Handline Fishery.** Handline fishing is also practiced in Togo, although it only contributes 0.46 percent of the total catch.<sup>105</sup> Other techniques include shark nets and driftnets.

71. In summary, it is important to note that many fishers use several techniques and sometimes operate in multiple locations. Except for beach seine fishers, fishermen can fish, land their catch, and dock anywhere. However, landing and docking away from their usual fishing location increases transportation costs for them and their associated processors and disturbs local markets. Some fishers told the Panel that when catches are low, they travel to Ghana or Benin.

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<sup>104</sup> *Mareyeuses* are wholesale traders, typically women, also known as fish transformers. They buy and prepare fish, crustaceans, and shellfish for resale. They play an important role in the distribution and transformation of fishery products.

<sup>105</sup> Sezdrow et al. (2016), p. 2.



### 2.2.2. The Togolese Fishers' Value Chain

72. The Panel observed that the artisanal fishing microeconomy has an associated value chain that comprises different stakeholders, including young and old people. Although it is difficult to measure the size of this microeconomy, the Panel found it useful to observe its activities to understand better the Project's impact on the people involved in the process (see Table 2, below).

73. **Fishers.** The Panel met with fishers throughout the Project area who described fishing as a traditional and intergenerational activity, passed from father to son. Most fishers with whom the Panel spoke said fishing is their main source of income and they would not want to stop fishing because it is all they know how to do. Depending on the fishing technique, each fisher is trained for a specific task and plays a different role during the fishing activity. In beach seine fishing, for example, some monitor currents, others observe nets, while a long line of fishers pulls ropes for hours, and others sing motivational chants. For *tonga* and beach seine techniques, some fishers swim, subject to currents and waves, to haul the fishnets and catches to shore.

74. **Mareyeuses.** The *mareyeuses* make up the second-largest component of Togo's artisanal fishing value chain and were estimated at 12,000 women in 2016.<sup>106</sup> They are responsible for fish processing and trade. *Mareyeuses* are organized in associations, each of which works closely with a fisher's association. All women with whom the Panel spoke mentioned that *mareyage* (fishmongering) is also an intergenerational, traditional activity inherited from their mothers and passed on to their daughters. The income earned from *mareyage* typically goes to children's expenses, such as school fees and materials, food, and healthcare costs. *Mareyeuses* in Gbodjomé said that fish processing and selling are their principal activities and main sources of livelihood. Some acknowledged gardening (*maraichage*) is a complementary activity during low fishing season or when catches are inadequate. One *mareyeuse* said on a good fishing day she buys 80 fish to process. During its visits, the Panel observed four types of *mareyage* activities:

- Fish retailers/wholesalers buy fish directly from fishers and sell them fresh at the market the same day, usually to consumers or restaurants.
- Fish smokers typically buy fish to smoke in smokehouses at home. Their operational costs must cover wood, manioc leaves, retail baskets, and transportation. The processing cycle lasts three to five days, after which they buy more fish.
- Fish salters buy and salt fish before selling them at the market. Costs include salt, transportation, and retail baskets. The process typically lasts up to eight days, after which they must acquire more fish.
- Fish fryers cook smaller fish for sale in baskets on the streets and markets. Operational costs include fish, oil, retail baskets, and transportation.

75. *Mareyeuses* told the Panel they are not limited to a single processing technique. Smaller fish are usually fried, medium fish smoked, and larger fish salted or sold fresh, thereby processing all sizes of fish simultaneously. Although some may prefer one of these

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<sup>106</sup> Domtani et al. *Enquête Cadre Pêche Artisanale Maritime du Togo 2014*, 2016, p. 1.

techniques, they will adapt according to the fish available. Most women interviewed said they get paid only after they sell their batch at the market, which means *mareyeuses* operate with debt. Women who cannot afford to buy larger fish comb the nets for the smaller fish stuck in them. When catches are low, *mareyeuses* also buy fish from other fishing villages, or use frozen imports purchased from distributors at the port they call the *frigo*.

76. **Fishing Crew.** As mentioned in the previous section, each fishing technique has a designated number of fishers or crewmembers on their fishing teams, which can vary from four crewmembers (*tonga*) to 45 (beach seine).

77. **Net Pullers or Haulers.** *Aide-pêcheurs* (fisher's assistants) are the women, men, and children who pull in the nets and catches, and help beach the pirogues. Some *aide-pêcheurs* work to supplement their income or to earn an income, while others haul full time. The Panel spoke with some of them who said they work in multiple communities or even travel to Benin or Ghana to earn income or receive payments in fish.

78. **Net and Pirogue Menders.** Most villages have professionals responsible for mending nets and repairing damage to pirogues. Some community members said they occasionally go to Lomé to fix damaged boats. Sometimes crewmembers are expected to mend their nets. Throughout the sites visited, the Panel observed groups of men sitting on the beach, sewing and mending their nets (see Picture 7, below). The Panel also saw boats being repaired.

79. **Motorcycle and Taxi Drivers.** When the catch is brought ashore, motorcycle taxis gather on the beach to bring the fish to markets in neighboring villages (see Picture 8, below). They also transport the beach seine nets.



Pictures 7 and 8 – Net mender and motorcycle taxi

80. **Community Members.** When fishers return from fishing and nets are hauled to the beach, the rest of the community participates in the downstream fishing economy. Elders, women, and children – all of whom may be the more vulnerable members of the community – retrieve nets and transport the heavy fish catch. Community members also help with sorting the fish by size and species, transporting, trading, and processing. Parts of the catch go to the boatowners, fishers, and *aide-pêcheurs* who caught the fish. The rest of the larger fish is sold

to *mareyeuses*, and the smaller fish stuck in the nets are left to the women and children who cannot afford to buy fish.

Table 2 – Value Chain of Togolese Fisheries by Activity (identified in field interviews)

<b>Occupation</b>	<b><i>Tonga</i></b>	<b><i>Wacha</i></b>	<b>Beach Seine</b>
Street Fuel Retailers	Some	Yes	No
Gas Stations	Some	Yes	No
Food Vendors for Fishers	No	Yes	No
Net Menders	Yes	Yes	Yes
Boat/net Owners	Yes	Yes	Yes
Crew	4-8	17-25	25-45
<i>Mareyeuse</i> : Retailers/wholesalers	Yes	Yes	Yes
<i>Mareyeuse</i> : Smokers	Yes	Yes	Yes
<i>Mareyeuse</i> : Salters	Yes	Yes	Yes
<i>Mareyeuse</i> : Fryers	Yes	Yes	Yes
Basket Makers	Yes	Yes	Yes
Wood Retailers	Yes	Yes	No
Salt Retailers	Yes	Yes	Yes
Oil Retailers	Yes	Yes	Yes
Manioc Leaf Retailers	Yes	Yes	Yes
Transport (motorcycles and taxis)	Yes	Yes	Yes
Restaurant Owners	Yes	Yes	Yes
Food and Water Vendors	During Landing	During Landing	After Hauling Nets
Net Haulers (women and children)	No	No	50-150

## **Chapter 3 - Project Scenarios and Identification of Environmental and Social Risks**

81. This chapter examines the allegations of adverse social and environmental impacts resulting from the Combined Works and the Emergency Works. This analysis considers the scenarios studied to determine the measures adopted for the Combined Works and their impact. It also reviews the decision-making process concerning the Emergency Works and the related construction works, working conditions, and the grievance redress mechanism.

### **3.1. The Combined Coastal Protection Works (Agbodrafo to Aného)**

82. In this section, the Panel analyzes the Management's compliance to Bank Environmental Assessment Policy vis-à-vis the Combined Works, which comprise structures (including the construction and rehabilitation of groynes and breakwaters) built and operated to protect the cross-border, coast segment from Agbodrafo (Togo) to Grand-Popo (Benin). The Panel notes that the December 2022 Aide Mémoire reported that the rehabilitation of the groynes in Aného was completed. It added that preparation works for the groynes in Agbodrafo had started and the PIU was waiting for the RAP completion report before the works begin. This section considers the Requesters' claims, the Management Response, and the Panel analysis and findings as they relate to the relevant policy provisions.

#### **3.1.1. Request for Inspection**

83. The Requesters claimed the Project was disregarding the alternative of dredging and replenishing the sand beach areas, which would stabilize coastal erosion and allow fishers and residents to remain on the beach to continue their fishing activities. The Requesters alleged that the WACA Project will have negative repercussions on the fishing activities.

#### **3.1.2. Management Response**

84. Management's Response stated that the Project aims to strengthen the resilience of targeted communities and areas in coastal Western Africa. Management noted that in Togo the Project will help secure the beach, provide greater access to fishing activities, and protect an estimated 4,600 households from the impacts of coastal erosion. Management also stated that any potential, temporary access restrictions resulting from the construction works will be assessed and compensated, as may be warranted.<sup>107</sup>

85. According to Management, the Project will have no permanent, adverse effects on artisanal fishers and their livelihoods. Rather, it will increase beach width by about 30 meters (instead of its currently expected loss of 40 meters from erosion over the next 15 years). Management stated that Project-financed civil works (groynes, breakwaters, and beach replenishment) were not intended to limit access to the shore or fisheries. Management indicated that the works will only block the seafront in limited places and will not restrict the use of the beach for storing boats or fishing.<sup>108</sup> Management acknowledged that beach

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<sup>107</sup> Management Response, para. 41.

<sup>108</sup> Ibid., paras. viii and 41.

worksites will be temporarily inaccessible to the public during the construction period, but stated that 350-400 meters of open space between groynes will be accessible during this time.

86. Management added that the Project considered potential alternatives – including dredging and beach replenishment, mentioned in the Request – and selected an option that combines different approaches to achieve the Project’s development objective. In addition to the new and refurbished groynes, the Project will finance about 600,000 cubic meters of beach sand replenishment, using deep sea dredging, to fill between the groynes. Management indicated that selection of the combined option for coastal protection (groynes and beach replenishment) followed a detailed study and consideration of the costs, the level of protection, lifetime, and potential positive and negative environmental, social, and economic impacts.<sup>109</sup>

87. According to Management, the beach-replenishment-only option was unviable according to scientific and technical studies. Without additional groynes on the shoreline to slow or block the sediment flow “*the replenished sand would quickly vanish again.*”<sup>110</sup> Management further indicated that the no-groyne option would not protect coastal communities to continued erosion and only last about three years, at which point the costly sand supply would need to be repeated.<sup>111</sup>

### **3.1.3. Bank Policies**

88. The Panel considers the Environmental Assessment Policy (OP 4.01) to be relevant to this analysis. OP 4.01 requires consideration of natural and social aspects in an integrated way,<sup>112</sup> assessment of the project’s potential environmental risks and impacts in its area of influence, examination of project alternatives, and identification of ways to improve project selection, siting, planning, design, and implementation by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts. The Policy favors preventive measures over mitigatory or compensatory measures, whenever feasible.<sup>113</sup>

89. The Policy adds that a Category A Environmental Assessment (EA) examines a project’s potential negative and positive environmental impacts, compares them with those of feasible alternatives (including the “without project” option), and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. These impacts may affect an area broader than the sites or facilities subject to physical works.<sup>114</sup> Annex A of the Policy defines a project area of influence to cover areas likely to be affected by the project, including any affected estuary, coastal zone, or area used for livelihood activities (including from fishing).<sup>115</sup>

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<sup>109</sup> Ibid., p. 16, para. 53.

<sup>110</sup> Ibid., p. 16, para. 54.

<sup>111</sup> Ibid.

<sup>112</sup> Bank Policy on Environmental Assessment (OP 4.01), para. 3.

<sup>113</sup> Ibid., para. 2.

<sup>114</sup> Ibid., para. 8(a).

<sup>115</sup> OP 4.01, Annex A, Definitions, para. 6.

90. The Policy’s Annex B requires systematic analysis of alternatives and a comparison of feasible alternatives to the proposed project site, technology, design, and operation – including the “without project” option – in terms of potential environmental impacts, feasibility of mitigating impacts, capital and recurrent costs, suitability under local conditions, and institutional, training, and monitoring needs. The EA is required to state the basis for selecting the particular project design proposed.<sup>116</sup>

### 3.1.4. Panel Analysis and Observations

91. This section analyzes the design of the Combined Works and their related area of influence. It describes the various studies conducted and alternatives considered. It also evaluates whether the risk of these measures on the area from Kpémé to the groyne farthest west at Aného (Area B in Figure 7, below) was sufficiently and adequately considered.

#### 3.1.4.1. Project Scenarios

92. Between 2015 and 2017, the Governments of Togo and Benin commissioned pre-feasibility technical studies.<sup>117</sup> Project design took place over six years starting with the WACA detailed master plan in 2016 with the ESIA being approved in 2022. The WACA Project documentation relevant to the design of the Combined Works include an ESMF (prepared in 2017 and updated in 2021), a preliminary and approved ESIA, and several other technical, feasibility studies of various options, designs, and alternatives. These studies identify and examine engineering options that could deliver the project’s objectives, and conclude by identifying one to take forward. The technical feasibility studies usually includes economic, environmental, and social issues.

93. In 2020, a specialist consultancy firm<sup>118</sup> was hired to produce feasibility studies<sup>119</sup> and analyze alternatives to improve coastal resilience along the Togo-Benin coast and to produce the tender documents for the works. These studies were conducted in three phases (see Figure 5, below). They involved the use of modelling approaches (e.g., sand mass rebalancing calculations) that assessed how each scenario would influence beach erosion at the local sites and maintain sediment supply to downdrift areas in Benin.

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<sup>116</sup> OP 4.01, Annex B, Content of an Environmental Assessment Report for a Category A Project, para. 2(f).

<sup>117</sup> The studies include those prepared by Inros Lackner in 2015 for Togo and by Norda Stelo in 2017 for Benin.

<sup>118</sup> The consulting firm is [Artelia](#), according to its website, Artelia is “an independent multi-disciplinary engineering & project management company.”

<sup>119</sup> These are 1) Artelia 2020a; 2) *Etudes conjointes de faisabilité technique de la protection côtière du segment frontalier Togo-Bénin*, Phase 2 – *Etude d’avant-projet sommaire des options d’adaptation présélectionnées*, October 2020 (Artelia 2020b); 3) *Etudes conjointes de faisabilité technique de la protection côtière du segment frontalier Togo-Bénin*, Phase 3 – *Etude d’avant-projet détaillé de l’option d’adaptation retenue*, October 2020 (Artelia 2020c); and 4) Artelia, *Etudes conjointes de faisabilité technique de la protection côtière du segment frontalier Togo-Bénin*, Phase 3 – *Etude d’avant-projet détaillé de l’option d’adaptation retenue*, December 2020 (Artelia 2020d).

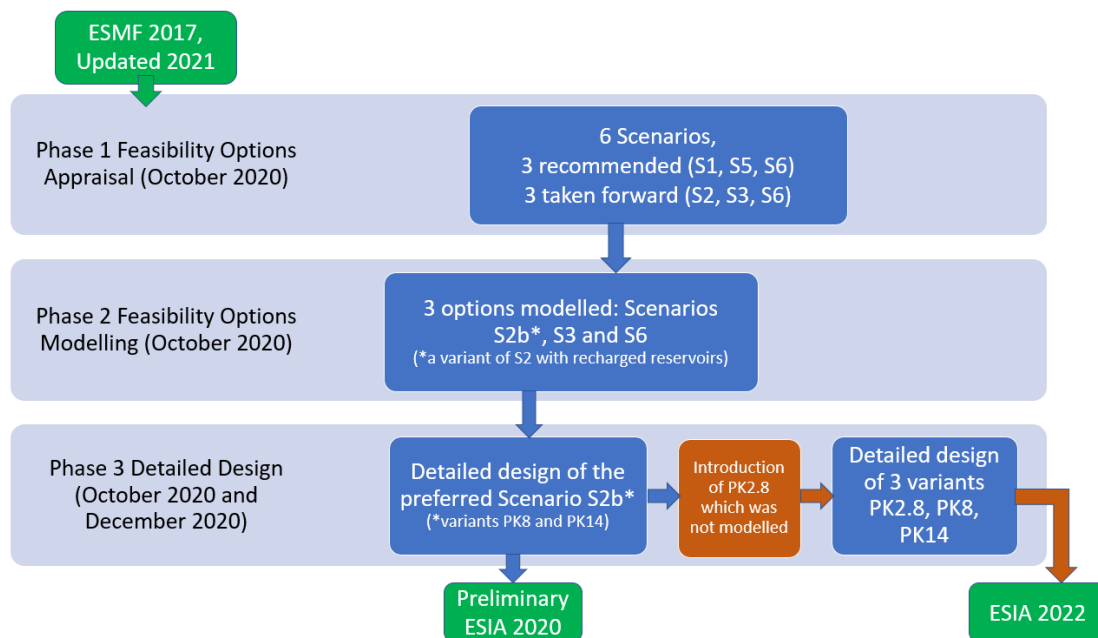


Figure 5 – This diagram illustrates phases of the feasibility studies and the process of narrowing of options, showing where PK2.8<sup>120</sup> was added and how the Project’s environmental and social instruments (in green) link to the technical feasibility studies

94. **Analysis of Phase 1 of the Technical Feasibility Studies.** The Phase 1 options appraisal included multicriteria analysis of the social, environmental, economic, and technical aspects of six scenarios. The Panel notes that, contrary to Management’s statement in its Response, not all six scenarios were analyzed with detailed modelling.

95. The Panel also notes that the feasibility studies made limited mention of barrier beach systems. They simply stated that it was a barrier beach, without discussing what this meant in terms of the inherent landform vulnerability, how it would naturally respond to changes in sediment supply and/or climate change impacts, and the suitability of the proposed measures for managing barrier system responses to a changing climate.<sup>121</sup> The modelling and assessment of risks in the feasibility studies used beach models which focus on how the beach responds to coastal forces (waves, currents, and sediment supply). It did not consider what beach dynamics and shoreline erosion trends signify for barrier system responses when combined with human and climate change pressures. Clear presentation of the natural geomorphic system over decadal to century timescales is important for understanding biophysical adaptation limits and the assessment of options to manage coastal erosion.

96. The six scenarios analyzed in Phase 1 are presented in Table 3, below, including the lifespan post-build and the estimated cost in FCFA, at the time of the Phase 1 study, for construction and maintenance.

<sup>120</sup> PK, *point kilométrique*, is a reference point measured in kilometers, starting at the Togo-Benin border; PK0 is the border, PK2.8 indicates that the groynes continue 2.8 kilometers into Benin, and PK14 groynes stretch 14 kilometers into Benin.

<sup>121</sup> Artelia 2020a, p. 21.

Table 3 – Summary of Alternative Scenarios Assessed in the Phase 1 Feasibility Report

<b>Scenario No.</b>	<b>Type of Measure</b>	<b>Description</b>	<b>Lifespan post-build</b>	<b>Cost in FCFA (and USD) + Maintenance</b>
<b>S1</b>	Soft protection only: largescale (Sand Motor) sand-engine recharge-only	Massive input of sand (sand engine) in the Gbodjomé-Agbodrafo sector and passive monitoring of the other sectors	30 years; maintenance through monitoring only	FCFA 43.5 billion (USD 71,386,500)
<b>S2</b>	Combined hard & soft protection: groynes in Togo, Sand engine in Benin	Construction of 31 new, short groynes and rehabilitation of seven pre-existing groynes / breakwater in Togo plus sand engine in Benin	30 years for groynes and sand engine; maintenance “limited” to 30 years of monitoring	FCFA 72 billion (USD 118,141,140)
<b>S3</b>	Combined hard & soft protection: groynes & local beach recharge in Togo, sand engine in Benin	Construction in Togo, of new, short groynes in the western sector along with pre-loading of sand, with beach nourishments in Aného and Benin	30 years for groynes and sand engine, 10-15 years for sand added between groynes; maintenance through recharging every five years in the eastern section	FCFA 63.5 billion (USD 104,193,923) + maintenance FCFA 28.5 billion (USD 46,757,183)
<b>S4</b>	Variant of Scenario 3 with hard solution in Benin	Construction of four new groynes in Kpémé and in Benin, along with Scenario 3	30 years for groynes and sand engine, 10-15 years for sand added between groynes; maintenance through sand bypassing at border	FCFA 205 billion (USD 336,323,600) + maintenance FCFA 7 billion (USD 11,483,432)
<b>S5</b>	Variant of Scenario 1	Massive input of sand (sand engine) on the sector of Gbodjomé-Agbodrafo and passive monitoring of the other sectors with maintenance of lagoon outlet	30 years; maintenance “limited” to 30 years of monitoring	FCFA 83 billion (USD 136,160,698)
<b>S6</b>	Improved hard protection	Construction of new, short groynes with sand added between them along the entire coast	30 years for groynes, 10-15 years for sand added between groynes; maintenance “limited” to 30 years of monitoring	FCFA 115 billion (USD 188,651,013)



97. A comprehensive, multicriteria (i.e., economic, social, environmental and technical) analysis of the six studied options using qualitative and quantitative data “*provide[d] decision makers with all the elements needed to identify the most appropriate solutions to the problem of coastal protection on the Togo-Benin border.*”<sup>122</sup> In this analysis, equal weighting was given to technical constraints and feasibility, socio-environmental impacts, and economic indicators, where a multiplication factor was applied to the long-term investment cost criteria and the maintenance cost criteria.<sup>123</sup>

98. Scenarios S1, S5, and S6 scored best in the Phase 1 multicriteria analysis, and were recommended for modelling in Phase 2. However, following a validation report and meeting, the scenarios taken to Phase 2 were instead S2b, S3, and S6. The Panel received no validation report or minutes of the meeting explaining this change. Scenario S2b was a variant of S2 with replenished reservoirs, to ensure sediment continuity. Scenarios S1 and S5 were considered no further.<sup>124</sup> Bank staff informed the Panel that groynes were the Government of Togo’s preferred option prior to the WACA Project. The Panel notes that scenarios S1 and S5 are massive, sand-recharge-only options, and were replaced with S2b and S3, which combine hard and soft protection measures.

99. The Panel notes that the Management Response stated the two massive-beach-replenishment options (6.5 million cubic meters of sand) in the feasibility study would last three years without groynes to hold the sediment.<sup>125</sup> These two scenarios appear to correlate to S1 and S5 and contradict the feasibility study that indicated they would last 30 years and require no maintenance (see Table 3, above).<sup>126</sup>

100. The Panel notes that a massive-beach-replenishment scenario was proposed as the preferred option and used on parts of Benin’s coast under a different part of the WACA Project. The ESIA stated that “*the [massive, largescale] beach nourishment technique via dredging and backfilling [...] is perfectly feasible in Togo.*”<sup>127</sup> A soft-only, massive-sand-replenishment option would create no structural impediments, such as the rock groynes, and sand could move freely along the coast and the natural, unobstructed beach morphology would remain unchanged.

101. **Analysis of Phase 2 of the Technical Feasibility Studies.** Phase 2 concluded that S2b’s greater replenishment volume protects the coast better than S3. The study stated that S6 protected the coast, but caused “*unacceptable erosion downstream of the last groyne in*

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<sup>122</sup> Artelia 2020a, p. 118.

<sup>123</sup> Ibid., p. 120.

<sup>124</sup> Ibid., p. 122. The original French text states: “*Trois options sont retenues de cette analyse et seront développés au stade d’avant-projet sommaire en Phase 2. Il s’agit des scénarios 1, 5 et 6. Ces scénarios ont été discutés et amendés suite au PV de validation du présent rapport, ainsi que suite à une réunion extraordinaire tenue pour faire part de l’évolution des préférences nationales. Les scénarios développés en Phase 2 sont les scénarios 2b, 3 et 6. Le scénario 2b correspond au scénario 2 avec casiers rechargés, pour assurer la continuité sédimentaire.*”

<sup>125</sup> Management Response, p. 23.

<sup>126</sup> Artelia 2020a, p. 119.

<sup>127</sup> Environmental and Social Impact Assessment, *Etude d’impact environnemental et social (EIES) du projet de protection du segment de côte transfrontalier entre Agbodrafo au Togo et Grand-Popo au Bénin*, Janvier 2022 (ESIA), p. 300.

Benin.”<sup>128</sup> Phase 2 determined that S2b’s groynes in Togo would be so efficient they would stop sediment transport to Aného and that modifications were needed to avoid this risk.

102. Phase 2 modelling determined that S2b was unsatisfactory since it would stop sediment transport to Aného. It determined that S3 was eliminated, even though it appeared to be less costly (see Table 3, above). S6 was deemed the most expensive of the three. Phase 2 recommended improvements to S2b to make it the preferred option. It concluded that the preferred scenario for Phase 3 was based on an amended scenario S2b without rehabilitation works between Kpémé and Aného, and with shorter groynes in Benin with massive-beach-replenishment downstream of the last groyne on the Benin side.<sup>129</sup>

**Box – Effect of Groynes on Togo’s Coastal Morphology**

The groynes in the Combined Works disrupt the naturally unconstrained morphology of the coast by changing it from an open system, to one segmented by the groynes. They alter the landscape’s character and restrict the natural movement of sediment along the coast. The Combined Works will affect the natural coastal geomorphology differently than the soft-only, massive-sand-replenishment. Recharging the compartments between groynes with sand mitigates their restriction of sediment transport. While this recharging will increase the width of the beach (land to sea) by 30-40 meters, it will not address the negative impact of the groynes on longshore beach morphology.

A soft-only, massive-sand-replenishment option would create no physical obstructions and allow sand to move freely along the coast. This scenario would build no structures perpendicular to the beach, as the sand recharge would widen the cross-shore beach without affecting the beach morphology. Compare Figures A and B below to Figures C and D.

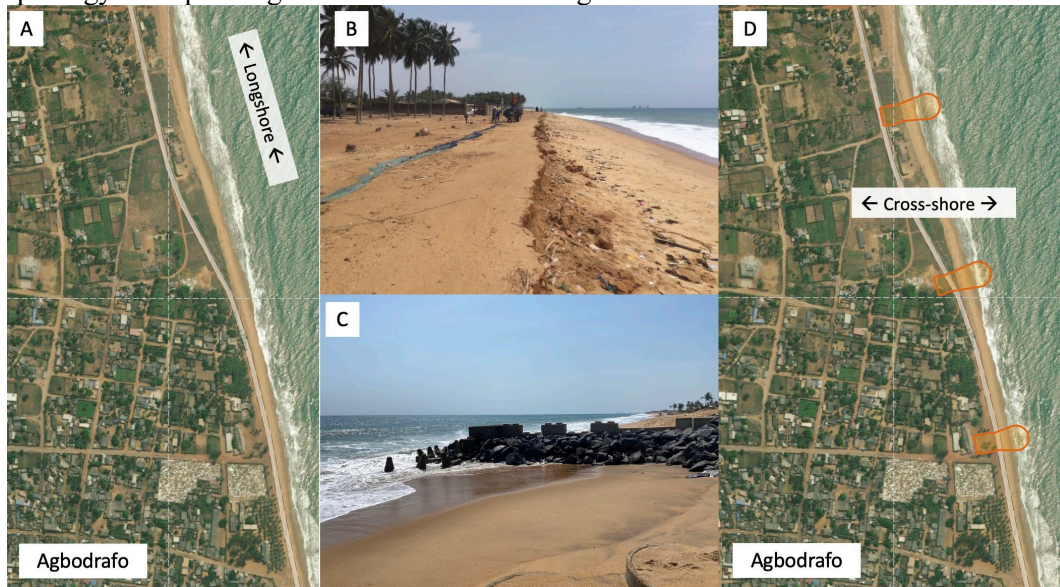


Figure A – Pre-Project, unobstructed longshore beach in Agbodrafo; Figure B – Unobstructed beach; Figure C – Existing groyne at Dévikinmé obstructing the longshore beach; Figure D – Groynes (in orange shapes) restricting natural movement of sediment

References: Artelia 2020a and Artelia, 2020b  
Satellite Imagery: © Google; Maxtar Technologies; and Airbus, 2022.

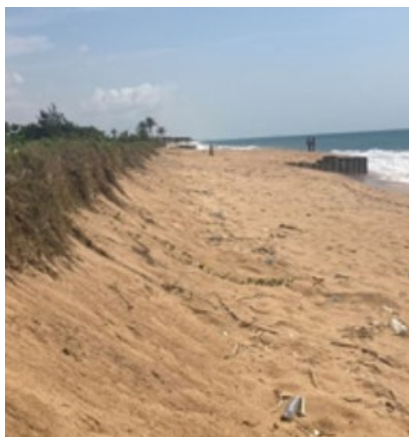
<sup>128</sup> Artelia 2020b, pp. 113, 126.  
<sup>129</sup> Ibid., pp. 113 and 131-132.

103. **Analysis of Phase 3 of the Technical Feasibility Studies.** The Phase 3 study (October 2020) developed and modelled two S2b variants with differing numbers of groynes (PK8 and PK14) along the coast, including at Kpémé and Goumou Kopé.<sup>130</sup> The Aide Mémoire of November 2020 noted these variants would cost approximately USD 219 million, much higher than what both Togo and Benin expected, and that both countries opted for an intermediate solution costing USD 110 million. Cost constraints led to the design of a new variant, PK2.8 (which includes groynes 2.8 kilometers into Benin and sand replenishment), which was further explored as a second Phase 3 study.<sup>131</sup> The second Phase 3 study of December 2020 concluded that scenario PK2.8 (not modelled under Phase 2) was the most viable option. The selected scenario for Togo was a combined soft and hard option of groynes and beach replenishment for coastal protection.

104. PK2.8 is the current Combined Works and consists of hard protection assets and site-specific, soft, local-scale beach recharge. It constructs seven new and rehabilitates six existing groynes and a breakwater. It includes beach recharge between the groynes to mitigate the negative impacts on natural coastal processes and sediment transport.<sup>132</sup> The beach recharge element reduces the effect of the hard coastal protection works on sediment circulation, allowing the Project to meet the WACA objective to limit transboundary impacts.

105. The Panel notes that the selected option of combining groynes with local sand recharge in Togo plus massive-beach-recharge in Benin (PK2.8) was not a recommended option at the end of Phase 1, nor was it considered in Phase 2 modelling.

106. **The Selected Scenario, PK2.8 – Combined Coastal Protection Measures.** All groynes under this scenario will be of similar construction, varying 65-75 meters in length (above ground or sea level). Figure 6, below, shows a plan and cross-sectional view of the groynes, to be anchored at the micro-cliff – the boundary between the land and beach (see Picture 9, below).



Picture 9 – Barrier beach micro-cliff, the vegetation edge between beach and land<sup>133</sup>

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<sup>130</sup> Artelia 2020c, p. 35.

<sup>131</sup> Artelia 2020d, p. 34.

<sup>132</sup> Ibid., p. 91.

<sup>133</sup> Micro-cliff, *micro-falaise* in French, is where the beach meets the land.

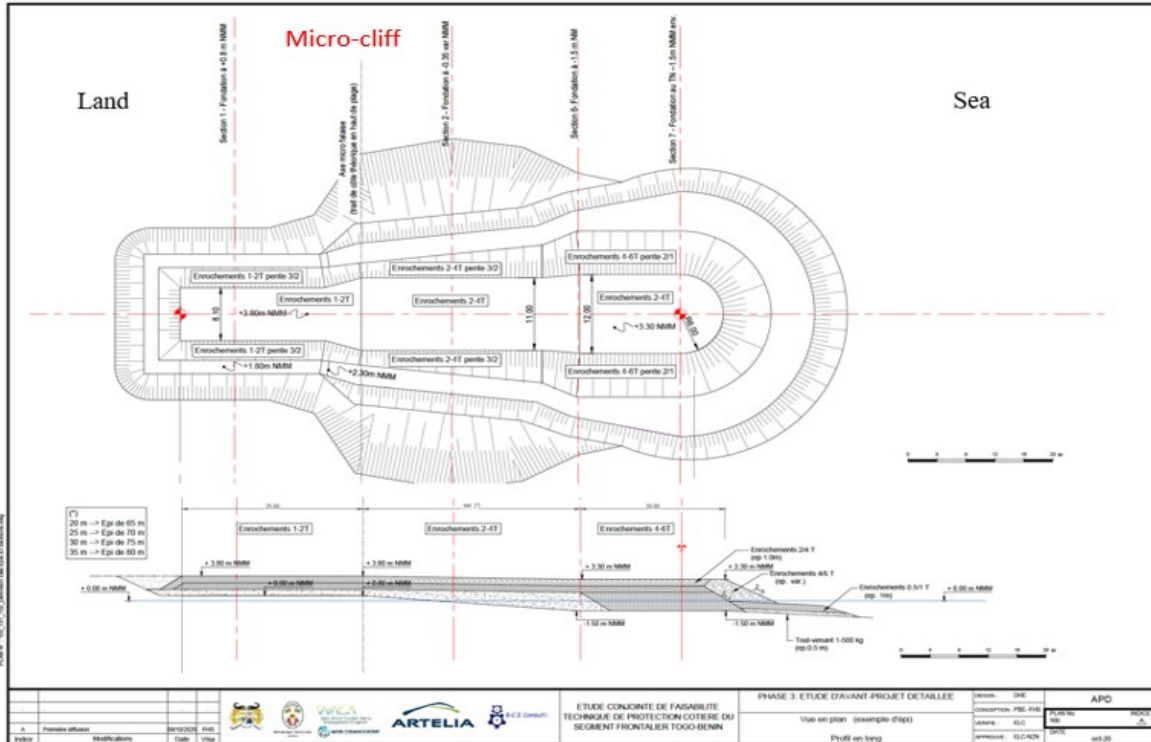


Figure 6 – Plan and cross-sectional view of a groyne<sup>134</sup>

107. The Panel notes that the modelling of future climate change risks in the detailed design phases was limited in scope to the short, 15-year design life of the Combined Works. This limited the consideration of the longer-term (over 15-year) risks (including sea level rise and storms) to the integrity of the small-scale beach recharge and groyne coastal protection structures.

108. The Panel notes that the feasibility studies indicate that sediment bypassing the Port of Lomé would mitigate some of the sediment deficit to the Project area for a longer time. The Panel was informed that the bypass is in the planning phase. The Panel also notes that the sediment bypass would improve sediment supply, potentially reducing the frequency of small beach recharges required after the Project is completed. The Panel notes that although the planned bypass would improve sediment supply and lessen erosion, it will not fully alleviate the risk of the coastal barrier retreating due to SLR and other climate change impacts over longer timescales, which present physical limits to adaptation.

### 3.1.4.2. Area of Influence and Impact of the Combined Measures on the Coast

109. The Panel notes that initial considerations of Project design included the area from Kpémé to the groyne farthest west at Aného (Area B in Figure 7, below). Earlier modelling and detailed design studies included rehabilitation of existing coastal engineering works in this area.<sup>135</sup> These communities were included in consultations during the feasibility and

<sup>134</sup> Artelia 2020b, p. 67. “Land” “Sea” and “Micro-cliff” are added by the Panel for ease of reference.

<sup>135</sup> Artelia 2020a-d. For example, Artelia 2020a, p. 85 and Artelia, 2020c, p. 50.

preliminary ESIA phases of the Project preparation<sup>136</sup> and are among the Requesters in this complaint. However, with the selection of scenario PK 2.8, the area from Kpémé to the groyne farthest west at Aneho, Area B, was no longer included and therefore not modelled.



Figure 7 –The Combined Works; Areas A and C are in variant PK 2.8, Area B is not part of the Project

110. The ESIA explained that Area B (Kpémé to the groyne farthest west at Aného) was omitted from the Project “to avoid the reduction of the bypass at Aného and not to intensify the erosion east of the mouth [of the lagoon].”<sup>137</sup> The ESIA also stated that scenario PK 2.8 provided an “optimal level of protection due to the more beneficial effect on strategic issues” compared to the other two options.<sup>138</sup>

111. The Panel observes that the Project did not consider the potential impact of groyne construction on the communities that live in Area B where the extent of erosion varies. Erosion updrift supplies sediment downdrift, meaning that erosion in the area of Agbodrafo is a source of sediment for beaches in Area B. The sediment input to Area B will diminish once construction is completed. The sediment loss from Area B will travel towards Benin. The Panel notes that the impact of this reduction in sediment supply to Area B was insufficiently analyzed in the detailed design report, although the risks of groynes was known to cause downdrift erosion.<sup>139</sup>

112. Exclusion of Area B from the Combined Works will increase the risks of erosion and flooding to the communities there. Residual erosion after the works at Agbodrafo and Aného are completed will be approximately 0.5 meters per year, whereas Area B’s beach width is expected to decrease “10 to 40 m[eters] in 15 years” (i.e., 0.67-2.67 meters per year) due to

<sup>136</sup> ESIA, p. 244.

<sup>137</sup> Ibid., p. 40.

<sup>138</sup> Ibid., p. 279.

<sup>139</sup> Artelia 2020d, p. 16.

erosion.<sup>140</sup> In addition to reduced beach width, this coastal area will see storm-related flooding move farther inland. The impact of the direct loss of sediment supply to Area B and its implications for community members and their assets was not addressed in the ESIA. Instead, it cited only significant change to beach morphology and erosion, but did not mention the possible adverse impact on the environment and livelihoods.<sup>141</sup>

113. Local authorities with whom the Panel met spoke about the effects of flooding and storms on their communities, and on recent changes in the wave climate. One said, “*during high tides the sea can go to the houses and into the bedrooms, this is not just during storms. This is because the sea has so much advanced.*” Community members in Kpémé and Goumou Kopé told the Panel that floods can reach many meters inland. Community members showed the Panel team water marks on walls more than 60 meters inland.

114. In summary, the Project analyzed various scenarios as protection measures and this initially led to the selection of three options for further study. According to the multicriteria analysis, the best two scenarios (S1 and S5) involved massive-beach-replenishment (soft options). Nevertheless, the Project did not consider S1 and S5 further and considered only combined hard and soft options as a resilience measure, even though these scenarios scored worse in the multicriteria analysis. The Panel received no information to explain this decision. Ultimately, the scenario implemented was neither selected in the feasibility studies nor modelled. The Panel was informed that the final scenario, analyzed in the ESIA, was chosen for cost reasons.

### 3.1.5. Panel Findings

115. The Panel considered whether the Project met the specific requirements of Bank Policy on Environmental Assessment (OP 4.01) to analyze alternatives and a no-project scenario. The Panel notes the Policy provides no requirements as to which alternative to select. **The Panel notes the two best options identified by the multicriteria analysis at the Phase 1 feasibility stage were not carried forward. However, the ESIA analyzed three alternatives and the no-project scenario. Therefore, the Panel finds Management is in compliance with OP 4.01, paragraph 2, and with OP 4.01 Annex B, paragraph 2(f).** OP 4.01 requires an analysis to compare feasible alternatives systematically but does not provide guidance on the alternative to select.

116. The Panel understands that massive beach replenishment scenarios was considered under the Phase 1 feasibility studies but was not taken forward, even though it scored better in the multicriteria analysis. The Panel notes that a massive-beach-replenishment scenario would have impacted beach seine fishing less (analyzed further in Chapter 5).

117. **The Panel observes that the Combined Works as described in the ESIA will curtail the longshore transport of sediment to the area from Kpémé to the groyne farthest west at Aného, causing increased erosion and flooding. The Panel finds that**

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<sup>140</sup> ESIA, p. 278.

<sup>141</sup> Ibid., p. 362: “*Modification of coastal morphodynamics and coastal erosion*” would be managed by carrying out “*a spatio-temporal monitoring of the evolution of the coastline on the cross-border segment.*”

Management did not ensure the ESIA adequately assessed the Project’s adverse impact on Area B and included no measures to mitigate this impact, which is in non-compliance with OP 4.01, paragraph 2.

### 3.2. The Emergency Protection Works (Gbodjomé to Agbodrafo)

118. This section covers the review of the Bank’s compliance with its policies and procedures in the design, approval, and implementation of the emergency measures designed for the segment of Gbodjomé and Agbodrafo (see Figure 8, below). It presents related allegations by the Requesters, Management’s Response, and the Panel’s observations and findings of compliance.

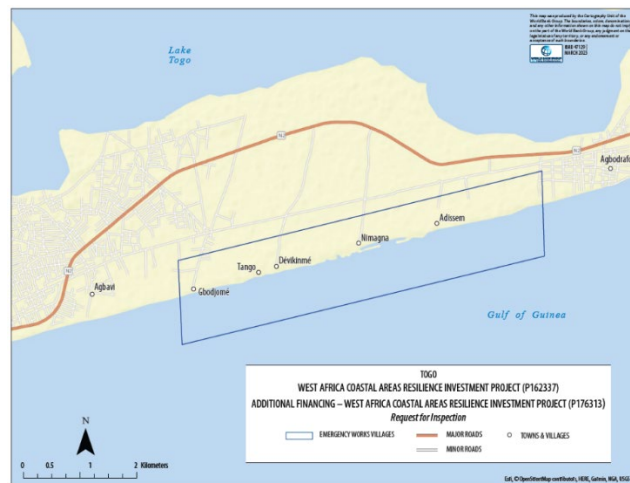


Figure 8 – Map showing the location of the Emergency Works

119. **Background and Context of the Emergency Works.** The seven-kilometer stretch of coast between Gbodjomé and Agbodrafo have had low sediment supply from the west since the construction of a large dam on the Volta River and the Port of Lomé, which severely curtail its supply and transport along the shore. The ESIA stated that the “*blocking of the sand by the harbour jetty has led to a rapid and dramatic erosion of the beaches to the east of the harbour. This erosion has progressed eastwards along the entire 40 km [kilometers] of coastline.*”<sup>142</sup> The barrier beach system is already narrowing due to sediment deficit.

120. This area is classified as having significant marine submersion (flooding) and erosion risks<sup>143</sup> and was thus a high priority location. It was considered part of the main project area during Phase 1-3 feasibility studies for the Project<sup>144</sup> but was not included in the detailed design study. Urgent action was therefore needed to improve the resilience of communities to rapid coastal erosion.

121. Well-developed plans for the Green Climate Fund (GCF) to finance the seven kilometers of groynes and sand recharge coastal protection works between Gbodjomé and

<sup>142</sup> ESIA, p. 168.

<sup>143</sup> Artelia 2020a, p. 21.

<sup>144</sup> Ibid, p. 85 and Artelia 2020c, p. 21.

Agbodrafo were prepared by late 2020. However, GCF decided to withdraw from funding groynes in this portion of coast since the planned GCF project ultimately failed to meet the GCF's climate change rationale and incremental cost reasoning. This created a funding gap for this stretch of coast with significant erosion rates. According to Bank staff, in late 2020, after GCF indicated it was not approving the funding, the Government of Togo asked the Bank to support the Emergency Works as a temporary and experimental measure.

### 3.2.1. Request for Inspection

122. The Requesters claimed that as a result of the Emergency Works, fishers had access to smaller areas of the beach, which reduced the landing space for their fishing boats, and rendered boat maneuvering and landing operations dangerous. They complained that the Project's concrete pipes had prevented and impeded artisanal fishing activities. They stated that in 2009 the residents had good access (“*about 400 meters*”) to the shore, but at the time of writing the Request, due to the advancing sea that affected houses and fields of coconut palms, they claimed to have access to only 20 meters.

123. They informed the Panel that fishers in different communities where the Emergency Works took place had suffered personal injuries from pipes stranded on the beach and from the pipe walls. Fishers claimed pipes were damaging boats, tearing nets, and increasing risk of injury to fishers and community members.

124. During the October 2021 visit, community members told the Panel that the contractor had not paid them wages for a period of time for the construction of the pipes. They said they could not fish and had lost income for which they were not compensated.

### 3.2.2. Management Response

125. According to the Response, the emergency measures to prevent further degradation of hotspots were supported by the Project's Component 3, which finances coastal investments, or subprojects, to protect vulnerable areas from coastal erosion and flooding.<sup>145</sup> The Management Response stated this followed community consultations held on March 10, 2020, in which the six sites – in the villages of Tango, Gbodjomé, Nimagna, Adissem, and Dévikinmé – were selected for emergency measures.<sup>146</sup>

126. Management maintained that no suspension of artisanal fishing has occurred for the civil works financed by this Project. It added that the “*faux puits*” in Gbodjomé were small-scale, emergency works intended to help retain beach sand behind the pipes and provide short-term protection to homes and assets against erosion until longer-term protective measures, such as groynes and beach nourishment, can be put in place. According to Management, these “*faux puits*” represented a rapid solution to provide immediate protection to houses and livelihoods where benefits outweigh risks.<sup>147</sup>

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<sup>145</sup> Management Response, p. 5, para. 16.

<sup>146</sup> Ibid., p. 13, para. 44.

<sup>147</sup> Ibid., Annex 1, p. 21.



127. Management stated that the Project will have no permanent, adverse effects on artisanal fishers and their livelihoods. Rather, just the opposite will occur, since the Project was helping prevent coastal erosion, and by so doing serving to secure access to the sea for artisanal fishers. It added that, although there were instances where Emergency Works or stored materials interfered with boat landing, those problems had been resolved; fishers had requested two 50-meter-wide corridors to land their boats for maintenance in Adissem.<sup>148</sup> A Social Audit was conducted in connection with the completion of the Emergency Works to assess any potential impacts from temporary access restrictions during construction works.<sup>149</sup>

128. Management explained that the local beneficiary communities participated in the site selection for the Emergency Works. It added that consultations were held on March 10, 2020, and included representatives of the PIU, the national environmental management agency ANGE (*Agence Nationale de Gestion de l'Environnement*), and local communities, which resulted in the selection of the six sites.

129. Management stated that the Project conducted an Environmental and Social screening with the support of ANGE to identify necessary environmental and social measures to be taken prior to installation of the pipes. These measures were incorporated as environmental health and safety clauses in the civil works contracts. Mitigation measures included the need for the contractor to maintain regular dialogue with fishers to avoid or minimize any interference with fishing activities, identify temporary alternative fishing boat landing sites where needed, establish a health and safety committee, provide workers with personal protective equipment (PPE), and secure the worksite during the civil works.<sup>150</sup>

130. Management's April 2022 Update stated that the Grievance Redress Mechanism was known to and accessible by communities in Adissem and other concerned villages – Nimagna, Dévikinmé 1 and Dévikinmé 2 and Gbodjomé. However, the Update noted that the village of Tango was not yet advised specifically about the existence of a place to register complaints.<sup>151</sup>

### **3.2.3. Bank Policies**

131. The policy relevant to this section, Bank Policy on Environmental Assessment (OP 4.01), requires that environmental assessment (EA) of projects proposed for Bank financing help ensure that they are environmentally sound and sustainable, thereby improving decision-making.<sup>152</sup> The Policy stipulates that the EA take into account, among others, human health and safety.<sup>153</sup>

132. It adds that an EA process consists of environmental screening to determine the appropriate extent and type of EA. The Bank classifies a proposed project as one of four categories, depending on its type, location, sensitivity, scale, and the nature and magnitude

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<sup>148</sup> Ibid., p. 9, para. 31, and p. 13, para. 45.

<sup>149</sup> Ibid., p. vi, para. viii.

<sup>150</sup> Ibid., Annex 1, pp. 21-22.

<sup>151</sup> Management Update, p. 3.

<sup>152</sup> OP 4.01, para. 1.

<sup>153</sup> Ibid., para. 3.

of its potential environmental impacts.<sup>154</sup> A proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. The EA Policy does not require consultation specifically for Category C projects. Beyond screening, no further EA action is required for a Category C project.<sup>155</sup>

### **3.2.4. Panel Analysis and Observations**

133. This section analyzes the Emergency Works' Environmental and Social screening, construction, and working conditions. It also assesses the grievance redress mechanism, which is made available to workers and community members to raise concerns relating to the impacts from these works.

#### **3.2.4.1. Environmental and Social Screening for the Emergency Works**

134. The Panel notes the Management Response provided some technical details describing the pipes installed in the six sites. The pipes are installed in stretches varying from 80 to 500 meters in length for a total of a noncontiguous 1.2 kilometers. They consist of locally precast, concrete rings. Each ring is approximately 150 centimeters in diameter, weighs 400 kilograms, and is installed upright on the beach (hence their resemblance to wells) in parallel rows to create a wall-like structure. They are anchored to the bedrock and filled with sand. Several rings are cemented together to make the pipe. The Panel notes that Management recognized they are not a long-term solution.

135. The Panel reviewed the Environmental and Social screening for the Emergency Works, which was conducted to assess any potential impact. The screening was based on field observations by the PIU and the engineer who designed the technology. The Panel notes that the screening stated that no land acquisition would be required for the construction of the Emergency Works. The screening considered the impact to the environment minimal, although a residual risk remained for the habitat of marine turtles. The other impacts identified were a minimal risk of cultural and archeological sites damage, a risk to the health and safety of workers and community members, and a risk of gender-based violence. Mitigation measures were designed to alleviate the health and safety risks.

136. The Panel notes the shortcomings in community input to the Environmental and Social screening process, since only two fishers and one community member (all men) were included.<sup>156</sup> The Panel notes Management reviewed the Environmental and Social screening and approved its classification as Category C, which meant that no further environmental assessment was required.

137. The Panel notes that key design aspects and their E&S impacts were not considered in the Environmental and Social screening. Such key aspects include i) the suitability of the pipes to withstand the waves and storms, ii) pipe maintenance, and iii) the decommissioning

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<sup>154</sup> Ibid., para. 8.

<sup>155</sup> Ibid., para. 8(c).

<sup>156</sup> Synoptic Table of environmental and social management of the emergency coastal protection subproject with the technique of juxtaposing wells in granulitic barrels ("Environmental Screening"), p.14.

of the pipes, since they were temporary. The Panel observes that the failure to consider these aspects may have led to the misclassification of the environmental categorization of the Emergency Works. The Panel also notes that the screening did not consider the loss of structural integrity of the pipes and the associated harm to fishers and their livelihoods from broken pipes, which is discussed in Chapter 5.

138. *Suitability to Withstand the Waves and Storms.* No assessment of the structural suitability and functioning of the concrete pipes as a coastal protection measure was undertaken. The PIU confirmed to the Panel that no study of technical feasibility was performed. The PIU informed the Panel that the concrete pipes had been used nearby in 2015, and were therefore deemed suitable as an emergency measure.

139. Panel interviews with Bank staff confirmed that no request for clarification or further analysis of the engineering suitability of the Emergency Works was made before the Bank approved the Environmental and Social screening. The Panel observes that earlier feasibility studies<sup>157</sup> showed that protection structures parallel to the shore, like seawalls, would not protect against beach erosion. Furthermore, the Phase 3 feasibility study for the Combined Works stated that pipes, as walls, “*will not adequately address the erosion problem.*”<sup>158</sup> This study deemed that rocks of four to six tons were required to withstand wave impact.<sup>159</sup> It added that “*the weight of the pipes is insufficient to guarantee hydraulic stability.*” The Panel notes that the analysis from the Phase 3 feasibility study was available to Bank staff during this time period. Such information was not considered during the review of the screening or the classification of the subproject as Category C.

140. *Pipe Maintenance.* In October 2021, the Panel observed the damage to the structural integrity of the Emergency Works was visible. In May 2022, within six months of pipe installation, the Panel noted that the damage to pipe integrity was evident at almost every site. Local residents said the pipes started breaking within three months of construction. Many had collapsed or were broken and their parts were transported onto the beach in the intertidal and subtidal zones (see Pictures 10 and 11, below) causing injuries and damage. The Panel observed broken pipes haphazardly scattered around the lower intertidal and near subtidal zones. These would periodically be buried or exposed as sediment moved with the waves, and the position of the loose pipes would shift, making it hard to avoid them, especially in rough weather.

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<sup>157</sup> EGIS, 2019. Climate Risks Assessment of Selected Sites in the Coastal Areas of Togo and Pre-Feasibility Studies of Adaptation Options, p. 257.

<sup>158</sup> Artelia 2020c, p. 33.

<sup>159</sup> Ibid.



Pictures 10 and 11 – Overturned and broken pipes in Dévikinmé, May 2022 (left) and Tango, November 2022 (right)

141. The Panel’s review of the Environmental and Social screening document indicated that no maintenance plan was included to address any structural failures of the pipes once constructed. Between the Panel’s visits in October 2021 and November 2022, the Panel observed broken pipes throughout the Emergency Works. The broken parts were scattered along the shore, and some were visible in the sea at low tide.

142. After submission of the Request, as part of its Response, Management commissioned a Social Audit (carried out in January 2022) to assess any potential impacts from temporary access restrictions. The Response indicated that any unintended impact from such restrictions “*will be compensated, as may be warranted.*”<sup>160</sup> The Panel reviewed the Social Audit conducted in connection with the Emergency Works to assess any potential impacts from temporary access restrictions. The Audit identified the “*loss or movement of pipe segments.*”<sup>161</sup> It reported that an accident had damaged a boat. During its visits, the Panel saw several damaged boats, torn nets, and injuries to fishers and swimmers.

143. Regarding securing the work sites, the Social Audit noted there were no safety markings in the western part of Adissem where pipes were being built. It stated that this exposed children, vulnerable people, and immediate residents to the risk of accidents – especially those related to the steep slope of the beach and height of the construction – and that this deserved corrective measures.<sup>162</sup>

144. A Maintenance Management Plan was developed by the end of May 2022. Management stated that this plan would be implemented for the duration needed and would require checking for broken pipes and confirming that safety signage remained in place. Management added that the PIU will continue its frequent field visits to monitor and confirm that implementation of the Maintenance Management Plan was adequate.<sup>163</sup>

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<sup>160</sup> Management Response, p. 13, para 46.

<sup>161</sup> World Bank. [Togo West Africa Coastal Areas Management Program \(WACA\) Resilience Investment Project \(ResIP, P162337\) - Social Audit of the Emergency Protection Sub-Project - Report of the Social Audit Mission](#), 2022. (“Social Audit”), Executive Summary, para. 8.

<sup>162</sup> *Ibid.*, p. 14.

<sup>163</sup> Management Update, p. 4.

145. The PIU informed the Panel that repair works occurred periodically as needed, using excavators. The PIU explained that they maintained the access corridors at Adissem, which the communities had requested, and provided safe access to the sea by removing broken pipes on the beach. Bank staff confirmed to the Panel that only the accessible broken pipes were removed with a caterpillar digger. The Panel was told that the remaining pipes, “*were left in the sea to breakdown and that at certain times of year they would be covered by sand.*” Community members noted during the Panel’s November 2022 visit that pipe maintenance had not occurred since the end of the stormy season (August/September).

146. During its November 2022 visit, the Panel noted that the pipe walls had deteriorated at every emergency site and that there were more stranded, broken pipes along the shore than during its visit in May 2022. The Panel asked Management and the PIU about the implementation of the Maintenance Management Plan and was told that no maintenance had taken place between May and November 2022 due to the strength of the waves.

147. Fishers with whom the Panel met at the Emergency Works sites during its visits said the stranded pipe parts damaged their boats, tore their nets, and delayed their departure from and return to the beach. The Panel notes that lack of maintenance will exacerbate the ongoing deterioration of pipe integrity, thereby elevating the risk of accidents and injury to community members.

148. *Decommissioning of the pipes.* Decommissioning is an important concern as long as the damaged pipes remain. Pipe parts have moved and continue to pose risks to fishers and their boats. The Environmental and Social screening did not specify how long the emergency measures would be in place. The Panel asked several Bank staff about the planned duration of the Emergency Works. The Panel initially received no clear timetable; staff said the measures would remain in place “*until alternative funding is secured*” to replace the GCF funding. During the Panel’s November 2022 visit, the PIU and Bank staff clarified that these measures have a three-year design life.

149. The Panel notes there was no consideration by the Project of the decommissioning phase and the harm that temporary pipes could cause fishers, their equipment, the wider community, and livelihoods. The Panel finds this to be a serious omission in the Environmental and Social screening since the emergency measures were temporary in nature, their decommissioning was expected, and that it should have been planned.

150. Bank staff and the PIU concurred that no decommissioning plan is in place. When asked about decommissioning, Bank staff said it will be incorporated in the funding of the groynes and beach recharge by the French Development Agency (AFD – *Agence Française de Développement*), and that feasibility studies for the relevant section of coast were underway. On December 22, 2022, Management informed the Panel that AFD approved its project, and an appraisal document would be disclosed. Management stated that the ESIA and RAP for the seven-kilometer stretch from Gbodjomé to Agbodrafo should be finalized in February 2023.<sup>164</sup> As of April 2022, the Panel was unaware of measures put in place to

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<sup>164</sup> Aide Mémoire, December 2022.

consider the decommissioning of these structures or the status of the aforementioned ESIA and RAP.

151. The Panel’s field observations in November 2022 also noted that, in parts of Adissem and Tango (see Pictures 12 and 13, below), the contractor had left many unused pipes.



Pictures 12 and 13 – Remaining and unused pipes in Adissem (left) and Tango (right), November 2022

### **3.2.4.2. Construction of the Emergency Works and Working Conditions**

152. As noted above, the emergency measures comprise pipes fabricated onsite starting in 2020, using community members as unskilled labor. Workers assembled the pipe walls, which were installed from February 2021 until unfavorable weather forced suspension of the works in May of that year.

153. The Panel notes that fishers claimed that during construction of the pipes, the beach was covered with hundreds of the 400-kilogram, concrete rings that impeded access to the sea (see Picture 14, below). The Social Audit stated that the Project provided job opportunities for community members during the construction phase.<sup>165</sup> Community members claimed that these jobs neither benefitted all of them nor alleviated the livelihood losses of those who were hired.

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<sup>165</sup> Social Audit, Executive Summary, para 6.



Picture 14 – Concrete rings stored on the beach in Adissem (October 2021)

154. *Unpaid Wages.* The Social Audit stated that the Project had significant, positive impact on the livelihoods of community members as a result of wages paid to workers largely recruited from the local, coastal communities and that this indirectly improved the local economy by increasing demand for goods and services.<sup>166</sup>

155. During its November 2022 visit, the Panel met with community members who discussed the construction of the pipes. One woman said she had been owed FCFA 32,200 (about USD 55.50), the equivalent of 2.5 weeks of work, since February 2022. When the Panel asked whether she had raised this through the GRM, she said she and others spoke with the village chief, who went to the contractor and was told that the Project had run out of money. The village chief then advised them to stop raising this issue out of fear that the contractor would leave. The women added that they feared being denied further work on the pipes if they complained about their unpaid wages.

156. Other women who worked on pipe construction told the Panel that “*the pay was low but stable.*” They added that initially each of them earned FCFA 1,600 (about USD 2.62) per day, which then increased to FCFA 3,500 (about USD 5.74 per day). However, many community members were not hired and were unable to make up lost fishing income by working on the construction of the Emergency Works. The Panel notes that workers signed an attendance sheet every morning and their working hours were recorded.

157. *Working Hours.* The Panel was told that workers were expected to work long hours. According to the women with whom the Panel spoke, typical workdays began at seven a.m. and ended at five p.m., sometimes later. These workers had a two-hour break around the turning of the tides. If the tides were favorable for construction, this break was shortened or cancelled completely. Sometimes they would construct pipes in the tidal zone in the dark or with meager lighting. A fisher told the Panel in Gbodjomé that he had to work late nights many times to meet the daily objectives.

158. *Working Conditions.* Community members explained to the Panel that the pipes were made of multiple rings piled atop each other and manually joined with cement. A woman told the Panel that the workers would roll each ring downhill to the beach while another team

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<sup>166</sup> Ibid., Executive Summary, para. 6.

would attempt to slow down its movement from the other side of the ring. They said, “*the pipes are very, very heavy.*” They explained that the process was dangerous, and the workers on the other side of the pipe risked being crushed by any loss of control. They said the pipe rings would sometimes gain momentum, making them difficult to stop, and they had to run out of their way. One person said, “*if you were here at the time of the work you would cry. We were not paid, we were hungry, and we had to keep working or else risk losing the job.*”

159. Women in Gbodjomé and Dévikinmé told the Panel that pipe rings were placed horizontally on the beach and they had to climb inside and dig the sand out by hand to sink the pipes deeper into the beach to strengthen the foundation. This was done with each ring on the bottom row and with every ring added on top. The Panel notes the height of each pipe, composed of several rings, could reach two meters. Throughout the process, the waves brought sand into the rings. A woman told the Panel, “*we were afraid when inside the pipes and the waves would come in.*” Women with whom the Panel spoke said that waves spilled into the enclosed interior of the pipes and that, once done with the foundation work, they had to push both their arms and legs against the inside of the pipes to climb out.

160. *Health and Safety Measures.* Community members who worked on the Emergency Works reported to the Panel that there were limited health and safety measures in place. Most of them said they performed their tasks without proper personal protection equipment (PPE), such as steel-toed footwear and appropriate gloves. They added that PPE was not supplied by the company; those who could afford it bought their own. They told the Panel that their working conditions were dangerous.

161. They also said there was no first aid officer on site most days. Some of them described to the Panel the injuries they or others had suffered from construction work. One man mentioned the case of a person who broke his leg and was taken to hospital by the contractor, who paid for the visit. However, further treatment costs were not covered. Some community members pitched in FCFA 1,000 (about USD 1.64) each to cover those treatments. Other testimony was similar; when an injury was serious, the contractor took the wounded worker to hospital for the initial visit, after which patients had to cover treatment costs themselves. Table 4, below, summarizes the injuries reported to the Panel.

Table 4 – List of Injuries Described to the Panel

<b>Injury</b>	<b>Description of Work/injury</b>	<b>Treatment</b>
<b>Nerve Damage Strains, Bruising</b>	A male worker fell backwards into a ring with one leg on the outside and was caught between two rings	He was taken to hospital by the contractor, had several sprains and a large blood clot, and has ongoing nerve pain that limits his ability to work
<b>Broken Leg</b>	A man informed the Panel of a person who suffered a broken leg from the rings	He was taken to hospital by the contractor, who paid for the visit, after which treatment costs went uncovered
<b>Crushed Shoulder</b>	As a rolling ring neared another already in position, workers supporting the rolling ring moved away and a male worker left to slow it was caught between both rings	He did not complain, fearing he would not get paid



<b>Foot/Ankle Injury</b>	A truck ran over the foot of a male worker	The Panel was not informed of any related treatment
<b>Small Finger Injury</b>	A male worker helping to place rings on top of each other lost the tip of the small finger of his left hand when it was caught between the rings	He was taken to hospital by the contractor
<b>Chronic Backpain</b>	A female worker has chronic backpain from working inside the pipes	The Panel was not informed of any related treatment

162. The Panel notes that Management reviewed the Environmental and Social screening and identified health and safety as an aspect requiring mitigation measures. Management recommended that a health and safety committee be formed. The Panel was informed that instead of a committee, a representative of the contractor was assigned to monitor health and safety during construction. The Environmental and Social screening required workers be provided PPE (vest, helmet, safety boots, and gloves) at the contractor’s expense. The contractor was to ensure that working hours were respected. The contractor was expected to enter into an agreement with the closest health center and provide a first aid kit at each site. In addition, the screening required the contractor to have workers’ insurance.

163. The Panel notes that the Social Audit confirmed there was no functioning health and safety committee at the worksites.<sup>167</sup> It also confirmed that “*instead of establishing the health and safety committee in the village, the contractor recruited a Health, Safety and Environment (HSE) specialist.*”<sup>168</sup> The Audit indicated that the contractor satisfactorily managed minor injuries that occurred. However, the Panel understands the Project did not record these. It noted that the Contractor had taken out an insurance policy.<sup>169</sup>

164. The Social Audit recommended that workers routinely wear appropriate PPE and the implementation of a weekly verification system. It recommended that the contractor draw up a checklist of health and safety needs before the start of the works and install medicine boxes to provide first aid in the event of a work-related injury.<sup>170</sup> It noted that the medicine box in Adissem was almost empty.<sup>171</sup> The Social Audit recommended that the Bank and the PIU monitor and supervise the implementation of the health and safety measures.<sup>172</sup>

165. The Panel notes that the Social Audit documented the poor health and safety conditions on the construction sites. It acknowledged the lack of PPE, the occurrence and non-documentation of injuries, and the insufficient availability of first aid equipment.

166. The Panel observes, however, that the Social Audit did not address the concerns of unpaid wages, work hours, or working conditions. The Social Audit recognized that the

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<sup>167</sup> Social Audit, Executive Summary, para. 10.

<sup>168</sup> Ibid.

<sup>169</sup> Ibid., p. 14.

<sup>170</sup> Ibid., p. 17.

<sup>171</sup> Ibid., p. 14.

<sup>172</sup> Ibid., p. 17.

Emergency Works pose short- and medium-term risks, even though the construction is completed.<sup>173</sup> The Panel observes that there is a continuing and increasing risk of accidents to children, vulnerable people, and nearby residents from stranded and broken pipes on the land, beach, and submerged areas. The Panel considers this a serious matter in the absence of adequate safety measures in the Emergency Works.

### **3.2.4.3. Grievance Redress Relating to the Emergency Works**

167. At the time of the Panel's October 2021 visit, community members at the Emergency Works sites said that if they wished to make a complaint, they would have to travel to Agbodrafo, which was too far and too costly a trip for some of them.

168. The Panel notes that in May and June 2021, the PIU learned of complaints regarding the Emergency Works.<sup>174</sup> The GRM initially did not cover the Emergency Works, but in October 2021, the PIU established and trained committees in the villages of the Emergency Works to make the GRM accessible. According to the PIU, six additional committees were established in November 2021.<sup>175</sup>

169. The Social Audit, in January 2022, stated that only the village of Tango did not receive specific information regarding the existence of a place to register complaints. The Social Audit recommended creating Grievance Committees (GCs) to which health and safety issues could be reported. It also recommended a wider information campaign to the beneficiary communities to improve access to and ensure their satisfaction with the GRM.<sup>176</sup>

170. The Social Audit added that, although complaint registration books were available at various Project locations, community members tended to make informal rather than formal complaints. According to the Social Audit, informal complaints were not reported to the PIU.<sup>177</sup>

171. Management's April 2022 Update stated that, as of April 11, 2022, GCs existed in each of the six Emergency Works sites and that the focal point of each GC conveyed complaints to the Project GRM, managed by the PIU.<sup>178</sup> It also reported that, given the high vulnerability of the coastline, there was need for continued management and repair of structures. The PIU informed the Panel it had employed and given phones to selected community members to report on damage to the pipes. During its May 2022 visit, the Panel met with two newly appointed focal points who confirmed they had been sending daily reports with pictures.

172. During the May 2022 visit, the Panel spoke with the representative of the local grievance committee in Adissem, who had reported complaints by fishers concerning three

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<sup>173</sup> Social Audit, p. 16.

<sup>174</sup> WACA Togo. WACA Environmental and Social Monitoring Report (ESMR), 2021 Second Quarterly Report, July 2021.

<sup>175</sup> WACA ESMR, 2022 Second Quarterly Report, August 2022.

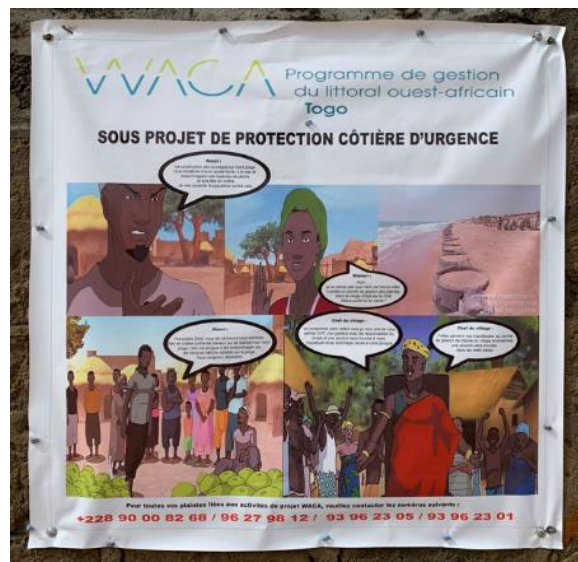
<sup>176</sup> Social Audit, Executive Summary, para. 9.

<sup>177</sup> Ibid., p. 13.

<sup>178</sup> Management Update, p. 3, footnote 1.

damaged boats. However, other fishers told the Panel they had not reported injuries, damage to boats and nets, or unpaid wages. The Panel notes that during subsequent visits it saw injuries to legs and feet (see Table 4, above). The Social Audit noted that some of these injuries and accidents had already been reported to the PIU or the GRM.

173. During the same visit, the Panel saw posters disclosing the existence of the GRM at Adissem, Dévikinmé and Gbodjomé (see Picture 15, below). The posters advised community members to raise their concerns with the village chief, who in turn would direct them to the GCs. The posters neither described the full GRM process or timelines nor informed the community about the other GRM levels. The posters are in French and not the local languages. Community members told the Panel that only the younger generation can read and write, and that most people at these sites do not speak French.



Picture 15 – Poster at Emergency Works disclosing the GRM

174. During the Panel’s November 2022 visit, workers injured during the construction and installation of the concrete pipes told the Panel they had not reported their injuries to the GRM at the time lest they lose their wages or jobs. The Panel reviewed the grievance records and could find no complaints about injuries submitted to the GRM. The Panel notes that the Social Audit also reported minor injuries at the construction sites that were not documented.<sup>179</sup> The Panel saw records concerning damaged boats.

175. The Panel recognizes the actions taken by Management to ensure expansion of the GRMs to cover the Emergency Works areas and their disclosure to the PAPs. The Panel notes that although it is good practice, GRMs were not required in Bank-supported projects for anything other than involuntary resettlement before the Bank’s Environmental and Social Framework became effective in October 2018. Hence, the Panel makes no finding on GRM in relation to the Emergency Works.

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<sup>179</sup> Social Audit, p. 14.

### 3.2.5. Panel Findings

176. The Panel notes that the environmental categorization of the Emergency Works as Category C means that, beyond screening, no further EA action is required. The Panel observes that the screening failed to identify key aspects or implications of the Emergency Works, including i) the suitability of the pipes to withstand the force of waves and storms, ii) pipe maintenance, and iii) the decommissioning of the pipes, given their three-year design life.

**177. On this basis, the Panel observes that Bank classification of the Emergency Works as Category C, which requires no further EA action, led to a lack of meaningful consultation and the absence of an appropriate environmental and social impact assessment of these Works. The Panel finds this classification is in non-compliance with OP 4.01, paragraph 8. As a result, the Panel finds Management failed to ensure the Emergency Works are environmentally sound and sustainable, which is in non-compliance with OP 4.01, paragraph 1.**

178. The Panel observes that during construction of the pipes the working conditions were hazardous and health and safety measures were lacking. The Social Audit acknowledged the weak health and safety measures and the occurrence of minor accidents. The Panel heard accounts of serious injuries to workers. The Panel observes that, as the pipes continue to break and the broken parts are left in situ, they pose a continuing risk of accidents to the immediate residents, including children. The Panel observes that safety measures around the Emergency Works are still needed. The Panel further observes that some workers claimed to have outstanding wages. **The Panel finds that the working conditions for the construction of the Emergency Works lacked adequate human health and safety considerations. This is in non-compliance with OP 4.01, paragraph 3.**

## Chapter 4 - Project Footprint Considerations and Involuntary Resettlement

179. This chapter examines the impact of the Combined Works on the land and livelihoods of the PAPs affected by resettlement and the associated RAP. The Project did not require land-take for the Emergency Works. This chapter also analyzes the minimization of resettlement and whether the objective of the involuntary resettlement policy to restore livelihoods is likely to be achieved. The economic displacement of the fishing community – including *mareyeuses*, fish transporters, and others in their associated value chain – is analyzed in Chapter 5.

### 4.1. The Footprint of the Combined Works

180. The Combined Works in Agbodrafo and Aného require a small, permanent land acquisition for the approximately 25-meter-long and 15- to 20-meter-wide anchor of each groyne. They also require the temporary acquisition of additional land for the storage of rocks and the maneuvering of the machinery used to construct and rehabilitate the groynes and breakwater.

#### 4.1.1. Request for Inspection

181. The Requesters were concerned about the involuntary resettlement process of the Combined Works from Agbodrafo to Aného, and the loss of their land. Their concerns related particularly to uncertainty as to who would be affected, the criteria for resettlement, and where PAPs were to be resettled.

182. Three PAPs in Adissem, in the Emergency Works area, told the Panel they were asked to dismantle their houses and leave their crops because their land would be used by the Project for passage and as storage areas for the concrete pipes.

#### 4.1.2. Management Response

183. In its Response, Management noted that a RAP covers impacts directly related to the construction of the groynes, as well as any related to the creation of a safety zone around these groynes.<sup>180</sup> Management also clarified that the RAP would require the Bank's no-objection before it was considered ready for implementation.<sup>181</sup>

184. The Response stated that any land acquisition, involuntary resettlement, or economic displacement required for the implementation of Project activities must be governed by the RPF and applicable Bank policy. It added that the civil works supported by the Project were not expected to require a significant amount of permanent physical or economic displacement.<sup>182</sup>

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<sup>180</sup> Management Response, p. 11, para. 37.

<sup>181</sup> Ibid., p. 15, para. 51.

<sup>182</sup> Ibid., p. 8, para. 25.

185. Management noted that the RAP for the coastal protection works in Agbodrafo and Aného was at that time still under preparation.<sup>183</sup> The Response stated that, as of then, the RAP was neither reviewed nor given a no-objection by the Bank, and that the Bank had asked the national expropriations committee (COMEX – *Comité d’Expropriations*) to “*stop all engagements and consultations until the Bank-cleared RAP is ready to be consulted upon.*”<sup>184</sup>

#### 4.1.3. Bank Policies

186. The applicable Bank policy, the Involuntary Resettlement (OP 4.12), states that involuntary resettlement may cause severe, long-term hardship, impoverishment, and environmental damage unless appropriate measures are carefully planned and carried out. For these reasons, an overall objective of this Policy is to avoid involuntary resettlement where feasible or to minimize it.<sup>185</sup>

#### 4.1.4. Panel Analysis and Observations

187. According to the PAD, resettlement policy frameworks were prepared and disclosed.<sup>186</sup> The PAD added that the infrastructure investments may require some limited land acquisition, which in turn might cause minor physical or economic resettlement. Since the design and exact locations of activities were unknown at the time of Project approval, RPFs were prepared for each country.<sup>187</sup> The RPF for Togo was disclosed on November 30, 2017.<sup>188</sup> The Project required that resettlement action plans be prepared in accordance with that RPF.

188. Regarding the claims that PAPs were asked to dismantle three houses and leave their crops for the Emergency Works, one of the local authorities informed the Panel that these houses were in the right-of-way of a municipal road and that this matter was unrelated to the Project. During its November 2022 visit, the Panel observed that the houses were no longer there. The RAP did not cover the Emergency Works area including Adissem. The Panel notes that the municipal road project is not related to this Project and therefore the Panel did not investigate it further.

189. **Minimization of Resettlement.** The land portion of a groyne is a 25-meter-long anchor running inland from the micro-cliff.<sup>189</sup> In addition, ground works are needed at the head of each groyne. The micro-cliff is a key marker for these physical structures; it is the point from which the extent of land-take is determined. Hence, it is important for the RAP process.

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<sup>183</sup> Ibid., p. 6, para. 19.

<sup>184</sup> Ibid., p. 10, para. 32.

<sup>185</sup> Bank Policy on Involuntary Resettlement (OP 4.12), para. 2.

<sup>186</sup> PAD, p. 50, para. 98.

<sup>187</sup> Ibid., p. 60, para. 125.

<sup>188</sup> Management Response, p. 6, para. 19.

<sup>189</sup> Resettlement Action Plan (RAP), *Programme de gestion du Littoral Ouest Africain (WACA), Plan d’Action de Réinstallation (PAR) des Travaux de Protection Côtière d’Agbodrafo et Aného (Togo), Rapport Final, Version Révisée*, Décembre 2022 (December 2022 RAP), p. 41.

190. The Panel reviewed four versions of the RAP, which are dated December 2021, April 2022, June 2022 and December 2022 (see Figure 9, below).

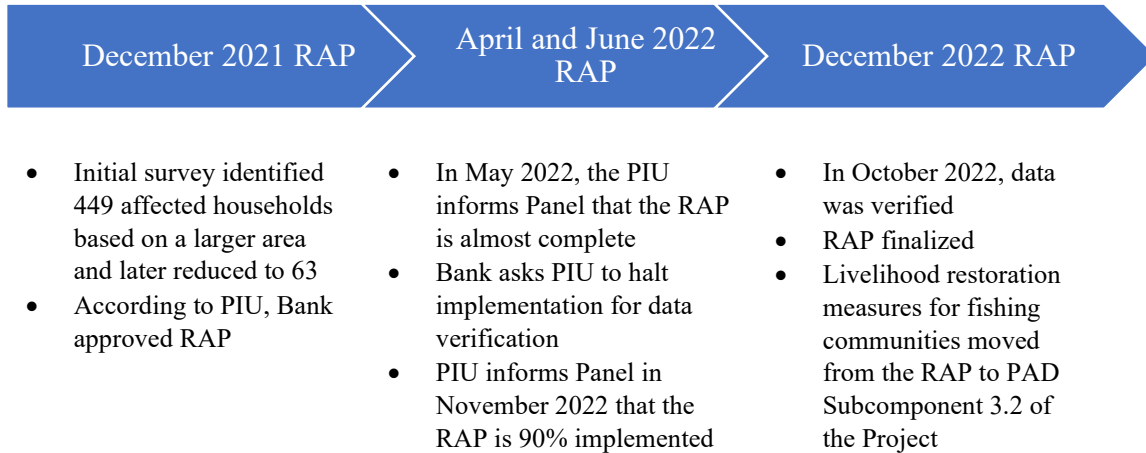


Figure 9 – Timeline of RAP preparation and implementation process (simplified)

191. The Panel notes that during its visits of October 2021 and May 2022, several community members had expressed concerns about markings on their structures. Several houses and structures had “WT” (WACA Togo) painted in red on them while others had the red “WT” mark overwritten by a white “X.” Still other structures had a red arrow. The different markings were confusing to the community members. The Panel also notes Management’s clarification that the marking of houses described in the Request was unrelated to the Project, that the Resettlement processes for the Project had not yet started, and the RAP was not yet reviewed or cleared.<sup>190</sup>

192. The December 2021 RAP stated that, following a change in the Project area, the number of affected households dropped from 449 to 63.<sup>191</sup> The June 2022 version of the RAP divided the affected area into two zones: i) the impact zone, where land and assets were directly affected (the yellow portion left of the vertical red line in Figure 10, below) and ii) the influence zone, where disturbance from noise and dust would be felt and where safety measures could be needed (the green portion left of the vertical red line in Figure 10, below).<sup>192</sup>

<sup>190</sup> Management Response, Annex 1, pp. 24-25.

<sup>191</sup> Resettlement Action Plan (RAP), *Programme de gestion du Littoral Ouest Africain (WACA), Plan d’Action de Réinstallation (PAR) des Travaux de Protection Côtière d’Agbodrafo et Aného (Togo), Rapport Final*, Décembre 2021 (December 2021 RAP), Executive Summary, p. 30.

<sup>192</sup> Resettlement Action Plan (RAP), *Programme de gestion du Littoral Ouest Africain (WACA), Plan d’Action de Réinstallation (PAR) des Travaux de Protection Côtière d’Agbodrafo et Aného (Togo), Rapport Final*, Juin 2022 (June 2022 RAP), p. 52.

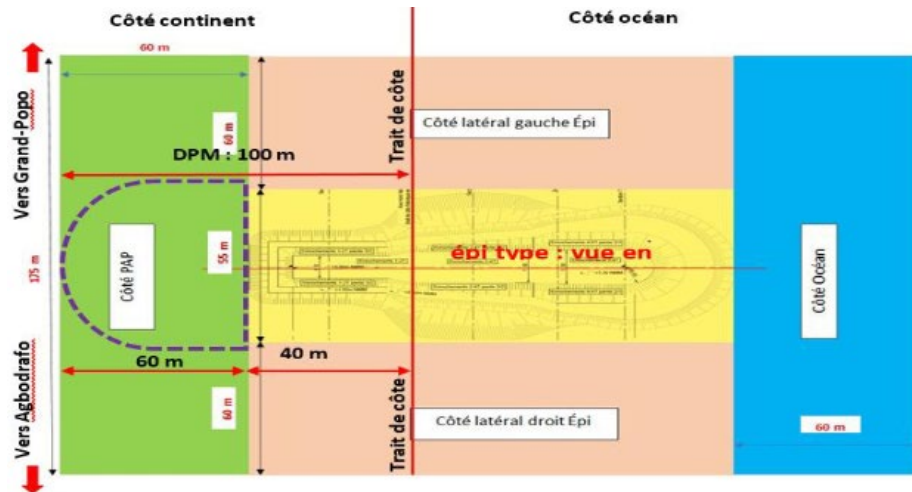


Figure 10 – Affected area (left of the red vertical “*Trait de côte*” line)<sup>193</sup>

193. According to the December 2022 version of the RAP, the affected areas were described as having either permanent or temporary impact. Land acquisition was required either permanently (for the location of the seven new and extension of the six pre-existing groynes and a breakwater) or temporarily (for the storage of rocks and machinery and for the maneuvering of same during construction).<sup>194</sup> Beach nourishment activities would not require land acquisition or create economic displacement.<sup>195</sup> However, the rehabilitation works would require extending the pre-existing groynes inland by at least 10 meters each (with the exception of groyne TO 73, which required a longer extension).<sup>196</sup>

194. The December 2022 RAP identified seven temporary areas for rock storage and two for mechanical workshops.<sup>197</sup> Three of the rock storage zones were in Aného (adjacent to groynes EX 10, TO 74, and TO 72) and four in Agbodrafo (two adjacent to groynes TO 46 and TO 49, and two close to groynes TO 51 and TO 52). The workshops were located in Aného near the breakwater and in Agbodrafo close to groyne TO 49.<sup>198</sup> Figure 11, below, shows groyne TO 49, which requires permanent land acquisition (delineated in blue), the rock storage area T6B (delineated in red), and the mechanical workshop area T6A (delineated in orange), which is in the permanently impacted area.

<sup>193</sup> Ibid., p. 78.

<sup>194</sup> December 2022 RAP, p. 76.

<sup>195</sup> Ibid., p. 30.

<sup>196</sup> Ibid., p. 43.

<sup>197</sup> Ibid., p. 76.

<sup>198</sup> Ibid., p. 43.



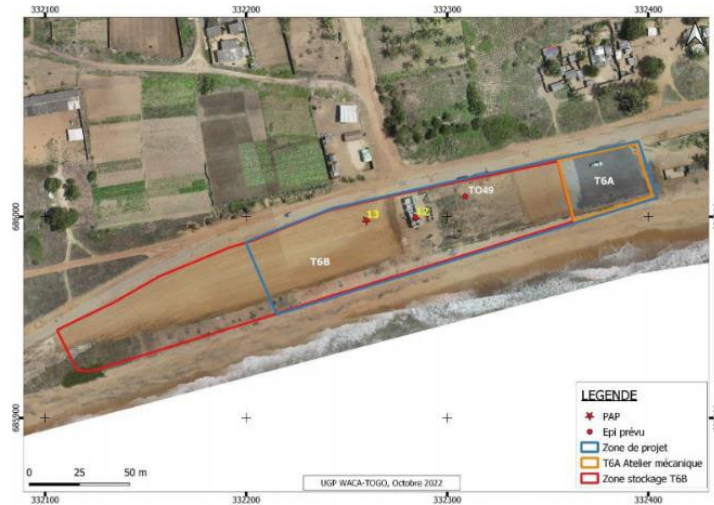


Figure 11 – Aerial capture of T6B, TO 49, and T6A, October 2022<sup>199</sup>

195. The Panel observes that the reduced number of households followed a change in the Project footprint. The Panel notes that the June 2022 RAP specifically stated that it was developed to minimize involuntary resettlement by studying all possible options within the framework of the Combined Works. The June 2022 RAP added that the resettlement requirements reflected the smaller footprint.<sup>200</sup>

196. The Panel observes that the December 2022 RAP stated that it was designed to minimize involuntary resettlement by exploring all possible alternatives in the context of the protection works.<sup>201</sup> The December 2022 RAP mentioned that the census was further updated in June and October 2022, following final confirmation of the Project’s area of impact to include the rock storage area and the mechanical workshop, and other mobilization sites not included in the original RAP.<sup>202</sup> This final confirmation aimed at considerably limiting resettlement by reducing the impact area to that which was “*strictly necessary*” for the construction works relating to groynes TO 46, TO 47, TO 48, and TO 52.<sup>203</sup> The census identified 60 affected households and four “*collective entities*.”<sup>204</sup> The affected households included nine women-led households and 51 men-led households and four collective entities. Including the number of dependents (237) the total number of PAPs amounted to 301.<sup>205</sup>

197. **Moving Baseline.** Construction time in Benin and Togo is estimated to take 19 months in total. The Panel notes that construction is moving westward (from groyne EX 12 in Aného to TO 46 in Agbodrafo), since the Project will rehabilitate or build one groyne at a time. Each groyne constructed progressed through preparatory phases including 1) clearance of the site and preparation of rock storage areas, 2) collection of drone data to allow accurate positioning of the groyne anchors at the micro-cliff, and 3) storage of the rocks to be used.

<sup>199</sup> Ibid., p. 62.

<sup>200</sup> June 2022 RAP, Executive Summary, pp. 32-33.

<sup>201</sup> December 2022 RAP, Executive Summary, p. 30.

<sup>202</sup> Ibid., p. 31.

<sup>203</sup> Ibid., p. 78.

<sup>204</sup> Ibid., Executive Summary, p. 33.

<sup>205</sup> Ibid., p. 31.

198. By February 15, 2023, the preparatory works had been completed and construction in Togo had commenced rehabilitation of groynes and the breakwater in Aného. Management informed the Panel that 16 days of work were required to complete a groyne. Feasibility studies stated that the breakwater rehabilitation would take 60 days. Bank staff informed the Panel that the Combined Works construction might need to be paused during the stormy period (June-August), when rough weather and sea conditions limit work. If this happens, some of the preparatory works may have to be redone and the RAP updated accordingly if newly affected people are identified by the shifting geophysical baseline. The markers and coordinates required in the preparation of the RAP included the coastline and micro-cliff boundary between land and beach. In an eroding landscape such as is found in this area, these markers and coordinates are dynamic and not geographically fixed.

199. The Panel notes that coastal erosion is ongoing. The Panel observes that the groynes may need to be repositioned further inland depending on the degree of that erosion. This may require additional land-take. The Panel notes, however, that this risk is lessened where the sediment of the micro-cliff is composed of stronger, consolidated materials such as where the old road ran. This is not the case in the rest of the areas, where the micro-cliff is composed of unconsolidated sand; in these areas the risk of erosion is greater.

200. The Panel team observed that changes had occurred in the micro-cliff line and erosion between its visits in May 2022 and November 2022. This clearly indicates the moving geophysical baseline in the Project area. The context of the moving baseline, even if limited to a few meters of erosion, has potential implications for the Project's footprint. The Panel notes that the detailed design report takes this into account by specifying that "*layouts will be adapted during the execution phases, a tolerance of ~20 m [approximately 20 meters] along the coastline can be made in order to take into account the evolution of the beach and the presence of issues behind the structures.*"<sup>206</sup>

201. The Panel inquired about the ability to adapt the RAP to the potentially evolving reality at the time of construction. The Panel recognizes that the technical experts involved in the Project (including on Management's side) were aware of this risk. Bank staff informed the Panel that repositioning the groynes by one or two meters in an east-west direction along the coast is possible. Staff told the Panel that this had already been done for TO 47, which was relocated slightly to the east to avoid a cemetery (see Figure 12, below). During discussions, the contracting engineers informed the Panel that the groynes would have to be repositioned at the time of construction if erosion had taken place. The Panel observes that this factor was not specifically considered in the RAP, although the RAP provided for a comprehensive and participatory audit of all impacts once RAP implementation was completed.<sup>207</sup>

202. The Panel also observes that the moving geophysical baseline is of particular concern at groyne TO 47, where a school building is located. The school has two playgrounds – one in front of the building, which is facing inland, and another behind it, on the coast. The latter

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<sup>206</sup> Artelia 2020d, p. 52.

<sup>207</sup> December 2022 RAP, p. 148.

was taken for TO 47. Construction is planned in a way to avoid relocating the school, including building a wall between it and the groyne, but potential construction delays and the moving baseline may ultimately necessitate adjustments that could affect the school (see Figure 12, below).



Figure 12 – Aerial capture shows the placing of groyne TO47 in relation to the school<sup>208</sup>

#### 4.1.5. Panel Findings

203. **The Panel finds that, in the context of this resettlement, several survey confirmation exercises were undertaken between May 2021 and October 2022 in order to ensure that the Project area was limited to that which was strictly necessary for groyne construction, which minimized resettlement. The Panel finds Management is in compliance with OP 4.12, paragraph 2(a).**

204. The Panel notes that coastal erosion is ongoing. The Panel observes that the longer it takes to construct the groynes, the greater the risk that the geophysical baseline will move inland. The Panel notes however that this risk is lower where the sediment of the micro-cliff is composed of stronger, consolidated materials, such as where the old highway ran. This is not the case in the rest of the areas, where the micro-cliff is composed of unconsolidated sand; in these areas the risk of erosion is greater and could go deeper inland.

#### 4.2. Livelihood Restoration

205. To assess the Bank’s compliance vis-à-vis the Requesters’ claims relating to compensation and livelihood restoration, the Panel analyzed the resettlement process in terms of eligibility criteria, the entitlement matrix, and the socioeconomic baseline.

<sup>208</sup> Ibid., p. 60. “Cemetery” and “school” added by the Panel for ease of reference.

#### **4.2.1. Request for Inspection**

206. The Requesters alleged that certain houses had been marked for resettlement without explanation. They claimed that some PAPs have long held titles to the properties they were being told to vacate. The Requesters believed they will not be adequately compensated for any potential loss of dwelling or land caused by this process.

#### **4.2.2. Management Response**

207. Management stated in its Response that the final version of the RAP would contain the results of a census survey covering (i) current occupants of the affected area, (ii) characteristics of displaced households, including a description of production systems, labor, and household organization, and baseline information on livelihoods (including, as relevant, production levels and income derived from both formal and informal economic activities) and standards of living, (iii) the magnitude of the expected partial or total loss of assets, and the extent of physical or economic displacement, (iv) information on vulnerable groups or persons, for whom special provisions may have to be made, (v) provisions to update information on the displaced people's livelihoods and standards of living at regular intervals, and (vi) land tenure rights.<sup>209</sup> According to the Response, in October 2021, the initial consultations carried out by the Borrower had stopped at the Bank's request until the Bank-cleared RAP was ready for consultation.<sup>210</sup>

208. Management stated, at the time of its Response, that once the surveys were finalized, the PAPs would be consulted as part of the larger RAP consultation process. Any person or household affected by the implementation of the civil works must agree to the compensation package, and their satisfaction with the compensation measures would be confirmed as part of the RAP completion report.<sup>211</sup> In addition to cash compensation, the RAP would also clearly describe any additional measures, such as transitional income support and livelihood restoration plans, that may also be offered to eligible Project-affected people.<sup>212</sup>

#### **4.2.3. Bank Policies**

209. The applicable Bank policy is that on Involuntary Resettlement (OP 4.12), which states that involuntary resettlement may cause severe, long-term hardship, impoverishment, and environmental damage unless appropriate measures are carefully planned and carried out. For these reasons, the overall objectives of this Policy are i) to avoid involuntary resettlement where feasible or minimize it, ii) to conceive and execute resettlement activities as sustainable development programs, and iii) to assist displaced persons in their efforts to improve their livelihoods and standards of living or at least to restore them.<sup>213</sup>

210. The Policy adds that after identifying the need for involuntary resettlement, the borrower carries out a census to identify the persons who will be affected and to determine

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<sup>209</sup> Management Response, Annex 1, p. 24.

<sup>210</sup> Ibid., p. 15, para. 51.

<sup>211</sup> Ibid., pp. 15-16, paras. 51-52.

<sup>212</sup> Ibid., Annex 1, p. 24.

<sup>213</sup> OP 4.12, para. 2.

who will be eligible for assistance.<sup>214</sup> According to the Policy, the results of the census cover, among others, (i) current occupants of the affected area, (ii) a description of their production systems and baseline information on livelihoods and standards of living, (iii) the magnitude of the expected partial or total loss of assets and the extent of physical or economic displacement, and (iv) information on vulnerable persons for whom special provisions may have to be made.<sup>215</sup>

211. It adds that the displaced are to be (i) offered support after displacement, for a transition period, based on a reasonable estimate of the time likely needed to restore their livelihoods and standards of living, and (ii) provided with development assistance in addition to compensation measures, such as credit facilities, training, or job opportunities.<sup>216</sup>

212. Furthermore, the Policy requires particular attention be paid to the needs of vulnerable groups among those displaced, especially those living below the poverty line, the landless, the elderly, women, children, or other displaced persons who may not be protected through national land compensation legislation.<sup>217</sup>

213. Where the project zone of impact cannot be determined, or the zone of impact is known but precise sitting alignments cannot be determined, OP 4.12 stipulates that the borrower submit a resettlement policy framework. For each subproject that may involve resettlement, the Bank requires that a satisfactory resettlement plan, consistent with the provisions of the policy framework, be submitted to the Bank for approval before the subproject is accepted for Bank financing.<sup>218</sup>

#### **4.2.4. Panel Analysis and Observations**

214. To consider the Requesters' claim that they will not be able to restore their livelihoods, the Panel reviewed the PAP eligibility criteria, the socioeconomic survey used to identify household composition, impacted PAPs, and dependents – including vulnerable PAPs – and their sources of formal and informal income.

215. *PAP Eligibility for Compensation.* All RAPs listed the same three categories of PAPs eligible for compensation: i) those holding a formal right to the land or assets (including customary and traditional rights), ii) those having no formal right to the land or assets at the time the census begins (before the cutoff date), provided that such claims are recognized under national laws or become recognized through a process identified in the RAP, and iii) those without formal rights or recognizable titles to the land or assets before the cutoff date, including people affected by economic displacement or impact on their incomes or loss of revenue.<sup>219</sup>

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<sup>214</sup> Ibid., para. 14.

<sup>215</sup> OP 4.12, Annex A, Involuntary Resettlement Instruments, para. 6(a).

<sup>216</sup> OP 4.12, para. 6(c).

<sup>217</sup> Ibid., para. 8.

<sup>218</sup> Ibid., para. 29.

<sup>219</sup> December 2022 RAP, Executive Summary, p. 32.

216. The Panel notes that a socioeconomic census was conducted to collect data regarding the PAPs, their impacted assets, and their main sources of income.<sup>220</sup> The Panel also notes that according to the December 2022 RAP, which is a significant improvement over the June 2022 RAP, the survey was exhaustive and systematically counted the property of each affected family.<sup>221</sup> It considered assets on the site and affected by the Project – land, plantations, buildings for dwellings, craftsmen’s workshops, community facilities, etc. The survey methodology was based on a participatory approach that favored interactive interviews with PAPs. The December 2022 RAP recognized that many PAPs have several occupations, some of which are informal.<sup>222</sup> According to the RAP, the data was successively updated until October 2022 with the participation of COMEX,<sup>223</sup> which is responsible for paying compensation for land and assets expropriated for public use.<sup>224</sup>

217. The Panel observes that data concerning dependents is incomplete in all RAPs. The verification process identified additional sources of income, albeit without completely describing them. For many resettled PAPs the socioeconomic data only stated that the additional affected occupation is “*not described*” and a lump sum payment of one minimum salary was attributed to each PAP. The Panel notes the main sources of income are described in the December 2022 RAP.

218. Both the June and December 2022 RAPs identified 11 vulnerable persons (nine women and two men) among PAP heads of households and 21 other vulnerable persons among dependents. The list includes 17 elderly persons, three with a mobility disability and one with mental health issues.<sup>225</sup> The December 2022 RAP reiterated that the criteria for vulnerable persons in the RPF was to include:

- households headed by women,
- households whose heads of family are destitute or almost destitute,
- widows and orphans in precarious socioeconomic situations,
- senior citizens whose monthly income is below the minimum wage,
- people living with a physical or mental disability, and
- sick people, particularly those suffering from HIV/AIDS or other serious or incurable illnesses.<sup>226</sup>

219. The Panel notes that Bank policy requires considering as vulnerable, among others, the landless, those living below the poverty line, the elderly, women, and children. The Panel notes that the elderly, women-led households, and persons with a physical or mental

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<sup>220</sup> Ibid., pp. 30-31.

<sup>221</sup> Ibid., p. 74.

<sup>222</sup> Ibid., Executive Summary, p. 33.

<sup>223</sup> Ibid., p. 75.

<sup>224</sup> COMEX’s mandate is to negotiate with PAPs, make compensation payments, and document the compensation process. COMEX also has a mechanism to receive and process complaints or appeals regarding the eligibility and valuation of assets. See December 2022 RAP, Executive Summary, p. 31.

<sup>225</sup> June 2022 RAP, Executive Summary, p. 35 and December 2022 RAP, Executive Summary, p. 34.

Elsewhere the December 2022 RAP contradicts itself, stating that the 11 vulnerable PAP heads of households are six women and five men (December 2022 RAP, p. 125).

<sup>226</sup> December 2022 RAP, Executive Summary, pp. 33-34.

disability were identified as vulnerable and the entitlement matrix shows that additional compensation of FCFA 95,000 (about USD 156) was provided. The Panel notes, however, that even though landless people and people living below the poverty line have been identified in the socioeconomic data, there is no evidence that an analysis of their vulnerability was conducted to determine whether they would be entitled to vulnerability compensation. The Panel observes that the December 2022 RAP:

- identified seven of 60 PAP heads of households as holding formal or recognizable rights to land; hence, 53 heads of households lack such rights.<sup>227</sup>
- identified five PAP heads of households (all men-led) earning FCFA 0-1,000 per day (about USD 0-1.64) and 12 households (four women- and eight men-led) earning FCFA 1,001-2,000 (about USD 1.65-3.28).<sup>228</sup> The Panel notes that the Bank estimates the global poverty line to be USD 2.15 per day for low-income countries,<sup>229</sup> equivalent to about FCFA 1,320 per day. Per this RAP at least five of these 17 heads of households earn less than FCFA 1,320 per day.

220. One PAP household with whom the Panel met was composed of four adults (two sisters, a brother, and their uncle). The house was owned by the uncle, who signed the COMEX agreement. The other three family members lived there rent-free, and had separate sources of income. At the time of the Panel's November 2022 visit, they were temporarily staying rent-free at another relative's house, and indicated they had to find another place to live permanently. The Panel notes that the RAP stipulates that a FCFA 60,000 (about USD 98.50) per month transitional allowance for rent can be afforded to eligible PAPs.<sup>230</sup>

221. The two sisters, both of older age, were *mareyeuses* who smoked fish using clay-and-steel smokehouses in their home, an income stream that was not identified in the socioeconomic data. They told the Panel they dismantled the smokehouses when COMEX told them to leave the house after their uncle signed the agreement. However, the steel was too rusty to move and, as a result, the sisters lost their smokehouses and with them their main source of income. The Panel observed that the sisters used to live by the beach and after resettlement, they were farther in-land. One of the sisters said that their permanent location was likely to be even further away, making it harder to walk longer distances while carrying the fish.

222. The sisters said they were not asked to sign any agreement and that only their uncle, as head of household, received compensation; they did not receive compensation for loss of source of income, transitional allowance, and rent allowance as identified in the December 2022 RAP.<sup>231</sup> Their uncle showed the Panel the COMEX agreement, which did not include the dependents and any compensation owed to them.

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<sup>227</sup> Ibid., p. 100.

<sup>228</sup> Ibid., Table 8, pp. 98-99.

<sup>229</sup> See Open Data World Bank. [Understanding Poverty Open Data](#).

<sup>230</sup> December 2022 RAP, p. 125.

<sup>231</sup> Ibid., Table 4, pp. 81-95.

223. According to the RAP, PAPs would be resettled where they could legally continue their occupations and would receive legal support to identify similar or equivalent land near those occupations.<sup>232</sup> The Panel notes that such a scenario is not being applied to the *mareyeuses* who conduct their economic activities from home. Most often, as in this case, the smokehouses of the resettled *mareyeuses* are not considered businesses that could be legally reestablished at another location. The Panel notes that the artisanal fishing sector and its associated value chain activities is largely unregulated.

224. *RAP Implementation.* The Panel notes that, during its May 2022 visit, it learned COMEX had signed agreements with 41 heads of households. These agreements were based on the entitlement matrix from the December 2021 RAP, which was not yet cleared by the Bank. During that same visit the Bank informed the Panel that the data would require verification and that the RAP was not yet finalized. In November 2022, the Panel learned that implementation continued and the RAP was about 90 percent implemented although it was not yet cleared by the Bank.

225. During the Panel's visit in November 2022, PAPs explained they had been given copies of compensation agreements describing their affected assets, their valuation calculation, and amounts being paid. These agreements were signed by the PAPs and COMEX, all of whom were said to have copies; the Panel saw some. It is unclear to the Panel whether these agreements were updated with the verified data included in the December 2022 RAP.

226. The Panel notes that, in December 2022, Management reported that the PIU raised concerns about the difficulties relating to COMEX implementation of the RAP, especially regarding measures required by the RAP that were not covered in national regulations.<sup>233</sup>

227. The Panel observes that RAP implementation based on incomplete data could result in PAPs not receiving their full entitlements. Furthermore, without a complete socioeconomic baseline, such RAPs cannot be used to establish whether livelihood restoration is achieved. Therefore, it is important to ensure that the implementation of a RAP occur only after it has been adequately reviewed and cleared by the Bank.

228. The Panel notes that, according to the RAP, the PIU will conduct a comprehensive and participatory audit of all impacts – including those relating to fishing and to the *mareyeuses* – three months after completion of the works and before Project closure.<sup>234</sup> Moreover, the Panel notes that the December 2022 Aide Mémoire recognized gaps between Bank policy requirements and national requirements. It added that in order to reduce such gaps, COMEX would be involved in RAP preparation and that measures not covered by national legislation would be covered by the Bank financing as required by the RPF.<sup>235</sup>

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<sup>232</sup> Ibid., Table 11, pp. 105-111.

<sup>233</sup> Aide Mémoire, December 2022.

<sup>234</sup> December 2022 RAP, p. 134.

<sup>235</sup> Aide Mémoire, December 2022.



#### 4.2.5. Panel Findings

229. The Panel finds that not all PAP characteristics of vulnerability identified in the socioeconomic data were considered for compensation. The Panel also finds no evidence that a vulnerability analysis was conducted which would have considered landless people and people living below the poverty line as part of this analysis. **The Panel finds Management is not in compliance with OP 4.12, paragraph 8.**

230. Furthermore, the Panel finds that the socioeconomic data did not take into consideration some income streams, such as that of the *mareyeuses* whose economic activities are homebased. The Panel finds that the verified socioeconomic data failed to describe the production systems and livelihoods of the *mareyeuses*, some of which are based on operating smokehouses. This meant they were not compensated for the expected losses related to their occupation. In addition, the Panel finds that some displaced PAPs were not provided transitional support, including rent allowance, to enable them to restore their livelihoods and standards of living. **The Panel finds that not all PAPs were provided sufficient support to improve their livelihoods and standards of living or at least to restore them. The Panel finds Management is in non-compliance with OP 4.12, paragraph 2(c) and paragraph 6(c)(i).**

231. **The Panel finds that by the time the December 2022 RAP was reviewed and approved, the implementation of the previous RAP was essentially 90 percent complete. The Panel finds Management was not in compliance with OP 4.12, paragraph 29, for not having ensured that the satisfactory RAP was submitted for approval prior to acceptance of the works for Bank financing and therefore before RAP implementation.**

232. The Panel finds it encouraging that three months after completion of the works the PIU will conduct a comprehensive and participatory audit of the RAP implementation to identify all impacts of resettlement and implement mitigation measures, and additional compensation as needed.<sup>236</sup> The Panel is also encouraged that Bank financing will cover gaps identified between Bank policy requirements and national requirements, as required by the RPF.<sup>237</sup>

#### 4.3. PAPs Participation in Resettlement and GRM

233. This section discusses the PAPs' consultation and opportunity to participate in the preparation and implementation of the RAP, as well as the grievance redress mechanism in the context of the Combined Works area.

##### 4.3.1. Request for Inspection

234. The Requesters raised concerns about the lack of a venue to lodge grievances. During the Panel's October 2021 and May 2022 visits, community members told the Panel they were

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<sup>236</sup> December 2022 RAP, p. 148.

<sup>237</sup> Aide Mémoire, December 2022.

unaware of the existence of a community-level GRM. They said that to raise grievances they would have to travel to the municipal townhall.

235. The Requesters also claimed that the PAPs were inadequately informed about the resettlement process and related compensation. They said the results of a survey, covering some of the PAPs, was not made available to them.

#### **4.3.2. Management Response**

236. Management stated in its Response that direct consultation with PAPs and communities would take place to ensure that the methodology used to determine eligibility and valuation of assets was as comprehensive as possible.<sup>238</sup> Management explained that until then any discussions held with PAPs and local communities were preliminary and not final determinations of eligibility.<sup>239</sup> According to Management, these initial consultations were carried out by the Borrower but stopped at the Bank's request until the Bank-cleared RAP was ready for consultation.<sup>240</sup> Management stated that, once the surveys and draft RAP were prepared, they would be discussed with PAPs as part of the RAP consultation process, and then finalized.

237. Management considered the Project-level GRM operational and would continue to be available to all stakeholders during the RAP preparation and implementation, as well as during the Project's lifecycle.<sup>241</sup> Management stated that it will support the PIU to develop user-friendly and accessible information materials for the grievance mechanism.<sup>242</sup>

#### **4.3.3. Bank Policies**

238. The Bank Policy on Involuntary Resettlement (OP 4.12) requires that displaced persons and their communities be offered opportunities to participate in planning, implementing, and monitoring resettlement.<sup>243</sup>

239. The Bank policy provision relevant to the GRM in OP 4.12 stipulates that, as part of resettlement planning and implementation, an appropriate and accessible grievance mechanism be established for displaced persons and their communities.<sup>244</sup>

#### **4.3.4. Panel Analysis and Observations**

240. The Panel notes that, for the purposes of this discussion concerning the RAP consultation and GRM, "PAPs" refers to the people affected by the Project's resettlement.

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<sup>238</sup> Management Response, p. 15, para. 50.

<sup>239</sup> Ibid., para. 51.

<sup>240</sup> Ibid.

<sup>241</sup> Ibid.

<sup>242</sup> Ibid., pp. 17-18, para. 58.

<sup>243</sup> OP 4.12, para. 2(b).

<sup>244</sup> Ibid., para. 13(a).

241. **Consultations and Participation in the Resettlement Process.** The Panel notes that the RAP for the Project went through four iterations until it was finalized in December 2022 (see Figure 9, above). In meetings with the Panel, Management reiterated that, as stated in the Response, the PAPs would be consulted when the “*Bank-cleared RAP was ready to be consulted upon.*”<sup>245</sup>

242. According to the December 2022 RAP, the Project held a series of consultations with the PAPs and vulnerable community members regarding the RAP. It also mentions meetings conducted by COMEX, without providing any details concerning these. The RAP reported that the objective of the consultations was to provide PAPs including those considered vulnerable with the opportunity to participate in RAP design and development.<sup>246</sup>

243. The RAP stated that during consultation meetings community members raised concerns about resettlement, compensation options, timing of payment, start of the works, and the risks and potential impacts of the Project. It stated, however, that the PAPs received the Project favorably. The Panel observes that these consultations were not specifically targeted at the PAPs affected by the Project’s resettlement.

244. During the Panel visits, PAPs who participated in RAP consultations told the Panel that they received conflicting information about the Project, including basic information, such as: the number and location of the groynes, impact on individuals, compensation, and whether they could fish during construction. The Panel also observed a general lack of awareness of resettlement details. Many of the PAPs affected by resettlement with whom the Panel spoke raised concerns regarding the unclear resettlement process, including the timeline and compensation payments.

245. Some of the resettled PAPs with whom the Panel met said they had neither seen the RAP nor been invited to participate in any consultation regarding its design and implementation before COMEX asked them to sign the compensation agreements. They stated they had no information other than what they were told at the time of the negotiations and signing.

246. The Panel notes that these PAPs were given only a limited opportunity to participate in the resettlement process during the negotiations of compensation, which took place after all resettlement decisions had been made. The Panel received a copy of the template agreement, which is written in French, a language most people in this area do not understand.

247. The PAPs who are part of the resettlement process claimed that when they were first called to sign the agreements, they received no information about the assets to be compensated or the amounts. They told the Panel they were unsure whether the amounts paid covered the full scope of impact, including loss of income, adequate valuation of assets and trees, rent, and resettlement assistance. They were told they would have to move within a week of receiving compensation payment but they were not told when to expect this and, consequently, could not plan their relocation.

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<sup>245</sup> Management Response, para ix.

<sup>246</sup> December 2022 RAP, p. 288.

248. **Grievance Redress Mechanism.** The Panel notes that the GRM, per the RAPs, has six levels. Complainants are free to access the GRM level of their choice. The levels are:

1. Village or *quartier*,
2. Canton,
3. Commune and the municipalities of Agbodrafo and Aného,
4. *Préfecture*,
5. *Région*, and
6. The Central Complaint Management Committee at the PIU.<sup>247</sup>

249. The Panel notes that the lack of a GRM was a critical issue flagged during the initial Bank supervision, which recommended having a GRM operational before the end of 2019.<sup>248</sup> In November 2020, the Bank observed that the local committees of the GRM were encountering difficulties documenting complaints received in their reports.<sup>249</sup>

250. According to the December 2022 RAP, COMEX also managed a separate mechanism that received complaints or appeals concerning the eligibility and valuation of assets.<sup>250</sup> The Panel notes that the COMEX mechanism is not mentioned as one of the steps in the Project-related GRM. The RAP provides no information on the COMEX mechanism.

251. In September 2022, Management reported in an Aide Mémoire that the GRM had seen improved use by communities, especially during the compensation payment process. Management reported that eight people made claims through the COMEX mechanism and three at the PIU level of the Project-related GRM. According to Management these complaints were resolved.<sup>251</sup>

252. The Panel met with the mayors' offices at Agbodrafo and Aného on three occasions. Agbodrafo's mayor's office was initially unaware of the GRM process. In November 2022, the Panel reviewed the complaint registration book in Agbodrafo and spoke with the official in charge of managing the GRM. In Aného, the Panel saw the complaints box and spoke with the officer managing the GRM, who explained the resettlement process, identification of assets and trees, and the grievances received.

253. In November 2022, the Panel asked some of the resettled people about their knowledge and use of the GRM. They knew about the COMEX mechanism but did not have specific information about the Project's GRM. The Panel observes that there was general confusion about which mechanism would be most appropriate or effective for the resettled PAPs.

254. The Panel met a resettled PAP who owned a restaurant. He told the Panel that when establishing a rock storage area, the contractor uprooted fifteen coconut trees that he owned. The contractor had informed him that he could replant these elsewhere; a handful were, the

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<sup>247</sup> December 2021 RAP, p. 19.

<sup>248</sup> ISR 03, October, 2019; Aide Mémoire, May 2020.

<sup>249</sup> Aide Mémoire, November 2020.

<sup>250</sup> December 2022 RAP, p. 16.

<sup>251</sup> Aide Mémoire, September 2022.

others were left lying on the ground. The PAP told the Panel that the trees no longer bore fruit and he wanted compensation equivalent to that received by other PAPs who lost trees to the Project. He also said he submitted his grievance to the GRM at the PIU and municipality levels, as well as COMEX in December 2022.

255. The same PAP further informed the Panel that he received no compensation for loss of income, rent, or transitional allowance. He added that previously his restaurant was on someone else's land, which he was allowed to use rent-free. Now, he must pay to use another land for his new restaurant. He complained that his new location had fewer clients and was currently earning less, which forced him to let some employees go. However, he was unaware he could complain about his uncompensated loss of income.

256. During a meeting with the head of household and the two sisters mentioned above, the uncle said he was upset that the sisters had not received the compensation due to them. When the Panel asked whether he had complained, he said he only learned of the GRM the day he was paid compensation and had not used it.

257. The Panel notes that the December 2022 Aide Mémoire stated that complaints were not systemically registered in the GRM registers. It suggested that the PIU considered the GRM a tool to interact with community. The Bank suggested categorizing submissions to the GRM according to whether they were requests for information, expressions of satisfaction, or complaints. It added that GRM submissions should be reported in the quarterly reports.<sup>252</sup>

#### **4.3.5. Panel Findings**

258. The Panel observes that the resettled PAPs with whom it spoke considered the resettlement process to be confusing. They said they were offered no opportunity to participate in the development of the RAP. The Panel observes that consultations during the development of the RAP did not create sufficient awareness and clarity of the Project's resettlement process.

**259. The Panel finds that consultation with the resettled PAPs on the RAP regarding resettlement options was not meaningful. The Panel finds that resettled PAPs were only offered an opportunity to participate in the planning and implementation of the resettlement process during the negotiations of compensation, which took place after resettlement decisions had been made. The Panel finds this is in non-compliance with Bank Policy on Involuntary Resettlement, OP 4.12, paragraph 2(b).**

260. The Panel observes that resettled PAPs had insufficient information about the GRM and how to use it. The Panel observes that most resettled PAPs used the COMEX mechanism, which was explained to them only at the time of compensation payment. However, this mechanism is not designed to address all types of grievances that could arise from the impacts of the Project. **The Panel finds Management is in non-compliance with Bank Policy on Involuntary Resettlement, OP 4.12, paragraph 13(a).**

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<sup>252</sup> Aide Mémoire, December 2022.

## Chapter 5 - Project Impact on Fishing Communities

### 5.1. Introduction

261. This chapter reviews the Project's identification of and consultation with the fishing communities. It considers the impacts from both the Combined Works and the Emergency Works on them, their ability to fish, and on their associated value chain. The chapter also analyzes whether mitigation measures sufficiently address these impacts.

### 5.2. Request for Inspection

262. The Requesters alleged that insufficient information had been provided to PAPs. They claimed that no meaningful consultations had been held with their communities, but rather that isolated meetings took place with selected individuals, including community leaders.

263. The Requesters claimed that some of the Project's resilience measures against the decades-long coastal erosion process would adversely affect them. They claimed that artisanal fishing and the livelihoods of fishers and community members who rely on it as their main source of livelihood will suffer as a result of some Project activities. They stated that the Project will have negative repercussions on fishing activities.

### 5.3. Management Response

264. According to Management, the approved ESMF was publicly disclosed in-country in 2017.<sup>253</sup> The Response explained that the site-specific ESIA for the Agbodrafo-Aného coastal protection works were at that time, October 2021, under preparation and that consultations on these instruments had begun.<sup>254</sup>

265. Management stated the ESIA would focus on the Project area, where new groynes will be built and existing groynes will be rehabilitated, and involved direct consultation with PAPs and communities to ensure that the impact and methodology used to determine eligibility was as comprehensive as possible.<sup>255</sup>

266. Management declared that the Project would cause no permanent, adverse impacts on artisanal fishing activities as the civil works will not block access to the seafront, will prevent the 40-meter expected loss of beach from erosion over the next 15 years, and in fact will increase the beach by some 30 meters.<sup>256</sup> According to Management, the Project aims to strengthen targeted communities' resilience by securing the beach, providing greater access to fishing activities, and protecting an estimated 4,600 households from the impacts of coastal

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<sup>253</sup> Management Response, p. 15, para. 49.

<sup>254</sup> Ibid., p. vi, para. ix and p. 15, para. 51.

<sup>255</sup> Ibid., p. 15, para. 50.

<sup>256</sup> Ibid., Annex 1, p. 19.

erosion.<sup>257</sup> Management added that any potential, temporary access restrictions would be assessed and compensated, as may be warranted.<sup>258</sup>

#### **5.4. Bank Policies**

267. The Environmental Assessment Policy (OP 4.01), requires a project to evaluate the potential environmental risks and impacts in its area of influence. It requires improving projects “*by preventing, minimizing, mitigating, or compensating for adverse environmental impacts and enhancing positive impacts; and includes the process of mitigating and managing adverse environmental impacts throughout project implementation.*”<sup>259</sup> The Policy also requires the EA to consider natural and social aspects in an integrated way.<sup>260</sup>

268. OP 4.01 also requires meaningful consultations between the borrower, project-affected groups, and local non-governmental organizations (NGOs) on all Category A projects. The borrower is expected to provide relevant material in a timely manner for consultation, and in a form and language understandable and accessible by the groups being consulted.<sup>261</sup> The policy requires the EA report be made available at a public place accessible by project-affected groups and local NGOs.<sup>262</sup>

269. The Bank’s Involuntary Resettlement Policy (OP 4.12) states that adverse environmental, social, and economic impacts that do not result from land-taking may be identified and addressed through environmental assessments and other project reports and instruments.<sup>263</sup>

#### **5.5. Panel Analysis and Observations**

270. The Panel’s analysis and observations below cover the impact on the fishing community from the Combined Works and from the Emergency Works (see Chapter 2 for descriptions of the fishing practices and their associated value chain in Togo).

##### **5.5.1. Identification and Consultation of Fishers as Stakeholders**

271. The Panel reviewed the relevant documents – including the ESMF, ESIA, and RAPs – to assess how the Project’s impact on fisheries was identified and mitigated, and whether compensation was planned for any losses to livelihoods.

272. The Panel analyzed the consultations the Project had with the affected communities; these are listed in Annex 2. The Panel notes that consultations for the Project’s 2017 ESMF were conducted in several *préfectures* in the presence of ANGE and representatives of the Ministry of Environment and Forest Resources. These consultations were conducted with

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<sup>257</sup> Ibid., p. 12, para. 41.

<sup>258</sup> Ibid.

<sup>259</sup> OP 4.01, para. 2.

<sup>260</sup> Ibid., para. 3.

<sup>261</sup> Ibid., para. 15.

<sup>262</sup> Ibid., para. 16.

<sup>263</sup> OP 4.12, para. 3, footnote 5.

local authorities (*Préfet*, mayors, traditional chiefs, and *Chefs de Quartier*) and the local population.<sup>264</sup> According to the 2017 ESMF, the consultations provided stakeholder input on identifying environmental and social issues. These included difficulties related to fish transport, the drying and smoking of fish, impact on fishing activities, and loss of revenue.<sup>265</sup> The Panel notes that the consultations attracted many people (several had fewer than 20 but most included more than 60) and lasted one to two hours.

273. The Panel observes that the ESIA terms of reference did not carry forward the impact on fishers or fishing activities identified in the ESMF. The Panel also observes that the terms of reference for the consultant preparing the environmental and social safeguard document did not require input from a fisheries expert.<sup>266</sup> However, the Panel notes the ESIA does capture impact on fishers.

274. The 2022 ESIA and Note on Fisheries<sup>267</sup> that Management shared with the Panel in June 2022 stated several consultations took place. Management provided the Panel a list of these meetings, indicating that public consultations were carried out through surveys that collected opinions of the Project and focus groups that involved the different categories of stakeholders. Participants, including PAPs, were given an opportunity to present their opinions, concerns, suggestions, and recommendations on the Project, its objectives, and its risks. During these consultations particular emphasis was given to the negative environmental and social risks and impacts that the works could cause.<sup>268</sup>

275. The ESIA mentioned that fishers raised concerns about the Project's impact on the beach seine fishery during the ESIA consultations. According to the ESIA, during construction of the groynes fishers could fish in other locations.<sup>269</sup> The Panel observes that the ESIA identified the disruption of fishing activities along the coast during construction as one of the significant impacts of the Project on the socioeconomic wellbeing of local communities in the Project area.<sup>270</sup> However, the ESIA described the risks to fisheries and fishing activity as "low" once the groynes are built.<sup>271</sup> Further, the ESIA mentioned livelihood losses to fishers, and did not consider the loss of fish supply to the *mareyeuses*, or the Project's impact on the associated value chain and those involved in the various activities related to the beach seine fishery for their livelihoods.

276. Management's Note on Fisheries stated that more than 150 people were consulted in Agbodrafo and Aného in August 2021, in addition to earlier consultations with fishing

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<sup>264</sup> West Africa Coastal Areas Management Program (WACA), Programme de Gestion du Littoral de l'Afrique de l'Ouest, Projet d'Investissement de la Résilience des Zones Côtières en Afrique de l'Ouest, WACA Togo, Cadre de Gestion Environnementale et Sociale (CGES), Rapport final, Novembre 2017, p. 113.

<sup>265</sup> Ibid., p. 115.

<sup>266</sup> Ibid., Annex 8, pp. 156-157.

<sup>267</sup> World Bank. [Togo West Africa Coastal Areas Management Program \(P162337\), Note on Fisheries and Coastal Protection](#) ("Note on Fisheries"), May 23, 2022.

<sup>268</sup> ESIA 2022, p. 227.

<sup>269</sup> Ibid., p. 355.

<sup>270</sup> Ibid., p. 112.

<sup>271</sup> Ibid., p. 342.



associations. These meetings identified the disturbance of economic activities as an important impact. Nevertheless, the Note stated that it “*is likely that the approximate distance of 0.5km [kilometers] between the groynes would allow fishers to continue using the beach seine method, depending on the gear dimensions.*”<sup>272</sup>

277. The Panel notes that during meetings with PAPs, most fishers claimed they did not participate in any consultation about construction of the groynes and their impact on their livelihoods. They said consultation meetings were conducted with selected individuals, such as community leaders and local authorities in the municipal townhalls (*préfecture*). The Panel observes that these fishers did not know the geographic scope of the Project. They said Project studies and analyses were never disclosed to them, and they were unaware of basic Project information such as the location, timing, and duration of groyne construction.

278. The Panel learned from village chiefs that the ESIA was disclosed to them at meetings in a local government office and that they were asked to relay this information to the community. One of the chiefs told the Panel it was unrealistic to expect the community would be able to access the single copy of the ESIA in the local government office, let alone read, understand, and “*digest an 800-page*” document in French. Most community members cannot read and write, and many only speak Ewe, a local language.

279. The Panel observes that although consultation meetings raised concerns about the Project’s potential impact on fishers and fishing activities, there were no targeted consultations with fishers and members of their associated value chain. The Panel notes that it was only after submission of the Request that there were targeted consultations fishers and *mareyeuses*, who previously during the ESIA consultations expressed concern over the impact of the groynes on the beach seine fishery.<sup>273</sup>

### **5.5.2. Impact of the Combined Works on the Fishing Communities**

280. The Combined Works include the construction of seven groynes in Agbodrafo and the rehabilitation of six groynes and a breakwater in Aného. According to Phase 1 of the feasibility study, groynes will affect land-based fisheries – beach seine activities – as those fishers need both cross-shore (land-to-sea) and longshore (east-west) access to the coast.<sup>274</sup> The feasibility studies indicated that the Combined Works will increase the cross-shore distance and split the longshore beach into approximately 350-meter-wide stretches (see Figures C and D in the Box, above). The 2022 ESIA only considered the cross-shore distance and its positive benefits to fisheries – the Project “*will provide more space available and usable by fishermen for the placement of fishing equipment.*”<sup>275</sup> The Panel observes that the broader, more significant, longshore obstruction is neither recognized nor addressed. The Panel notes that no mitigation strategy was considered to address specifically the impact to fisheries and beach seine activities.

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<sup>272</sup> Note on Fisheries, p. 1.

<sup>273</sup> ESIA, p. 244.

<sup>274</sup> Artelia. *Etudes Conjointes de Faisabilité Technique de la Protection Côtière du Segment Frontalier Togo-Bénin*, 2020. *Etude Préliminaire d’impact Environnemental et Social* (“Artelia 2020e”).

<sup>275</sup> ESIA, p. 347.

281. Togolese who practice beach seine fishing told the Panel that the groynes of the Combined Works would create obstructions that impact their fishing activities, as they will be unable to bring their net ends together. They added that this may cause the beach seine fishery to disappear from beach sections where groynes will be built. The Panel notes that, as described in Chapter 2, the beach seine fishery employs up to 25-45 fishers and 50-150 community members per group. The December 2022 RAP stated there are 27 associations practicing beach seine fishing “*in the Project area.*”<sup>276</sup> It also explained that every fishing association had a corresponding *mareyeuses* organization.<sup>277</sup> Consequently a potential 675-1,215 fishers and a significant number of *mareyeuses* and community members have livelihoods that depend on beach seine fishing and will be therefore impacted. The technique is practiced in all the villages affected by the groynes. The Panel verified the types of fisheries in two of them, Agbodrafo and Aného (see Table 5, below).

Table 5 - Panel Verification of Fishing Techniques Where Combined Works Will Take Place

<b>Community</b>	<b>Fishing Activity</b> <sup>278</sup>	<b>Method of Verification</b>
Agbodrafo	<i>Tonga</i>	Field observation
	Beach seine	Field observation, community and fishers meetings
Aného	<i>Tonga</i>	Field observation, meeting with local authorities
	Purse seine	
	Beach seine	

282. Government officials informed the Panel that during construction certain fishing techniques will temporarily cease in Agbodrafo and Aného, including fishing that involves any landing operations close to groyne construction sites. Government authorities, with the exception of officials in Aného, believed the beach seine fishery is likely to be technically unviable after construction and rehabilitation of the groynes.

283. The Panel notes that during the high fishing season, purse seine pirogues moor in the sea while fishers swim with the catch towards the beach (purse seiners dock on the beach during the low season). *Tonga* boats are hauled onto the beach between fishing trips. In Aného, the *tonga* and purse seine fisheries moored boats at a dock while fishers landed their catches. The Panel further notes that these two techniques will likely suffer temporary restrictions as they cannot be practiced during the construction of the groynes. Fishers told the Panel that fishing could be excluded inside a one-kilometer perimeter around the construction area as groynes are built.

284. The Panel further notes that fishers who practice the beach seine technique in Aného can currently walk around the existing groynes (see Pictures 16 and 17, below). But these groynes are much smaller compared to what they will be once rehabilitated by the Project. After they are rehabilitated the groynes will be longer (65-75 meters), higher (3.5 meters above mean sea level), and wider (15-20 meters) than at present.

<sup>276</sup> December 2022 RAP, p. 124.

<sup>277</sup> Ibid.

<sup>278</sup> Some fishers practice multiple fishing techniques and some fish in other villages.



Pictures 16 and 17 – Western and eastern sides of a saturated groyne at Goumou Kopé

285. **Impact on Fishers.** Beach seine fishers informed the Panel that they were concerned whether they could continue fishing once the new groynes are constructed. The Panel notes that the inability to perform certain fishing techniques, such as use of beach seines, during and after construction would affect fishers' livelihoods. Fishers told the Panel that if beach seine fishing became impracticable they would need resources to acquire different nets, boats, and motors to transition to other techniques, such as the *tonga* or the *senne tournante*, which they would be able to conduct safely after construction of the groynes.

286. According to local authorities in Aného, after consulting and deliberating with fishing associations they have drawn up a workplan and schedule permitting groups to fish three times a week during groyne construction (instead of the normal six) and take turns to allow all of them to continue fishing. This means that during construction, fishers involved in beach seine activities in Aného will earn only half of their normal income.

287. Local authorities and fishers informed the Panel that each beach seine association is assigned a specific section of beach. The Panel observed that, where short groynes already exist, the beach seine fishers had adopted shorter nets enabling them to continue fishing around them. Several fishers with whom the Panel met indicated that, even so, crossing the groynes and pulling nets across them risked torn nets and injuries.

288. Community members feared that the disappearance of the beach seine fishery would increase unemployment and their vulnerability. The Panel spoke with people who get their food directly from beach seine fisheries, including vulnerable women and elderly people. These community members will lose access to a vital source of sustenance and income if the beach seine fishery disappears. This was noted in Dévikinmé, where community members told the Panel that in the past, as beach seine activities decreased, youth dropped out of school since parents could no longer afford school fees. They added that poverty increased and some days they had no food.

289. **Gendered Impact.** The Panel was told that the *mareyeuses* will face increased challenges in sourcing fish to process and will need to supplement their activities during low-catch seasons. Although the Panel observed that all community members buy and sell fresh fish, this activity is mainly practiced by women. The Panel also observed that some of them could be characterized as vulnerable, such as female heads of households who depend on fish

processing for their day-to-day living. The Panel also met with a few widows with young children, who told the Panel they were responsible for feeding their families and had no alternative livelihood activities.

290. The *mareyeuses* with whom the Panel met explained that when fishing operations are reduced or halted they will have to travel to another community or go the *frigo* to acquire fish, which adds transport costs on them. They said the *frigo* fish are more expensive and of lower quality. *Mareyeuses* would still be able to buy fish from fishers practicing other techniques (such as *tonga* or *wacha*), but the higher costs incurred by these fishers raises the price of their fish. Women traditionally pay for their children's school, food, and health expenses. Those who cannot afford to buy larger fish pick what is left in the fishnets after the main catch is removed. These small fish are either used to feed the family or processed and sold. The *mareyeuses* told the Panel that reduced fishing operations will lower their incomes and have direct implications for their livelihoods and wellbeing and that of their children.

291. **Impact on the Value Chain.** Members of the community with whom the Panel spoke emphasized that when fishers cannot go to sea, the whole village suffers. Community members said that, in addition to fishers and *mareyeuses*, many others who derive income and food from beach seine fishing will be affected by the Combined Works. The Panel observes that if the beach seine fishery ceases to exist as a viable source of livelihoods, it will impact the value chain that includes net menders, net pullers, basket makers, *aide-pêcheurs*, and, to a lesser extent, the secondary participants in the value chain, such as motorcycle and taxi drivers, fuel retailers, manioc retailers, restaurants, etc. (see Table 2, above). Net pullers who come from neighboring villages told the Panel they will lose an estimated FCFA 1,000 (about USD 1.64) daily as well as access to free fish. The Panel observes that those involved in occupations that rely on this technique will suffer varying impacts to their livelihoods. Some in the value chain, such as the secondary participants, will be able to adjust; others will not and may face significant losses of income.

292. The Panel observes that neither the ESIA nor the RAP documents captured the impact on the entire value chain. The Panel also observes that the Project's coverage of livelihood losses on the fishery value chain was insufficient and did not include the entire value chain. No assessment or baseline studies were conducted to identify the impacted fishers or members of their value chain.

293. **Mitigation Measures Previously Included the RAP.** The Panel observes that the consultations on the December 2021 and June 2022 RAPs indicated that the groynes could have a negative, temporary impact on the beach seine fishery during construction. These RAPs required the Project to inform the fishers when to expect disruption of their fishing and compensate them for asset and revenue losses prior to the start of the works.<sup>279</sup> The RAPs also included measures for the associations of fishers and *mareyeuses*. However, these measures were no longer included in the December 2022 RAP, which stated that these associations will be involved in identifying and implementing income-generating activities allowing them to maintain or improve their living conditions.

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<sup>279</sup> June 2022 RAP, p. 96.

294. This RAP indicated the need for projects that could support the groups and associations of fishers and *mareyeuses*. The June 2022 RAP identified 27 groups or associations of beach seine fishers and 12 using other techniques in the Project area. The RAP stated that each of these groups has a corresponding *mareyeuses* association. Hence there are 39 fishers' groups and 39 *mareyeuses* associations.<sup>280</sup>

295. The June 2022 RAP stated that measures to mitigate loss of income would include FCFA 60,750,000 (about USD 99,649) to buy boats and nets for the fishers practicing the beach seine technique, FCFA 10,000,000 (about USD 16,403) to construct cold storage for fishers practicing other fishing methods, and FCFA 6,000,000 (about USD 9,842) to build six warehouses for the *mareyeuses* to use. A separate amount was allocated for the training of each of these associations.<sup>281</sup>

296. The Panel notes that the June 2022 RAP considered providing boats and nets to the beach seine fishing associations to help them transition to other fishing techniques, and that this raised a number of implementation questions – notably, who in the association would receive the boats or nets and who would receive training on the use of cold storage facilities.<sup>282</sup> Panel meetings with fishing communities practicing the beach seine technique indicated that fishers earn an average daily income of FCFA 3,000 (about USD 4.92), and for every fisher there are as many as three net haulers from the community, whose daily income is FCFA 3,000 (FCFA 1,000 or about USD 1.64 each). Furthermore, it is unclear from the June 2022 RAP what forms of boat fishing and what equipment would be offered to fishers and whether the number of boats (and crews) would be proportional to the employment losses caused by the potential disappearance of the beach seine fishing. This RAP did not address these questions. The December 2022 RAP no longer includes these measures.

297. The Panel spoke with the leaders of two fishing associations who believed they would receive these amounts to the members of their groups. The Panel was not informed of a mechanism in place to ensure that all fishers receive sufficient compensation for lost income.

298. **Income-Generating Activities Under PAD Subcomponent 3.2.** As indicated above, measures targeting the groups or associations of fishers and *mareyeuses* to be implemented under the June 2022 RAP were no longer included in the December 2022 RAP.

299. The Panel observes that the Involuntary Resettlement Policy (OP 4.12) covers physical and economic displacement. However, adverse environmental, social, and economic impacts that do not result from land-taking may be identified and addressed through environmental assessments and other project reports and instruments.<sup>283</sup> The Panel notes that the impact on livelihoods suffered by fishers and *mareyeuses* does not result from displacement and therefore the Project would be addressed through other project instruments.

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<sup>280</sup> Ibid., p. 139.

<sup>281</sup> Ibid., p. 140.

<sup>282</sup> Ibid., p. 140, Table 31.

<sup>283</sup> OP 4.12, para. 3, footnote 5.

300. Hence, the income-generating activities for fishers and *mareyeuses* will be implemented in the context of PAD Subcomponent 3.2.<sup>284</sup> The Panel notes that the PAD stated that this Subcomponent will enhance community resilience, health, safety, and livelihoods.<sup>285</sup> The Panel reviewed the related manual (*Manuel de procédure Communautaire*), which guides the financing of livelihood activities.

301. The Panel notes that activities are selected by the communities in the Project area. According to the PAD, technical assistance will be provided by the Project to finance these activities.<sup>286</sup> Eligible activities include the “*income-generating activities of relevance to the project objectives (salt extraction, fishing, and so on)*.”<sup>287</sup>

302. The Panel observes that the information about the income-generating activities under Subcomponent 3.2 is insufficient to allow the restoration of the livelihoods of those economically affected by the groynes. The Panel observes that the economic impact caused by the groynes to beach seine fishers and their associated value chain is not well addressed in the ESIA, RAPs, nor under Subcomponent 3.2. The measures supporting fishers and *mareyeuses*’ groups or associations designed under the June 2022 RAP and not included in the December 2022 RAP are neither individualized nor tailored to actual income losses. Furthermore, the activities included in Subcomponent 3.2 do not target the negatively impacted beach seine fishers and their associated value chain. Moreover, the Panel observes that there are no other livelihood restoration measures to assist in restoring their livelihoods.

303. The Panel noted that the December 2022 Aide Mémoire listed difficulties in the implementation of projects under Subcomponent 3.2. Communities are unable to provide the required counterpart financing for the income-generating activities, community-based organizations have low capacity, and they lack ownership of the process; therefore, a non-governmental organization would be recruited to support them.

304. The Aide Mémoire also recognized the need to systematize the preparation of income-generating activities by clarifying the selection criteria and strengthening consultations with fishers and *mareyeuses* to agree on the types of activities supported. The deadline to submit income-generating activities was in February 2023.<sup>288</sup>

### **5.5.3. Impact of the Emergency Works on the Fishing Communities**

305. The Panel visited the six emergency protection sites – in Gbodjomé, Tango, Adissem, Dévikinmé 1 and 2, and Nimagna – for several days during each visit (October 2021, June 2022, and November 2022). The Panel did not meet with community members or observe boats, nets, *mareyeuses*, or fishers in Nimagna.

306. The Panel talked with several community members and groups of fishers and *mareyeuses* in Gbodjomé, Dévikinmé, Tango, and Adissem, where the concrete pipes are

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<sup>284</sup> December 2022 RAP, p. 124.

<sup>285</sup> PAD, p. 94, para. 14.

<sup>286</sup> Ibid., para. 15.

<sup>287</sup> Ibid., para. 17.

<sup>288</sup> Aide Mémoire, December 2022.

installed as part of the Emergency Works. They said livelihoods in their villages depend on fishing and the Panel witnessed and heard about current and past fishing activities (see Table 6, below).

Table 6 – Panel Observations of Fishing Techniques at Emergency Works Sites

Emergency Work Sites	Fishing Activity	Method of Verification
Gbodjomé	Active <i>tonga</i>	Visual observation of landing operations, presence of boats and nets on the beach
	Beach seine fishing disappeared due to beachrock	Community meeting testimony
Tango	<i>Tonga</i>	Visual observation of landing operations, presence of boats and nets on the beach
Dévikinmé	<i>Tonga</i>	Community meeting testimony
	Beach seine disappeared due to beachrock and pipes	Community meeting testimony
Adissem	Active purse seine	Visual observation of active boats on the beach and moored offshore, community meeting testimony
	Beach seine fishing disappeared due to the pipes	Community meeting testimony and statement recorded in the October 2021 quarterly report <sup>289</sup>
	Active <i>tonga</i>	Visual observation of active boats on the beach and moored offshore, community meeting testimony

307. Community members, including fishers and *mareyeuses*, told the Panel they have suffered from the effects of coastal erosion for several decades. Many fishers and village chiefs described how their houses and community centers have been taken by the advancing sea and how fishing activities have decreased due to the emergence of beachrock.<sup>290</sup> Most of them acknowledged that they had requested the concrete pipes to protect their dwellings and livelihoods from coastal erosion, which became a community subproject under WACA’s Component 3. Nonetheless, fishers claimed that the concrete pipes made it harder to take their boats to sea and caused a loss of livelihoods. They added that they were not informed of the impact the concrete pipes would have on them or their livelihoods.

308. The Panel notes that the communities in Adissem asked for access to the sea and the Project created two 50-meter-wide corridors in the emergency protection pipe wall.<sup>291</sup>

<sup>289</sup> WACA ESMR, 2021 Third Quarterly Report, October 2021. Complaint made in August 20, 2021: “*The fishermen’s delegation is concerned about the obstruction of the beach in Adissem due to the manufactured pipes which are preventing the landing of the pirogues and reducing the navigability, as well as the impact which the protection works could have on beach seine fishing.*”

<sup>290</sup> Beachrock is a weak, calcareous sedimentary rock that consists of a variable mixture of gravel, sand, and silt-sized sediment including shells that is cemented with carbonate minerals. Beachrock typically forms within the intertidal-subtidal zones of tropical or semitropical regions. Beachrock in Togo emerged at the surface of the nearshore zone in the 1970s due to coastal erosion.

<sup>291</sup> Management Response, p. 9, para. 31 and p. 13, paras 45-46.

However, community members told the Panel that these corridors were inadequate as landing sites for their boats. According to them, some sites harbored more than 20 boats eight- to 22-meters-long, depending on whether they use the *tonga* or *senne tournante* technique. A Tango fisher said boats could no longer access the sea due to the wall of concrete pipes, which, unlike in Adissem, had no corridor for that purpose. The Panel observed that beach access was blocked in Tango and that the eastern section of the pipe wall had collapsed.

309. During the November 2022 visit to Adissem, the Panel noted that the western section of the concrete pipe wall remained damaged and contained stranded pipe segments which made the beach harder to use, according to community members. The Panel observed that the eastern side, which had the only active corridor, also still contained some stranded pipes. Fishers there spoke of an accident when a fishing boat was damaged attempting to enter the eastern corridor.

310. The Panel observed active fishing communities in four of the five villages. The Panel saw landing operations by *tonga* boats in Gbodjomé, Tango, and Adissem. In Dévikinmé (which has two emergency sites), the Panel met with fishers who had just returned from fishing. During its visits to Gbodjomé and Tango, the Panel noticed some *tonga* boats on the beach with nets onboard and others being pulled in to be docked. During its different visits to Adissem, the Panel saw several larger boats used for purse seine fishing on the beach or moored offshore.

311. Fishers in these villages informed the Panel that they worked around the pipes, despite difficulties landing or carrying heavy boats – sometimes up to 100 meters – over broken pipes scattered across the beach. These difficulties were exacerbated during bad weather. Fishers told the Panel the pipes constrained their ability to go out to sea and how much time they could spend at sea, as their departure and landing spaces were now confined.

312. The Panel notes that the concrete pipe walls impact the fishing activities. The Panel observed that for the *tonga* technique, fishers need to dock smaller boats on the shore while the *senne tournante* boats are kept at sea. In both cases, fishers swim to shore at some point to guide their crews, pull their boats, or return to the beach. The Panel heard from the fishing communities that the longer the pipe wall, the harder it was for them to access the sea and conduct fishing activities. In addition, several fishers reported being injured by parts of the broken pipes stranded in the sea as they came back to shore. In Dévikinmé, the Panel saw several damaged boats on the beach. Community members told the Panel that beach seine fishing had disappeared entirely there due to the pipes. The Panel observed no beach seine fishery during its visits to the Emergency Works sites.

313. As discussed in Chapter 3, the E&S screening designated the Emergency Works as environmental Category C, which required no further environmental assessment or consultations, and therefore the impact of the Emergency Works on fishers was not assessed. The screening recognized the temporary disruption of fishing activities during construction. It recommended regular evaluation of the means of subsistence of the affected fishers and discussions with fishing communities.<sup>292</sup> The screening document described the resumption

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<sup>292</sup> Environmental Screening, p. 26.



of fishing as a value added.<sup>293</sup> It identified no negative impact on fishing due to the storage of pipes or after the pipe wall installation.

314. The Panel notes that the Social Audit is the only assessment the Project conducted concerning the impact the Emergency Works may have caused or continued to cause. The Panel reviewed the Audit and whether it adequately assessed the risk of impact and mitigation measures to address it. The Panel notes the Social Audit determined that the measures identified in the E&S screening with regard to the fishing sector were adequate. According to the Audit, the Emergency Works had limited impact and caused only temporary disruption of the communities' fishing activities.<sup>294</sup>

315. The Panel observes that the Social Audit relied on site visits and interviews with representatives of the Project's stakeholders on January 24-31, 2022.<sup>295</sup> The Panel also observes that according to the Social Audit, only two of the six Emergency Works sites (Adissem and Tango) include fishing communities and had fishing boats visible nearby.<sup>296</sup>

316. The Panel notes that the Social Audit methods relied on field observations of fishing boats and fishing activities to determine which Emergency Works sites were fishing communities. The Panel also notes that the field observations took place during the low fishing season during which, according to the consultants who conducted the Audit, there is no fishing. The Panel notes that the Audit consulted the village chiefs in Tango and Adissem, community members in Dévikinmé and Nimagna, and the village chief of Gbodjomé to determine the types of activities in these areas. Table 6, above, shows the types of fishing observed during the Panel visits, including *tonga* and purse seine fisheries.

317. The Panel observes that the Social Audit noted that no complaints had been recorded in Adissem regarding possible loss of income resulting from reduced fishing activity in the community due to obstacles created by the works.<sup>297</sup> The Audit asserted that the Emergency Works had no negative livelihood impact on the fishing communities because, when fishers cannot fish, the women buy frozen, imported fish to smoke and continue their activities.<sup>298</sup>

318. *Mareyeuses* at the Emergency Works sites told the Panel that, contrary to what was stated in the Social Audit, buying frozen fish is much more expensive and of lower quality than fresh catch bought from the fishers. They said they can afford to buy fewer frozen fish, and therefore doing so is less profitable. In Dévikinmé, a poorer fishing village, women said they cannot afford frozen fish.

319. The Panel observes that the Social Audit's assertion that the Emergency Works had no negative livelihood impact on the fishing communities contradicts that of the community members. The Panel notes that the Audit concluded that the evaluation of the affected fishers'

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<sup>293</sup> Ibid., Tableau 5.5.

<sup>294</sup> Social Audit, p. 12.

<sup>295</sup> Ibid., Executive Summary, para 1.

<sup>296</sup> Ibid., p. 3. The Social Audit stated that in the other four sites (Dévikinmé 1 and 2, Nimagna, and Gbodjomé), there were no active fishing communities at the time of the field visit.

<sup>297</sup> Social Audit, p. 9.

<sup>298</sup> Ibid., para. 5.

means of subsistence was not conducted.<sup>299</sup> The Panel observes that during its visits it noted consensus among fishers that the pipes were dangerous to their safety, and damaging to their equipment and boats, which affected their livelihoods. Fishers told the Panel that although the pipe walls helped protect the coast, they should not be permanent as they adversely affect them.

320. In summary, the Panel observes that, while the pipes provide some protection from coastal erosion by withstanding the waves, the impacts these pipes cause have increased and created new challenges for the fishing community. These include the risk of damage to boats, motors, and nets, and the risk of injuries to people. The fishers said they had begun to fear fishing, which leads to fewer catches for the community and for the *mareyeuses* to process. The fishers believed the impact to their safety and livelihoods was becoming disproportionate to the protection afforded by the pipe walls. These impacts were neither identified nor mitigated in the screening and the Social Audit.

## 5.6. Panel Findings

321. The Panel observes that the safeguard documents (ESMF, ESIA, and RAPs) for the Combined Works identified the presence of fishing communities in the Project area and determined that the impact on them would be temporary and occur only during the construction phase. However, it did not sufficiently assess the adverse impact of these works beyond the construction phase, especially on those practicing beach seine fishing or its associated value chain, which comprises many affected people. The Panel notes that the fishing community and Government officials, with the exception of officials in Aného, believe the beach seine fishery in the Project area is unlikely to continue because of the Project. On the other hand, Management states that beach seine is likely to continue depending on the fishing net dimensions and the half-kilometer distance between the groynes.

322. The Panel finds that the consultation process did not target fishers and their associated value chain, which constitute distinct categories of stakeholders with unique, specific potential impacts. The Panel notes that after submission of the Request, a series of consultation meetings took place with fishers. **The Panel finds that the Project's consultations were not meaningful before submission of the Request, as per Bank policy, and is in non-compliance with Bank Policy on Environmental Assessment, OP 4.01, paragraph 15. The Panel finds that after the submission of the Request the Project's consultations targeted fishers and mareyeuses, which brought the Combined Works back into compliance with Bank Policy on Environmental Assessment, OP 4.01, paragraph 15.**

323. The Panel notes that Bank policy on Environmental Assessment (OP 4.01) requires consideration of a project's natural and social aspects in an integrated way. **The Panel finds the Project is not in compliance with OP 4.01, paragraph 3, for not having assessed adequately the potential environmental risks and socioeconomic impacts of the Combined Works on the fishing community, especially those practicing beach seine fishing, in the Project area.**

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<sup>299</sup> Ibid., p. 11.

324. The Panel observes that livelihood support measures for fishers will now be implemented under PAD Subcomponent 3.2 of the Project as income-generating activities. The Panel understands from this decision that in Management's view, the economic impact felt by the fishers is not economic displacement per the Involuntary Resettlement Policy (OP 4.12). The Panel observes that since fishers, particularly beach seine fishers and members of their associated value chain, are not targeted by Subcomponent 3.2, it is incumbent upon them to propose a livelihood restoration project. The Panel observes that it will be challenging for this community to do so and thus restore livelihoods. **The Panel finds that, by requiring the fishers to propose income generating activities as livelihood restoration measures under Subcomponent 3.2, Management did not ensure that the Project's adverse socioeconomic impacts on the fishing community and members of its associated value chain is mitigated. This is in non-compliance with OP 4.01 paragraph 2, and OP 4.12 paragraph 3, footnote 5.**

325. The Panel notes that the E&S screening did not identify the impact of the concrete pipes on fishing activities from the time of construction to installation, maintenance, and decommissioning. **The Panel finds that, due to inadequate screening and categorization of the Emergency Works, as noted above, Management failed to ensure that the Project prepared an environmental assessment for the Emergency Works to ensure they are implemented in an environmentally sound and sustainable manner; this is in non-compliance with OP 4.01, paragraph 1.**

## Chapter 6 - Project Supervision

### 6.1. Introduction

326. This chapter reviews Bank supervision of the Project and its response to concerns raised in the Request. It examines the frequency and appropriateness of the technical expertise during Project supervision. It also explores the quality of that supervision, how issues were identified, and whether the Bank's actions addressed them adequately.

### 6.2. Request for Inspection

327. The Requesters claimed their concerns were not being addressed. They asked for an expert review of the Project's activities and raised concerns about Bank supervision of Project implementation.

### 6.3. Management Response

328. In its Response, Management committed to supporting the Government of Togo in implementing the Project, finalizing the safeguard documents, and maintaining strong engagement with the affected communities. The Response included actions to i) address the concerns raised, such as conducting a Social Audit to assess any unintended impact that may have resulted from the temporary restrictions on beaches during the Project's Emergency Works, ii) provide adequate options to ensure free access to the sea, support information-sharing, capacity building, and dialogue with local communities as part of a community-based resilience approach, and iii) conduct a more proactive information campaign regarding coastal zone development challenges in Togo. In addition, the Bank Project team (the Bank staff who supervise and support the Project closely) would increase the frequency of site visits to the Emergency Works. These actions would be monitored monthly by Bank Management.<sup>300</sup>

### 6.4. Bank Policies

329. The Panel considers Bank Policy on Investment Project Financing – which requires Management to monitor the Borrower's compliance with its obligations during Project implementation as set out in the legal agreements. The Policy requires Management to support the Borrower by reviewing information on the progress of implementation and progress towards achieving the Project's development objectives and related results, and by updating the risks and related management measures.<sup>301</sup>

330. The Bank Directive on Investment Project Financing states that, in providing implementation support, Management reviews the Borrower's monitoring of project performance and compliance with its contractual undertakings. It also requires that Management periodically assess the Project and review the Borrower's analysis of results,

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<sup>300</sup> Management Response, p. 17, para. 58.

<sup>301</sup> World Bank Policy on Investment Project Financing (last revised on December 1, 2021), para. 20.

risks, and implementation status, updating Project information and identifying any follow-up actions needed.<sup>302</sup>

## 6.5. Panel Analysis and Observations

331. Bank supervision of Project implementation covers activities related to the design and construction of the Project from its approval onwards. The analysis below focuses on the expertise made available to supervise the Project, how resources were used, and how the Bank Project team addressed the challenges stemming from Project implementation.

### 6.5.1. Frequency of Bank Supervision and Technical Expertise.

332. **Frequency of Bank Supervision.** The Panel analyzed two separate periods: from Project approval to submission of the Request (April 2018-August 2021), and after submission of the Request (August 2021-April 2022, the drafting of this Report). This allowed the Panel to assess the adequacy of the Bank's response to the claims raised in the Request and measures taken to address them (see Table 7, below).

333. In accordance with Bank policy, the Bank Project team regularly conducts implementation support missions, commonly called supervision missions. These typically occur every six months to review the progress of project implementation. The Bank Project team also conducts interim and technical missions. Interim missions are undertaken outside the regular schedule of the supervision missions.

334. *Prior to Submission of the Request (April 2018-August 2021).* During the period between Project approval and submission of the Request, Management conducted eight missions: four that were Togo-specific and four regional missions that included Togo. Management reported on its supervision in Aides-Mémoires and in Implementation Status and Results (ISRs) reports, which have publicly disclosed versions.

335. Four of the eight Project supervision missions were virtual in observance of COVID-19 restrictions.<sup>303</sup> The Panel recognizes that onsite supervision was strictly limited from March 2020 until after submission of the Request in August 2021 due to COVID-19 travel constraints. Below is a breakdown of the type of supervision performed before and after submission of the Request.

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<sup>302</sup> World Bank Directive on Investment Project Financing (dated December 23, 2021), paragraph 43.

<sup>303</sup> According to Management, during the global and national COVID-19 restrictions the World Bank team and regional partners continued to provide implementation support through regular, virtual meetings and missions. The team prepared a COVID-19 contingency plan to ensure that project activities were implemented properly (ISR 04, May 2020).

Table 7 – Frequency of Bank Supervision Missions

		Before Submission of the Request (April 2018-August 2021)	After Submission of the Request (August 2021-April 2022)	Total
<b>Regional</b>	In-person Supervision	3		3
	Virtual Supervision	1		1
<b>Togo</b>	In-person Supervision	1	2	3
	Virtual Supervision	3		3
	Mid-Term Review		1	1
	Safeguard		1	1
	Total	8	4	12

336. *After Submission of the Request (August 2021-April 2022)*. After the complaint was submitted to the Inspection Panel, there were four Togo-specific supervision missions recorded in ISRs or Aides-Mémoires. These included two bi-annual regular supervision visits, the Mid-Term Review, and an additional technical safeguard supervision mission.

337. According to the March 2022 ISR, the Bank Project team intensified supervision<sup>304</sup> by increasing the frequency of site monitoring of the Emergency Works. Management stated that this monitoring has been reported monthly to the Bank.<sup>305</sup> However, the monitoring was not reflected in the Bank’s supervision documents. It was listed in the PIU quarterly reports (see Table 8, below); the Panel received the first six of these.

Table 8 – Number of Site Monitoring Visits to Emergency Works by the PIU per quarter.

Quarter 1 (2021) January-March 2021	6
Quarter 2 (2021) April-June 2021	2
Quarter 3 (2021) July-September 2021	8
Quarter 4 (2021) October-December 2021	10
Quarter 1 (2022) January-March 2022	3
Quarter 2 (2022) April-June 2022	2 per day (via Project focal points) <sup>306</sup>

338. According to the Social Audit, monitoring of the sites had been strengthened by weekly supervision missions from the World Bank in Lomé since September 2021.<sup>307</sup> The Panel reviewed records of these weekly missions between October 2021 and January 2022. However, they did not correspond to the number of visits recorded in the PIU quarterly reports and not all of them were related to the Emergency Works. The quarterly reports also mentioned continuous, virtual follow-ups through mobile phone messaging applications and

<sup>304</sup> ISR 07, March 2022.

<sup>305</sup> Ibid.

<sup>306</sup> Focal points are given phones to report on damage to the pipes. They send daily reports to the PIU with pictures of the Emergency Works.

<sup>307</sup> Social Audit, p. 12.

E&S physical monitoring of Emergency Works on the Gbodjomé-Agbodrafo segment of coast by PIU.

339. The Panel notes that there was one additional technical mission after submission of the Request – specifically for aspects of the implementation of environmental and social safeguards in September and October 2022. During its November 2022 visit, the Panel learned that the Bank Project team was holding weekly virtual meetings with the PIU to discuss Project implementation. The Panel found no records of these meetings and, therefore, could not confirm their frequency.

340. In summary, the Panel considers the frequency of the Bank Project team’s supervision adequate and in accordance with Bank policy. The Bank undertook the regular biannual supervision visits. In addition, the Bank conducted monthly visits and weekly meetings with the PIU.

341. **Technical Expertise Involved in Bank Supervision.** The Panel analyzed the composition of supervision missions before and after submission of the Request. The Panel notes there are no specific criteria for the number of participants having particular expertise on such missions; expertise should be commensurate with the complexity, risks, and challenges of the Project.

342. *Prior to Submission of the Request (April 2018-August 2021).* During the three years and four months between Project approval and submission of the Request, Management conducted eight missions. Prior to submission of the Request, Bank environmental specialists were present on all supervision missions, however, Bank social specialists were not always part of the supervision team.

343. Since its approval, the Project has been mainly supervised by one Bank social specialist. The Panel notes that while the supervision missions often included several environmental specialists, they sometimes had no social expertise, especially before submission of the Request. The Panel also notes that missions lacked a fisheries expert. According to the information available in the Aides-Mémoires,<sup>308</sup> prior to the Request three of the eight supervision missions included no social specialists. Social specialists participated in three of four regional supervision missions, but in none of the Togo-specific supervision missions. In comparison, the supervision missions were usually overseen by a staff to whom the Project is assigned and who has an environmental background and were attended by two or three environmental specialists.

344. *After Submission of the Request (August 2021-April 2022).* After the Request was submitted, Management conducted four onsite supervision missions. All of them included at least one environmental and one social specialist. The September 2022 supervision mission was the first to have two social specialists on the ground. During staff interviews, the Panel was informed that the Project may need to include a social scientist based in Lomé.

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<sup>308</sup> Regional Aides-Mémoires, October and November 2019; Togo Aides-Mémoires, May and November 2020, and May 2021.

345. The Panel team learned that, due to COVID-19 restrictions, many Bank staff had visited neither the Combined Works nor the Emergency Works sites. The Panel notes that, after submission of the Request, the Bank organized an additional safeguard supervision mission to address difficulties in the implementation of social and environmental measures related to Project impact, and commissioned a Social Audit on the impact of Emergency Works.

346. The Panel notes that while there are no specific rules on how many environmental or social specialists would be required, the adequacy of the expertise used is assessed in the context of the complexity, risks, and challenges of both the Combined and Emergency Works. The Panel observes that this expertise was insufficient. The Panel notes that it was only in December 2022 that Management stated that a fisheries expert would be mobilized to support the PIU to integrate alternatives or additional assistance to fishers using beach seine technique and to undertake a socioeconomic analysis of coastal community activities.<sup>309</sup> In this case, the expertise on social and fisheries was not commensurate with the complexity, risks, and challenges of the Project's socioeconomic aspects.

#### **6.5.2. Quality of Bank Supervision**

347. The section below reviews the quality of Bank supervision as it relates to the issues raised by the Requesters. These include (i) impact on the fishing community, (ii) occupational health and safety impacts related to the Emergency Works, (iii) delays in the preparation of safeguard documents, (iv) aspects related to disclosure of information and consultation, and (v) grievance redress.

348. **Impact on the Fishing Community.** This section relates mainly to the fishing communities in the Emergency Works area since the construction works in the Combined Works area started as the Panel was finalizing its report and the information available in the supervision documents regarding the fishing community mainly concerned challenges and risks related to the emergency protection sites.

349. After submission of the Request in August 2021, the supervision documents contained more information about the impacts on the fishing communities in the Emergency Works. The November 2021 Aide Mémoire included reporting on i) repair work to correct the damage at the Emergency Works sites to allow the structures to control temporary erosion, and ii) provision of a mechanism to monitor and maintain the structures. Regarding fishers' access to sea, the November 2021 supervision mission observed that the Emergency Works concrete pipe structures in Gbodjomé and Dévikinmé were unstable. This issue was raised by the Adissem fishers' delegation through the GRM and recorded in the PIU's October 2021 quarterly report, which proposed clearing two 50-meter-wide corridors to allow fishers to carry out their activities with less difficulty.<sup>310</sup>

350. Following submission of the Request, the Bank informed the PIU of the need to conduct a Bank-commissioned Social Audit for the Emergency Works by the first quarter of

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<sup>309</sup> Aide Mémoire, December 2022.

<sup>310</sup> WACA ESMR, 2021 Third Quarterly Report.



2022.<sup>311</sup> The Bank Project team intensified supervisions, which became monthly, and committed to i) undertake a social audit of the Emergency Works, ii) ensure fishers have access to the sea via corridors for boat landing in Adissem, iii) pilot the WACA Local Actions and Citizen Engagement (LACE) to support information-sharing, capacity building, and dialogue with local communities as part of a community-based resilience approach,<sup>312</sup> and iv) assist the Government in undertaking an information campaign.<sup>313</sup>

351. The March 2022 ISR reported that the Social Audit of the Emergency Works sites took place January 24-31, 2022, to deal with complaints from people living along the coast.<sup>314</sup> The main conclusions of the Audit, presented in the April 2022 quarterly report, were that the Emergency Works caused neither physical nor economic displacement and did no harm to the livelihoods of fishing communities, but rather generated positive impact by temporarily boosting employment. The quarterly report stated that the pipe construction sites employed 289 people, of whom 161 were men and 128 were women, with total wages paid May 2021-January 2022 amounting to FCFA 155 million (about USD 254,225).<sup>315</sup>

352. During the June 2022 supervision mission, Management noted further damage to the pipes. It stated that the Dévikinmé 1 and 2 pipes were covered by sediment and the Tango pipe wall was breached on its eastern flank. The mission made similar observations about the pipes in Adissem. According to fishers who spoke with the Bank Project team, the beach corridors in Adissem had debris from the broken pipes.<sup>316</sup> The August 2022 quarterly report recorded a fishers' complaint that during the April 2022 high tides, waves broke anchor lines and damaged two pirogues. The Social Audit recommended that another boat, damaged by the January 2022 high tides, be repaired. The June 2022 Aide Mémoire and ISR and the August 2022 quarterly report indicated that the PIU purchased two pirogues, a set of nets, and two motors to replace those destroyed at Adissem.

353. The October 2022 Aide Mémoire stated that the PIU and the Bank Project team agreed to continue weekly monitoring of the implementation of project activities, including the environmental, social, health and safety measures relating to coastal protection works and the issues raised by the consultations with and commitments to the neighboring communities.

354. In December 2022, the Bank noted that implementation of income-generating activities under PAD Subcomponent 3.2 faced difficulties. Management attributed these challenges to the low capacity of community-based organizations and recommended strengthening them with the support of non-governmental organizations.<sup>317</sup> Management also reported that consultations were undertaken with fishers and *mareyeuses* to facilitate the preparation of the income-generating activities.<sup>318</sup> The PIU was to submit the proposed

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<sup>311</sup> Aide Mémoire, November 2021.

<sup>312</sup> Management Response, p. 17, para. 58.

<sup>313</sup> ISR 07, March 2022.

<sup>314</sup> Ibid.

<sup>315</sup> WACA ESMR, 2022 First Quarterly Report.

<sup>316</sup> Aide Mémoire, June 2022.

<sup>317</sup> Aide Mémoire, December 2022.

<sup>318</sup> Ibid.

activities to the Bank for no-objection by March 5, 2023.<sup>319</sup> The supervision document further noted the risk of conflict between local or indigenous fishers and those coming from other areas.<sup>320</sup>

355. In summary, the supervision documents before submission of the Request contained little or no information on the topics and issues raised therein, such as the identification of the affected fishing communities and their associated value chain, impact on community livelihoods, consultation with the affected communities, and PAP participation in the decision-making processes that would affect their lives and livelihoods. Furthermore, the supervision documents did not mention or address specific impacts on the coastal population due to the construction and rehabilitation of groynes. It was only after the Request was submitted that supervision documents reported on the fishers' concerns.

356. **Health and Safety Impacts Related to the Emergency Works.** The November 2021 Aide Mémoire identified the contractor's shortcomings in raising awareness about safety associated with the construction of the Emergency Works. The document revealed the contractor's failure to provide PPE to the community members hired as workers for the Emergency Works, the nonrenewal of workers' insurance, and the absence of first aid supplies in the medicine boxes. The mission recommended that the contractor correct these shortcomings before resuming work.<sup>321</sup> The October 2021 quarterly report also mentioned daily monitoring of the effective use of PPE on construction sites to avoid injuries as much as possible.

357. The Social Audit identified cases of minor injuries on the construction sites that it deemed satisfactorily managed by the contractor.<sup>322</sup> The March 2022 ISR reported that no serious or severe incidents related to health and safety (H&S) had been observed.<sup>323</sup> The PIU quarterly reports stated that no accidents had been observed during the documented periods (January 2021-March 2022). The August 2022 quarterly report mentioned two accidents, but neither had occurred in the Emergency Works. The June 2022 Aide Mémoire noted that it is difficult to distinguish harm caused by a broken concrete pipe from that caused by beachrock, but recognized that the Project created negative health- and safety-related social impacts that needed to be considered, according to the mission.

358. The August 2022 quarterly report stated that to enable proper monitoring of activities in the field, the Bank initiated capacity building sessions on H&S for the PIUs. These sessions took place by videoconference on January 6, 12, and 24 and March 21, 2022, for an average duration of three hours. Thus, according to the quarterly report, the specialists were equipped and trained in "*daily risk assessment and management*," health and safety management systems, and "*preparation for emergency situations*," and conducted practical exercises.

359. The August 2022 quarterly report stated that the supervision missions made it possible to monitor H&S measures on the sites and to assess their effectiveness in the Project

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<sup>319</sup> Ibid.

<sup>320</sup> Ibid.

<sup>321</sup> Aide Mémoire, November 2021.

<sup>322</sup> Social Audit, p. 14.

<sup>323</sup> ISR 07, March 2022.

context. However, it also stated that the monitoring of construction site activities had encountered some problems, especially with breaches and non-compliance related to the application of safety measures. According to the report, these difficulties were linked to the inadequate technical capacity of certain categories of workers recruited at the sites. As a response, the quarterly report mentioned that the PIU supported H&S awareness-raising and training for various stakeholders involved in the subprojects.

360. As noted above, during the Panel's November 2022 visit the Panel learned of several work-related injuries from the construction of the concrete pipe walls (see Table 4, above). Two supervision documents identified H&S issues at the Emergency Works sites. The Project put in place accident prevention measures, including H&S training and daily monitoring of PPE usage. The Panel observes that Bank supervision documents did not report how the PIU is addressing the risks to H&S at the Emergency Works sites.

361. In the December 2022 Aide Mémoire, Management stated that it recommended to the PIU that it verify that contractors conform to applicable labor laws. It added that the PIU would require evidence that workers sign labor contracts, which would include provisions related to salaries.<sup>324</sup>

362. **Delays in the Preparation of the Safeguard Documents.** The section below describes the Panel's considerations relating to Management supervision of the ESIA and RAP finalizations. The May 2021 Aide Mémoire flagged the delays in preparation of various safeguard instruments.<sup>325</sup> According to the October 2021 quarterly report, the main difficulty was the "*very weak*" interactions between the PIU and the consulting firms carrying out the ESIA and RAP of the Combined Works.

363. *ESIA.* According to the PIU quarterly reports, after the draft ESIA report went to the Bank for approval, the PIU and the Bank held discussions. These resulted in additional consultations in Aného and Agbodrafo in December 2021 (see Annex 2, Table A) to improve the document's quality. The April 2022 quarterly report stated that the ESIA was approved in February 2022. The March 2022 ISR also recorded that the ESIA for the Project had been finalized and approved by the Bank.<sup>326</sup>

364. *RAP.* After submission of the Request, Management committed to several actions to improve Project implementation, including the review and clearance of the RAP. According to the March 2022 ISR report, the RAP was "*thoroughly examined*" during the September 2021 supervision mission and the Bank Project team concluded that the document needed revising to bring it into compliance with the Resettlement Policy Framework, especially regarding the compensation procedures.<sup>327</sup> Several of the PIU quarterly reports had noted the difficulty implementing the RAP for the coastal protection works.

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<sup>324</sup> Aide Mémoire, December 2022.

<sup>325</sup> Aide Mémoire, May 2021.

<sup>326</sup> ISR 07, March 2022.

<sup>327</sup> Ibid.

365. Notwithstanding the above mentioned issues, the April 2022 PIU quarterly report stated that the Bank had approved the RAP in February 2022. The Panel notes that there was confusion whether the RAP had been approved. The April 2022 PIU quarterly report also noted that the RAP, being implemented by COMEX, remained “*problematic*” despite several interventions. According to the PIU, one of the bottlenecks was the compensation matrix approved by the Bank, which did not have COMEX consent. The PIU quarterly reports recommended that the Bank, COMEX, and the PIU meet to resolve the bottlenecks related to implementing the RAP.<sup>328</sup>

366. In the August 2022 quarterly report, the PIU indicated it expected the RAP’s Partial Implementation Report from COMEX. The quarterly report also noted that the Bank’s Mid-Term Review mission had recommended updating the RAP, in view of the pace of the coastal protection works.<sup>329</sup> The Panel observes that while the Bank was recommending revision of the RAP, the PIU was expecting a report from COMEX about RAP implementation, which illustrates continuing confusion about the RAP’s status.

367. The Bank carried out a technical mission for the management of environmental and social risks and impact on September 26-27 and October 3-4, 2022.<sup>330</sup> The main objectives of the mission were to (i) confirm the project area, (ii) crosscheck the list of PAPs from the RAP with information from other ongoing processes, and (iii) reach agreement on a timeline for completing implementation of the RAP and submission of the RAP completion report. Following field verifications, the PIU informed the technical mission that the number of PAP households had increased to 71, instead of the 63 in the June 2022 RAP. It was later determined by the technical mission in September and October 2022 that the number of PAP households was 64.

368. The September and October 2022 Aides-Mémoires noted the insufficient communication and collaboration between stakeholders during the preparation and early implementation phases of the RAP, referring to the Bank, PIU, and COMEX. During this technical mission, COMEX and the PIU agreed on updating and continuing implementation of the RAP. The Panel received the final version of the RAP in January 2023. According to the December 2022 Aide Mémoire, the PIU noted the difficulty COMEX had had implementing the RAP, especially the required measures that were not addressed by national regulations.<sup>331</sup>

369. In December 2022, Management reported that the ESIA and RAP for the AFD-financed groynes to be built in the seven-kilometer-long stretch from Gbodjomé to Agbodrafo was to be finalized in February 2023.<sup>332</sup>

370. In summary, the PIU believed the RAP was approved, when Management viewed RAP preparation to be problematic. While the Bank’s supervision report indicated that the

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<sup>328</sup> WACA ESMR, 2022 First Quarterly Report.

<sup>329</sup> WACA ESMR, 2022 Second Quarterly Report.

<sup>330</sup> Aide Mémoire, October 2022.

<sup>331</sup> Aide Mémoire, December 2022.

<sup>332</sup> Ibid.

Project needed to update the RAP,<sup>333</sup> the PIU and COMEX had proceeded with its implementation. The Panel observes that supervision documents adequately considered the challenges of finalizing the RAP before its implementation. However, the Bank did not ensure that RAP implementation was halted before approval. Management's reporting on the progress of the drafting of the ESIA in the supervision documents was adequate.

371. **Aspects Relating to Disclosure of Information and Consultation.** The March 2022 ISR noted that the mission had observed that insufficient public information had been made available to the communities about the WACA Project, which contributed to confusion over the Project area, the role of the RAP, and the GRM and other instruments. In response, the PIU committed to expanding and strengthening access to information through its communication activities being implemented on projects relating to coastal development.

372. The April 2022 quarterly report noted communication challenges regarding community involvement. To engage and inform affected communities better, in February 2022 the WACA Project initiated its *Radio du littoral* (Coastal Radio) program. The Panel reviewed the records of these radio broadcasts and notes that there were 11 broadcasts from February 2021 to January 2023 (see Annex 3, Table C). According to the August 2022 quarterly report, *Radio du Littoral* broadcasted two themes that are directly relevant to the Combined and Emergency Works: “*the Complaints Management Mechanism, a tool for the prevention and resolution of conflicts*” and “*the fight against coastal erosion: the approach of the WACA-ResIP-Togo project.*”<sup>334</sup>

373. The Panel notes that while these broadcasts are useful to disseminate Project information, they do not replace the disclosure requirements of the Bank Environmental Assessment and Involuntary Resettlement policies to inform those who will experience environmental or social impacts or who will be resettled. The Panel notes that the supervision documents contain no specific references to the disclosure process for the relevant safeguard documents.

374. **Aspects Relating to Grievance Redress.** The Panel notes that the supervision documents contained detailed information regarding the GRM's creation and operation. During the May 2020 supervision mission, Management concluded that the GRM was only partly functional, and the process of operationalizing it should be accelerated.<sup>335</sup> In a visit in November 2020, Management observed that the local GRM committees had encountered difficulties in documenting the complaints they received. To overcome this, the PIU opened an online exchange platform to facilitate the sharing of information.<sup>336</sup> The mission recommended that the PIU archive the information reported to monitor the processing of complaints, with a view to a potential audit by the Bank. Management suggested the PIU quarterly reports record the complaints received and append the overall complaints' register for the Project. The same mission noted good progress in establishing complaints management committees but suggested vigilance on the land acquisition process.<sup>337</sup>

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<sup>333</sup> WACA ESMR, 2022 Second Quarterly Report.

<sup>334</sup> Ibid.

<sup>335</sup> Aide Mémoire, May 2020.

<sup>336</sup> Aide Mémoire, November 2020.

<sup>337</sup> Ibid.

375. The May 2021 mission presented actions to sensitize stakeholders about the existence of the GRM, which was the subject of a radio program and training given to the news media.<sup>338</sup> In addition, the mission reported that the complaints mechanism should be strengthened and that GRM reports should include the dates complaints were closed.<sup>339</sup> The September 2021 ISR reported that complaints had been received and addressed in a timely manner, and that they were being filed in a central registry managed by the PIU.<sup>340</sup>

376. According to the November 2021 Aide Mémoire the GRM in place was still only partly functional and this was unsatisfactory given the stage of the Project's progress. The Aide Mémoire also advised that GRM operationalization should be accelerated.<sup>341</sup> Additionally, the mission was informed that six new complaints management committees had been set up in villages and neighborhoods benefiting from the Emergency Works and that updates on GRM implementation had been made in each quarterly environmental and social monitoring report. According to the Aide Mémoire, the GRM should cover all Project sites, as per Project documents. Therefore the Aide Mémoire recommended that the PIU (i) constantly ensure that the complaints management mechanism is available, and that the population concerned is aware of it and knows how to use it, (ii) examine the requests and the responses provided, (iii) check whether the defined channels for submitting complaints remain relevant and operational, and (iv) inform the Bank of any difficult or unresolved issues.

377. The March 2022 ISR stated that the GRM was functional at the canton level and was becoming functional at the village level. According to the Bank Project team, the Project responded to community claims that residents were unable to submit complaints, and to village authorities alleging that information about the GRM was not accessible everywhere. According to this ISR report, the Bank continued to implement support to the PIU to ensure that concerned villages were informed about the Project and that they had access to the GRM mechanism. Additional strengthening was needed at the village level to make local people and authorities fully aware of the Project and the use of the GRM.

378. The June 2022 Aide Mémoire stated that "*the communities impacted along the coast are more conscious of the existence of the GRM, however, the people encountered were not aware of its existence and especially of its functions.*" The Panel notes the confusion surrounding the existence of the GRM. To address this issue, the PIU distributed illustrated posters in French regarding the GRM. The June 2022 mission recognized the low level of French literacy in the communities concerned and suggested other, more relevant techniques, such as role-playing. The mission recommended that a literate person from each Emergency Works site be the GRM focal point. According to the same Aide Mémoire, the PIU had reported that it had already carried out these activities and that knowledge of the GRM by the relevant populations had grown compared to the beginning of the year.<sup>342</sup> This improvement was confirmed in the October 2022 Aide Mémoire.

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<sup>338</sup> Aide Mémoire, May 2021.

<sup>339</sup> Ibid.

<sup>340</sup> ISR 06, September 2021.

<sup>341</sup> Aide Mémoire, November 2021.

<sup>342</sup> Aide Mémoire, June 2022.

379. The December 2022 Aide Mémoire noted that complaints were not systemically recorded in the GRM registers. It suggested that the PIU adopt a wider view of the GRM and consider it a tool for interacting with the community. In this context, Management suggested the PIU categorize submissions to the GRM according to whether they were requests for information, expressions of satisfaction, or complaints. It added that these submissions should be reported in the quarterly reports.<sup>343</sup>

380. The Panel observes that supervision documents contain information on the difficulties inherent to setting up an operational GRM since the end of 2019. The Bank regularly reported on steps to improve its disclosure and operationalization. In the latest supervision documents, the Bank reported that communities had started using the GRM for the Combined Works, whereas it had previously been used mostly for the Emergency Works area.

## 6.6. Panel Findings

381. The Panel notes that the frequency of Bank supervision of the Project was adequate. The Bank undertook the regular biannual supervision visits. In addition, the Bank conducted monthly visits and weekly meetings with the PIU. **The Panel finds that Management periodically assessed the Project and reviewed the Borrower’s monitoring of results, risks, and implementation status. The Panel finds Management is in compliance with the Directive on Investment Project Financing, paragraph 43.**

382. The Panel observes, however, that the composition of the Bank Project team lacked expertise on fisheries, which may have contributed to the shortcoming in the ESIA to adequately identify the Project’s impacts on the fishing communities and their associated value chain. The Panel also observes that the composition of the Bank Project team during supervision lacked consistent involvement of a social scientist, which may have contributed to the need for extensive revisions of the RAP and the confusion around its implementation without Bank approval, and the delayed functioning of the GRM. **As the Panel noted above, the Panel finds the expertise on social aspects and fisheries was not commensurate with the complexity, risks, and challenges of the Project’s social aspects.**

383. The Panel finds that the quality of supervision varied. Supervision documents satisfactorily reported on the preparation of safeguard instruments and the problems in managing and establishing a functional GRM. However, they did not adequately report on the impact to fishing communities or on H&S issues relating to the Emergency Works. Furthermore, the Panel finds that Management’s supervision was not effective since it did not ensure the proper sequencing of RAP implementation, which needs to take place only after approval. **Therefore, the Panel finds that Management did not ensure that the impact on fishing communities, health and safety issues, and challenges in RAP implementation were identified and addressed in an effective manner. The Panel finds Management is not in compliance with the Bank policy on Investment Project Financing, paragraph 20.**

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<sup>343</sup> Aide Mémoire, December 2022.

## Conclusions

384. The importance of the WACA Resilience Investment Project for the Borrower and the communities located on the Togolese coast cannot be overstated. Togo's barrier beach – with its inadequate supply of sediment, active narrowing through erosion, and reduced capacity to migrate landwards – has little resilience to climate change impacts such as sea level rise and increasing storm intensity. The coastal barrier in its current geographic position and, crucially, the people and assets on it are at long-term risk of continued erosion. As indicated in the Project Appraisal Document and detailed on the program's website, the WACA Program was created in response to several West African countries' request to help save the social and economic assets of their coastal areas, and to address coastal erosion and flooding in particular.

385. The Requesters, who come from several of the coastal communities in Togo, recognize the importance of building resilience against coastal erosion and support the Project. They are also willing to be relocated if the Project requires, but are concerned about the potential impact to their livelihoods, including those derived from fishing activities, the adequacy of the design and implementation of the Resettlement Action Plan (RAP), and the availability of information concerning the Project. Some of the Requesters' concerns relate to the Combined Works – the construction of new and the rehabilitation of existing groynes in the WACA Project area stretching from Agbodrafo to Aného – while others relate to Emergency Works implemented on the beaches ranging from Gbodjomé to Adissem. In December 2022, the Bank reported that part of the Combined Works, rehabilitation of the groynes in Aného, was completed.

386. The Panel considered whether the Project analyzed alternatives and a no-project scenario, as mandated by the Bank Environmental Assessment Policy. The Panel noted that this Policy does not, however, specify which alternative to select. At the feasibility stage, the Project examined various protection measures for the Combined Works, as is required. Therefore, the Panel concludes that an alternatives analysis was carried out and included 6 scenarios of soft and hard alternatives. However, the Panel also concludes that the soft alternatives, which scored better during the initial stage of the feasibility analysis were not analyzed or assessed beyond that point. In addition, the Panel observes that the Project being implemented was not modelled.

387. The initial consideration of the Combined Works design included the area from Kpémé to Aného. However, this area was later excluded from the planned works without considering the impacts the constructed groynes westward would cause on it. The Panel concludes, based on observations in the ESIA, that the Combined Works will curtail the longshore transport of sediment eastward to this area, thereby increasing erosion and flooding, and that this impact has not been assessed and mitigated.

388. The Panel found that the Environmental and Social screening failed to identify key aspects of the Emergency Works and that the Bank approved its Category C classification. This resulted in no meaningful consultations and an absence of an environmental and social analysis and mitigation measures from being considered. The Panel concludes that during construction of the pipes for the Emergency Works, working conditions were hazardous and



health and safety measures were lacking; fishers were injured and their equipment damaged. The Panel also observes that some workers claimed to have outstanding wages.

389. Concerning involuntary resettlement for the Combined Works, the Panel notes that the survey of assets was exhaustive and was programmed to consider all the assets potentially present at the site and affected by the Project. However, the Panel concluded that not all PAP characteristics, losses, or types of impacts were identified. The Panel also concluded that there was no evidence that a vulnerability analysis was conducted to consider the landless people and people living below the poverty line.

390. In late 2022, the Project conducted a verification process of the socioeconomic data which did not account for all the income streams of dependents, including for some of the *mareyeuses* whose economic activities are homebased. The Panel concluded that the verified data failed to describe the production systems and livelihoods of the *mareyeuses* or the expected losses related to their occupation. In addition, the Panel found that some of the displaced PAPs were not provided transitional support, including rent allowances. The Panel concludes that for some PAPs and their dependents, the Project may have caused or may yet cause hardship and impoverishment because appropriate measures to improve or at least restore their livelihoods and standards of living are insufficient.

391. The Panel concludes that consultations during the development of the RAP did not create appropriate awareness and clarity of the Project's resettlement process. The resettled PAPs were offered an opportunity to participate in the planning and implementation of the resettlement only during the negotiations of compensation, which took place after resettlement decisions had been made. PAPs also received insufficient information about the GRM and are relying on COMEX – the national expropriations committee, which is not designed to address all types of grievances that could arise from the impacts of the Project.

392. Management stated in its Response to the Request that the RAP would require the Bank's no-objection before it would be considered ready for implementation. However, the Panel found that by the time the December 2022 RAP was reviewed and approved, the implementation of the previous June 2022 RAP was essentially complete. The Panel notes that the RAP that was implemented may not have contained the verified, socioeconomic data.

393. The Panel concludes that the December 2022 RAP is a great improvement over the June 2022 RAP and finds it encouraging that three months after the completion of the works and before Project closure, with support from the Bank the PIU will conduct a comprehensive and participatory audit of the RAP implementation. The Panel notes that the Project is being implemented in a rapidly eroding landscape, and that any increase in PAPs or further impact to existing PAPs due to the moving geophysical baseline during the construction period could potentially be identified by the RAP completion audit.

394. Many of the issues raised in this Report stem from the Project's incomplete understanding of the depth, complexity, and importance of fishing and the fisheries' associated value chain in the coastal communities. The new and rehabilitated groynes will prevent beach seine fishing in its current form, an important socioeconomic anchor and source of subsistence, from continuing to operate because the groynes obstruct that fishing

technique. Beach seine fishing is the most labor-intensive fishery and employs up to 25-45 fishers and 50-150 community members per fishing group (including men, women, and children) who help haul the net in exchange for some fish. The potential disappearance of the beach seine fishery, which currently operates six days per week, will severely impact several hundreds of fishers and *mareyeuses*, leaving them without adequate compensation from the Project. Although the safeguard documents for the Combined Works acknowledged the presence of fishing communities in the Project area, the Panel concludes that they were inadequately identified and the potential environmental risks and impacts to them, especially those practicing the beach seine technique, were not assessed.

395. Although Project documents identified the presence of fishers and *mareyeuses* in the areas of the works, the Project did not recognize the significance of the impact on them and on the fisheries' value chain and did not assess this impact on the great majority of the hundreds of people participating in the value chain. The Panel concludes that the Project therefore did not address the wider loss to livelihoods of *mareyeuses*, net manufacturers and repairers, motorcycle operators who transport fresh, smoked, fried, and salted fish to markets, villagers who work for pay hauling ropes and nets to shore, et alia.

396. The Panel observes that the June 2022 RAP considered measures to help the beach seine fishing associations transition to other fishing techniques. The RAP included measures, such as providing boats and nets, constructing cold storage and building six warehouses for the *mareyeuses*. A separate amount was allocated for the training of each of these fishers' associations. The Panel concludes that this raised a number of implementation questions, which were not addressed in this RAP.

397. Until the final version of the RAP, the Project considered livelihood support measures to mitigate the impact on fishers and *mareyeuses* – fish wholesalers, smokers, fryers, and salters. The final RAP, however, did not include the livelihood support measures for fishers that were previously planned. The Project considered that income-generating activities under PAD Subcomponent 3.2, would mitigate this impact. The Panel observes that since fishers, particularly beach seine fishers, and members of their associated value chain, are not targeted by this Subcomponent, it is incumbent upon them to propose income-generating activities. The Panel concludes that it will be challenging for this community to do so and thus restore livelihoods and notes that Management reported on these challenges in the December 2022 supervision document.

398. The Panel notes that whether these income-generating activities are part of the RAP or under Subcomponent 3.2, the Panel is not convinced the adverse socioeconomic impact likely to be felt by fishers and members of their associated value chain will be appropriately addressed by the Project. The Panel concludes that the impact on fishers and members of their value chain was not adequately analyzed or mitigated.

399. The Panel considers the frequency of the team's supervision adequate and in accordance with Bank policy – during the COVID-19 pandemic and afterwards. However, the Panel observes that the composition of the Bank Project team lacked a fisheries expert, which may have contributed to the shortcoming in the ESIA to identify the fishing communities, the impact on the fishers, *mareyeuses*, and their associated value chain,

especially those involved in the beach seine technique. The Panel also observes that the composition of the Bank Project team during supervision lacked consistent expertise on social aspects. The Panel noted that these two factors led to weak Project supervision. The Panel concludes the expertise was not commensurate with the complexity, risks, and challenges of the Project's socioeconomic consequences, particularly in relation to fishing and the fishing value chain.

400. Togo's coastal population, assets, and economic productivity are literally built on sand. The coastal barrier these assets occupy has naturally low resilience to the effects of storms, and its low-lying topography makes it highly vulnerable to climate change impacts like sea level rise. While the Project is implementing coastal protection measures and increasing sediment supply to the project area, it is difficult to predict how nature – i.e., the natural geomorphic system – will respond to sea level rise. This means the Project will require expensive, ongoing investment to build, maintain, or continually replace soft or hard coastal engineering systems designed to maintain the current coastline and the assets and people it supports. The sediment bypass, being considered by the WACA Project, aims to improve sediment transport and supply east of the Port of Lomé and to curtail erosion in Togo. However, the Panel observes that it would not fully alleviate the risk of the coastal barrier narrowing, drowning, or retreating in reaction to storms and sea level rise over century or longer timescales.

## Annex 1 – Table of Findings

Issue Area	Panel Observations and Findings
<b>Chapter 3 - Project Scenarios and Identification of Environmental and Social Risks</b>	
<b>Project Scenarios</b>	<p>The Project analyzed various scenarios as protection measures and this initially led to the selection of three options for further study. According to the multicriteria analysis, the best two scenarios (S1 and S5) involved massive-beach-replenishment (soft options). Nevertheless, the Project did not consider S1 and S5 further and considered only combined hard and soft options as a resilience measure, even though these scenarios scored worse in the multicriteria analysis. The Panel received no information to explain this decision. Ultimately, the scenario implemented was neither selected in the feasibility studies nor modelled. The Panel was informed that the final scenario, analyzed in the ESIA, was chosen for cost reasons.</p> <p><b>The Panel notes the two best options identified by the multicriteria analysis at the Phase 1 feasibility stage were not carried forward. However, the ESIA analyzed three alternatives and the no-project scenario. Therefore, the Panel finds Management is in compliance with OP 4.01, paragraph 2, and with OP 4.01 Annex B, paragraph 2(f). OP 4.01 requires an analysis to compare feasible alternatives systematically but does not provide guidance on the alternative to select.</b></p> <p>The Panel understands that massive beach replenishment scenarios was considered under the Phase 1 feasibility studies but was not taken forward, even though it scored better in the multicriteria analysis. The Panel notes that a massive-beach-replenishment scenario would have impacted beach seine fishing less.</p>
<b>Area of Influence and Impact of the Combined Measures on the Coast</b>	<p><b>The Panel observes that the Combined Works as described in the ESIA will curtail the longshore transport of sediment to the area from Kpémé to the groyne farthest west at Aného, causing increased erosion and flooding. The Panel finds that Management did not ensure the ESIA adequately assessed the Project’s adverse impact on Area B and included no measures to mitigate this impact, which is in non-compliance with OP 4.01, paragraph 2.</b></p>
<b>Environmental and Social Screening for the Emergency Works</b>	<p>The Panel notes that key design aspects and their E&amp;S impacts were not considered in the Environmental and Social screening. Such key aspects include i) the suitability of the pipes to withstand the waves and storms, ii) pipe maintenance, and iii) the decommissioning of the pipes, since they were</p>

Issue Area	Panel Observations and Findings
	<p>temporary. The Panel observes that the failure to consider these aspects may have led to the misclassification of the environmental categorization of the Emergency Works as Category C, which meant that, beyond screening, no further EA action is required.</p> <p><b>On this basis, the Panel observes that Bank classification of the Emergency Works as Category C, which requires no further EA action, led to a lack of meaningful consultation and the absence of an appropriate environmental and social impact assessment of these Works. The Panel finds this classification is in non-compliance with OP 4.01, paragraph 8. As a result, the Panel finds Management failed to ensure the Emergency Works are environmentally sound and sustainable, which is in non-compliance with OP 4.01, paragraph 1.</b></p>
<p><b>Construction of the Emergency Works and Working Conditions</b></p>	<p>The Panel observes that some workers claimed to have outstanding wages during construction of the pipes, hazardous working conditions, and lacking health and safety measures. The Social Audit acknowledged the weak health and safety measures and the occurrence of accidents. The Panel heard accounts of serious injuries to workers. The Panel observed throughout its three visits that the pipes continued to break and that the broken parts were not being removed. The Panel notes these broken parts continue to pose a risk of accident to fishers and immediate residents, including children. <b>The Panel finds that the working conditions for the construction of the Emergency Works lacked adequate human health and safety considerations. This is in non-compliance with OP 4.01, paragraph 3.</b></p>
<p><b>Grievance Redress relating to the Emergency Works</b></p>	<p>The Panel recognizes the actions taken by Management to ensure expansion of the GRMs to cover the Emergency Works areas and their disclosure to the PAPs. The Panel notes that although it is good practice, GRMs were not required in Bank-supported projects for anything other than involuntary resettlement before the Bank's Environmental and Social Framework became effective in October 2018. Hence, the Panel makes no finding on GRM in relation to the Emergency Works.</p>
<p><b>Chapter 4 - Project Footprint Considerations and Involuntary Resettlement</b></p>	
<p><b>Minimization of Resettlement and Moving Baseline</b></p>	<p><b>The Panel finds that, in the context of this resettlement, several survey confirmation exercises were undertaken between May 2021 and October 2022 in order to ensure that the Project area was limited to that which was strictly</b></p>

Issue Area	Panel Observations and Findings
	<p><b>necessary for groyne construction, which minimized resettlement. The Panel finds Management is in compliance with OP 4.12, paragraph 2(a).</b></p> <p>The Panel notes that coastal erosion is ongoing. The Panel observes that the longer it takes to construct the groynes, the greater the risk that the geophysical baseline will move inland. The Panel notes however that this risk is lower where the sediment of the micro-cliff is composed of stronger, consolidated materials, such as where the old highway ran. This is not the case in the rest of the areas, where the micro-cliff is composed of unconsolidated sand; in these areas the risk of erosion is greater and could go deeper inland.</p>
<p><b>Livelihood Restoration</b></p>	<p>The Panel finds that not all PAP characteristics of vulnerability identified in the socioeconomic data were considered for compensation. The Panel also finds no evidence that a vulnerability analysis was conducted which would have considered landless people and people living below the poverty line as part of this analysis. <b>The Panel finds Management is not in compliance with OP 4.12, paragraph 8.</b></p> <p>Furthermore, the Panel finds that the socioeconomic data did not take into consideration some income streams, such as that of the <i>mareyeuses</i> whose economic activities are homebased. The Panel finds that the verified socioeconomic data failed to describe the production systems and livelihoods of the <i>mareyeuses</i>, some of which are based on operating smokehouses. This meant they were not compensated for the expected losses related to their occupation. In addition, the Panel finds that some displaced PAPs were not provided transitional support, including rent allowance, to enable them to restore their livelihoods and standards of living. <b>The Panel finds that not all PAPs were provided sufficient support to improve their livelihoods and standards of living or at least to restore them. The Panel finds Management is in non-compliance with OP 4.12, paragraph 2(c) and paragraph 6(c)(i).</b></p> <p><b>The Panel finds that by the time the December 2022 RAP was reviewed and approved, the implementation of the previous RAP was essentially 90 percent complete. The Panel finds Management was not in compliance with OP 4.12, paragraph 29, for not having ensured that the satisfactory RAP was submitted for approval prior to</b></p>

Issue Area	Panel Observations and Findings
	<p><b>acceptance of the works for Bank financing and therefore before RAP implementation.</b></p> <p>The Panel finds it encouraging that three months after completion of the works the PIU will conduct a comprehensive and participatory audit of the RAP implementation to identify all impacts of resettlement and implement mitigation measures, and additional compensation as needed. The Panel is also encouraged that Bank financing will cover gaps identified between Bank policy requirements and national requirements, as required by the Resettlement Policy Framework.</p>
<p><b>PAPs Participation in Resettlement and GRM</b></p>	<p>The Panel observes that the resettled PAPs with whom it spoke considered the resettlement process to be confusing. They said they were offered no opportunity to participate in the development of the RAP. The Panel observes that consultations during the development of the RAP did not create sufficient awareness and clarity of the Project's resettlement process.</p> <p><b>The Panel finds that consultation with the resettled PAPs on the RAP regarding resettlement options was not meaningful. The Panel finds that resettled PAPs were only offered an opportunity to participate in the planning and implementation of the resettlement process during the negotiations of compensation, which took place after resettlement decisions had been made. The Panel finds this is in non-compliance with Bank Policy on Involuntary Resettlement, OP 4.12, paragraph 2(b).</b></p> <p>The Panel observes that resettled PAPs had insufficient information about the GRM and how to use it. The Panel observes that most resettled PAPs used the COMEX mechanism, which was explained to them only at the time of compensation payment. However, this mechanism is not designed to address all types of grievances that could arise from the impacts of the Project. <b>The Panel finds Management is in non-compliance with Bank Policy on Involuntary Resettlement, OP 4.12, paragraph 13(a).</b></p>
<p><b>Chapter 5 - Project Impact on Fishing Communities</b></p>	
<p><b>Identification and Consultation of Fishers as Stakeholders</b></p>	<p>The Panel observes that the safeguard documents (ESMF, ESIA, and RAPs) for the Combined Works identified the presence of fishing communities in the Project area and determined that the impact on them would be temporary and occur only during the construction phase. However, it did not</p>

Issue Area	Panel Observations and Findings
	<p>sufficiently assess the adverse impact of these works beyond the construction phase, especially on those practicing beach seine fishing or its associated value chain, which comprises many affected people. The Panel notes that the fishing community and Government officials, with the exception of officials in Aného, believe the beach seine fishery in the Project area is unlikely to continue because of the Project. On the other hand, Management states that beach seine is likely to continue depending on the fishing net dimensions and the half-kilometer distance between the groynes.</p> <p>The Panel finds that the consultation process did not target fishers and their associated value chain, which constitute distinct categories of stakeholders with unique, specific potential impacts. The Panel notes that after submission of the Request, a series of consultation meetings took place with fishers. <b>The Panel finds that the Project’s consultations were not meaningful before submission of the Request, as per Bank policy, and is in non-compliance with Bank Policy on Environmental Assessment, OP 4.01, paragraph 15. The Panel finds that after the submission of the Request the Project’s consultations targeted fishers and mareyeuses, which brought the Combined Works back into compliance with Bank Policy on Environmental Assessment, OP 4.01, paragraph 15.</b></p>
<p><b>Impact from the Combined Works on the Fishing Community</b></p>	<p>The Panel notes that Bank policy on Environmental Assessment (OP 4.01) requires consideration of a project’s natural and social aspects in an integrated way. <b>The Panel finds the Project is not in compliance with OP 4.01, paragraph 3, for not having assessed adequately the potential environmental risks and socioeconomic impacts of the Combined Works on the fishing community, especially those practicing beach seine fishing, in the Project area.</b></p> <p>The Panel observes that livelihood support measures for fishers will now be implemented under PAD Subcomponent 3.2 of the Project as income-generating activities. The Panel understands from this decision that in Management’s view, the economic impact felt by the fishers is not economic displacement per the Involuntary Resettlement Policy (OP 4.12). The Panel observes that since fishers, particularly beach seine fishers and members of their associated value chain, are not targeted by Subcomponent 3.2, it is incumbent upon them to propose a livelihood restoration project. The Panel observes</p>



Issue Area	Panel Observations and Findings
	<p>that it will be challenging for this community to do so and thus restore livelihoods.</p> <p><b>The Panel finds that, by requiring the fishers to propose income generating activities as livelihood restoration measures under Subcomponent 3.2, Management did not ensure that the Project’s adverse socioeconomic impacts on the fishing community and members of its associated value chain is mitigated. This is in non-compliance with OP 4.01 paragraph 2, and OP 4.12 paragraph 3, footnote 5.</b></p>
<p><b>Impact from the Emergency Works on the Fishing Communities</b></p>	<p>The Panel notes that the E&amp;S screening did not identify the impact of the concrete pipes on fishing activities from the time of construction to installation, maintenance, and decommissioning. <b>The Panel finds that, due to inadequate screening and categorization of the Emergency Works, as noted above, Management failed to ensure that the Project prepared an environmental assessment for the Emergency Works to ensure they are implemented in an environmentally sound and sustainable manner; this is in non-compliance with OP 4.01, paragraph 1.</b></p>
<p><b>Chapter 6 - Project Supervision</b></p>	
<p><b>Frequency of Bank Supervision</b></p>	<p>The Panel notes that the frequency of Bank supervision of the Project was adequate. The Bank undertook the regular biannual supervision visits. In addition, the Bank conducted monthly visits and weekly meetings with the PIU. <b>The Panel finds that Management periodically assessed the Project and reviewed the Borrower’s monitoring of results, risks, and implementation status. The Panel finds Management is in compliance with the Directive on Investment Project Financing, paragraph 43.</b></p>
<p><b>Technical Expertise Deployed for Supervision</b></p>	<p>The Panel observes, however, that the composition of the Bank Project team lacked expertise on fisheries, which may have contributed to the shortcoming in the ESIA to adequately identify the Project’s impacts on the fishing communities and their associated value chain. The Panel also observes that the composition of the Bank Project team during supervision lacked consistent involvement of a social scientist, which may have contributed to the need for extensive revisions of the RAP and the confusion around its implementation without Bank approval, and the delayed functioning of the GRM. <b>As the Panel noted above, the Panel finds the expertise on social aspects and fisheries was not commensurate with the complexity, risks, and challenges of the Project’s social aspects.</b></p>

Issue Area	Panel Observations and Findings
<p><b>Quality of Bank Supervision</b></p>	<p>The Panel finds that the quality of supervision varied. Supervision documents satisfactorily reported on the preparation of safeguard instruments and the problems in managing and establishing a functional GRM. However, they did not adequately report on the impact to fishing communities or on H&amp;S issues relating to the Emergency Works. Furthermore, the Panel finds that Management’s supervision was not effective since it did not ensure the proper sequencing of RAP implementation, which needs to take place only after approval. <b>Therefore, the Panel finds that Management did not ensure that the impact on fishing communities, health and safety issues, and challenges in RAP implementation were identified and addressed in an effective manner. The Panel finds Management is not in compliance with the Bank policy on Investment Project Financing, paragraph 20.</b></p>

## Annex 2 – List of Project-related Consultation Meetings

Table A – Consultation and Information-sharing Meetings Listed in the ESIA

<b>Date(s) of Consultation</b>	<b>Location</b>	<b>Participants</b>	<b>No. of Participants</b>
<b>May 4, 2021</b>	Agbodrafo (9:40-10:40 a.m.)	Administrative and traditional authorities in the affected localities	13 authorities, no women
<b>May 10, 2021</b>	Aného (10:18-11:35 a.m.)	Administrative and traditional authorities in the affected localities	10 authorities, including three women
<b>May 24, 2021</b>	Kpémé (10:50-12:30 a.m.)	Affected and vulnerable people in the Project area	46 potential PAPs – 27 men and 19 women
<b>August 20, 2021</b> (from the Note on Fisheries and the RAP but not in the ESIA)	Agbodrafo and Aného (no time provided)	Fishing associations in projects supporting fisheries	150 people (no details provided on the composition of the group)
<b>September 13, 2021</b> (from Management)	Adissem (10:00-11:30 a.m.)	Fishers’ delegations, <i>mareyeuses</i> , PIU, contractor	22 people (no details provided on the composition of the group)
<b>December 11, 2021</b>	Agbodrafo (8:30-9:30 a.m.)	PAPs and vulnerable people in the presence of the PIU, local and traditional authorities	65 people – 52 men and 13 women
<b>December 11, 2021</b>	Aného (9:50-11:00 a.m.)	PAPs and vulnerable people in the presence of the PIU, local and traditional authorities	60 people were consulted – 43 men and 17 women
<b>August 13, 2022</b> (from Management)	Togbe-Kondji – Aného (8:25-10:30 a.m.)	Contractor, officials of fishing associations, <i>mareyeuses</i> ’ association	54 people – 24 men and 30 women
<b>August 17, 2022</b> (from Management)	N’lessi – Aného (9:15-11:10 a.m.)	Contractor, officials of fishing associations, <i>mareyeuses</i> ’ association	82 people – 56 men and 26 women
<b>August 20, 2022</b> (from Management)	Fante-Kome Beach – Aného (8:20-10:10 a.m.)	Contractor, officials of fishing associations, <i>mareyeuses</i> ’ association, PIU	111 people – 64 men and 47 women
<b>August 24, 2022</b> (from Management)	Aveme Beach – Aného (2:12-3:45 p.m.)	Contractor, officials of fishing associations, <i>mareyeuses</i> ’ association, PIU	63 people – 41 men and 22 women

<b>August 27, 2022</b> (from Management)	Villa Suédoise – Aného (8:20-9:45 a.m.)	Contractor, officials of fishing associations, <i>mareyeuses</i> ’ association, PIU	77 people – 59 men and 18 women
<b>August 31, 2022</b> (from Management)	Kpémé (2:20-4:05 p.m.)	Local authorities, officials of fishing associations, <i>mareyeuses</i> ’ association, PIU	101 people – 78 men and 23 women
<b>September 14, 2022</b> (from Management)	Aného (9:15-1:05 p.m.)	Local authorities, officials of fishing associations, <i>mareyeuses</i> ’ association, PIU	491 people – 295 men and 196 women
<b>October 26, 2022</b> (from Management)	Aného (3:10-4:45 p.m.)	Fishers’ beach administration committee, <i>mareyeuses</i> , local authorities, RAP consultant, main contractor	69 people – 61 men and eight women

Table B – Consultations Listed in the December 2022 RAP

<b>Date(s) of Consultation</b>	<b>Location</b>	<b>Participants</b>	<b>No. of Participants</b>
<b>May 4, 2021</b>	Agbodrafo (9:40-10:40 a.m.)	Administrative and traditional authorities in the affected localities	13 authorities, no women
<b>May 10, 2021</b>	Aného (10:18-11:35 a.m.)	Administrative and traditional authorities in the affected localities	10 authorities, including three women
<b>May 19, 2021</b>	Sanvée Condji (3:40-4:45 p.m.)	First series of consultations with potential PAPs and vulnerable people in the Project area	53 potential PAPs – 23 men and 30 women
<b>May 24, 2021</b>	Kpémé (10:50 a.m.- 12:30 p.m.)	Affected and vulnerable people in the Project area	46 potential PAPs – 27 men and 19 women
<b>August 17, 2021</b>	Agbodrafo (no time provided)	Affected people, local authorities, officials of ANGE and the Ministry of Environment and Forest Resources	185 people (no details provided on the composition of the group)
<b>August 18, 2021</b>	Aného	Affected people, local authorities, officials of	205 people (no details provided on

	(no time provided)	ANGE and the Ministry of Environment and Forest Resources	the composition of the group)
<b>August 20, 2021</b>	PIU (8:45-11:05 a.m.)	Fishers' delegations from Agbodrafo, Adissem, Tango, Goumou Kopé, Kpémé, and the regional cooperative for fishers	Six people and four WACA staff
<b>December 11, 2021</b>	Agbodrafo (9:30-10:30 a.m.)	PAPs and vulnerable people in the presence of the PIU, local and traditional authorities	32 people were consulted – 27 men and five women
<b>December 11, 2021</b>	Aného (11:30 a.m.- 12:30 p.m.)	PAPs and vulnerable people in the presence of the PIU, local and traditional authorities	40 people were consulted – 32 men and eight women
<b>November 2021 June 2022 October 2022</b>	<i>Information not provided in the RAP</i>	Consultations for updating data for the final validation by COMEX	<i>Information not provided in the RAP</i>

### Annex 3 – List of Radio Broadcast Topics

Table C – List of dates and topics of the Radio Broadcasts

	<b>Date</b>	<b>Theme</b>
<b>1</b>	<b>February, 2021</b>	Inaugural Broadcast
<b>2</b>	<b>March 25, 2022</b>	Project Flood Control Actions
<b>3</b>	<b>April 29, 2022</b>	Complaint Management Mechanism, A Conflict Resolution Prevention Tool
<b>4</b>	<b>May 27, 2022</b>	Fight Against Coastal Erosion: The Approach of the Project
<b>5</b>	<b>July 1, 2022</b>	Reforestation strategy of the Government: The Project's contribution
<b>6</b>	<b>July 29, 2022</b>	Pollution Control Actions of the Project
<b>7</b>	<b>August 26, 2022</b>	Sustainable Management of Community Forests: The Case of the Godjê Godjin Sacred Forest
<b>8</b>	<b>September 30, 2022</b>	Project Support for the Conservation of Wetlands with High Biodiversity Value: The Case of the Afito Hippopotamus Pond Complex in Yoto Prefecture and Lake Elia in Bas Mono
<b>9</b>	<b>October 28, 2022</b>	Complaint Management Mechanism: An Essential Tool for Conflict Prevention and Resolution in the Lacs 2 Commune and the Cleaning of the Gbaga Channel: The Project's Activities
<b>10</b>	<b>November 25, 2022</b>	Protection of the Togo-Benin Cross-border Coast: Update on the Major Works
<b>11</b>	<b>January 16, 2023</b>	Report on the Implementation of the Project within the Framework of Coastal Protection Works, Community Subprojects, and Income-generating Activities

## **Annex 4 – Biographies of Inspection Panel Members and Expert Consultants**

**Ramanie Kunanayagam, Panel Chairperson.** Ms. Kunanayagam, a Sri Lankan-born Australian citizen, was appointed to the Inspection Panel on December 16, 2018, and became Panel Chair on January 1, 2022. She brings to the Panel three decades of experience across diverse geopolitical and multicultural environments in the private and public sectors. She has held leadership positions in sustainability in the private sector, working for two FTSE 10 companies. Before joining the Panel she was the Global Head for Social Performance and Human Rights for BG Group/Royal Dutch Shell. She has been a member of the boards of international, non-profit development organizations – Youth Business International, RESOLVE, and the Institute of Human Rights and Business. Ms. Kunanayagam has strong operational experience working across the entire project cycle. She spent more than 10 years doing fieldwork in a remote part of East Kalimantan, Indonesia, managing complex social and environmental issues for large extractive projects. Her experience with multinational and international organizations and valuable experience living and working in more than 30 countries demonstrates her people skills and ability to broker trust relationships. Her appointment as a secondee to the World Bank early in her career gives her insight into and knowledge of the organization’s operations that complement the expertise she has developed working with civil society, multilaterals, bilaterals, and communities affected by World Bank projects. She earned a master’s degree in anthropology from Monash University, Australia. Her Panel term runs through December 15, 2023.

**Mark Goldsmith, Panel Member.** Mr. Goldsmith, a British citizen, was appointed to the Inspection Panel on November 17, 2019. He brings to the Panel more than 25 years of experience managing complex projects and teams across the financial services, development, strategy consulting, and energy sectors. His leadership includes both the public and private sectors, where he has demonstrated the ability to manage multi-stakeholders, understand complex issues, and lead the implementation of industry-wide and sector-leading solutions. Through his work in both emerging and developed economies, Mr. Goldsmith has dealt with a wide portfolio of complex and sensitive matters, including environmental, social, sustainability, safety, risk management, and governance issues – experience that provides great value to the Panel. Before creating his own sustainability consultancy, FiveOak, in 2015, Mr. Goldsmith was Director, Responsible Investment for Actis for more than 10 years. During that time, he was a leader in environmental and social governance (ESG) thinking on emerging markets. In this capacity he developed and promoted worldclass standards in business integrity, health and safety, social, environmental, and climate change areas across all investment areas and companies, and implemented robust corporate governance standards and transparent practices. From 2014 to 2019, Mr. Goldsmith was a nonexecutive director of ENEO, the power company of Cameroon, and chaired the board subcommittee on ESG for four of those years. Mr. Goldsmith has led several assignments, including developing environmental and social training for British International Investment (formerly CDC Group) on the International Finance Corporation's Performance Standards and providing ESG expert advice to an East Africa private equity fund and its portfolio companies. He has a bachelor’s degree in manufacturing engineering from the University of Nottingham and a master's degree with distinction in environmental pollution control from the University of Leeds. His tenure on the Panel runs through November 16, 2024.

**Ibrahim Pam, Panel Member.** Mr. Pam is an accomplished international lawyer and investigator with strong leadership experience and specializations in investigating human rights abuses, fraud, and financial crimes, with expertise in international, internal oversight and accountability mechanisms. Most recently he was interim Head of the Independent Redress Mechanism at the Green Climate Fund (GCF) and Head of the Independent Integrity Unit there. He worked as an Investigator in the Office of the Prosecutor at the International Criminal Court (ICC) and as Chief Investigator in the Integrity and Anti-Corruption Department of the African Development Bank. He held various leadership positions and responsibilities in the United Nations, including at its mission in South Sudan and in the Central African Republic. Mr. Pam worked as Special Legal Assistant to the Nigerian Truth Commission, which, amongst other things, dealt with environmental and human rights issues in the Niger Delta. He served as Chief Legal Officer in the Nigerian Anti-Corruption Commission. He participated in the drafting of the African Union Convention on Combating and Preventing Corruption, and of the UN Convention Against Corruption. He assisted in developing the General Principles for Review of Investigative Offices of the Conference of Investigators. He is concurrently a Member of the Independent External Oversight Advisory Committee of the Joint UN Programme on HIV/AIDS and Chair of the *Ad Hoc* External Panel on Workplace Culture for the Office of the Prosecutor of the ICC. He serves as a Member of the Advisory Board of the African Association of International Law. Mr. Pam holds a Bachelor of Laws degree from the University of Jos, and a Master of Science degree in Criminal Justice Policy from the London School of Economics and Political Science. He is a Barrister and Solicitor of the Supreme Court of Nigeria. His tenure at the Panel runs through December 31, 2027.

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**Dyhia Belhabib, Expert Consultant.** Ms. Belhabib is an expert on fisheries, maritime crime, and socially just conservation and enforcement. She is currently working on illegal fishing as a Principal Investigator at Ecotrust Canada, where she founded Spyglass, the most comprehensive criminal record of fishing vessels in the world. She is also an Executive Director at Nautical Crime Investigation Services, where she pursues responsible technologies for maritime enforcement and fisheries management. Ms. Belhabib has developed a comprehensive curriculum on enhancing fair and effective enforcement at sea for the United Nations Office on Drugs and Crime, and works on building capacity in multiple jurisdictions around the world. Her research has investigated the links between conservation and illegal practices, industrial fisheries, and artisanal fishing, and between development and governance in the sector. She has also advocated for decolonization and greater equity in ocean science, conservation, and development. Ms. Belhabib is a leading expert on West African fisheries, with extensive knowledge of the region's marine ecosystems and the challenges facing small-scale fishers. Her research has focused on the intersection of social justice, environmental sustainability, and economic development in the context of West African fisheries. She has collaborated with local communities and organizations to advocate for responsible fishing practices and build capacity in marine conservation and enforcement. Her deep knowledge of the region's fisheries has helped her identify the specific challenges facing small-scale fishers, such as access to credit, infrastructure, and market opportunities. Her work has been featured in the [\*New York Times\*](#),



*The Guardian*, Al Jazeera, CBC news, LePoint.fr, and many other news outlets. She is also a TEDx Speaker on decolonizing science and the conservation narrative. Ms. Belhabib obtained a doctorate in Resource Management and Environmental Studies from the University of British Columbia in 2014 and has authored more than 110 peer-reviewed [articles](#), book chapters, and reports.

**Larissa Naylor, Expert Consultant.** Ms. Naylor is Professor of Geomorphology and Environmental Geography at the University of Glasgow, the United Kingdom. She works at the interface of geomorphology, ecology, and engineering and applies this interdisciplinary approach to address ecological and climate change challenges facing society in Europe, Canada, Asia, and West Africa. Collaborating with practitioners and policymakers, her work shapes academic debates, policy, planning, and practice in both coastal and urban settings. Previous academic positions include Associate Professor, University of Exeter and Fellow, Tyndall Centre for Climate Change Research. She has also held roles in Government Agencies and Environmental Consultancies in the United Kingdom and Canada. She obtained a bachelor of science degree in geography from University of Victoria, Canada, in 1997, and a doctorate in geography from University of Oxford in 2002. She has authored numerous peer-reviewed [articles](#), book chapters, and reports, and held editorial roles in world-leading journals. Ms. Naylor helped establish the UK's Marine Climate Change Impacts Partnership, informed the Intergovernmental Panel on Climate Change's (IPCC) 4<sup>th</sup> and 5<sup>th</sup> Assessments, and advised the International Union for Conservation of Nature (IUCN). She was appointed to Adaptation Scotland's Advisory Board and has shaped climate change, marine, flooding, planning policies, and climate change adaptation action plans from national to local scales across Scotland and Wales, including the Scottish Government's [Dynamic Coast](#) project. Her work has won notable awards for career achievements, best papers, industry innovation, and as exemplars of international best practice on coastal risk management projects, including co-authoring a chapter in US Army Corps of Engineers' *International guidelines on Natural and Nature-based Solutions*. Her work has been featured in news outlets including the [New Scientist](#), *The Sunday Times*, BBC, FrenchNews24, Inside Climate News, and National Geographic Kids.

**William L. Partridge, Expert Consultant.** Mr. Partridge is a United States citizen who has master's and doctorate degrees in anthropology from the University of Florida. He recently retired from Vanderbilt University where he was Professor of Anthropology and Professor of Human and Organizational Development. Before that he worked at the World Bank for 15 years, first as a consultant, next as Senior Anthropologist for the Asia and Pacific Region, and then successively as Principal Anthropologist, Environmental Assessment Manager, Chief of the Environment Division, and finally as Lead Anthropologist for the Latin America and Caribbean Region. Prior to that he was Chairman of the Department of Anthropology at Georgia State University, taught at the University of Southern California and the State University of New York, and conducted field research on population displacement and resettlement in Costa Rica, Colombia, Guatemala, and Mexico. Mr. Partridge co-authored with D. Halmo *Resettling Displaced Communities: Defining the International Standard for Involuntary Resettlement* (2021), Landham Maryland: Lexington Books, Rowan and Littlefield Publishing Group, Inc. He is co-author with A. Dani, T. Dichter, K. Kuehnast, A. Kudat, B. Bulent Ozbilgin, and M. Mejia of *Social Analysis Sourcebook* (2002), Washington, D.C.: World Bank. He edited *Reasentamiento en Colombia* (2000), Washington, D.C., and

Bogotá: United Nations High Commissioner for Refugees, World Bank, Corporación Antioquia Presente, and Office of the President of the Republic of Colombia. He has also authored numerous technical articles in scientific journals. Mr. Partridge has served as an involuntary resettlement consultant to the World Bank, the InterAmerican Development Bank, the International Finance Corporation, the Asian Development Bank, the United Nations High Commissioner for Refugees, and the World Bank Inspection Panel. In addition, he has consulted on the resettlement operations of development finance agencies of Austria, Colombia, Germany, Norway, Spain, Switzerland, and Türkiye.

## **Annex 5 – Technical Annex: The West African Coastal Barrier System Coastal Erosion, Flooding, Climate Change Adaptation, and Resilience**

**Professor Larissa A. Naylor**

This Technical Annex provides additional detail to explain current and future risks and impacts of coastal erosion on coastal processes, coastal landforms, ecosystems, communities, and infrastructure in West Africa. Coastal erosion and flooding are consequences of the combined effects of global climate change pressures and regional-local human impacts such as development pressures that restrict sediment supply. Together these pressures influence coastal erosion rates and their geographical extent, long-term (decades to centuries) evolution of coastal landforms, and thus impacts on the resilience of people and assets occupying these landscapes.

This annex describes the physical geography of coastal barrier systems and key oceanographic, human, and climate change drivers shaping them, including longshore sediment – the transport system that supplies sand to barrier beach systems. It also considers potential cumulative impacts of human activities on the sediment supply and coastal erosion risks to people and assets. It then describes how barrier beach systems will likely adjust to coastal climate change impacts, illustrating the long-term (decades to centuries) adaptation limits and options using global data to highlight the risks. The vulnerabilities and risks outlined here are equally relevant for many low-lying, small, island states built on unconsolidated, sandy deposits, for landmasses where communities are built on or near low-lying beach and dune systems, and where people and assets occupy sedimentary deltas. All of these regions face future biophysical adaptation limits as climate change risks intensify.

The West African Coastal Barrier System illustrates the effects on sediment supply, coastal erosion, and barrier beach evolution of the interactions between various human- and climate-change factors. This annex is divided as follows:

- Section 1 provides global and local synopses of two key, coastal, climate change risks: sea level rise (SLR) and storminess, placing local risks for West Africa in the global context.
- Section 2 details the coastal processes and landform evolution of coastal barrier systems, outlining how natural coastal barrier systems respond to key human activities affecting sediment supply, using the West African Coastal Barrier system as a case study.
- Section 3 covers the climate change risks and known coastal barrier responses to SLR fluctuations to highlight the likely, longer-term impacts of climate change on coastal barrier systems.
- Section 4 outlines the longer-term physical adaptation limits and options for managing combined human impacts and climate change risks along coastal barriers.

## 1. Global and Local Climate Change Risks

“It is unequivocal that human activities have heated our climate. Recent changes are rapid, intensifying, and unprecedented over centuries to thousands of years. With each additional increment of warming, these changes will become larger, resulting in long-lasting, irreversible implications, in particular for sea level rise.”<sup>i</sup>

### 1.1. Global Sea Level Rise

Global sea levels are higher today than in the past 3,000 years; the rate of SLR has accelerated over the past 100 years, with confidence increasing with each new Intergovernmental Panel on Climate Change (IPCC) Report. The 2007 IPCC stated, there is high confidence that the rate of sea level rise has increased between the mid-19th and the mid-20th centuries.<sup>ii</sup> The 20 cm global average SLR since 1900 is unprecedented over the long-term record (Figure A).<sup>iii</sup>

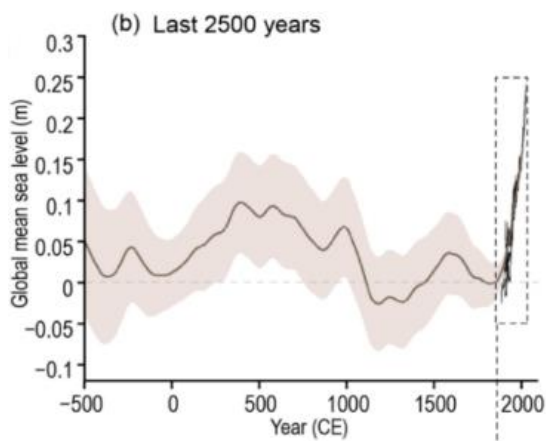


Figure A. Changes in Global Mean Sea Level: Reconstructions for the last 2,500 years based upon a range of proxy sources with direct instrumental records superposed since the late 19th century, showing the unprecedented rate of SLR in the past century compared to the long-term average.<sup>iv</sup>

<sup>i</sup> IPCC, 2021: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2391, p. v.

<sup>ii</sup> Ibid., p. 5.

<sup>iii</sup> Ibid., p. 89.

<sup>iv</sup> IPCC, 2021. Figure 2.28 in IPCC, 2021: Chapter 2. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Gulev, S.K., P.W. Thorne, J. Ahn, F.J. Dentener, C.M. Domingues, S. Gerland, D. Gong, D.S. Kaufman, H.C. Nnamchi, J. Quaas, J.A. Rivera, S. Sathyendranath, S.L. Smith, B. Trewin, K. von Schuckmann, and R.S. Vose, 2021: Changing State of the Climate System. pp. 287–422, doi:[10.1017/9781009157896.004](https://doi.org/10.1017/9781009157896.004).] In IPCC, 2021: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2391 pp. doi:[10.1017/9781009157896](https://doi.org/10.1017/9781009157896), p. v.

The IPCC<sup>v</sup> has measured nearly a three-fold increase in the global rates of SLR observed over the period of 2006-2018, to 3.7 millimeters per year compared to the rate for 1901-1990 (1.35 millimeters per year). The IPCC<sup>vi</sup> calls this a “*robust acceleration (high confidence) of global mean sea level rise over the 20th century.*” Importantly, this finding of recent, accelerated SLR is not new; it was reported in the IPCC’s Fourth Assessment Report in 2007. What is new is the three-fold increase in the rate of change between then and now. The rate and extent of SLR are closely tied to global emissions; progress reducing the World’s emissions is currently slow. As a result, current global SLR rates are at the high end of those predicted (Figure B-d, below). SLR projections for 2100 and 2300 show continued increases in future SLR.<sup>vii</sup>

There is also a lag between carbon dioxide and atmospheric warming, and their effect on sea level. This means that past emissions will continue to drive future SLR, even if net zero is achieved tomorrow.

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<sup>v</sup> IPCC, 2021, Chapter 9: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2391 pp. doi:10.1017/9781009157896, p. 1,289.

<sup>vi</sup> IPCC, 2021. Figure SPM.8 in IPCC, 2021: [Summary for Policymakers](#). In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3–32.

<sup>vii</sup> IPCC, 2021: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2391 pp. doi:10.1017/9781009157896., p. v.

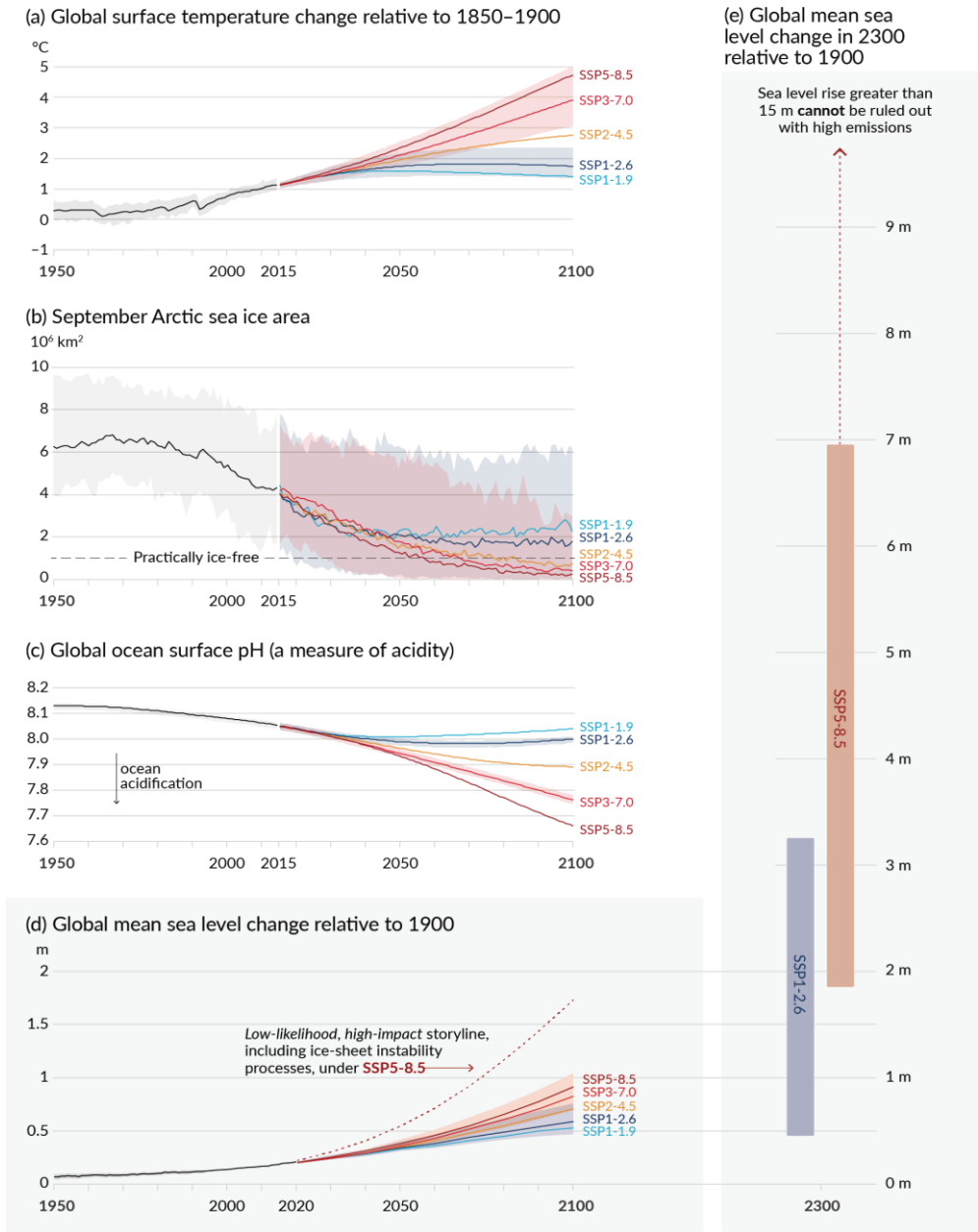


Figure B. Selected indicators of global climate change based on long-term averages for the Sixth IPCC Assessment Report (2021). Projections for the five scenarios are in color. Shades represent uncertainty ranges – more detail is provided below. The black curves represent the historical simulations (panels a, b, and c) or the observations (panel d). Historical values are included in all graphs to provide context for the projected future changes.

- (a) Global surface temperature changes.
- (b) September Arctic sea ice area.
- (c) Global ocean surface acidity (pH).
- (d) Global mean sea level change in meters, relative to 1900.
- (e) Global mean sea level change in 2300 in meters, relative to 1900.<sup>viii</sup>

<sup>viii</sup> IPCC, 2021. Figure SPM.8 in IPCC, 2021: [Summary for Policymakers](#). In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3–32.

## 1.2. Sea Level Rise in West Africa

Africa is a data scarce region, where research is underfunded and more limited local, instrumental (e.g., tide gauge) data and modelling are available for all risks and impacts.<sup>ix</sup> This is especially the case for key climate change risks: past, recent, and future SLR and storminess. The latest IPCC report shows medium-to-higher confidence of past SLR in West Africa, and high confidence of future increases in relative sea level.<sup>x</sup> Records of past (over 100 years to millennial) sea level changes for West Africa are scarce; the proxy data that does exist shows past sea level trends and, crucially, how the West Africa Coastal Barrier is a geologically young and ephemeral landform created in response to past fluctuations in sea level.<sup>xi</sup>

Locally, past (1979-2007) sea level change has been calculated using satellite data from the European Centre for Medium-Range Weather.<sup>xii</sup> Between 1993-2007, measured SLR rates were about 2.5 millimeter per year;<sup>xiii</sup> these rates are above the long-term global average reported by the IPCC for the 20<sup>th</sup> century.<sup>xiv</sup> Importantly, these data analyses stop in 2007 and the IPCC has measured an almost three-fold increase in the global rates of SLR in 2006-2018, to 3.7 millimeters per year.

Future SLR projections for West Africa are equally scarce,<sup>xv</sup> limited to a few, local, detailed modelling studies, or are extracted in reports from global studies which have poor spatial resolution. The local studies, such as Kebede et al. 2018, modelled SLR in West Africa and conclude that rates are expected to be up to 1.1 meter by 2100 under the high emissions scenario (based on the RCP8.5). These forecasts are similar to the IPCC's global predictions, which are likely underestimated as Africa has above average global SLR. With these underestimations, it is projected that in the 21<sup>st</sup> century this region will endure five times the SLR of the last century. Indeed, United Nations Under-Director-General Vera Songwe has said, "*Africa is enduring more than the average global sea level rise.*"<sup>xvi</sup>

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<sup>ix</sup> IPCC, 2021: [Factsheet on Coastal Cities and Settlements](#), p. 1. In *Climate Change 2021: The Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*.

<sup>x</sup> IPCC, 2021: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2391 pp. doi:10.1017/9781009157896., p. 122.

<sup>xi</sup> Amieux, P., Bernier, P, Dalongeville, R., Medwecki, V. [Cathodoluminescence of Carbonate-cemented Holocene Beachrock from the Togo Coastline \(West Africa\) an Approach to Early Diagenesis](#), 1989. *Sedimentary Geology*, 65: 261-272, p. 262.

<sup>xii</sup> European Centre for Medium-Range Weather, ERA-interim grid point 5b (5.25 degrees North, 1.5 degrees East), via: <https://www.ecmwf.int/en/forecasts/datasets/reanalysis-datasets/era-interim>.

<sup>xiii</sup> World Bank. [Effects of climate change on coastal erosion and flooding in Benin, Côte d'Ivoire, Mauritania, Senegal, and Togo](#)-Technical Report,2020, p. 78.

<sup>xiv</sup> IPCC, 2019. Oppenheimer, M., B.C. Glavovic , J. Hinkel, R. van de Wal, A.K. Magnan, A. Abd-Elgawad, R. Cai, M. Cifuentes-Jara, R.M. DeConto, T. Ghosh, J. Hay, F. Isla, B. Marzeion, B. Meyssignac, and Z. Sebesvari, 2019: Ch. 4 Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge Univ. Press, Cambridge, UK and New York, NY, USA, pp. 321–445.

<sup>xv</sup> World Bank, 2020. *Effects of climate change on coastal erosion and flooding in Benin, Côte d'Ivoire, Mauritania, Senegal, and Togo – Technical Report*, p. 9.

<sup>xvi</sup> Mafaranga, H. [Sea level rise may erode development in Africa](#), 2020. *Eos*, 101.

As SLR in Africa is accelerating faster than the global average, these climate change effects will be felt sooner.

### 1.3. Global Storminess, Flooding, and Coastal Erosion

Trends in global storminess have more modelling uncertainties than those for SLR, due to the complex interactions between the oceans and atmosphere, and regional variation. However, for the late 21<sup>st</sup> century there is medium confidence that the average intensity of precipitation associated with storms will increase, and a high proportion of tropical cyclones will be in the highest two intensity classes (Category 4 or 5).<sup>xvii</sup> Importantly, there is *very high confidence* that SLR will lead to higher storm surge levels for most storm events.<sup>xviii</sup> “Historically rare extreme sea level events will occur annually by 2100, compounding these [human, infrastructure, ecosystem] risks (high confidence),<sup>xix</sup> increasing the height of storm surges. Globally, there is high confidence of greater coastal flooding and erosion on all continents, and high confidence of coastal erosion along most sandy coasts.<sup>xx</sup>

### 1.4. Extreme Sea levels, Wave Climate, and Storminess in West Africa

Local instrumented wave data in the region is limited to Ghana in West Africa.<sup>xxi</sup> Satellite wave data have been used to generate trends in waves, showing a regional increase in wave heights in recent decades. While the wave heights in the Gulf of Guinea are not especially high (an average significant

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<sup>xvii</sup> IPCC, 2019. Oppenheimer, M., B.C. Glavovic, J. Hinkel, R. van de Wal, A.K. Magnan, A. Abd-Elgawad, R. Cai, M. Cifuentes-Jara, R.M. DeConto, T. Ghosh, J. Hay, F. Isla, B. Marzeion, B. Meyssignac, and Z. Sebesvari, 2019: Ch. 4 Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge Univ. Press, Cambridge, UK and New York, NY, USA, p. 360.

<sup>xviii</sup> IPCC, 2019. Oppenheimer, M., B.C. Glavovic, J. Hinkel, R. van de Wal, A.K. Magnan, A. Abd-Elgawad, R. Cai, M. Cifuentes-Jara, R.M. DeConto, T. Ghosh, J. Hay, F. Isla, B. Marzeion, B. Meyssignac, and Z. Sebesvari, 2019: Ch. 4 Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge Univ. Press, Cambridge, UK and New York, NY, USA, p. 376.

<sup>xix</sup> IPCC.: *Climate Change 2022: Impacts, Adaptation, and Vulnerability*, 2022. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056 pp., TS.C.5 p. 62.

<sup>xx</sup> IPCC, 2021: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 2391 pp. doi:10.1017/9781009157896., p. 120-126.

<sup>xxi</sup> IPCC, 2019. Oppenheimer, M., B.C. Glavovic, J. Hinkel, R. van de Wal, A.K. Magnan, A. Abd-Elgawad, R. Cai, M. Cifuentes-Jara, R.M. DeConto, T. Ghosh, J. Hay, F. Isla, B. Marzeion, B. Meyssignac, and Z. Sebesvari, 2019: Ch. 4 Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge Univ. Press, Cambridge, UK and New York, NY, USA, pp. 358-359.



wave height of 1.5 meters and annual significant wave heights of 2.5 meters<sup>xxii</sup>) the combination of long period waves, strong Guinea current, seasonal monsoonal winds, and the narrow continental shelf makes the waves and longshore sediment transport system especially strong. “*This narrow shelf and paucity of sheltering islands allow deep-water waves and surface ocean currents to approach unmodified close to the mainland shore where they are unusually influential in moving sediment.*”<sup>xxiii</sup> This means that when waves hit shallow water near the coast in this region they break more abruptly, with more power to cause erosion and flooding. On average, there are at least 10 days per year when wave heights exceed two meters.<sup>xxiv</sup>

Simply put, this means the Gulf of Guinea coastal system has a naturally strong wave climate that is already experiencing more frequent, larger waves abruptly breaking nearshore and causing erosion and flooding. The interaction between the coast and these waves sets up eastward-flowing, longshore currents that are highly effective at transporting sediment, when available, in the dominant wave direction – from Cote d’Ivoire to Nigeria. During the stormy season especially, these waves accelerate sediment transport and cause erosion and flooding of the barrier beach system, adversely impacting the communities, assets, and infrastructure built on these naturally vulnerable barriers.

#### **1.4.1. Climate Change Impacts on Erosion and Storminess in West Africa**

The wave climate is already changing in this region, a trend discernable even though global data on extreme sea level events have a large and notable gap for West Africa,<sup>xxv</sup> and future predictions of changes in storminess and wave climate in this region are severely limited. Modelled data for 1979-2018 from the globally renowned European Centre for Medium-Range Weather (ERA-interim grid point 5b – 5.25°N, 1.5°E), shows the strength of waves increasing through time where the frequency of large waves (over 2.5 meters) has increased since 1996.<sup>xxvi</sup> This is in line with the IPCC’s trends (see Section 1.3) and as SLR will increase wave heights further, risks of future flooding (also called marine submersion) and erosion from an increasingly strong wave climate are expected. However, local evidence exists from a variety of sources that storms already cause extensive coastal erosion and flooding, and shows that storms and storm surges in this region are not exceptional. Coastal flood frequency in West Africa has grown in the past 50 years and future increases are expected.<sup>xxvii</sup> Average erosion rates are 1.8 meters per year for this region, with some countries, such as Benin, having average erosion rates of four meters per year in the recent past (e.g., last two decades); local erosion rates can be as high as 15 meters per year.<sup>xxviii</sup>

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<sup>xxii</sup> World Bank, 2020. Effects of climate change on coastal erosion and flooding in Benin, Côte d’Ivoire, Mauritania, Senegal, and Togo – Technical Report, p. 71.

<sup>xxiii</sup> Orme, A.R. [Africa, Coastal Geomorphology](#), 2005. In: Schwartz, M.L. (eds) Encyclopedia of Coastal Science. Encyclopaedia of Earth Science Series. Springer, Dordrecht, p. 1.

<sup>xxiv</sup> Acciona, 2018. Development of a West Africa Coastal Areas Regional Proposal to the Green Climate Fund (GCF): Institutional and Policy Gap Analysis and Recommended Measures for Climate Resilient Coastal Zone Management in West Africa. Climate Change Assessment Report.

<sup>xxv</sup> IPCC, 2019. Oppenheimer, M., B.C. Glavovic, J. Hinkel, R. van de Wal, A.K. Magnan, A. Abd-Elgawad, R. Cai, M. Cifuentes-Jara, R.M. DeConto, T. Ghosh, J. Hay, F. Isla, B. Marzeion, B. Meyssignac, and Z. Sebesvari, 2019: Ch. 4 Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge Univ. Press, Cambridge, UK and New York, NY, USA, pp. 358-359.

<sup>xxvi</sup> World Bank, 2020. Effects of climate change on coastal erosion and flooding in Benin, Côte d’Ivoire, Mauritania, Senegal, and Togo – Technical Report, p. 71.

<sup>xxvii</sup> World Bank, 2020. Effects of climate change on coastal erosion and flooding in Benin, Côte d’Ivoire, Mauritania, Senegal, and Togo – Technical Report, p. 9.

<sup>xxviii</sup> Ibid.

## 1.5. Effects on Global Coastal Communities

Low-lying, coastal cities and settlements worldwide already experience the impacts of climate change hazards on land and livelihoods. The IPCC states that “*Under all climate and socioeconomic scenarios, low-lying cities and settlements (...) will face severe disruption by 2100, and as early as 2050 in many cases (very high confidence) {TS.C.5.3}*.”<sup>xxix</sup> There is high confidence that approximately one billion people worldwide, including in small island states, will be at risk from coastal-specific climate hazards by mid-century, and that these risks will accelerate after 2050.<sup>xxx</sup> The IPCC adds that “*Cities and settlements by the sea are thus on the frontline of action to adapt to climate change, mitigate greenhouse gas emissions and chart climate resilient development pathways. {CCP2.1.1}*.”<sup>xxxi</sup>

The acute urgency of this situation is reflected by the landmark decision at the Convention of the Parties<sup>xxxii</sup> annual meeting in 2022 (called “COP27”) to establish a loss and damage fund to finance adaptation and resilience in lesser-developed countries, which would first prioritize low-lying, small island states, and by the establishment of the World Bank’s blue economy fund to improve food security and manage flood and erosion risks.<sup>xxxiii</sup>

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<sup>xxix</sup> IPCC, 2021: [Factsheet on Coastal Cities and Settlements](#), p. 1. In Climate Change 2021: The Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

<sup>xxx</sup> IPCC, 2022: *Climate Change 2022: Impacts, Adaptation, and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Lösche, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056 pp., doi:10.1017/9781009325844. TS.C.5 p. 62.

<sup>xxxi</sup> IPCC, 2021: [Factsheet on Coastal Cities and Settlements](#), p. 1. In Climate Change 2021: The Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

<sup>xxxii</sup> Convention of the Parties (COP) COP is the name given to the United Nations Climate Change Conferences where all 197 member countries, or ‘Parties’, of the United Nations Framework Convention on Climate Change (UNFCCC) who meet annually to evaluate progress on existing and agree new targets to limit climate change (UK Met Office, 2022). See, Aaagard, T. et al. 2021. [Holocene development and coastal dynamics at the Keta Sand Spit, Volta River delta, Ghana](#). *Geomorphology*, 387: 107766.

<sup>xxxiii</sup> World Bank. [Blue Economy for Resilient Africa Program](#), 2022.

## 2. Coastal Processes and Coastal Barrier Landform Evolution

*“Hard and soft limits to adaptation have been reached in some ecosystems and regions. Maladaptation is happening in some sectors and regions.”*<sup>xxxiv</sup>

Barrier beaches and barrier islands are common coastal landforms flanking many of the world’s wave-dominated coasts, notably in western Africa, eastern America, New South Wales in Australia, and along the eastern coast of South America.<sup>xxxv</sup> These barriers are not static landmasses, nor are they long-term features in the geological record. Instead, they are geologically young and ephemeral, only appearing in the last approximately 5,000 years in most cases. They are dynamic, low-lying landforms built of unconsolidated sand (Figure C-I, below), which change shape and adjust their position relative to land as sea levels rise and fall (Figure C-II, below), as sediment supply changes (Figure C-III, below), and/or as natural geomorphic change occurs in response to interactions with currents, waves, sea level, and human activities through time.<sup>xxxvi</sup>

These shifting barrier beaches provide an important, natural coastal barrier between the open coast and the land behind them (Figure C-I, below). For example, barrier beaches protect the mainland by reducing some risks of natural flooding and erosion. They form where there is a strong, alongshore sediment transport system, such as is the case for the “West African Coastal Barrier” (hereafter, WACB). These geological conditions create minimal resistance to oceanographic stressors like strong currents, waves, storms, and SLR. This means that coastal barriers are typically geologically weak and highly vulnerable to erosion by waves. Three key factors affect the resilience of coastal barriers in their current day locations: 1) absence of sand, 2) curtailing of longshore sediment transport, and 3) climate change impacts, notably SLR and storminess.

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<sup>xxxiv</sup> IPCC AR6 Synthesis Report. [Headline Statement A.3](#). Current Progress in Adaptation and Gaps and Challenges.

<sup>xxxv</sup> Davidson-Arnott, R. [Chapter 3.04 Wave-Dominated Coasts](#), 2011. In [Treatise on Estuarine and Coastal Science](#), Elsevier. 73-116, p. 103.

<sup>xxxvi</sup> Davidson-Arnott, R. [Chapter 3.04 Wave-Dominated Coasts](#), 2011. In [Treatise on Estuarine and Coastal Science](#), Elsevier. 73-116, p. 107.

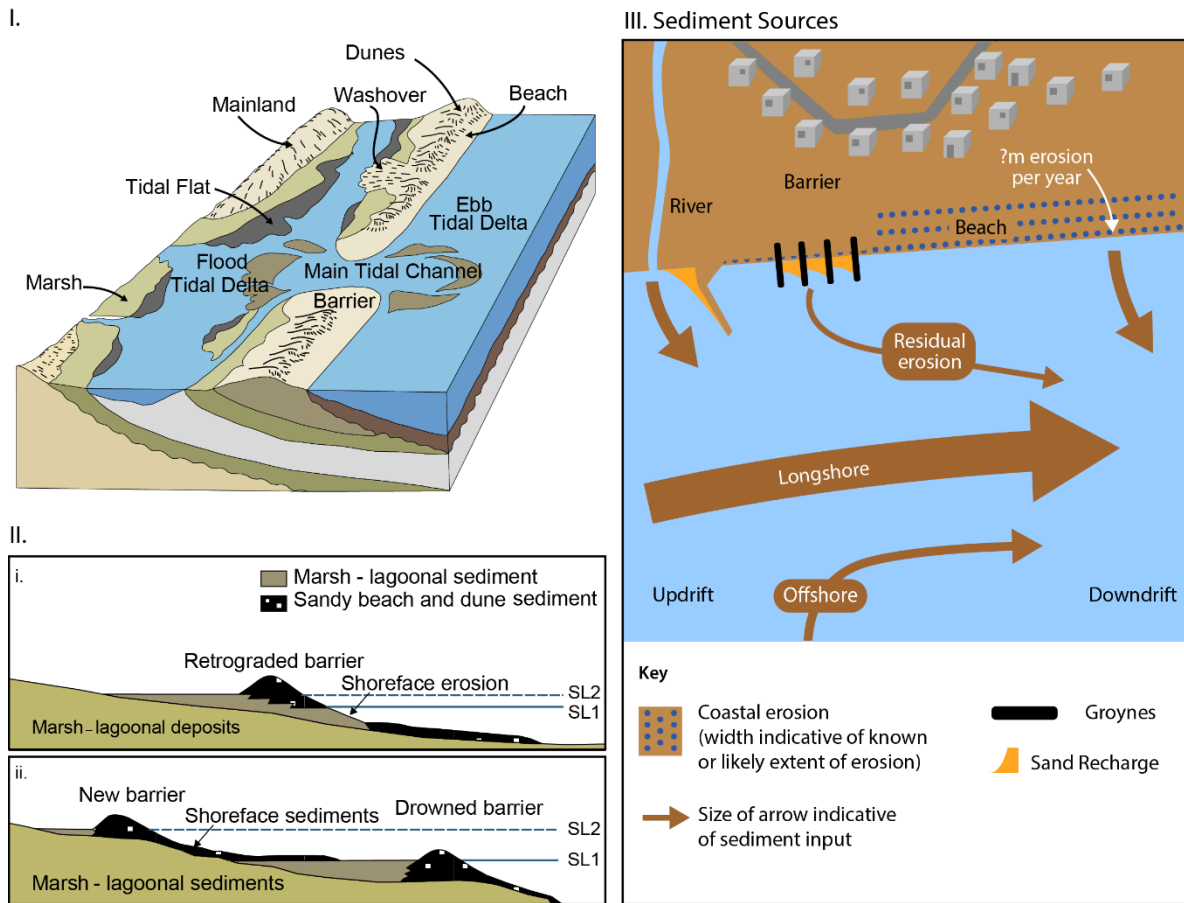


Figure C – I-III.: I) a characteristic, natural, beach-dune barrier beach system; II) barrier beach responses to SLR, illustrating the natural dynamics of barrier beach systems to SLR where II(i) shows landward migration of the barrier and II(ii) illustrates drowning of the old barrier and creation of a new one inland; III) illustrates the main sediment sources to barrier systems worldwide, where size of sediment inputs vary regionally. Illustrated here are the relative inputs from different sources to the WACB. Sources of I and II: permission from R. Davidson-Arnott; C Author.

These sediment-related pressures on barrier systems can, to some extent, be actively managed by replacing with new material the sand supply being trapped behind dams from the longshore sediment transport system by ports or groynes. This can be achieved using expensive soft, hard, or combined coastal protection works that require continued sand inputs to limit downdrift erosion. However, there are long-term, biophysical limits to this approach on developed, low-lying, barrier systems as climate change impacts accelerate and amplify in coming decades (see Section 3).

### 2.1. Sediment Supply to Coastal Barrier Systems

Coastal barriers are supplied with sand from three main sources: 1) offshore from the seabed where the nearshore shelf surface is primarily sand-to-muddy-sand, 2) fluvial sediments from rivers and lagoons, and 3) erosion of coastal landforms along the coast.<sup>xxxvii</sup>

<sup>xxxvii</sup> Anthony, E. et al. [Response of the Bight of Benin \(Gulf of Guinea, West Africa\) Coastline to Anthropogenic and Natural Forcing, Part 2: Sources and patterns of sediment supply, sediment cells, and recent shoreline change](#), 2019. Continental Shelf Research, 173, p. 94.

Continued growth of sandy coastal barriers like the WACB relies on a sediment budget large enough to provide a net, positive input to the barrier beach (Figure D-left) that allows it to adjust to changes in oceanographic or climate change forces, such as SLR.<sup>xxxviii</sup> In the absence of a sustained sediment supply these systems will erode and narrow.

## 2.2. Human Impacts on Sand Supply to Barrier Systems

The sand supply to coastal barriers in developed regions of the world has been severely curtailed by human activities including sand extraction, damming of rivers – which reduces fluvial sediment inputs to the coast, and the building of ports and coastal protection measures like groynes – which block the longshore transport of sediment (Figure D-right). This reduced sediment supply further diminishes the resilience of coastal barriers to current and future coastal climate change pressures.

In many regions of the world, coastal barriers are already narrowing, being overwashed or breached due to reduced sediment supply and current climate change impacts (see Section 3) – even *before* feeling more rapid climate change impacts expected in the near future (i.e., the next few decades). Where multiple, local-regional scale projects are developed sequentially, cumulative loss of sediment supply, from damming and/or coastal protection infrastructure, can increase downdrift erosion.

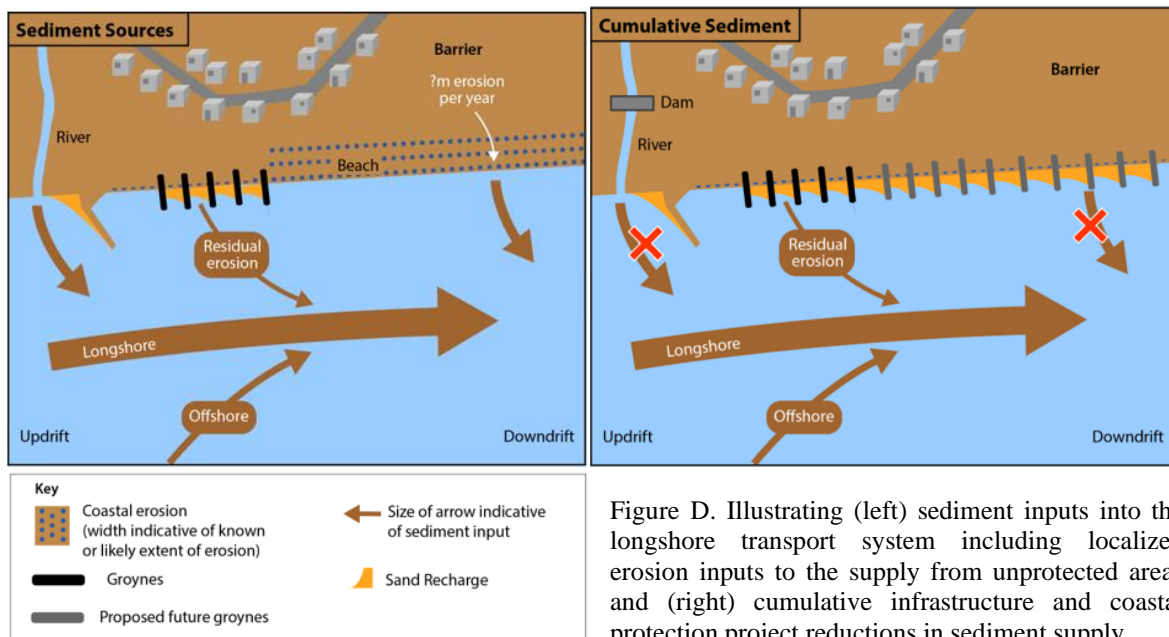


Figure D. Illustrating (left) sediment inputs into the longshore transport system including localized erosion inputs to the supply from unprotected areas and (right) cumulative infrastructure and coastal protection project reductions in sediment supply.

Cumulative impacts provide a good example of an adaptation gap. Protective hard pathways (Figure I-I below at the end of the document) will limit erosion locally, reducing risks of near-term social harm in these locations. However, in doing so, they will greatly reduce the beach and barrier erosion source of sediment for the overall regional sediment supply (Figure D, right). Localised erosion can still occur (and be amplified in areas which are unprotected) using soft, hard and/or combined protection pathways. Where coastal protecting, hard measures are used along the entire length of a developed coast, there will be increased need to replace the sediment supply lost when localized erosion inputs to the sediment supply are reduced to residual erosion inputs only (Figures H and I, below).

<sup>xxxviii</sup> Davidson-Arnott, R. 2011. Chapter 3.04 [Wave-Dominated Coasts](#), p. 107. In [Treatise on Estuarine and Coastal Science](#), Elsevier. 73-116.

### 2.3. West African Coastal Barrier

The Gulf of Benin coastal system is classified as a micro-tidal (less than two-meter tidal range), sedimentary, wave-dominated open coast, directly exposed to southerly swells generated on the far side of the Atlantic Ocean.<sup>xxxix</sup> The dominant, coastal landform upon which the Côte d’Ivoire, Ghana, Togo, and Benin coastal communities are built is called the WACB. The WACB is the only land between the Atlantic Ocean and inland coastal areas. The main economy and populations of these nations are built on coasts with a highly erodible, low-lying sand barrier. Coastal communities thus have minimal resilience and extremely high vulnerability to coastal erosion, flooding, and climate change pressures. This inherent low resilience and high vulnerability is already clearly evident from the high rates of erosion along the barrier (approximately 1.8-four meters per year on average) between the late 1960s and the present day. This is especially the case in areas downdrift of major infrastructure projects (e.g., dams and ports) and coastal protection measures associated with these (e.g., groynes), which results from both an exceptionally high reduction in sediment supply and curtailing of the sediment transport system due to human development activities, along with relatively modest SLR and wave climate changes when compared to the more rapid acceleration in rates of SLR predicted until 2300 (Figure B, above).

#### 2.3.1. Sediment Supply to the West African Coastal Barrier

Key sources of sand from fluvial systems have been vastly reduced by damming the Volta River in 1964; sediment discharge before dam construction (approximately 153 million cubic meters per year, Ly 1980) has dropped more than 90 percent.<sup>xi</sup> This sediment is then transported by a strong longshore drift system, where human activities and infrastructure (such as marine-structures, ports or groynes) restrict this natural sediment transport system, increasing coastal erosion in a downdrift direction.<sup>xii</sup> This absence of sand due to human activity has led to a massive sediment deficit.<sup>xiii</sup>

#### 2.3.2. Human Impacts on Sediment Transport Along the West African Coastal Barrier

Human activities, notably the building of ports and hard coastal protection such as groynes, have severely curtailed the natural, west-to-east sediment transport processes, leading to accelerated erosion downdrift of these features.<sup>xiiii</sup> This infrastructure traps sand that would have helped the coastal barrier grow and adjust to climate change pressures. As a result, the West African sandy coastal barrier is eroding almost everywhere along its length<sup>xlv</sup> and narrowing in response to reduced sediment supply and modest, current day climate change impacts, causing nearly five percent of annual GDP losses in the region.<sup>xvi</sup>

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<sup>xxxix</sup> Orme, A.R. [Africa, Coastal Geomorphology](#), 2005. In: Schwartz, M.L. (eds) *Encyclopedia of Coastal Science*. Encyclopaedia of Earth Science Series. Springer, Dordrecht, , pp. 1-5.

<sup>xi</sup> Amenuvor, M, et al. 2020. [Effects of Dam Regulation on the Hydrological Alteration and Morphological Evolution of the Volta River Delta](#). *Water*, 12(3), 646, p. 1.

<sup>xii</sup> Giardino, A. et al. [A Quantitative Assessment of Human Interventions and Climate Change on the West African Sediment Budget](#), 2018. *Ocean & Coastal Management*, 156: 249-265, pp. 249-250.

<sup>xiii</sup> Anthony, E. et al. [Response of the Bight of Benin \(Gulf of Guinea, West Africa\) Coastline to Anthropogenic and Natural Forcing, Part 2: Sources and patterns of sediment supply, sediment cells, and recent shoreline change](#), 2019. *Continental Shelf Research*, 173, p. 94.

<sup>xiiii</sup> Ibid.

<sup>xlv</sup> Giardino, A. et al. 2018. [A quantitative assessment of human interventions and climate change on the West African sediment budget](#), p. 249. In *Ocean & Coastal Management*, 156.

<sup>xvi</sup> Ibid.

## 2.4. Coastal Erosion and Flood Risk

Their naturally low-lying topography and unconsolidated sandy composition make barrier beach and barrier island systems highly prone to erosion and flooding. This is especially the case where human activities are already adversely impacting sediment supply and/or restricting how barrier systems can naturally respond to changes in key factors, such as sediment supply and oceanographic conditions (Figure E, below). Coastal erosion and flooding of barrier beach systems worldwide will be accelerated and amplified by continued human pressures as well as climate change impacts, including SLR and increased storminess.

## 2.5. Developed Coastal Barriers

The risks described immediately above are amplified for developed barrier systems. The problem for barrier systems with extensive human developments is that the natural response of the barrier beach system causes erosion and flooding of people and assets built on this highly unstable and vulnerable sandy land (Figure E, below). In these developed barrier systems, without relocation of people and assets to higher ground, capacity for natural, landward retreat of the barrier system (Figure F-II, below) is limited and the barrier landforms are more prone to becoming fully submerged<sup>xlvi</sup> or narrowing through erosion, as is currently the case in more than half of the WACB.<sup>xlvii</sup>

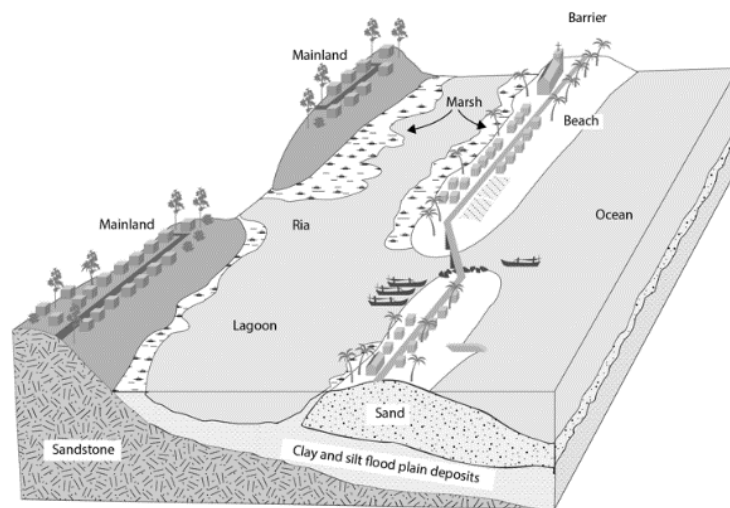


Figure E. Conceptual diagram of a developed barrier beach system illustrating the physical constraints this development has on natural barrier system response to changing sediment supply and/or sea level rise.

<sup>xlvi</sup> Lorenzo-Trueba, J, Ashton, AD. [Rollover, Drowning, and Discontinuous Retreat: Distinct Modes of Barrier Response to Sea-level Rise Arising from a Simple Morphodynamic Model](#), 2014. JGR Earth Surface, p. 779.

<sup>xlvii</sup> World Bank. [The Cost of Coastal Degradation in West Africa](#), 2019, p. x.

### 3. Barrier Systems and Longer-term Climate Change Risks

*“Due to unavoidable sea level rise (...), risks for coastal ecosystems, people and infrastructure will continue to increase beyond 2100 (high confidence).”<sup>xlviii</sup>*

Coastal barrier beaches are not static landforms; they are naturally dynamic and highly responsive to oceanographic conditions, such as the effects of storms and SLR. Barrier systems typically respond to changes in sea level, storminess, and sediment supply by adjusting their shape or position at the coast, such as by migrating landwards or drowning as sea levels rise.<sup>xlix</sup> Overwash deposits – beach sediments deposited on land from storms – are key means by which open coastal barriers cause naturally functioning coastal barriers to migrate landwards. Storms and flooding reposition sediments, leading to a landward retreat of barrier beaches (Figure F, II and III, below).<sup>1</sup> *“It is well known that barrier islands retreat as sea levels rise.”<sup>li</sup>* As rates of SLR projected in IPCC 2007 to IPCC 2021 and other sources far exceed those of the past few millennia, increases in hazards and unprecedented changes are possible, *“including the possibility for a total loss of protective natural barriers.”<sup>lii</sup>* Indeed, new modelling highlights this risk: it shows that barrier systems will have a 50 percent acceleration in the retreat rate worldwide within a century, without including increases in the present rate of SLR.<sup>liii</sup> Combined with expected SLR of one meter by 2100 and at least three meters by 2300 (relative to 1900), future retreat rates of coastal barriers due to SLR will be much higher than in the recent past. In short, many barriers worldwide, including the WACB system, will be fully eroded through narrowing, moving landward, or fully submerging as climate change impacts accelerate (Figure F, II-IV, below).

Combined with expected SLR of approximately one meter by 2100, future retreat rates of coastal barriers due to sea level rise will be much higher than in the recent past. This will accelerate the erosion and narrowing of barriers like the WACB, where sediment supply is insufficient to allow adjustment in the barrier’s current-day location (Figure F-II, below). Such narrowing increases the risk of barriers adjusting to SLR in two ways. One, this activates increasing overwash during storms, initiating landward migration of the barrier beach<sup>liv</sup> (Figure F-II, below). Two, as narrowing continues, the barrier is at increasing risk of being breached and broken into smaller sections (Figure F-III, below), as was observed in an approximately 60-meter-wide coastal barrier in southern Nigeria after a storm in September 2018, which has permanently split one community in half.<sup>lv</sup> In short, many of these barriers worldwide will be fully eroded through narrowing, migrating landwards, and/or ultimately being submerged as climate change impacts accelerate (Figure F-IV, below).

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<sup>xlviii</sup> IPCC AR6 [Synthesis Report of the IPCC Sixth Assessment Report \(AR6\)](#) Summary for Policymakers, p. 15, released March 20, 2023.

<sup>xlix</sup> Anthony, E. et al. [Response of the Bight of Benin \(Gulf of Guinea, West Africa\) Coastline to Anthropogenic and Natural Forcing, Part 2: Sources and patterns of sediment supply, sediment cells, and recent shoreline change](#), 2019. *Continental Shelf Research*, 173, p. 94.

<sup>1</sup> Lorenzo-Trueba, J, Ashton, AD. [Rollover, Drowning, and Discontinuous Retreat: Distinct Modes of Barrier Response to Sea-level Rise Arising from a Simple Morphodynamic Model](#), 2014. *JGR Earth Surface*, p. 779.

<sup>li</sup> Mariotti, G. 2022. [Interview](#), July 2022.

<sup>lii</sup> Lorenzo-Trueba, J, Ashton, AD. [Rollover, Drowning, and Discontinuous Retreat: Distinct Modes of Barrier Response to Sea-level Rise Arising from a Simple Morphodynamic Model](#), 2014. *JGR Earth Surface*, p. 779.

<sup>liii</sup> Mariotti, G. Hein, CJ. [Lag in Response of Coastal Barrier-island Retreat to Sea Level Rise](#), 2022. *Nature Geoscience* 15, 633-638, p 633.

<sup>liv</sup> Lorenzo-Trueba, J, Ashton, AD. [Rollover, Drowning, and Discontinuous Retreat: Distinct Modes of Barrier Response to Sea-level Rise Arising from a Simple Morphodynamic Model](#), 2014. *JGR Earth Surface*, p. 779.

<sup>lv</sup> Affiah, U. [Vulnerability of the Nigerian coast and communities to climate change induced coastal erosion](#)-Unpublished PhD Thesis, 2023. University of Glasgow.



### 3.1. Combined Human Sediment Supply and Climate Change Impacts on the Long-term (> Century Scale) Resilience of Coastal Communities

Taken together, these continued, combined human development and climate change impacts create a challenging future for coastal communities on barrier beach systems and other low-lying coastal areas worldwide where coastal population, assets, and economic productivity are literally built on sand. If SLR outpaces the supply of sediment and/or the barrier is unable to move inland, the barrier will likely become eroded, breached, submerged, and/or disappear (Figure F, below).

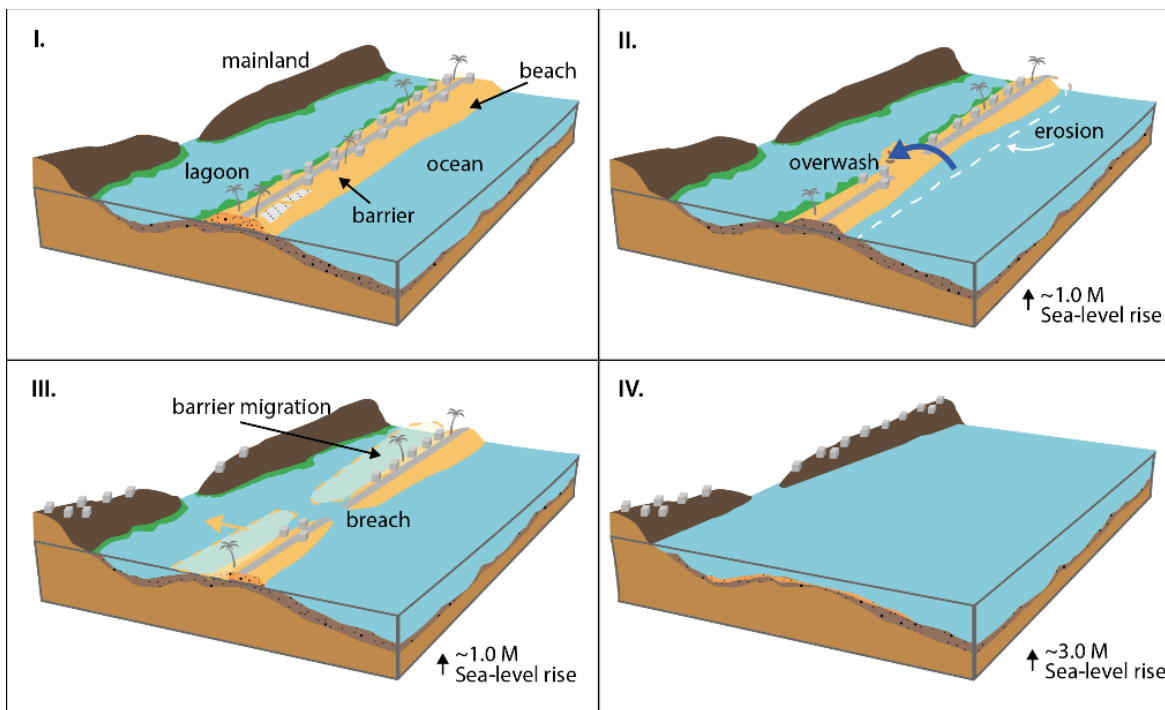


Figure F. Conceptual model of barrier retreat under rising sea levels, where (I) is a present-day barrier, (II) erosion and storm overwash occurs, (III) breaching and/or landward migration of the barrier occurs, and (IV) the barrier is fully eroded and/or submerged. Human disruption to sediment supply exacerbates these risks.

The coastal barriers in their current geographic positions and, crucially, the people and assets living upon them, are at long-term (over 100 years) risk of continued erosion, leading to their narrowing or, ultimately, submergence and disappearance (Figure F, above). This creates a physical adaptation limit to coastal protection measures to maintain community resilience (Figure G, below). In 2013, the IPCC stated that adaptation limits occur when “*adaptation efforts are unable to provide an acceptable level of security from risks to existing objectives and values and prevent the loss of key attributes, components, or services of an ecosystem.*”<sup>lvi</sup>

<sup>lvi</sup> Wong, P.P., I.J. Losada, J.-P. Gattuso, J. Hinkel, A. Khattabi, K.L. McInnes, Y. Saito, and A. Sallenger, 2014: Coastal systems and low-lying areas. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 361-409, p. 393.

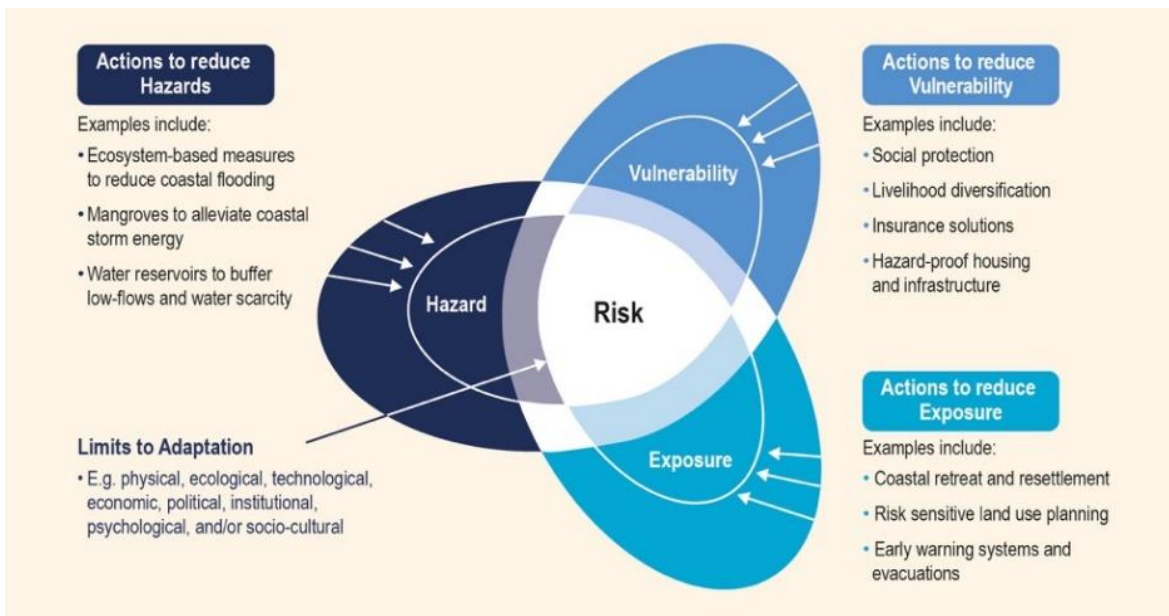


Figure G. Options for risk reduction through adaptation. Adaptation can reduce risk by addressing one or more of three risk factors: reduction of vulnerability, exposure, and/or hazard potential can be achieved through different policy and action choices over time until limits to adaptation are reached.<sup>lvii</sup>

<sup>lvii</sup> IPCC, 2019. Oppenheimer, M., B.C. Glavovic, J. Hinkel, R. van de Wal, A.K. Magnan, A. Abd-Elgawad, R. Cai, M. Cifuentes-Jara, R.M. DeConto, T. Ghosh, J. Hay, F. Isla, B. Marzeion, B. Meyssignac, and Z. Sebesvari, 2019: Ch. 4 Sea Level Rise and Implications for Low-Lying Islands, Coasts and Communities. In: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate* [H.-O. Pörtner, D.C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegria, M. Nicolai, A. Okem, J. Petzold, B. Rama, N.M. Weyer (eds.)]. Cambridge Univ. Press, Cambridge, UK and New York, NY, USA, Technical Summary, Figure TS.4, p. 46.

## 4. Responding to These Risks: Adaptation and Coastal Risk Management

*“Adaptation options that are feasible and effective today will become constrained and less effective with increasing global warming. With increasing global warming, losses and damages will increase and additional human and natural systems will reach adaptation limits.”<sup>lviii</sup>*

### 4.1. Coastal Risk Management

Sediment-related pressures on the barrier system can – to some extent in the short-term (next few decades) – be actively managed by replacing with new material the sand supply being trapped behind dams from the longshore sediment transport system by marine-structures, ports or groynes. This can be achieved using soft, hard, or combined coastal protection works that require continued, expensive, ongoing inputs to limit downdrift erosion to maintain the coast in its current position as sea levels rise (Figure H-II, below).

These can be important measures to help buy time to allow communities to implement more resilient adaptation options. Use of groynes plus sediment or massive-sand-recharging is broadly comparable to the effectiveness of a nature-based, coastal wetland solution in relation to SLR where recharged beaches can limit erosion *“until rates of sea-level rise exceed natural adaptive capacity to build sediment (Very high confidence).”<sup>lix</sup>* There is thus a long-term (over 100 year) physical limit to actions to reduce the hazard, after which it will become technically impossible or prohibitively expensive to increase beach and land levels to keep up with future SLR (Figure B, above). This will lead to the landform responses discussed in Section 3.

When these physical limits are exceeded, such as by the sea engulfing the barrier as sea level rises lead to more frequent inundation (Figure H-V and VI, below), it is no longer possible to reduce the hazard in this location (Figure I-I, below). Instead, actions to reduce exposure to the hazard (i.e., coastal retreat and resettlement) and associated vulnerabilities, such as livelihood diversification, are then required (Figure G, above).

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<sup>lviii</sup> IPCC AR6 Synthesis Report. [Headline Statement B.4](#). Adaptation Options and their Limits in a Warmer World.

<sup>lix</sup> IPCC, 2022: *Climate Change 2022: Impacts, Adaptation, and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056, Summary for Policymakers, SPM-C.2.5, p. 24.

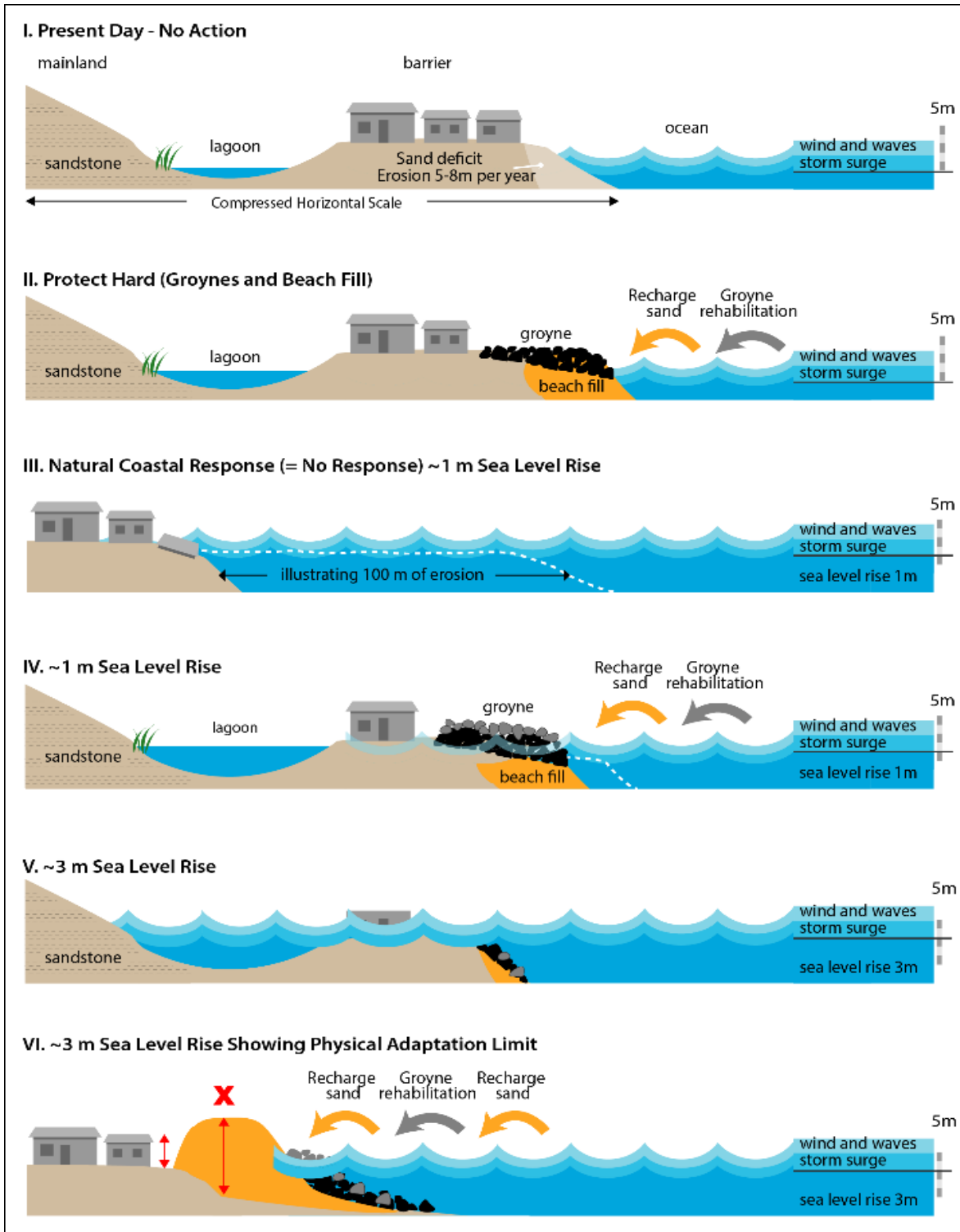


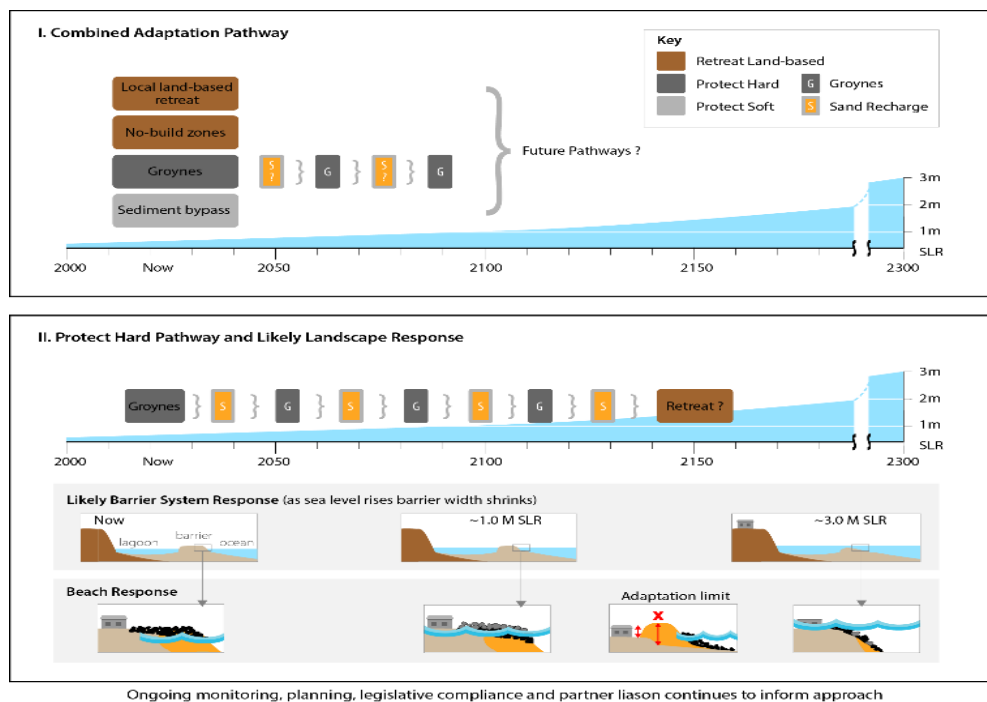
Figure H – I-VI. Conceptual model of barrier system responses to sea level rises predicted by the IPCC to 2300, illustrating (I) present day and (II) over one meter natural barrier response to combined human and climate change impacts (physical), (III-V) Combined Protection Works under different SLR scenarios, and (VI) the future physical limits to adaptation where land raising and sand recharge cannot physically keep pace with SLR and storm surges.

## 4.2 Adaptation Pathways

Combining long-term adaptation with risk management for improving coastal resilience has thus been considered best practice since the IPCC’s Fifth Assessment report. Adaptation pathways are defined as “a time-independent sequence of actions responding to multiple drivers and uncertainties, and are guided by the magnitude of sea-level rise to determine when and where it is optimum to adapt.”<sup>lx</sup> Effective adaptation pathways require society to choose risk management options, land-use planning, and other policy instruments that can help society create space now, for future adaptation, thereby saving costs and improving long-term societal and ecological resilience.

This twin-track approach to adaptation – often involving reducing harm and improving resilience in the immediate term, such as by using soft or hard coastal risk management options (Figure I-II, below) and producing and implementing policies that allow us to create physical windows of opportunity on land now<sup>lxi</sup> – can make future adaptation feasible, intergenerationally flexible, and just.<sup>lxii</sup>

This can include planned retreat of communities through planning decisions now which restrict human development on land at risk of future erosion and/or flooding. These combined coastal risk and land-based adaptation pathway approaches can give communities time to engage with government and funders to help societies transform and adapt by making climate-resilient development planning decisions. These can minimize future costs of adaptation, losses, and damage by, for example, choosing to avoid increasing future harm (e.g., not adding new development in vulnerable areas).



Ongoing monitoring, planning, legislative compliance and partner liaison continues to inform approach

Figure I. Illustrating differences between (I) a coastal protect hard option and (II) a combined adaptation pathway.

<sup>lx</sup> Brown, S. Nicholls, R., Hanson, S. *et al.* [Shifting perspectives on coastal impacts and adaptation](#), 2014. Nature Climate Change 4, 752–755, p. 753.

<sup>lxi</sup> Brown, K., [Naylor, L. A.](#) and Quinn, T. [Making space for proactive adaptation of rapidly changing coasts: a windows of opportunity approach.](#) *Sustainability*, 2017. 9(8), 1408, p. 11.

<sup>lxii</sup> Rennie, AF. *et al.* [Dynamic Coast Summary](#), 2021. Centre of Expertise for Waters, p. 1.

Long-term planning of adaptation options like retreat, or large-scale technical solutions like hard estuarine barriers take decades to be realized – the IPCC’s Sixth Assessment Report suggests that planning for this type of adaptation is carried out now together with more immediate-term measures to reduce vulnerability and improve resilience.<sup>lxiii</sup> IPCC’s best practice approach for coastal climate change adaptation involves combining coastal protection along with land-based policy and retreat (Figure I-II). The IPCC argues progress on this is urgently needed to close the adaptation gap.<sup>lxiv</sup>

#### 4.2.1. West African Coastal Barrier

These approaches for Africa appear in the latest IPCC report: “*Adaptation costs will rise rapidly with global warming (very high confidence) (...) Concessional finance will be required in low-income settings.*”<sup>lxv</sup> SLR and extreme weather events were already identified as key climate change risks impacting African coastal communities in the IPCC’s Fifth Assessment Report in 2013.<sup>lxvi</sup> Importantly, the Report also stated that a combination of land-use control to reduce both vulnerability and exposure to risks and low-cost, soft, protective coastal infrastructure is considered more feasible and sustainable than hard infrastructure solutions alone.<sup>lxvii</sup>

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<sup>lxiii</sup> IPCC, 2022: *Climate Change 2022: Impacts, Adaptation, and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. Cambridge University Press, Cambridge, UK and New York, NY, USA, 3056 Summary for Policymakers, p. 20.

<sup>lxiv</sup> Ibid.

<sup>lxv</sup> Trisos, C.H., I.O.Adelekan, E.Totin, A.Ayanlade, J.Efitre, A.Gemeda, K.Kalaba, C.Lennard, C.Masao, Y.Mgaya, G. Ngaruiya, D. Olago, N.P. Simpson, and S. Zakieldean, 2022: Africa. In: *Climate Change 2022: Impacts, Adaptation and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O.Pörtner, D.C.Roberts, M.Tignor, E.S.Poloczanska, K.Mintenbeck, A.Alegría, M.Craig, S. Langsdorf, S. Lösschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1,285–1,455, doi:10.1017/9781009325844.011, {9.4.1}, p. 1,289.

<sup>lxvi</sup> Niang, I., O.C. Ruppel, M.A. Abdrabo, A. Essel, C. Lennard, J. Padgham, and P. Urquhart, 2014: Africa. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects*. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Barros, V.R., C.B. Field, D.J. Dokken, M.D. Mastrandrea, K.J. Mach, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, United Kingdom and New York, NY, USA, p. 1237-1238, Table 22-6, p. 1,235.

<sup>lxvii</sup> Ibid.