Advisory review of the Scoping Report /ToR for the ESIA for the Coastal Protection Project in Beira
Advisory Report by the NCEA

Title: Review of the Scoping Report/ToR for the ESIA for the Coastal Protection Project in Beira

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Request by: Invest International

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From: The Netherlands Commission for Environmental Assessment

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1. Introduction

1.1 The project & request to the NCEA

The NCEA received a request from Invest International to carry out an independent quality review of the Scoping report and ToR for an ESIA (Environmental and Social Impact Assessment) to be carried out for a coastal protection project in Beira, Mozambique. AIAS (Water Sanitation Infrastructures Administration of the Ministry of Public Works, Housing and Water Resources) is the executing agency in partnership with the Municipal Council of Beira.

This is a so-called D2B project (Develop to Build), which is managed by Invest International, The Netherlands. The phasing of this project is as follows:

- Phase I consists of the development of the Feasibility Study and an Environmental Scoping report (EPDA). Based upon the outcomes of these studies, a go/no go decision will be taken.
- Phase II and III will concentrate on the detailed design and tender documents, full-fledged ESIA, and construction, supervision, monitoring and evaluation.

The Project aims to create a high level of long-term security against coastal flooding, including increased climate resilience for the City of Beira. The need for the provision of coastal protection infrastructure was confirmed in the 2019 Beira Municipal Plan for Recovery and Resilience. This plan states that coastal protection is the most vital area of infrastructure and the main priority for the Municipality of Beira. It describes that the existing system of breakwaters needs to be improved, that provision of sand for the beach is needed in the short term and that the Praia Nova area requires urgent attention.

The proposed project consists of a mixed package of both structural and non-structural interventions (including nature based solutions), and includes several generic measures which are implemented for benefit of the City and site-specific interventions for the City coastline divided into four contiguous stretches. See map in Annex 1.

In Mozambique, the procedural requirements for ESIA are provided by the Environmental Impact Assessment Regulations, Decree 54/2015. According to the Decree, information needs to be provided to the Ministry of Land and Environment (MTA) so that a pre-evaluation of the project can be performed to determine what ESIA requirement and category is applicable, i.e. a full ESIA (for Category A+ and A), Simplified Environmental Assessment (Category B), or an Environmental Management Best Practices Manual (Category C).

The Project was classified as Category A (pending a letter from the MTA), through the Sofala Provincial Environment Services (SPA- Sofala), which means that a full ESIA is required. For a Category A-project, a scoping study (or EPDA, Estudo de Pré-Viabilidade Ambiental e Definição do Âmbito) is required to determine whether the project has 'fatal flaws' and what needs to be assessed in the ESIA. A ToR for the ESIA needs to be submitted together with the scoping study to MTA. The ESIA can subsequently start upon approval of both by the MTA.

An EPDA and ToR for the final ESIA have been prepared. The EPDA needs to meet the content requirements specified by the Mozambican EIA Decree. Invest International requested that the NCEA independently review the scoping study (EPDA)/ToR, to inform its decision whether to
finance the proposed project. D2B requires that the project meets the requirements set by the IFC environmental and social performance standards.

1.2 Approach by the NCEA

In order to carry out this review, the NCEA formed a working group with members covering different areas of expertise, including water governance, urban development and resilience, coastal morphology and flooding, social impacts and resettlement, environmental and biodiversity aspects and ESIA application. The composition of the working group and the background of the individual experts are presented in the Colophon. Because of Covid-19 and resulting travel restrictions, the NCEA working group was unable to visit the project area to interact with various institutions/stakeholders and perform site verifications. It has been agreed with Invest International that a site visit can still take place when the NCEA would be requested to also review the full ESIA reports (in case of a favourable go/no go decision by Invest International, AIAS and MTA).

As benchmarks for the NCEA review of the scoping study and ToR, the working group made use of the following:

- Mozambican EIA regulations: Decree 54/2015
- International Finance Corporation Performance Standards (IFC PS, 2012) and World Bank’s Environmental and Social Standards (ESS, 2017)
- Working group members’ expertise in reviewing ESIA for comparable projects and
- In-depth knowledge of the local situation of a number of the working group members.

The purpose of the review and recommendations by the NCEA is to advise on the quality of the EPDA and ToR for ESIA, in order to guide Invest International, the proponent and the consultants in carrying out an ESIA in phase II, that is complete, correct and relevant for decision making and includes a transparent and inclusive process. Note that the working group does not express an opinion on the feasibility or acceptability of the project itself, but comments on the project impacts and quality and completeness of the scoping study/ToR.

Chapter 2 highlights several strengths of the scoping study/ToR and provides a summary of important shortcomings. These are shortcomings that according to the NCEA need to be addressed before moving to the next phase of the ESIA. Chapter 3 describes key findings in detail and gives recommendations on the EPDA. In Chapter 4, the same is done for key findings and recommendations on the ToR for the full ESIA. In Annex 2 and 3 some further, more detailed observations are provided on respectively the EPDA and ToR and the legal and regulatory framework.
2. Summary conclusions and recommendations

The NCEA observes that the EPDA is fairly well written and provides a reasonably good overview of the proposed project and potential impacts. Although the NCEA understands that the EPDA is still a preliminary draft, the NCEA concludes that essential shortcomings at this stage remain. These are all applicable to the EPDA. However, since the ToR is based on the results of the EPDA, the NCEA observations are also relevant for the ToR. Without this information, no conclusion can be drawn on whether or not fatal flaws exist.

2.1 Essential shortcomings

General

- A summary as required by Mozambican ESIA regulations is missing
- There are no details of stakeholder consultations in the EPDA; who have been consulted, when and where and whether and how inputs have been used is not described.

Institutional framework

- A description of the responsibilities and mandate of the Beira Municipality is lacking, as well as a description of the national and provincial tasks regarding ESIA categorisation, environmental licensing and monitoring of the project.

Project justification, scope of interventions and alternatives

- The project justification is somewhat shallow and it remains unclear why physical project interventions related to stretch 1 are not considered, and whether improvement of groynes is part of the project scope or not.
- Off-site activities such as sand mining and rock quarrying and their impacts are insufficiently described.
- Minimization or avoidance of environmental impacts is not mentioned as a criterion in the selection of alternatives. Flexibility/ability to deal with future uncertainty seems to have played an important role in the final choices, but is neither mentioned as a criterion.
- There is no description of the potential interference with other ongoing or planned projects, such as the Rehabilitation of the storm water drainage system in Beira. This makes it impossible to assess whether serious impacts could occur and thus pose a risk to goal achievement of the coastal protection project and of other projects.
- The focus of the project seems to be too much on the engineering interventions and less so on the community involvement component, which is equally important for the sustainability of the project.
- Possible developments at a sand spit further east along the coast have not been taken into account sufficiently.

Baseline descriptions

- On the physical environment, information is missing particularly on longshore currents sediment transport rates along the coast and patterns of coastal erosion/accretion. The issue of (apparently excessive) sand mining from the dune area is not described.
- The biotic environment is relatively well described but presents in some cases outdated information of the wrong scale.
- The socio-economic environment lacks a description of one of the main socio-economic activities and livelihoods, namely fisheries. Whether or not (economic) resettlement is
needed remains vague as the description of land use and land ownership is difficult to understand due to weak analysis/relevance and some undisclosed resources.

Impacts
• Currently lacking are, in particular, impacts of and on other ongoing and planned developments, impacts on the fisheries sector and impacts related to labour requirements. Impacts in Stretch 1 of all alternatives (i.e. hard and soft vs soft only) have been omitted. Finally potential impacts of Gender based violence and women’s harassment have not been identified.

Terms of Reference
• Since the ToR is based on the results of the EPDA one would expect that all important issues raised in the ToR are also discussed in the EPDA (and the other way around). This is currently not the case.

Summary of Recommendations to be adjusted in the EPDA and ToR for the ESIA

1. Include a good quality summary
2. Develop a solid Stakeholder Engagement section, including information about previous engagement activities and an indication of future planned engagement.
3. Provide more clarity on the tasks and competences of the municipal government and division of environmental tasks between national and provincial government.
4. Better justify the absence of physical interventions in stretch 1.
5. Include a section on autonomous development, thus improving the project justification and clarifying the project scope of interventions.
6. Describe the areas and required amounts for sand dredging, rock quarrying and clay mining and their associated impacts. Adjust the description of the project area of influence accordingly.
7. Explicitly consider environmental impacts in the selection of alternatives. Although the selection of alternatives (packages of interventions per stretch) has already taken place, the additional information to remedy the shortcomings listed above could lead to reconsideration of the alternatives or even lead to inclusion of other alternatives.
8. Assess potential interference with other ongoing and planned developments,
9. Provide more information on the possible developments at the sand spit including consequences for the morphological development along Stretch 4.
10. Morphological processes active in the area require a far better description, such as longshore currents, tides, amount and patterns of sedimentation and erosion, wind erosion. The same is valid for sea level rise and climate change and sand mining in the dune area.
11. Include up-to-date information and maps of the correct scale on particularly wetlands and their associated flora.
12. Provide more information on the importance and characteristics of the fisheries sector.
13. Clarify issues of land use and landownership in relation to possible resettlement.
14. Pay specific attention during the detailed impact assessment in the ESIA to the impacts currently insufficiently addressed: those of and on other ongoing developments, on the fisheries sector and impacts related to labour requirements and Gender Based Violence.
15. Clearly reflect in the ToR the issues requiring further study in the full ESIA as identified in the EPDA.
3. Key findings and recommendations on the EPDA

Below the NCEA describes its key findings, following the sequence of topics as presented in the scoping study. Each observation comes with a specific recommendation. These should be read in tandem with Annex 2 and 3, providing more detailed observations. Generally, D2B requires its projects to be developed in line with the IFC PS. In this EPDA, the WB ESF seem to have been listed. It needs to be verified with Invest International whether this is correct. In line with previous D2B projects, the NCEA follows the IFC PS for this project as well and highlights whether and which IFC PS are applicable.

3.1 Summary

A Non–Technical Summary is lacking, although this is required to be part of an EPDA according to Mozambican ESIA regulations. The summary is important for decision makers and interested and affected parties who need to understand the main findings, conclusions and recommendations and who may not be able to review the full reports. It is also important for disclosure to stakeholders prior to public consultation meetings.

The NCEA recommends to increase the accessibility of the EPDA by adding a good summary that presents the major issues, based on a brief but thorough analysis, in a good narrative.

3.2 Public consultation and stakeholder meetings

Section 1.3 on the methodology for the elaboration of the EPDA and the related ToR states that both…. ‘were elaborated, incorporating the recommendations, suggestions and comments resulting from the public discussions and from the appreciation of the broad stakeholder process’. This suggests that Public Consultation meetings to disclose the EPDA were held. In addition p. 23 states that alternative designs per coastal stretch 'were selected by the Consultative Working Group in May 2021 (including CMB, AIAS, RVO, WB, KfW), after and taking into account a broad consultation with other stakeholders about the potential design alternatives (in March/April 2021)'. Furthermore, p. 27 mentions that 'In August 2021 also local public consultations were performed in the communities (representative local communities and inhabitants, direct users, small businesses and entrepreneurs etc.)'. Other than these remarks, no evidence is provided that these consultations actually took place. The NCEA could therefore not verify the occurrence or the quality of the stakeholder engagement in this EPDA and if the consultation included consideration of environmental and social conditions and impacts included in the EPDA.

P. 27 also states that 'It must be noted that the preferences from the local communities were not followed in the final choices based on financial and environmental justifications'. It is not clear what the effects of the project design not matching community and local stakeholder preferences will be, but experience points to poor follow–up and maintenance in case of insufficient local support to the project. Especially relevant to know, is what inputs have been

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1 Where a project requires an ESIA according to the local requirements, this ESIA process can be utilized to comply with IFC PS 1.
The NCEA recommends to include in the EPDA a summary of the findings of these stakeholder consultations, as currently there is no evidence of this in the EPDA. Following IFC PS 1 requirements, the project proponent needs to be engaging stakeholders, providing them with relevant information, and access to a suitable grievance mechanism. A list of people that actually have been consulted should therefore be added, including where and when consultations were held. The more elaborate minutes (if available) could be added in an Annex to the EPDA. The ToR for the ESIA will need to request the development of a solid Stakeholder Engagement Plan, including information about previous engagement activities and an indication of future planned engagement.

### 3.3 Legal, regulatory and institutional framework

#### Legal and regulatory framework

Paragraphs 2.1 and 2.2 in the EPDA on the applicable national and international legal and regulatory framework contain several errors and omissions. These are indicated in Annex 3 to this advisory report.

The NCEA recommends to correct and include this requirement in the section on legal and regulatory framework in the ToR, to guarantee that they are further elaborated in the full ESIA.

#### Institutional framework

The EPDA lacks a description of the institutional responsibilities of the Municipality, while at the same time attributing important Operation and Maintenance (O&M) responsibilities to the Municipality (e.g. p. 23 section 4.1.2. item 2: ‘O&M requirements should be minimized as much as possible, and clearly related to the institutional capacities at CMB’ and also on p.30 ‘Beira’s EWS owner/operator should be SASB, which is part of the municipality’).

P. 15 states that ‘The MTA has established Provincial Offices in all provincial capitals, which are responsible for the supervision of the ESIA process for category A activities, while the Provincial Directorates of Territorial Planning ensure the supervision of category B and C activities’. The correct name is Provincial Directorate of Territorial Development and Environment (DPDTA). The Provincial Environmental Services (SPA) however also participate in the categorisation, licensing and monitoring of activities in the environmental sector.

The NCEA recommends to add a section in the EPDA in Chapter 2.3 Institutional Framework, describing the responsibilities and mandates of the Municipality as stated in the Law on the Municipalities and other relevant legislation. In particular it is relevant to indicate who will finally hold the project environmental license. Chapter 2.1 on Applicable National Legislation should be updated accordingly. In addition the respective competencies of SPA and DPDTA should be clarified. Their respective mandates can be found in Decree 63/2020, Article 17 and Decree 64/2020, Article 21.

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2 CMB is municipality of Beira, EWS is early warning system and SASB is Autonomous Sanitation Service of Beira
3.4 Project justification and objectives

Project justification
The long-term effectiveness of the proposed measures will be affected by climate change, which for the Beira region will include increased storm magnitudes and frequencies and rising sea level. It is mentioned that climate change is taken into account in the design of the measures (2070 Scenario, as mentioned in Table 3.1), but it is not discussed in the EPDA or what that means for each of the stretches. It is not clear either in which way climate change has influenced the selection of alternatives (set of measures for the four stretches).

The Project justification (p. 18) mentions that ‘the Sofala region and the city of Beira are extremely vulnerable’ and ‘the most important threats identified for Beira City were coastal flooding due to poor coastal protection’. These are quite general remarks.

The NCEA recommends to include a section on autonomous development in the EPDA, taking into account climate change and expected sea level rise. In addition factual information should be added to substantiate the planned project interventions and design and selection of alternatives: information on past events such as areas flooded, resulting economic damage, number of casualties or people evacuated, as well as information on area threatened by erosion or flooding, number of people at risk, etc. at present and under the 2070 climate change scenario.

Project objectives
The EPDA on p.19 section 3.2.2. Specific Objectives states on Stretch 1: ‘No physical erosion or flood protection measures foreseen’, without justification. The choice implies that through stretch 1 there are no inundation pathways, but this is not stated in the EPDA. If there would be inundation pathways (and there is evidence for the doubt), then excluding physical measures could potentially lead to inundation of the city in case of a flood event. As in this area there is a lot of industrial activity, that could cause additional problems in terms of economic damage and spreading of contamination, hazardous waste etc. and related impacts for people in that particular area.

The NCEA recommends to justify in the EPDA the reason for not including any physical measures for Stretch 1, that is based on flood risk for the city. If this would lead to reconsideration of interventions for stretch 1, this should be added to the ToR for the full ESIA.

In the past, groynes played an important role in coastal protection and erosion prevention. P. 18 mentions that ‘the existing system of breakwaters needs to be improved’ and on p 19, 3.2.2 Specific objectives, it is said that the objective of the project ‘will be obtained by repairing and strengthening the coastal protection infrastructure’. Although mentioned in Table 4.1 on page 23, groynes are not discussed in the EPDA.

The NCEA recommends to include in the EPDA more information on the need for improvement of groynes and explain whether or not they are part of the project interventions. If they are, this aspect should clearly feature in the ToR for the full ESIA.
3.5 Project features

Off-site activities
Next to on-site activities like the placing of L-walls, sand suppletion, and placement of revetments, the project also entails a number of activities outside the direct project area that may have considerable environmental and social impacts. The most important ones are the winning of sand and rock quarrying, but also the manufacturing of L-walls, the winning of clay for dike construction in Stretch 4 and the transportation of these materials to the project site have impacts. The relation to the sourcing of raw materials, the EPDA presents (p. 45 and 52) the following:

Sand: the projected volume of 2.1 million m$^3$ is expected to come partly from the access channel to the port, and partly from a nearshore area in Beira. The EPDA mentions some aspects and potential impacts, but is not clear in terms of the ESIA requirements for the sand dredging activity itself. As sand dredging is a major operation with potential significant impacts on substrate, benthic fauna etc., this is a serious omission.

Rock: the source area of the rock is not indicated in the EPDA, nor the potential impact of the rock quarrying and transport to Beira. The nearest licensed quarries are located inland some distance from Beira.

Clay: the construction of the clay dike requires some 18,000 m$^3$ of clay. Assuming a dump truck capacity of 10 m$^3$ this requires 1800 truck movements from the clay winning site to the project site. The EPDA mentions that clay will be a construction material for the dike in stretch 4, but does not mention it in the section on Materials, nor gives a source area.

The NCEA recommends to provide a description of these off-site activities in the EPDA, including a short overview of potential impacts. This is required according to IFC PS 3 and needed to be able to later on assess the impacts related to sand dredging, rock quarrying and clay mining for the locations where this is planned to take place – or likely to take place – following detailed design. Subsequently, include provisions in the ToR for the ESIA to adequately study the sand dredging, rock quarrying and clay mining activities and related impacts.

Alternatives
Regarding the design and selection of alternatives p. 23, 4.1.2 states that several guiding design principles were applied (i) Avoid permanent resettlement, (ii) Minimize O&M requirements, (iii) Maximize opportunities for nature-based solutions and (iv) Use opportunities for urban integration and enhancement.

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3 Although the Mozambican ESIA regulations does not mention the dredging of sand specifically, a full ESIA is required for the dredging of access channel to ports (category 2.1 Infrastructure, subitem t).
4 The amount of clay needed is not given in the EPDA, the NCEA expert made his own estimate based on the cross section and length of the dike.
5 IFC PS 3: on Resource Efficiency and Pollution Prevention requires that in the EPDA, key alternatives and measures should be identified that should be looked into to avoid, minimize, and clean up pollution potentially caused by the project, as well as to improve resource conservation and energy efficiency within the project. In particular, those that may be relevant for the construction phase of the project.
However, minimization or avoidance of environmental impacts is not mentioned here but should be an important design criterion as well. On the other hand, flexibility/ability to deal with future uncertainty seems to have played an important role in the final choices, but is not mentioned as a criterion.

The NCEA recommends, following IFC PS 1, to substantiate the selection of alternatives more clearly–in terms of criteria used–in the EPDA and to include this issue in the ToR for the full ESIA. In case explicit attention for environmental and social impacts of each alternative would lead to (inclusion of) other alternatives, this should be further assessed in the ESIA.

Interference with other ongoing or planned projects
As stated on p. 27, the implementation of coastal protection measures may increase the existing, significant pluvial flood risk. The statement made by the consultant that this issue will be solved during detailed design is not convincing.

The NCEA recommends to include in the EPDA a description of interference with other ongoing or planned projects and developments, in particular with the ongoing Rehabilitation of the storm water drainage system in Beira project. This is essential information to assess whether serious impacts could occur and if so, how to deal with these (see also Par. 3.8 below).

Scope of interventions and scope of studies required
Also on p. 27, it is mentioned that the Beira Municipal Council (BMC) indicated that the fishery anchorage to a port at Praia Nova would be one of various interventions needed for that area. This is considered for inclusion in the scope of the project, in case budget remains, but the EPDA remains unclear on whether it will, or will not be part of the project. If incomes can be raised from more secure livelihoods sources, this would contribute to the area's uplift. The risk of further influx to this area once it is no longer susceptible to flooding is probably quite high (even though space is scarce), and the BMC will be concerned to try and manage the area as well as possible once it has the basis for a flood security established.

According to the EPDA, the coastal development along Stretch 4 heavily depends on the developments at a sand spit further east along the coast (p. 43 and p. 99). It is mentioned that a study will be performed outside the scope of the project to get a better insight. Such insight seems crucial to be able to decide which type of measures need to be taken now or in future. This issue cannot be left for decision making at a later stage.

The NCEA recommends to clarify in the EPDA whether the fish anchorage is part of the project interventions or not. In addition, it is recommended to provide more explanation of the possible developments at the spit in the EPDA and the consequences for the morphological development along Stretch 4. These should subsequently be included in the ToR for further study during the ESIA.

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6 IFC PS 1 requires that project proponents identify and assess environmental and social impacts, and then anticipate, avoid, minimize or compensate impacts to improve their social and environmental performance. This is done by adopting more sustainable project alternatives, by integrating necessary measures into the project design, and by developing and implementing appropriate environmental and social action plans.
**Project interventions to enhance project sustainability**

The choice of the project to implement soft solutions for stretches 2, 3, and 4 not only depends on municipal commitment to O&M, but also community/resident commitment to the same. The precarious structures used for dune construction and maintenance of living vegetative covers of the dunes will be at risk from (activities of) community members. This is particularly likely along stretches 2 and 4 where livelihoods include fishing and where beaches are used for defecation, meaning that people regularly pass and also tend to search for firewood at the same time. It is probable that dune development and maintenance would need not only municipal resources but also local people’s awareness and collaboration for it to be successful.

The NCEA recommends to pay, **in line with IFC PS 1 and 4**, more attention to community involvement activities to enhance the sustainability of the project. To mitigate risks of sabotage (wittingly or unwittingly) the soft option design should also be accompanied by an adequately proportional community involvement component. This is currently not the case and should therefore be included in the EPDA and also in the ToR for the ESIA to be further studied.

### 3.6 Project areas of influence

Environmental and social impacts are not limited to the footprint area and the area where construction and operational impacts are felt.

The NCEA recommends to include the sand and clay winning areas, the rock quarrying area and the L-wall manufacturing site – preferably indicated on a map – in the EPDA and consider these explicitly in the further impact assessment.

### 3.7 Baseline description

#### 3.7.1 Physical environment (Chapter 6.1, p. 57 and further)

Relevant information is lacking, e.g. on tides and tidal fluctuations, longshore currents, wind erosion, sediment composition and quality, turbidity levels of coastal waters, and patterns of coastal erosion/accretion. Also, information on sea water quality is missing.

The NCEA recommends to provide a good description and analysis of all morphological processes active in the area in the EPDA, to be able to understand the effectiveness and potential environmental impacts of the proposed measures, including at least:

- Longshore currents

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7 IFC PS 4 on Community Health, Safety and Security requires that the EPDA identify measures to minimize impacts on the health and safety of the local community as a result of the project. Particularly safety and health risks and nuisance from construction for different users of the area.

8 At various places in the EPDA the importance of these currents is acknowledged, e.g. p. 54 ‘large-scaled nourishments are required to compensate for longshore sediment losses along coastal Stretches 2 and 3, as well as in Chapter 7.2 (p. 97 and further) on impacts on Hydraulics and Morphology in which a ‘large scale longshore sediment transport process’ is mentioned several times.
Sediment transport rates along the coast, as well as patterns of erosion and sedimentation.

- Wind erosion. Location of erosional areas and estimate of amount of sand being lost by wind erosion annually.

- Sea level rise and climate change
  Although not really a physical parameter, information on locations and amounts of sand being mined from the dune area is also relevant, as on p. 75 it is stated that excessive sand mining takes place. This could become a major issue.

A detailed description of further assessment required should therefore be part of the ToR.

### 3.7.2 Biotic environment (Chapter 6.2. p. 70 and further)

Section 6.2.1.1 refers to a number of Regional Frameworks of different scales and relevancies for the Project area. Some of these are outdated e.g. Wild & Barbosa 1967 and White 1983. Maps are not provided or difficult to read. Sources are not mentioned in Section 10, Bibliographical references are not either. There are much more precise and updated regional maps with more detail available, e.g. the Historical vegetation map and red list of ecosystems assessment for Mozambique – version 1.0 – final report 2021. Beira falls in the Buzi–Pungwe Alluvial Vegetation Unit and the associated map provides an accurate distribution of the mangroves in Beira.

Section 6.2.1.2 on Local flora, Aquatic flora states that ‘the study area belongs to the Afrotropical region (the extinct Ethiopian region) ….’ However, the Afrotropical region is a vast area covering almost the whole of Africa and Madagascar, except for the northern part of Africa (the Saharan desert area). It is irrelevant to place Beira in the context of such a vast region. More relevant would be to describe the wetlands of Beira and plant species associated with these wetlands.

Section 6.2.6 under Section 6.2 (Biotic Environment) is titled Fisheries. This section refers to fisheries and commercial fish rather than fish species and fish biodiversity. Much of the information in this section should be integrated into Section 6.3.4.2 Fishing under Section 6.3 (Socio-economic Environment). Section 6.2.6 should be renamed Fish and a description and examples of fish species (not only fish of commercial value) and fish biodiversity should be included under this section.

The NCEA recommends to, following IFC PS 6⁹, include up-to-date information (particularly on wetlands and associated flora) and maps of the correct scale in the EPDA and the subsequent ESIA and make clear references to it in the bibliography.

### 3.7.3 Socio-economic environment (Chapter 6.3 p. 80 and further)

**Fisheries**

⁹ IFC PS 6 on Biodiversity Conservation and Sustainable Management of Living Natural Resources implies that the EPDA will need to identify any possible biodiversity–issues, including protected areas and endangered species, but also other (non–protected) sensitive areas and species that may suffer or benefit from the project. In the urban environment of the city of Beira this may be unlikely, but the activities include mangrove removal and compensation, which could affect biodiversity values.
P. 88 on fishing mentions that fishing constitutes one of the main socio-economic activities in Beira. Execution of the proposed works, not only the sand suppletion to the dune areas, but also the dredging activities, the required ship manoeuvring and (temporary) disturbances of these activities of the coastal environment (e.g. increased turbidity) could interfere with fisheries activities, but also e.g. harbour access.

The NCEA recommends to provide more information in the EPDA on the fisheries sector to be able to estimate the impact of the project on this sector. This includes e.g. number of people having an income from the sector, amounts of fish caught and marketed (yearly and seasonally) etc. This should also be part of the ToR to be further described in the ESIA.

Social profiles of the four stretches
The descriptions of the social profiles of areas where vulnerable groups live are very shallow (p. 90). It would be useful if these profiles could be defined in more detail at the start – including the scope of the profile, organisation of the information into beach and seafront activities, and interior activities that are relevant for users of the beach and seafront and the level of relevance of such information. This is important because some sections use data from the interior, such as vulnerable people in Munhava Matope without a clear explanation of how this is related to Coastal Stretch 1. While similar information for Praia Nova is referring directly to the beach frontage area and is directly relevant to the project.

Coastal Stretch 1 would benefit from a description of the use of the coast, the small Munhava River and activities such as agriculture, fishing and small business as well as waste picking which are all important sources of income in that area. The profile of economic sources of livelihoods is quite varied and the users a mix, many of whom are based in the urban centre. It is not clear whether or not (some) people are likely to be resettled in the future.

Coastal Stretch 2: Women’s occupations in the area are important to also register\textsuperscript{10} – small businesses etc. (under the trade section or the economic section). Many households are headed by women, and their types of dependency should eventually be better understood.

Coastal Stretch 4: It is important to understand where the fishers live, how they access their boats and where these are kept along that beach. (i.e. would they cross over the dunes every day? Do buyers come to the beach too over the dunes? Are there any access roads to this area or only maritime routes and paths for walking?).

The NCEA recommends to improve the description of the social profiles at least according to the suggestions in the above text. This can be done at the ESIA stage and should therefore be part of the ToR. Information regarding land use, and whether or not (temporary/economic) resettlement is needed and agreed, is however crucial to include in the EPDA and is also required by IFC PS \textsuperscript{11}.

Land use and land ownership

\textsuperscript{10} Not only applicable to stretch 2.

\textsuperscript{11} IFC PS 5 on Land Acquisition and Involuntary Resettlement requires that the EPDA identify if any (temporary) economical or physical resettlement is needed (or could be desirable from a safety point of view). Such resettlement can then be further planned in the ESIA.
The chapter on p. 94 (6.3.6) on Land use, protected areas and land ownership has no written content at all leaving the maps to be self-explanatory. Reference is made to an Appendix 4, which was received by the NCEA upon request\[12].

The NCEA recommends to include in the EPDA a summary conclusion on the content and findings of Appendix 4. This can help to identify points in the coastal stretches of the project that are likely to change over time and require more coastal and human protection for example. The Annex 4 contains useful information which can be used/updated at the ESIA stage. As this Annex currently does not contain a map indicating fishery areas, it is recommend to include such a map as well in the Annex and/or in the full ESIA.

3.8 Preliminary impact assessment and identification of fatal flaws

Hydraulics and morphology

Chapter 7.2 on Hydraulics and Morphology (p. 97 and further) states a couple of times that the large-scale longshore sediment transport process is not expected to be impacted by the works. However, large amounts of sand are placed on the foreshore, partly on top of the (remains of) the groynes. As a result, one would expect an increase in longshore sediment transport. This is actually acknowledged on p. 100: ‘The strengthening of the dunes and sand buffering East of Palmeiras in Stretch 3 and in Stretch 4 might have an impact on the sediment transport towards Palmeiras and lead to increased risk of blocking of the Palmeiras outlet’. This is a serious impact, that could interfere with the Urban Drainage project (see earlier remark made in par. 3.5 above).

The NCEA recommends to address the impacts of longshore currents, erosion and sedimentation processes along the project stretches as well as the consequences for the urban drainage. Currently this is a serious omission. As not only the Palmeiras outlet, but also other drainage outlets may be confronted with the same problem, this needs further attention in the EPDA and ToR for ESIA.

Impacts on biotic environment

Although the potential impacts for the biotic component are well documented in Section 7.7 (p. 102) of the EPDA\[13], the ToR on the Biotic Component for the ESIA is not fully aligned. The

\[12\] Exposure and vulnerability memo of May 2021, containing a flood and erosion risk assessment, 43 pages.

\[13\] For example some of the main potential impacts for Coastal stretch 2 include:

- Considering the dune rehabilitation possible impacts include pollution, change in sediment movement patterns with consequent impact on local flora and fauna.
- Some loss of mangroves due to the building a protection structure (L-wall) – any loss of mangroves will be compensated.
- Dune rehabilitation may alter the volume of seawater entering the mangrove forest with consequent impacts on the mangroves. Negative impacts can be mitigated by compensatory planting. Alteration of saltwater intrusion should be investigated in further detail as part of the ESIA.
- The physical disturbance to the aquatic environment resulting from the removal and relocation of sediments, will lead to the loss of benthic habitats, with the consequent mortality of sedentary benthic organisms or those of associated reduced mobility.
- Potential impacts on avifauna due to the increase of sound pollution and human presence;
- Possible contamination with exotic plant species;
- Potential soil contamination from dredged material.
potential impacts identified in the EPDA should be the basis for the ToR for ESIA. For the Biotic Environment this is currently not the case (see also Chapter 4 below).

Under Section 7.7 (impacts of Biotic Environment) reference should be made to potential impacts on fish species and fish biodiversity especially with regards to sand dredging for dune rehabilitation.

**Impacts on socio-economic environment**

On P. 104, Impacts, Coastal Stretch 2 it is mentioned that the disposal of dredged material (mud and clay) near existing fishing areas may increase the volume (quantity and/or biodiversity, this seems to be mixed up?) of fish species and certain species of shrimp, potentially contributing to an increase in the volume of catches by artisanal trawl fisheries. However, a number of other impacts e.g. from dredging may negatively impact the fish/shrimp/shellfish stock and composition of species, e.g., increased turbidity, smothering of the sea bottom, noise, reduced oxygen levels, increased levels of contaminants, etc., causing fish to move away from the area temporarily and negatively impacting fisheries.

The NCEA recommends to perform a detailed assessment of both positive and negative impacts of dredging on fishing areas to be undertaken during the full ESIA and thus to include this specifically in the ToR for the full ESIA. At the EPDA stage however, specific information is needed to fishing area use and alternatives used to consider if alternative fishing areas are available or compensation may be necessary (see also 3.7.3. above).

If the construction phase of the project employs the numbers of workers described in Coastal Stretch 2\(^\text{14}\) (p. 104) and the benefits employment may generate can also be attributed to this area, it remains unclear whether the workers will only be sourced from this stretch, or whether they will be prioritized from here.

The NCEA recommends to, in line with IFC PS 2\(^\text{15}\), provide clarity on the source of labour in the EPDA and include this is the ToR for the ESIA. If the workers do not only come from Stretch 2, this might best be included as a general project level impact spread out over all four stretches.

Gender Based Violence (GBV) and women's harassment as potential impacts of the project are not included.

The NCEA recommends to identify potential impacts of GBV and potential women’s harassment in the EPDA and include these in the ToR, to be further assessed in the ESIA.

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\(^{14}\) A total of 165 workers, including specialized (38) and non-specialized (127) workers

\(^{15}\) IFC PS 2 on Labour and Working Conditions requires an approximation of the workforce that will be mobilized in project implementation, and identification and management of any issues regarding the treatment, health and safety of workers. In the EPDA it is important to flag these issues, and also to consider whether there are any PS2 issues affecting workers that may occur in relation to the supply of construction material or management of project waste.
4. **Key findings and recommendations on the ToR**

In general, the ToR is fairly well written but not yet complete and unbalanced. Some chapters, e.g. Chapter 3, Process of public consultation and involvement of interested and affected parties, are very lengthy, other topics are only treated very superficial, or not at all, e.g. terrestrial ecology (flora, fauna, endangered species, protected areas).

As stated in the EPDA on p. 111, ‘the EPDA represents the first phase of the ESIA process, which aims to identify the most relevant issues associated with the implementation of the proposed project. In the ESIA phase, the various issues identified will be subject to detailed analysis’. This means that the ToR has to include all potential impacts identified in the EPDA. One would expect that all important issues raised in the ToR are also discussed in the EPDA, and the other way around. However, this is not the case. E.g. longshore currents, turbidity, coastal erosion, fish breeding areas and fishing grounds discussed in the ToR are not touched upon in the EPDA. Whereas e.g. terrestrial flora and fauna and ecosystems are not mentioned in the ToR but are discussed in the EPDA, where it describes a number of impacts on the biotic receptors from a variety of activities. However, the ToR focusses only on the potential impacts on the marine ecology arising from dredging whereas dredging per se receives only a very brief mention in the EPDA.

On page 16, 2.4 Compilation of the ESIA Report, the required contents of the ESIA report are given. However, a number of the topics mentioned, like Justification of the project, Description of the project, Legal and regulatory framework and Area of influence are not mentioned in the ToR (but, referring to the remark above, are (partly) discussed in the EPDA). The description of the General methodology (p. 5) does not mention components like autonomous developments, prediction, impact monitoring and public participation.

The sub-division in environmental components as presented in 2.1 is not complete, not entirely logical, and in places repetitive. E.g. water and sediment quality, terrestrial ecology (flora, fauna) and protected areas, are not mentioned; Hydrology, tides, frequency and extent of flooding, currents, swell are under the heading biotic environment; Waste and Waste Water are under Macro Ecosystem Environment while Air Quality and Noise are not; also, the Transport and Circulation Study is under Macro Ecosystem Environment, but would probably be better placed under Socio-economic Environment.

The presentation of the long list of thematic baseline studies does not make it clear that certain project activities have impacts in various thematic areas. For instance sand dredging has impacts in thematic areas such as geology, coastal dynamics, air quality, noise environment, marine ecology, fisheries biology, transportation, plus a range of topics in the socio-economic environment.

The NCEA recommends that the ToR clearly reflect the issues requiring further study in the full ESIA as identified in the EPDA. It is recommended to use the same subdivision as used in the EPDA. Pay specific attention to the recommendations made above in Par. 3.1 to 3.8 of this NCEA advisory report. Annex 2 below gives detailed observations on the ToR that should be considered for inclusion as well.
Annex 1: Map and figure *Proposed package of site-specific measures*

![Map and Figure](image)

<table>
<thead>
<tr>
<th>#</th>
<th>Stretch</th>
<th>Selected preferred alternative (site-specific flood and erosion risk reduction measures)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Generic #1</td>
<td>Early Warning System</td>
</tr>
<tr>
<td></td>
<td>Generic #2</td>
<td>Institutional program and non-structural interventions:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A. Technical Assistance Program</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B. Investments for monitoring and maintenance equipment</td>
</tr>
<tr>
<td></td>
<td>Generic #3</td>
<td>Set up/ expansion of local nursery for dune vegetation and mangroves, incl. capacity building and staff</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>L-wall at port area</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>Old seawall protected by rock revetment and rehabilitation of parapet wall</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>Relatively small repairs</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>L-wall at mangroves</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>Dunes with vegetation + 25 years erosion buffer</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>Dunes with vegetation + 25 years erosion buffer</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>Rock revetment + 25 years erosion buffer</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>Dunes with vegetation + 25 years erosion buffer</td>
</tr>
<tr>
<td>8a</td>
<td>3</td>
<td>Limited strengthening of the dunes where required + 25 years erosion buffer</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>Local strengthening of dunes from Macuti lighthouse to halfway between Peacock and Rio Maria (filling of vulnerable parts to create a uniform dune ridge) + 5 years erosion buffer</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>Clay dike. Drainage channel will cross clay dike with tidal gate (tidal gate is not part of CAPEX)</td>
</tr>
</tbody>
</table>

*Figure 4-1: Overview of proposed package of site-specific physical measures for the Beira coastal protection program*

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16 Image and Figure taken from *Coastal Protection Project preparation studies for Beira Mozambique: Environmental Prefeasibility Study and Scope Definition (EPDA) (5–11–2021)* by Royal HaskoningDHV, page 37.
Annex 2: Detailed observations on EPDA and ToR

On the EPDA

General
- Although the draft EPDA is comprehensive, the contents and structure are not always clear making it, at some points, difficult to follow. It is recommended that some sections be more concise and clear. The report needs some editing too. At a number of places information is repeated (e.g. 4.3.1 and 4.3.6.1). There are some errors in referring to Tables or Figures which makes reading somewhat difficult. There is also a number of errors of the scientific names and common names of some species.
- The overall Project description in an EPDA Report should be relatively simple (and much more detailed in the ESIA). The figures of the Section profiles could be removed as these do not add value to the identification of potential impacts.
- In the text names of e.g., restaurants, hotels and markets are used as location indicators. For better understanding of the situation by people not very familiar with Beira, it would be helpful to add a map with all locations mentioned in the text clearly shown.
- Throughout the report thousand separators (usually ",") and decimal points (usually ".") are mixed up. This makes figures and tables hard to understand. See Figure 6–6 for an example: in the second column both a "." (in the first row) and a "," (last row) are used as a thousand separator. In the last column, a decimal comma (",") is used. Elsewhere e.g., in the text of 6.3.3.5 Housing a decimal point (.) is used.

Page by page
- Page 18. Reference is made several times to the PDB carrying out actions. It is not listed in the List of Acronyms. On same page Reference is made to the World Bank–funded Global Forum ….This should read the Global Facility for Disaster Reduction and Recovery (GFDRR). Also GFDRR is not listed in the List of Acronyms. And there are more examples throughout the text: therefore complete the list of Acronyms.
- Page 22: Table 4.1 lacks an explanation as to what the red, yellow and green colours are.
- Page 28, 4.2 Introduction of type of measures. This Chapter is very unbalanced, Generic Measure #1, Early Warning Systems is described in detail, including cost estimated and a detailed information flow chart, whereas Generic Measures #2 (Institutional program and non-structural interventions) and #3 (Dune vegetation and sand fencing, incl. nursery) are only briefly touched upon.
- Page 34 and 37. The total length of L walls is not given. This information would be useful to be able to estimate the impacts of L-wall manufacturing and transportation to the project site (see also Par 3.8 on off–site impacts above).
- Page 35 and further: Legend of most of the cross–sections is incomplete. As an example, the legend of Figure 4.13 is complete, whereas the legend of Figure 4.10 appears to be cut off both left and right.
- Page 35, In figure 4.9 a footprint of the rock protection of 30 m is given, Figure 4.10 on page 36 shows a footprint of 15 m.
- Page 40: Cross section of Measure 7 is missing.
- Page 73: It is recommended that Section 6.2.2 Aspects of ecological sensitivity in Project Stretches be the last section of Section 6.2 for a more logical flow and to guarantee continuity with the other the subsequent sections.
Pages 80–97 Socio-economic baseline Section 6.3

- 6.3.2: A comment on the 10 members of the municipal council, they should be called 'councillors'. Strictly speaking the Municipal council is not part of the 'State Organization at Local level' – state administration is the governance line from the President down through to the District Administrators. Municipalities are part of the autarchic organization.

- Page 81, 6.3.3 Socio-demographic and well-being profile: Figures in this chapter are confusing and not consistent. For example, in 6.3.3.1 Population, states in the first sentence that the Beira population (2017) is 602,776, in Table 6–5 on the same page a figure of 602,774 is given, four lines below the table the population is given as 578,494.

- Page 82: change the word 'prospected' to 'projected'

- 6.3.3.2 Fertility and Mortality: The conclusion that "Everywhere declining mortality seems to have played a central role in the fall in fertility" needs a better explanation. Showing the same trend in mortality rates as was shown for fertility rates might help with in making it more transparent.

- 6.3.3.3 Education: Data used is from 2010. It is highly probable that there is more recent data. Ensure data in this section is gender disaggregated.

- 6.3.3.4 Religion: Should mention the date and source of data.

- 6.3.3.6 Economically Active Population: The analysis needs to be simplified and clarified. It needs simple short definitions of EAP and WAP. Then comment that the EAP is about 13.3% less than the WAP indicating ... The source and definition of the EAP should be very clear, so that it can be clearly understood what the meaning of the difference between the numbers is.

- 6.3.3.7 Labour Force and Employment: The last column of the table 6–6 should be Average # employees per establishment not %.

- Page 84 and further: In 6.3.3.6 and 6.3.3.7 Figures on labour force and employment are very confusing and need recalculation. For example: EAP is given as 56.3% of total population of 602,776, hence there are some 340,000 persons economically active. Based on the provided unemployment rates there are 70,000 unemployed and 270,000 employed people. However, the same paragraph states that there are only 9,000 unemployed in Beira City or some 16,000 in Sofala province.

- 6.3.3.8 Education: 6.3.3.3 Education above should be clearly distinguished in the title and the content from 6.3.3.8 or they should be merged and the more recent 2020 data used.

- 6.3.4.3 Industry and Services: On page 89 the reference to AIAS 2017 is not explained or referred to again. Please check if it is the correct reference.

- Page 102, Biotic Environment: Reference is made to e.g. a mangrove strategy? The applicable legislation is: Decree No. 89/2017 of December 29: Regulation of Law on the Protection, Conservation and Sustainable Use of Biological Diversity. Requirements for Recovery (Article 108): recovery of species and ecosystems must be carried out when ... when species diversity is reduced by 20% or more relative to the expected status). This should also be Part of 2.1. Legal and regulatory framework

- Page 105 7.9.2 Coastal stretch 2 and: the absence of identification of the source of rocks and sand for construction may result in higher use of land transport that foreseen.

- Page 105 7.9.3 Coastal stretch 4: the impacts in this section refer to clay dykes and traffic accident risks which is not consistent with the profile of works or existing environment of this section. Please review.
On the ToR for the ESIA

Page by page

- On page 4, 1.2 Objectives of the Study, there seems some mixing up of objectives of the ToR and Objectives of the ESIA study. The objective of the ToR is not ‘Identify, describe and assess the environmental impacts’, ‘Propose measures to control negative impacts’ and ‘Provide information that can be used in drawing up the Environmental Management and Monitoring Plan’, but to give guidance on how to do this in the ESIA study.
- Page 5: The institutional, policy and legal context are missing, including municipal by-laws and an assessment of capacity to apply and ensure compliance of the ESMP.
- Page 8: 2.7.1 Socio-economic environment: The section includes a very generic list of indicators which probably include indications of areas of main interest (gaining an understanding of local livelihoods sources, strategies, costs and benefits). At present there is no section on livelihoods which should be included with special attention to fisheries, fishers’ livelihoods and use of rivers and sea for each of the stretches, gender roles and benefits, and integration of fisheries into other livelihoods activities. It should also include details on social, economic and power relations, tensions and conflicts in resource access and use, especially in the stretches of interest.
- Page 8, 2.1.7.1 Occupational Health and Safety Study. This section should summarise what is needed to assess the baseline with a particular focus on water, sanitation and hygiene related practices and waste management. Evaluation of the potential impact of the project on health and safety, Identification of mitigation measures, Drawing up of the Occupational Health and Safety Management Plan and Definition of a monitoring program are not part of the baseline description and should be discussed in the respective Chapters on Impact Assessment, Management Plans and Monitoring.
- Page 11, 2.2.1.1 Climatology. No further explanation is given in this section. Needs further elaboration.
- Page 11, 2.2.1.2 Geology and Coastal Dynamics. The main objective of the project is to provide safety against flooding from the sea by protecting the coastal systems and minimizing erosion. Monitoring of the coastal dynamics, patterns of erosion and sedimentation is therefore a key activity to be described in the ESIA.
- Page 11, 2.2.1.3 Oceanography. Turbidity monitoring: the ToR should indicate how, where and with what frequency the turbidity has to be monitored. This section indicates how waves, coastal drift, return currents, beach profile and turbidity have to be monitored, but does not guide how the monitoring data should be used to predict impacts on the coastal system (patterns of erosion and sedimentation). A modelling approach could be recommended.
- Page 11 and 12, 2.2.2 Air quality and 2.2.3 Noise Environment. Impacts on air quality will be assessed qualitatively by comparison with similar activities, whereas noise impacts are proposed to be assessed with a noise propagation simulation model. Why is a model approach proposed for noise propagation and not for the aerial dispersion of pollutants?
- Page 12, 2.2.4 Biotic Environment. It is stated that ‘This component will analyse the aspects of the Project relating to the effects generated during the different phases of dredging on.’. This is a too limited approach, the biotic environment will also be (directly) affected by placement of large quantities of sand in the coastal waters, in the dune area and even on top of the mangroves. At the same time construction of L-walls, a clay dike etc. may interfere with flows and the distribution of fresh and saline water and
so the biotic environment (e.g. mangroves), whereas changes in turbidity, currents, waves etc. may affect the marine biotic environment. These sources of impacts should also be mentioned in the ToR.

- Page 13, 2.2.6 Macro–Ecosystem Environment. Again, only dredging is mentioned as a source of impact.
- Page 14, 2.2.6.4 Transport and Circulation. Transportation of clay for the construction of the clay dike in Stretch 4, 1800 truck roundtrips, is not mentioned.
- Page 14, 2.2.7 on Socio–economic impacts and mitigation measures. This section needs to be re–organised so that the baseline methodological aspects are in the baseline section. The emphases now provided on two impacts needs to be balanced with areas of study in the baseline scope. i.e. in addition to the fisheries baseline (commented on above), to be able to assess benefits of employment and the effects of exclusion from it, the baseline should include informal sector activities and income levels, skills at community level, training and facilities available.
Annex 3: Observations legal & regulatory framework

Applicable National Legislation:

In Paragraph 3.3. above we indicate that the regulatory framework is not well described or incomplete and the translation into relevance for the project has not been sufficiently made. Below we indicate on which points this can be improved.

In Mozambique, a 100m above high tide protected zone is in place. Locating a project along a coastline that is technically inside that zone requires special licensing for the works and temporary or permanent structures to be placed there. The Urban Soils Regulation (Decree 60/2006 Article 31: Activities in Partially Protected Zones) should be included as it is relevant for licensing of activities in partially protected areas and for detailed land use planning.

The Land Use Planning Law nº 19/2007 should be included. The land use planning context is relevant not only for licensing and identification of resettlement sites, but also for any detailed urban planning or zoning necessary for improving coastal zone management. The population of Section 2 is quite aware that living where they do is risky and they are subject to regular flooding of their homes from the sea, as well as providing a sanitation risk as most carry out their defecation on the beach due to the high subterranean water level in this informal settlement. Concurrent land use planning/urban detailed planning and addressing sanitation and hygiene needs before and during the works would be advantageous.

Note that in the column on the “Applicability to the Project”, the reference made to the case of electricity projects\(^\text{17}\) should be revised and made applicable to the current Beira Coastal Protection project.

Note that the section on Decree nº 23/2008 (the Land use Regulation) refers to issuance of a declaration of public interest for the project. This should not be obtained from the Electricity Law as written, but instead is defined in the Land Use legislation in a subsidiary directive of this regulation (Technical Directive on Expropriation Process for Territorial Planning Purposes, Ministerial Diploma Nº 181/2010, of 3 November). This Technical Directive is incorrectly identified in the table as a Ministerial Decree. It is not, it is a Ministerial Diploma.


Additionally, ensuring continuity of income from the fisheries activities which sustain an important proportion of the people living on Praia Nova and any fishers along stretches 1 and 4 that may be affected by dredging or the movement of construction material transport vessels may result in a need for compensation. Should that be unavoidable, the Regulation on Marine Fisheries of 2020 provides the context for fisheries compensation as well as organization of community fishers and management of their fisheries.

\(^{17}\) On Page 5, there are similar copy paste errors, e.g. reference to ‘terminal’ and ‘power station’.
Public consultation and participation in decisions and agreements in land or marine use changes whether temporary or permanent in this project will be required. Public consultation is legally required in processes of developing the ESIA, land use and resettlement planning. This should thus include the Public Consultation Process Decree N° 54/2015, and if ministerial diplomas are included, the Environmental Sector Directive on Public Participation Processes, Ministerial Diploma N° 130/2006.

The National Heritage Protection Law N° 10/1998 of 22 December should be included to ensure recourse should any project activities result in chance finds or disturb any location of living or physical cultural significance.

Finally, the law and main decree on state administration, essential for liaison, involvement and conflict resolution at community level should be included as the Law on Local State Administration N° 8/2003, and Decree N° 15/2000 which describes the articulation of local state authorities and community leadership in conflict resolution, representing community opinions on applications for land, and identifying and delimiting community land.

The section on “Occupational Health and Safety” should include the COVID 19 emergency legislation, waste management regulation (Decree n° 13/2006) and be balanced with a section on “Community Health and Safety”. The latter should at a minimum include mention of the Law on Domestic Violence Practiced against Women, Law N° 29/2009 of 29 September, the Family Law, Law N° 10/2004, of 25 August and the Law on the Prevention and Combat of Premature Marriages, Law N° 19/2019 should ensure an adequate basis for protection of women and children in the project’s labour relations with neighbouring urban communities.

In addition, concerns in Praia Nova about basic water supply and sanitation, management of drainage, exposure to water borne disease and high tidal flooding and vulnerability to cyclones (Law on Management of Natural Disasters n° 15/2014 and its regulation), and disease prevention should see legislation on water quality, water resources and water supply and sanitation under the Water Law of 1991. The regulation on Public Systems for Water Distribution and Residual Water Drainage (Decree N° 30/2003) which is supported by the municipal drainage and residual water plans.


**World Bank ESF framework, IFC guidelines and international conventions**

- In general it is not explained why the WB ESS standards are used instead of the IFC Performance Standards as is required by Invest International.
- The section on ESS 5 on page 11 has been cut off prematurely and needs to be reviewed and the third bullet concluded.
- Page 13, Table 2–3: IFC HSE guidelines should read EHS guidelines and Fire and Life Safety (L&FS) should read Life and Fire Safety.
- Page 14, Table 2–5, Mozambique has been part to the Bonn Convention on Migratory Species of Wild Animals, 1979, and its amendments since 2009 (the year is missing) and Brasilia Convention ….. should read Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.