



Netherlands Commission for  
Environmental Assessment

Mozambique (ORIO11 / MZ/23)

# Quick Scan (Review) of the Draft ESIA Report on Greater Maputo Water Supply Project, Corumana System



25 September 2014  
Ref: 2014-11



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## Advice of the Secretariat

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**To** ORIO

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**CC** Ms Tamar Schrofer, Ms Barry Nieuwenhuijs

**From** The Netherlands Commission for Environmental Assessment (NCEA)  
Ms Ineke Steinhauer

**Date** 25 September 2014

**Subject** **Quick Scan (Review) of the Draft ESIA Report on Greater Maputo Water Supply Project, Corumana System, Mozambique (ORIO11/MZ/23), 26 August 2014**

By: the Secretariat of the Netherlands Commission for Environmental Assessment - Ms Ineke Steinhauer/Ms Gwen van Boven

Advice 2014-11

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# 1. Introduction

The *Fundo de Investimento e Património de Abastecimento de Água* (FIPAG), intends to license the Water Supply Distribution System to the Metropolitan Area of Maputo, particularly in the municipalities of Maputo and Matola, and part of the Marracuene District.

The project focuses on building a 900 mm pipeline, including the main ring (approximately 41 km), four distribution centers and its primary and secondary distribution network (approximately 192 km), and 20.000 household connections, which will distribute water to the peri-urban population in the Northern part of Maputo. The decision on the proposed sites for the construction of distribution centers and pressure tower, was based on analysis of alternatives presented for each proposed site, taking into consideration hydraulic, topographical, geo-physical, financial, technical and social aspects.

The proposed project is benefitting from ORIO funding. One of the documents submitted to ORIO for their internal appraisal process, is a preliminary Environmental and Social Impact Assessment (ESIA, 26 August 2014). FIPAG contracted the company Royal HaskoningDHV to carry out the ESIA. Currently the draft ESIA has been submitted to FIPAG for their approval.

FIPAG will be in the Netherlands by the end of September to meet with ORIO. Therefore, ORIO has requested the Netherlands Commission for Environmental Assessment (NCEA) to perform a quick scan of the ESIA to get a first impression on its quality before 25 September. The aim of the review is to identify issues for discussion with FIPAG and indicate whether or not the preliminary ESIA has any crucial gaps. Depending on these first impressions, a decision can subsequently be taken on whether a more thorough quality review would still be necessary.

## 1.1 Approach to this Quick Scan

As time for drafting this advice is very limited, the NCEA had to limit the scope and approach of its review, which took the form of a Quick Scan. This advice is a so-called NCEA 'Advice of the secretariat', for which no external expertise was used at this stage. Aside from a check against its own Terms of Reference (if available), the Draft ESIA was checked for conformity with the national ESIA requirements only, unless specific reference was made in the ToR to other international guidelines.

The aim of this quick review is quality assurance. On the one hand, the NCEA checked whether the ESIA report contains the information it should, in line with the national regulations and other relevant guidelines. At the same time, the NCEA verified whether the ESIA report contains adequate, accurate and sufficient information (on environmental and socio-economic impacts and on options/alternatives to deal with these) that is needed for decision making on this project. In the case of shortcomings, the consequences for decision making are assessed and recommendations are given for supplementary information needed to address these shortcomings.

The ESIA report (Volume II – Relatório Principal, preliminary version, 26 August 2014, 232 p.) was reviewed as a stand-alone document, meaning that all information necessary for

decision making should be contained in the ESIA report, without requiring the reader to consult other documentation to complement gaps in information in the ESIA itself.

As background information, however, the NCEA had access to the following documents:

- Final ORIO Project Plan Main report, Phase 1 Greater Maputo Water Supply Project
- Corumana System, ORIO11/MZ/23, Netherlands Grant Facility for Development-Related Infrastructure July 2014, 105 p.
- Preliminary ESIA, summary, 15 August 2014, 15 p.
- Volume III, Processo de Participação Pública, draft, 26 August 2014, 14 p.
- Resettlement Action Plan, Preliminary Social Diagnosis- Summary, 15 August, 15 p.
- Plano de Acção de Reassentamento Diagnóstico Social Preliminar, draft, 8 August 2014, 56 p.
- Approval letter of the EPDA and ToR by MICOA, 29 July 2014, 6 p.
- NCEA screening on EIA requirement for ORIO11/MZ/23, December 2011
- NCEA EIA country profile for Mozambique.

In the following chapters, we first present our key observations in relation to the national ESIA requirements and the technical contents of the draft ESIA (chapter 2). In chapter 3, we will elaborate in detail how we have come to this conclusion, by providing observations for each chapter of the ESIA report.

## 2. Key observations

### 2.1 Conformity with national ESIA procedure

In accordance with the Mozambican law and procedures, the project has been registered by MICOA (Ministry for the Coordination of Environmental Affairs in Mozambique). Following the registration, MICOA has categorized the project as 'Category A', implying a full ESIA including an Environmental Management Plan (EMP) and Resettle Action Plans (RAP's) for the Distribution centres and alignments of the main pipe lines. Subsequently, an Environmental Pre-Viability Study (EPDA and ToR) were submitted and approved by MICOA on 29 July 2014, highlighting 18 recommendations to be addressed in the ESIA. Based upon this approval, FIPAG is expecting to receive a temporary license for the project from MICOA by October 2014. A draft of the full ESIA is currently being evaluated by FIPAG. This report will be completed in conjunction with the work on the detail designs and be submitted to MICOA with a request for a permanent Environmental License.

The NCEA did not have a copy of the EPDA and TOR and was therefore unable to take these as framework for review of the preliminary ESIA. The NCEA however has noted several observations made by the Technical Review Committee in the approval letter, as well as the earlier mentioned 18 specific recommendations. The NCEA has also checked Mozambican general requirements for ESIA contents and will comment on these in Chapter 3 below.

- The NCEA recommends to include in the final ESIA a chapter/paragraph clearly explaining how each of these 18 issues mentioned in the approval letter have now been dealt with in the ESIA report (and RAP) and whether and how public participation requirements have been met.

- The NCEA further recommends that ORIO inform MICOA about the NCEA involvement in this Quick scan. If further NCEA involvement would be decided upon concerning a more thorough and in depth review of the final ESIA (once available), NCEA can contact MICOA to discuss the possibility for MICOA to also submit a request for review by the NCEA, so that the NCEA review advice can serve both approval processes on the ESIA (of ORIO and MICOA).

## 2.2 Quality of Technical content

The NCEA observes that the ESIA is clearly still a draft report, with some crucial elements still lacking, such as the Environmental Management Plan, indicating responsibilities for specific mitigation measures and budget implications. Although the baseline descriptions, the identification and assessment of impacts and definition of mitigation measures seem to be well elaborated, the project description, aims and justification merits much more attention. This is particularly relevant for the elaboration and comparison of alternative options, which so far have been described to a limited extent only.

- The NCEA recommends to discuss the specific recommendations in Chapter 3 with FIPAG for them to instruct the ESIA consultants team to follow up on these in the elaboration of the final ESIA. Moreover it would be helpful to ORIO and MICOA to have all relevant information available in one document, as currently it is scattered over many different documents (see list above) which in the end will facilitate decision making on the Environmental License.

## 3. Detailed observations per chapter

The structure in this Chapter will follow the ESIA report.

### **Non technical summary, Volume I**

The paragraph on '1. project presentation' uses different names for locations considered in the main report (e.g. reference is made to 'the tower of Infulene, which is not mentioned in the main report but seems to imply the Matlhemele distribution centre?). This is confusing.

Paragraph '3. Environmental licensing' mentions a different composition of the consultants team as compared to the team composition in the ESIA report. The impression arises that the non-technical summary is the one which accompanied the EPDA and is not (yet) the one belonging to the ESIA.

Further reading through the summary, it became clear that this does not reflect the ESIA report, e.g. chapter '5. Pre-identification of impacts' mentions other impacts than those in the ESIA report itself. Therefore the NCEA has put no further effort in reviewing the quality of the summary as probably this is not the correct or latest version.

- The NCEA recommends to include a summary of the ESIA once the final report is being available.

## Volume II Chapter 1 Introduction

Par. 1.1.3 refers to an Volume III, Anexos, which is not attached. This Volume apparently contains the ToR for this ESIA and also refers to maps being available.

- The NCEA recommends to attach the Volume III to the final version of the ESIA.

Par. 1.2.3 gives information on the objectives and justification of the project. However, it does not give any information on the project context. Only by reading the Final ORIO project plan, the reader gets a better understanding that this project is strongly interlinked with the World Bank's project 'Greater Maputo Water Supply Expansion Project - GMWSEP' and that the ORIO is only one of the components of the project.

- The NCEA recommends to better elaborate this part of the introduction, explaining for instance where the water comes from, that water treatment will also be a component of the GMWSEP project etc. and how the ORIO project components relate to the other components. This would give better insight of this ORIO project being part of a bigger project.

Par. 1.2.5 about location of project contains a figure 1 (p. 7) which can hardly be read, and being slightly different from another figure 1 (p.9). It remains unclear why these areas have been selected while this is much better explained in the ORIO project plan itself. Moreover 1.3 Enquadramento geografico seems to partly overlap with 1.2.5.

- The NCEA recommends to further elaborate this part of the introduction, including better maps with clear keys to symbols.

Par. 1.3.1. 'site alternatives for the distribution centres' mentions the criteria used for comparison of locations. Also mention is made of assessment matrices (p. 10) for each of the Distribution Centres, which however cannot be found in the ESIA. Therefore it is not possible to check whether environmental considerations have been part of the criteria and comparison. As a next step, for each of the 4 distribution centres and the booster station, several alternatives have been identified and compared. However, this chapter does not contain a clear conclusion on which of the different options finally will be the preferred options. In some cases such a conclusion perhaps cannot yet be drawn (e.g. land owners could not yet be traced).

- The NCEA recommends to include in this chapter a conclusion on final locations. In case this is not yet possible, the ESIA should at least indicate what will be next steps to get clarity on the possible locations.
- The NCEA further recommends to elaborate a separate chapter on alternatives as required by Mozambican ESIA regulation ('a detailed description and comparison of the different alternatives and the predicted future environmental situation, with and without mitigation measures') instead of including this in the Introduction chapter. For this, also use can be made of Par. 3.3. of the ORIO project plan, which gives better insight into the identification and selection of different alternatives.

Par 1.4. on 'legal framework' seems to pay attention to all relevant laws and regulations, but fails to make reference to recommendation nr. 3 of the approval letter on the EPDA.

Moreover, a general requirement regarding ESIA contents is an 'analysis of how the activity fits into the existing spatial plans', which has not been clearly addressed by this particular ESIA.

- The NCEA recommends to include information in the ESIA on the National Strategy on Biodiversity, the National Strategy on Climate change, and the Action Plan for prevention and control of soil erosion. Also more attention should be given to explaining how this project fits into the existing spatial plans.

## **Volume II, Chapter 2 Detailed project description and associated activities**

This chapter seems to require further elaboration, as part II.2.2 and part II.2.3 are still lacking. Moreover, it is not clear which parts of the project are part of the ORIO funding. According to the ESIA, the project consists of building a 900 mm pipeline, including the main ring (approximately 41 km), four distribution centers (DC's) and a booster station and its primary and secondary distribution network (a 192 km), and 20.000 household connections. However in the ORIO project plan, the "project design scope" seems different: i) Transmission pipelines to the Distribution Centres Cobe, Inluene, Intaka, Maputo and Marracuene, ii) Distribution Centres Cobe, Inluene, Maputo and Marracuene, iii) Primary and secondary networks for the services areas of Cobe, Inluene, Intaka excluding the ring main, Maputo and Marracuene and iv) inter-connections between the existing Distribution Centres Moambe and Pessene and the future clear water main connecting the water treatment plant and the existing Distribution Centre Machava. Later on, there is mention of a Scenario A which is chosen, in which the ORIO components are as follows:

- i. Connection of DC Moamba and DC Pessene to clear water transmission
- ii. Transmission to DC Cobe, DC Inluene, DC Intaka, DC Maputo
- iii. DC Cobe, DC Inluene, DC Maputo
- iv. Supply of materials for connections in Cobe, Inluene and Maputo supply areas
- v. TA for starting-up and Advanced Control

The description of the activity and its foreseen interventions, as well as possible alternatives for the different stages of the activity (plan, construction, exploration, and disabling) are therefore not clear to the reader. Apparently the design of the project is still evolving.

- The NCEA recommends to include unambiguous information in the ESIA regarding the project interventions pertaining to the ORIO funding. Currently only alternatives have been described for the locations of the DC's, whereas possibly also other alternatives should be studied. The NCEA recommends to have the ESIA team work in close collaboration with the design team to be kept informed on latest changes in project design so that the final ESIA contains a correct description of project activities.

## Volume II, Chapter 3, Biophysical, Macro-ecosystem and socio-economic characterization

### III.1 Biophysical component

- Contains some paragraphs which seem to be not that relevant (e.g. on climatic conditions).
- A description of soils is given, but it remains unclear what this means in terms of implications/conditions for project design.
- Recursos hídricos superficiales: would benefit from including a map showing these 3 main rivers.
- Water quality: table is given on p. 34 showing problems arising from bad water quality. But a conclusion is lacking e.g. 'river water quality is that bad that even after treatment it is not of sufficient quality for human consumption'. Similarly: ESIA contains description of ground water quality, but should also make clear why groundwater resources can not be used for drinking water purposes.
- Part III.1.1.5.3 on conclusions on noise hindrance: for 3 Distribution Centres recommendations are given that noise measurements should take place during operation to compare values with limits as recommended by the OMS, but it remains unclear what should happen in case these limits cannot be met.

### III.2 Macro-ecosystem component

- Table 11 p. 52 gives an overview of land uses and the amount of ha. of each of them. But it is not clear whether or not the more vulnerable areas will be influenced by the project components.
- The part on Residuos, p. 53 has a textbook character only, meaning that implications for this specific project are not clear.

### III.3 Socio-economic component

- In general well described, although not all data are equally relevant (e.g. languages spoken).

■ Although these miscellaneous observations are not really crucial omissions, the NCEA recommends to improve these aspects in the final ESIA.

## Volume II, Chapter IV Impact analysis and mitigation measures

This chapter clearly and systematically describes the impacts for the construction, operational and decommissioning phases, including clear summary tables.

Minor errors:

- Quadro 10, last line should be +11 instead of -11.
- Fauna d2, p. 130, should also be +11 instead of -11 (impact is said to be positive).
- Uso Solo c5, p. 134 states that inhabited areas will not be affected, which subsequently scores as a positive impact of the project (+12). This justification does not seem to be correct (scoring positive impacts for something the project does not do). Moreover, it is stated here that no resettlement is needed, because there are no houses/farms in the project area. This is not in line with the description of alternative options in Chapter 1 of the ESIA: here it is stated that several houses will have to be moved. (See also Preliminary Resettlement Action plan).

Part IV on Mitigation measures is a 50 pages description with more than 100 mitigation measures. Many of these show overlap, others seem to be out the scope of this project (e.g. environmental education on flora, strengthening of police patrols in the area), and many are formulated in terms of 'a plan should be elaborated on waste prevention and control'. Probably these will still be further elaborated in Chapter V. Environmental Management Plan, which is not yet included (p.229)

Chapter IV.3.3. Synthesis of mitigation measures: the ESIA consultants team concludes that there are no major issues (questoes fatais) and that all impacts can be mitigated by the suggested measures in the ESIA and that therefore the project can go ahead (p.228). An ESIA is meant to be a strictly technical document that serves to inform the decision making process regarding the technical quality of the information related to a proposed activity. A final conclusion as part of this synthesis should therefore be limited to a statement on whether technically, the report contains sufficient information for decision making, whether this information is of good quality and whether it is obtained through a proper, participatory process. A conclusion is not supposed to express an opinion about the desirability of the project.

- The NCEA recommends to elaborate an environmental management plan, including a monitoring plan as part of the final ESIA, paying due attention to indicating who is responsible for what kind of mitigation measures including budget implications. Furthermore, the ESIA consultants team should refrain from giving recommendations on the environmental and social feasibility of the project.

### **Volume III, public participation process**

This is a separate document, part of Volume III of the ESIA. It describes the public participation process conducted in the framework of the EPDA and ToR, and as part of the socio-economic baseline, in the framework of the elaboration of Resettlement Action Plan, which will be developed parallel to the ESIA. It documents the results of several informal public meetings held as well as focus group discussions. It is not clear however, whether additional public participation events will take place as part of the elaboration of the final ESIA.

- According to Mozambican EIA regulation, a public participation report should be part of the ESIA. The NCEA therefore recommends to include in the final ESIA report an explanation about the public participation process throughout all phases of the development of the ESIA, as well as a clear demonstration of how the results of public participation were taken into account in the ESIA.

**Resettlement Action Plan, Preliminary Social Diagnosis– Summary, 15 August, 15 p**  
**Plano de Acção de Reassentamento Diagnóstico Social Preliminar, draft, 8 August 2014, 56 p.**

These two documents have not been assessed by the NCEA, because they are not part of the ESIA. Also it is not clear how these two documents relate to the ESIA, e.g. the second

document contains a lot of information which is also part of the socio-economic baseline information in the ESIA.

- The NCEA recommends to provide a clear guidance to the reader in the final ESIA report, explaining what can be found in which document. When the final RAP will be available, NCEA recommends to have this plan reviewed by a RAP expert.