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Advisory Review of the ESIA for the MEWASS Water Supply Project



14 December 2018
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Advisory report by the NCEA

Title	Advisory Review of the ESIA for the <u>MEWASS</u> Water Supply Project
To	The Netherlands Enterprise Agency (RVO.nl)/ D2B
Attn	Ms S. (Sylvie) Sprangers
Date	14 December 2018
From	The Netherlands Commission for Environmental Assessment
Members of the working group	Mr R.A.A. (Rob) Verheem – Chairperson Mr J. (Johannes) Hunink – Expert Eco-Hydrology Ms B. (Brenda) Brainch – Expert Social impacts & Resettlement Mr G.A. (Giel) Hendriks – Technical Secretary
Quality control	Mr R.A.A. (Rob) Verheem
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Contact:

w www.eia.nl

t +3130 234 76 60

e ncea@eia.nl

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1. Introduction

The project initiative

The Water Supply Project for Meru Town and its surrounding aims to increase accessibility to clean water. The project is to be financed under the Kenya Pooled Water Fund through Meru Water and Sewerage Services (MEWASS). The overall goal of the project is to improve the health and quality of life and reduce poverty levels of the population of Meru through provision of safe water.

The project consists of the following elements:

- construction of a new water intake in the Kathita river
- installation of raw water transmission pipelines (8 km long)
- increasing capacity Milimani water treatment plant
- installation of new water storage tanks (1000 m³ and 2000 m³)
- renovation of existing water storage tanks (Irinda & Kenya Re)

The proponent for this project is MEWASS. It operates under the Tana Water Services Board (TWSB). MEWASS is responsible for the preliminary design of the project and has hired SRC/ACAL Engineering Co. Limited, a consultancy firm to execute the Environmental and Social Impact Assessment (ESIA)¹.

RVO requires that an ESIA is available to support decision making on funding of this project. End of October 2018 the Netherlands Commission for Environmental Assessment (NCEA) was asked by RVO to review the ESIA report that was received on 15 October. The main purpose of this advisory review report is to give advice on the quality of the ESIA report and process. A draft of this advisory report has been discussed with RVO on 11 December 2018. The publication of the final advisory review is scheduled towards the end of November 2018.

Approach taken by the NCEA

This advice was prepared by a working group of experts acting on behalf of the NCEA². The group comprises expertise in the following disciplines: (eco)hydrology, social impacts and re-settlement procedures.

The NCEA has reviewed the following version of the ESIA report:

- MEWASS Kithaku Water Supply Project – Report –27 June 2018

In addition, the NCEA has reviewed the following supplementary information to better understand the information provided in the ESIA report:

- Detailed Technical Designs, Environmental and Social Impact Assessment and Tender Documents for MEWASS VOLUME 3.1: Technical Specifications September. 2018

For the review of the ESIA report the NCEA has made use of the following reference framework:

¹ The term Environmental and Social Impact Assessment (ESIA) is used to emphasise that social aspects are included.

² The NCEA is an independent statutory body of experts based in the Netherlands to provide independent advice on ESIA in the Netherlands since 1985 and internationally since 1993.

- Kenyan Laws and Regulations concerning Environmental Assessment, mandated by the National Environment Management Authority (NEMA)
- The IFC Performance standards;

The objective of the ESIA is to provide information for well-informed decision making by RVO and to safeguard the quality of the proposed project. The NCEA has reviewed the ESIA report, complemented with information from the detailed Technical Designs provided.

NCEA Review and local EIA Process

In order to receive the necessary permits, the project initiators will need to comply with Kenyan legislation and EIA-process and submit an ESIA to the Environmental Assessment Agency: NEMA. This current review undertaken by the NCEA has been conducted based on a final version of the ESIA dating from 27th June 2018. The NCEA is unaware if the ESIA is under review by NEMA. Note that NEMA's decision-making can take up to 90 days.

There are provisions for public participation in the EMCA and in the EIA and audit regulations. Particularly, during the review process, the EIA report must be made available to the public. Moreover, the public has to be able to submit written reactions on the EIA, and a public hearing may be held if NEMA deems this necessary. for review:

In addition, the EIA guidelines in Kenya³ state that public participation should be part of all the stages of EIA: the screening, scoping and review of an EIA report. The guidelines consider the proponent responsible for collecting the views of the public during these stages. During the screening phase, for example, the possibly affected people have to be informed about the project and consulted on their concerns. Their views will be incorporated into the project report that is used for screening.

On the basis of the above, the NCEA notes that the current ESIA might require additional information provision and consultation in order to comply with Kenyan EIA requirements and guidelines concerning public participation and consultation. The NCEA recommends to utilise any such consultation requirements to augment the (too) limited consultation that has taken place so far.

Reading guide

In chapter 2 the main findings of the working group are presented and explained. In chapter 3 the detailed findings are mentioned and explained in relation to the IFC Performance Standards.

³ For more information on Kenyan EIA guidelines, please consult the NEMA website on guidelines: www.nema.go.ke.

2. Main findings

This Environmental and Social Impact Assessment (hereafter 'the ESIA') contains major shortcomings. The NCEA concludes that the ESIA does not provide sufficient information to assess all relevant risks and impacts. In this chapter, the NCEA sets out 5 key areas where the ESIA needs to be improved to meet good practice benchmarks. Detailed findings in relation to the IFC Performance Standards are described in chapter 3 of this advice.

The NCEA recommends that the ESIA is supplemented to address the following:

- **Water availability:**
The ESIA lacks data on water availability and current water users in the project affected area. This is needed to assess the potential impact from the project on other users.
- **Downstream effects:**
Possible downstream effects and related environmental and social impacts are hardly addressed in the ESIA. Thus, the related risks cannot be understood fully.
- **Socio-economic analysis:**
The socio-economic assessment lacks a detailed stakeholder analysis defining interests and responsibilities in the project, and consideration of capacity to deliver where relevant. It focuses on beneficiaries (i.e. those that are positively affected) and is silent on the possible acquisition of borrowed land for construction sites and access roads. Assessment of projected (external) labour is not given. Mention is made of a Grievance Handling Committee without reference to its composition or procedure.
- **Public consultation:**
The methodology of how public consultation was conducted is unclear. Information regarding employment and local safety concerns is not provided.
- **Environmental and Social Management and Monitoring Plan (ESMMP):**
There is no correlation between the ESIA and the ESMMP, and it lacks indicators in such way that there is a high risk of poor implementation of the identified mitigation measures.

These shortcomings are further elaborated below and recommendations to address these shortcomings are indicated.

Water Availability

The ESIA indicates that the streamflow of the river decreases going further downstream. This might indicate that the current system is already near the sustainable water use limit. The ESIA lacks any reference to a hydrological assessment of the available water resources in the target area. The ESIA should reference the relevant data and reports on water resources in this area and include the most relevant numbers and figures on water availability and demands. This information basis is necessary to assess the risk that the water demand cannot be met for this project, and for water users abstracting water from other parts of the river besides the proposed intake.

Stakeholder consultations confirm that the current number of intakes in the project area is high and shows that stakeholders consider this an issue of concern. The information derived from consultation is however not elaborated upon. The ESIA provides no data records, nor permits that specify the total amount of water being currently abstracted. The abstraction limit in the design is clearly based on a hydrological study, but reference to this study in the

ESIA is lacking. To justify the extraction of water within the current design and obtain a permit from WRA this data needs to be available and should be incorporated in the ESIA.

Related to this, the ESIA makes no reference to impacts on the projected area as a result of climate change. Due to temperature rise, glaciers on Mount Kenya are rapidly diminishing and thereby negatively affect water provision of the catchment and its ecosystem.

Overall, it is not possible from the ESIA to assess the risk for shortfalls in supply due to insufficient water availability, while the stakeholder consultation has clearly indicated that this is of concern.

It is recommended to include the relevant information from existing hydrological data and studies for the targeted area, considering seasonal differences and other water users. The information on the current situation concerning water availability and water extraction should be related to the impacts assessed by the project. The ESIA should consider the impacts of climate change and assess its implications for the proposed project. The NCEA refers to its publication on Environmental Assessment for Climate Smart Decision Making⁴.

Downstream effects

The ESIA lacks an assessment of possible downstream effects of the proposed water intake on either the environment or communities. Stakeholders mention the possible negative effects and conflict amongst other (water) users but the ESIA does not provide an explanation nor a solution as to how to reduce and/or mitigate this. The abstraction of water and its effects downstream for other (water) users and ecological flow should be assessed in the ESIA. The report is not clear to which extent this project will influence downstream regions, such as Meru national park (hugely important, also for livelihoods), economic/tourism regions and the neighbouring Tharaka Nithi County.

Impact on downstream users and ecological flow are possible, and this should be assessed in the ESIA. A risk analysis of possible impacts, should be addressed, with mitigating precautions in order to avoid conflict and environmental impacts.

The ESIA mentions that there is a provision to construct a water reservoir upstream of the river to harvest water during the rainy season and use this in the dry season. This regulates water availability and could be beneficial for the dependent communities. However, the draft design report does not mention the construction of the reservoir, so it is not clear what the impact of this reservoir could be.

From the scarce information provided in the ESIA on this aspect, it is not possible to assess the risk to downstream users, including for the environment, and ecological flow.

It is recommended that the ESIA is improved on this aspect to support decisions in the detailed design stage. The extended information should provide a clear picture of how the future abstractions may influence downstream water-dependent services. This needs to incorporate the possible installation of water reservoirs and their impacts on the environment.

⁴ Publication available at: https://www.commissiemer.nl/docs/mer/diversen/2017environmental-assessment-for-climate-smart-decision-making_good-practice-cases.pdf.

Socio-economic analysis

The ESIA does not sufficiently address the socio-economic elements of the project. Without a clear review of stakeholders and an analysis of their interests in the project, there is a risk that some individuals, groups, organisations may be excluded and potentially extensive impacts ignored. In addition, the ESIA needs to consider the capacity of those allocated responsibilities regarding socio-economic risk assessment and what level of support may be needed to ensure effective delivery of the project.

Although in the reports on public consultation it is noted that labour will be drawn from the local community, there is no information on the estimated size of the workforce to be engaged on the various phases of the project and the attendant draw on land to accommodate their needs or broader HR needs. The ESIA lacks an employment and related gender policy; consideration of training opportunities or proposed health and safety procedures, the latter also in the context of the broader population.

It is recommended that a stakeholder analysis be included to clarify the socio-economic impacts on groups and individuals of the project. The estimations of labour needs in the targeted area should be stated in the ESIA, to allow an assessment of needs and implications for the targeted area.

Public consultation

The ESIA concludes that there will be no need for resettlement on the basis of the assumption that all infrastructure development will be on public land. This assumption is not properly assessed in the ESIA, the NCEA is concerned that the reach of the project may be more extensive and possible impacts regarding acquisition of or borrowed use of land, and possible downstream impacts are being ignored.

The ESIA lists 514 people as having attended the meetings, but it is not clear to what extent this group is representative of the entire project affected area, nor what efforts were made to secure the participation of women and vulnerable groups.

Beyond this, the 'agreement' of the beneficiaries to the project is in question. No water tariff was communicated to the PAPs, which poses a high risk of resistance at a later point. Estimates of water use and willingness to pay need to be substantiated.

It is recommended that the methodology of the conducted public consultation is clarified to make sure that consultation takes place inclusive of all vulnerable and minority groups. If the methodology shows the consultation to be inadequate, additional consultation should be conducted. Within this consultation a clear distinction between beneficiaries and Project Affected People, should be made.

Environmental and Social Management and Monitoring Plan (ESMMP)

An ESMMP is determined by the risks and proposed mitigation measures described in the ESIA. This ESMMP has no correlation to the ESIA, which means there is a strong likelihood that impacts will not be mitigated and the plan not implemented effectively.

It is recommended that the ESMMP corresponds with the mitigation measures proposed in the ESIA. The division of tasks and responsibilities for these mitigation measures should be reflected in the ESMMP with an allocated budget and time frame.

The NCEA recommends that additional assessment and consultation work is undertaken, and that the ESIA report is updated to reflect this. The main shortcomings have been discussed in this chapter. Detailed findings are described in chapter 3 of this advice related to the relevant IFC Performance Standards.

3. Detailed findings

IFC Performance Standards

The ESIA includes a general summary of each of the IFC Performance Standards⁵, but no reference or information is given on how they were considered in this ESIA. It would improve the quality and readability of the ESIA if this is further detailed, for example in the tables with the identification of impacts and mitigation measures. The assessment according to these Performance Standards should be conducted, it does not suffice to mention the Performance Standards.

The NCEA has considered the ESIA for the project with regards to the IFC Performance Standards and concludes that Performance Standards 1,2,3, 4, 5 and 6 are relevant for this project. PS 8 is addressed as a contingency. PS 7 does not seem to apply. In the following sections, the objectives of the respective IFC PSs are presented in a box followed by the shortcomings in the ESIA. The shortcomings mentioned as main findings in the previous chapter will not be repeated in detail in this chapter.

The NCEA recommends remedying these shortcomings in the next version of the ESIA study.

3.1 PS 1 – Assessment and Management of Environmental and Social Risks and Impacts

Objectives PS 1:

- To identify and evaluate environmental and social risks and impacts of the project.
- To adopt a mitigation hierarchy to anticipate and avoid, or where avoidance is not possible, minimize and where residual impacts remain, compensate/offset for risks and impacts to workers, Affected Communities, and the environment.
- To promote improved environmental and social performance of clients through the effective use of management systems.
- To ensure that grievances from Affected Communities and external communications from other stakeholders are responded to and managed appropriately.
- To promote and provide means for adequate engagement with Affected Communities throughout the project cycle on issues that could potentially affect them and to ensure that relevant environmental and social information is disclosed and disseminated.

The size of the project and significance of risks and impacts is sufficient to justify a full scale ESIA. It is not clear that all activities attendant to this project have been identified. For example, non-pipeline construction including possibly water storage, sewerage, borrowed sites and communities impacted have not been considered. To comply with PS 1, the following should be addressed:

- The ESIA and ESMMP are inadequate in fulfilling PS 1 requirements. Both reports seem to have been prepared in isolation of each other whereas they should be integral. They have no correlation in identifying risks, mitigating measure and monitoring schedules. As a consequence it is not possible to cross-reference effectively.

⁵ For a full description and explanation of the IFC Performance Standards: www.ifc.org.

- The focus in the ESIA is on beneficiaries and not those potentially negatively impacted by the overall project in its broadest sense.
- There is no survey of population impacted. Descriptions of the area indicate a large percentage of agricultural activity but the possible impact on populations dependant from agriculture as their livelihood is not considered.
- The ESIA does not describe a project organisational structure which defines roles and responsibilities and authority to fulfil their designated responsibilities. Also there is no consideration of their capacity to do so and the nature of training that will need to be given to ensure that capacity to deliver.

3.2 PS 2 – Labour & Working Conditions

Objectives PS 2:

- To promote the fair treatment, non-discrimination, and equal opportunity of workers.
- To establish, maintain, and improve the worker-management relationship.
- To promote compliance with national employment and labour laws.
- To protect workers, including vulnerable categories of workers such as children, migrant workers, workers engaged by third parties, and workers in the client's supply chain.
- To promote safe and healthy working conditions, and the health of workers.
- To avoid the use of forced labour.

This ESIA is not in line with PS 2. There is no information as to the number of people who may be employed, in what capacity and for how long. Nor is it indicated in the ESIA if they will all be contracted by the Contractor or by sub-Contractors. Information on Contractor's HR capacity, training opportunities, scale of medical support is absent and should be provided.

It is likely that the project will mobilize a workforce that warrants careful impact and risk assessment with attendant policies on HR (recruitment, welfare, protection), child labour and gender, and which will relate to local legislation and regulations. In reference to PS 2, the ESIA:

- Lacks a consideration of Labour issues, including Child / HR / Employment / Gender / Health and Safety Policies.
- Lacks reference to any established international or local practices or regulations.
- Presents no indication of third party contractors and how responsibility for employees is apportioned under the various policies and regulations.
- Provides no Grievance Mechanism related to labour conditions.

3.3 PS 3 – Resource efficiency & Pollution Prevention

Objectives PS 3:

- To avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities.
- To promote more sustainable use of resources, including energy and water.
- To reduce project-related GHG emissions.

Concerning PS 3, the following observations are made:

- 7-21: An identified risk during construction is *“Discharge of silt and oils into rivers and water bodies leading to pollution”*. Mitigation measures include *“The wastes should be collected and disposed in approved sites”*, but no reference is given to what those sites will be, or how they will be identified. Also, the other two mitigation measures for this risk item: *“Earth moving and excavations for the construction are carried out considering safety of the river and surface drainage.”* And *“Control siltation of rivers and other surface drain”* are extremely vague and demand clarification.
- 7-28: The mitigation measure *“Conduct public sensitization programs on importance not interfering with way leaves and public reserve land”* is put forward to the Risk of encroachment, however it is not clear who is the responsible authority to conduct such a programme.
- After construction, this water supply will generate additional waste water coming from the water users. This requires additional capacity for waste water (sewage) treatment. Reference should be made to the corresponding plans of MEWASS.
- The ESIA includes a statement as a response to questions raised by a WRUA, that the consultant engineer *“will commission a hydrological study and use the report to better inform the decision in the detailed design stage.”* More details should be given in the ESIA on this hydrological study and what it entails, for example: does it include a water supply reliability analysis, and consideration of other competing downstream demands?
- Apparently, there is a provision of construction of water reservoir upstream of the river to harvest water during rainy season and use this in dry seasons. The ESIA does not include any information on the approximate sizing of this reservoir, and how it compares to the water availability and flows. This makes it impossible to judge whether this potential reservoir concerns an additional risk for the environment. Apparently, *“The design engineer was working of the finer details of the project that had initially included a reservoir up the stream.”* More details should be given on this aspect in the ESIA, as it will influence the related risks.

3.4 PS 4 – Community Health, Safety & Security

Objectives PS 4:

- To anticipate and avoid adverse impacts on the health and safety of the Affected Community during the project life from both routine and non-routine circumstances.
- To ensure that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner, that avoids or minimizes risks to the Affected Communities.

As the focus of the ESIA is on beneficiaries, the scale of PAPs is not understood and reflected upon in the report. In reference to PS 4 the following observations are made:

- Public Health Services (devolved function of the County Government) should assist in the process of identifying as well as assessing project-related risks and costing mitigation measures. These are noted in the ESIA but not explored for example: solid waste management / disposal; contaminated air emissions; water pollution, traffic congestion and dust.
- The ESIA makes allowances for HIV treatment for workers but it is not clear who is ultimately responsible to provide medical support. No description of Policy, intended training support; or potential role of Public Health department is indicated. The Report suggests

the negative impact is 'irreversible' (i.e. long term) it does not suggest mitigation long-term post construction.

- ESIA is silent on management of other communicable diseases and the involvement of stakeholders e.g.: Public Health offices.
- What risks are associated with either private or public security personnel? And how will grievances about their arrangements and behaviour be addressed?

3.5 PS 5 – Land Acquisition & Involuntary Resettlement

Objectives PS 5:

- To avoid and, when avoidance is not possible, minimize displacement by exploring alternative project designs.
- To avoid forced eviction.
- To anticipate and avoid or, where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use by (i) providing compensation for loss of assets at replacement cost and (ii) ensuring that resettlement activities are implemented with appropriate disclosure of information, consultation, and the informed participation of those affected.
- To improve, or restore, the livelihoods and standards of living of displaced persons.
- To improve living conditions among physically displaced persons through the provision of adequate housing with security of tenure at resettlement sites.

The ESIA states that all land acquired for the project will be public land and therefore no compensation needed, nor a RAP. With reference to PS 5 the following remarks are made:

- The ESIA focuses on the beneficiaries and not communities along the pipeline or those who may be impacted by water being directed from local usage (irrigation, agriculture, livestock etc.) or those impacted by the need to extend the project to allow for water waste management in improved drainage in the town. A closer lens on these possible impacts in a reviewed ESIA along the full extent of the pipeline may throw up the need for some land acquisition or livelihood compensation.
- A large proportion (unknown) of people who may be affected along the pipelines, particularly those in rural areas dependent on agriculture, are apparently dependent on subsistence farming, and may have been occupying public land to this end for generations and will have certain rights that need to be assessed. A Land Use Plan for the extent of the project works would help to understand this better.

3.6 PS 6 – Biodiversity Conservation & Sustainable Management of Living Natural Resources

Objectives PS 6:

- To protect and conserve biodiversity.
- To maintain the benefits from ecosystem services.
- To promote the sustainable management of living natural resources through the adoption of practices that integrate conservation needs and development priorities.

Concerning PS 6, the following observations are made:

- The ESIA does not make any reference to regulations on ecological flows and how the calculations for abstractions have considered this. The abstraction limit is based on the difference between Q80 and Q95 (80% percentile and 95% of flows) at a measurement gauge (4F31). This was based on a hydrological calculation apparently done for this project. However, there was nothing mentioned on these calculation (for example, for which years data were available, recent intakes have been considered, etc.). Information should be extended in the ESIA on this aspect.
- 7–27, Table 7–8: The identified “Negative impacts during Operational Phase” do not include the risk of affecting other water demands, and thus create conflicts with other water users or affect water for ecological flows or environmental demands downstream. This, while many references were made during the stakeholder consultations, especially with the WRUAs. Attendants have highlighted the fact that there are many water intakes already. Replies by the consultant/ESIA team do not give a clear picture of how this risk is mitigated.
- The report mentions that a Water Supply license is going to be requested from (WRA), and thus assumes that there will no problem in obtaining the license. However, given the fact that water resources already seem to be quite compromised, the ESIA should extend the information on the requirements for obtaining this license.
- Apparently, there is the possibility of rehabilitating or maybe also constructing a new reservoir within the forest. The forest however is reserve area, so the question arises whether this would violate regulations and how this would affect biodiversity aspects. The ESIA mentions: “*to rehabilitate the reservoir within the forest and make use of other identified and appropriate spaces for extra two reservoirs.*” This possible extension of the project should be included in the ESIA.
- Page 7–23 mentions as mitigation measure for drainage and hydrology disruption “Ensure compliance with environmental laws”. The ESIA should detail which environmental laws are referred to, and specifically those that apply to riparian lands.
- The ESIA concludes that “*The assessment concluded that there will be limited direct interaction of the Project activities at the time of construction with the natural sensitive ecosystems at the proposed weir sites and raw water pipelines within the forest along river Kathita*”, and that a “*a permit to work within the forest is obtained from KFS as per the Forest Act, 2016*” will be ensured. More information should be provided in the ESIA on how the interventions may interfere with the Forest Act and measures are taken to comply.

3.7 PS 7 – Indigenous People

Objectives PS 7:

- To address the need to avoid or minimize impacts on indigenous peoples.
- To ensure sustainable and culturally appropriate development of benefits and opportunities.
- To ensure Free, Prior and Informed Consent (FPIC) of all peoples.

This PS would seem not to apply but there is no reference in the ESIA confirming such.

3.8 PS 8 – Cultural Heritage

Objectives PS 8:

- To protect cultural heritage from the adverse impacts of project activities and support its preservation.
- To promote the equitable sharing of benefits from the use of cultural heritage.

Circumstances would not seem to apply to this Standard. However, the ESIA does include at Annex 4 a 'Chance Find Procedure'. This procedure is not supported by any budget allocation nor identification of who will take responsibility for this task.