



Netherlands Commission for
Environmental Assessment

Quick Scan (Review) of the EIA Report on the Horizon Tannery Project (PSIP13SS24)

Memorandum by the NCEA

SOUTH SUDAN



16 March 2015



Advice of the Secretariat

To RVO

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CC Mr Michel Ridder

From the Netherlands Commission for Environmental Assessment (NCEA)

Date 16 March 2015

Subject Quick Scan (Review) of the EIA Report on the Horizon Tannery Project (PSIP13SS24) in South Sudan, no date

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Advice 2015-06

Table of Contents

1. INTRODUCTION.....	3
1.1 Approach to this Quick Scan.....	3
2. KEY OBSERVATIONS	4
2.1 Conformity with national EIA procedure.....	4
2.2 Quality of Technical content	5
3. DETAILED OBSERVATIONS PER CHAPTER.....	6
3.1 Background and Introduction.....	6
3.2 Project description	6
3.3 Environmental policy framework.....	7
3.4 Current Environment – Baseline information	7
3.5 Impacts, mitigation and residual impacts.....	8
3.6 Management and monitoring.....	9
3.7 Annexes.....	10

1. Introduction

An EIA has been prepared for a proposed tannery in South Sudan. The tannery will be a collaboration between an Ethiopian partner and a South Sudanese company. The project has been selected to receive subsidy under the Private Sector Investment programme (PSI). The RVO, who manages the PSI portfolio, has requested that the Netherlands Commission for Environmental Assessment (NCEA) review the EIA report.

The project, Horizan Juba Tannery, is proposed by Modjo Tannery from Ethiopia together with Yabsera from Juba. The proposed project is an export tannery, to operate according to international standards, with a capacity to produce 2000 skins of wet blue (semi-processed) leather per day, from 5 tons of raw material. The company will employ 120 members of staff, mostly from the local communities.

The NCEAs review of the EIA report will inform the RVO decision on the extent to which the project developers are meeting the subsidy conditions. One of the conditions that needs to be met before May 31, 2015, and before project implementation can start, is the following: "Positive outcome of the Final Report on the Environmental and Social Impact Assessment (ESIA)". The relevant RVO letter to the developer also specifies that the EIA report needs to be delivered together with the license/permit of the local environmental authorities.

Aside from informing RVO decision-making, this EIA review advice can also be used in decision-making by the local authorities on (environmental) permitting. The advice is also intended to help to come to a better project design, and more local support for the project.

1.1 Approach to this Quick Scan

The NCEA has been asked by the RVO to review the EIA report. The NCEA does not express an opinion on the project itself, but focuses on the quality and completeness of the EIA. Given the short time available, the NCEA has limited itself to a Quick Scan of the EIA. In this quick scan review we have concentrated on the legislative and procedural requirements for environmental assessment of the proposed activity and how these can most effectively be met. Usually, the NCEA also checks against Terms of Reference for the EIA report, but in this case these do not seem to have been prepared.

This advice is a so-called NCEA 'Advice of the secretariat', for which no external expertise was engaged. Note that this advice therefore does not constitute an in-depth technical review of the EIA report contents. The advice depends on the knowledge available at NCEA's secretariat on:

- the nature and scale of the proposed interventions and potential impacts;
- general knowledge of the areas where the interventions would take place;
- experience from similar projects in the (far) past, notably EIA reports for tanneries in Pakistan;
- sector specific guidelines:
 - o The NCEA notes that Ethiopia has developed a draft guidance for EIA for tanneries (April 2005), which can be accessed here: <http://www.epa.gov.et/Download/Guidelines/Tannery%202007%20fina>

[l.pdf](#). The EIA consultant makes reference to these guidelines in the EIA report as well, and certain flow charts in the EIA report seem to have been copied from these guidelines.

- The EBRD Sub Sector Environmental & Social Guideline 2014 on Tanneries and Leather Products.
- The IFC Environmental, Health, and Safety Guidelines 2007 on Tanneries and Leather Finishing.

Making use of the knowledge above, this Quick Scan review gives additional pointers on how sustainability issues and environmental risks can be managed in project implementation. Where shortcomings in the EIA have been identified, the consequences for decision making are assessed and recommendations are given for any supplementary information that may be needed to address these shortcomings.

The EIA report was reviewed as a stand-alone document, meaning that all information necessary for decision making should be contained in the EIA report, without requiring the reader to consult other documentation to complement gaps in information in the EIA itself. The EIA report contained two Annexes: A and B, which the NCEA also looked at.

In the following chapters, we first present our key observations in relation to the national EIA requirements and the technical contents of the EIA report (chapter 2). In chapter 3, we elaborate in more detail how we have come to these conclusions, by providing observations on each chapter of the Horizon Juba tannery EIA report.

2. Key observations

2.1 Conformity with national EIA procedure

As far as the NCEA is aware, there is no operational legal system for EIA in South Sudan. In 2010, when Southern Sudan was an autonomous region, the Government of Southern Sudan had started to develop an environmental framework that also contained requirements for the EIA process. The Draft Environmental Policy 2010 of Southern Sudan mentions that environmental management will be decentralized to more local levels of governments. The Draft Environmental Protection Bill of 2010 foresees the establishment of a Southern Sudan Environment Authority. This authority is intended to supervise and coordinate environmental issues in general and to support the Government with the implementation of policies that are related to the environment. Until the Authority is fully established, the duties and functions of the Authority are delegated to the Ministry responsible for environmental issues. These drafts have not yet been approved, however. In 2011, South Sudan became independent. It is unclear to the NCEA if environmental governance has been further developed since then. The EIA system is thus probably still under development and has not yet been legally established.

Moreover, it has to be taken into account that the many of the Policies, Bills and strategic papers available have been principally written with external assistance. They are heavily influenced by “best practices” in policies and strategies in other countries, and may not be practically implementable as they are.

■ The NCEA has therefore not been able to perform a check of the tannery EIA report against the South Sudan EIA regulations, and recommends that the EIA consultant and/or developer contact the Ministry of the Environment in Juba to identify the relevant EIA requirements, and provides conclusions on the applicable requirements in the EIA report.

2.2 Quality of Technical content

Overall, the EIA report provides a comprehensive description of the impacts associated with a tannery operation such as the one proposed. The report also outlines a series of measures that can be taken to manage the potential negative environmental and social impacts. However, an EIA needs to go further: it should prioritise the most important impacts for the project, *in relation to the vulnerabilities of the project location*, it should indicate which measures are needed, *and how these will be integrated into the project design*, and it should specify how any remaining environmental risks will be managed, *as part of the day-to-day operation of the project*. The current draft of the EIA report for the Horizon tannery does not translate the broader inventory of impacts and measures possible, to a concrete and project specific set of actions that will actually be taken on the ground to address the most pertinent (potential) problems.

■ Consequently, the NCEA recommends a revision of the EIA report, so that the current draft can be complemented with the following (each aspects will be detailed in chapter 3 of this advice).

- The description of the project EIA objectives and the project context, as well as any relevant alternatives (such as alternative locations or technologies) is too limited and needs to be further elaborated.
- The description of the receiving environment where the project will be located is also insufficient, The description in text is too limited, and maps and photos are lacking. A detailed description of the receiving environment is needed, and this section should should identify any specific characteristics that will influence the appreciation of the potential impacts of the project and the relevance of measures.
- The EIA report should also prioritise potential impacts in relation to the receiving environment and compare measures that can be implemented to address these impacts. The EIA report needs to be specific about which measures will in fact be implemented and how these measures will be incorporated into the project design. The EIA report also needs to set out what standards these measures are expected to achieve in terms of emission to air, effluent levels, etc.
- In addition the EIA report currently does not present a clear, measurable environmental monitoring and management approach (environmental management plan and monitoring plan) to track residual impacts and manage day-to-day operational risks.
- Finally, the participatory elements of this EIA appear to be weak. The EIA report does not demonstrate that stakeholder have been consulted (people living near the proposed area, but also South Sudanese governmental stakeholders). The report should include not only an explanation of who has been consulted, but also of how the concerns raised have been taken into account in project design. Lack of such consultation would be a missed opportunity to gather relevant information and to prioritise impacts, but also to raise awareness on, and support for, the project, which in turn may lead to resistance during project implementation.

3. Detailed observations per chapter

The structure of this chapter will follow the structure of the EIA report.

3.1 Background and Introduction

The NCEA has no specific observations on this chapter, but notes that a non-technical summary is lacking.

- The NCEA recommends to include a non-technical summary that summarizes information that is contained in the report itself, at the very beginning of the report.

3.2 Project description

The EIA report gives a description of the project, including the project activities, objectives and justification. In addition, the different parts of the production process are described, as well as the process inputs and a number of related issues.

Regarding the project context and justification, the NCEA notices that the fact and figures presented in this chapter apply to Africa in general and Ethiopia more specifically. For South Sudan, only estimates are provided. It is also indicated that the tannery will generate an annual income of over 3 mln euro and that the tannery products are intended for export. There is no reference to any agri-processing or other relevant policy of the South Sudanese Government, and how this project fits within the current policy context. There is also no further information on where the market for the tannery products is expected to be, which is relevant in relation to the transportation movements (and any potential impacts) that the project will generate.

The flow chart on p. 12 makes mentions of 'pigskins', while these are not mentioned in the previous text, where only reference is made to cattle, sheep and goats.

In chapter 5.3, Mitigation and residual impacts, the EIA report states "end of pipe techniques, such as a water treatment plant and incinerator. In a tannery this is absolutely necessary." These 'end of pipe techniques' should not be treated as optional mitigating measures in the report, but should be an integral part of the project description.

Moreover, good practice EIA usually puts specific emphasis on the development of alternatives, requiring a separate chapter with a full description of realistic alternatives, allowing comparison of costs and benefits of each alternative, and associated mitigation measures. If this is not possible, the developer is required to provide an explanation and a justification of the choices made in the EIA. Yet, the NCEA notes there is no information on alternative options to the project. Relevant alternatives to consider would, for example, include comparison of different market options for leather, location alternatives or different processing methodologies.

- The NCEA recommends a more elaborate description of the project context and alternative options for the project, to such an extent that comparison of alternatives is made possible.

- The NCEA also recommends to include a more complete description of the project activities in the EIA, allowing the reader to fully understand what exactly is being proposed and where. It could be very helpful to also provide a map with the project location, a figure showing project lay-out, including the different project components, as well as some illustrative material, such as photos.

3.3 Environmental policy framework

This chapter gives an overview of Ethiopian and US standards, as South Sudanese standards do not exist or do not have the required level of detail. Also reference is made to standards specific to the tannery sector. Paragraph 3.2 on International standards refers to Annex A where emission limits are indicated for countries around the world as a comparison.

Furthermore it is stated that “Modjo Tannery adheres, as one of the first tanneries, to these standards. The Horizion tannery will as well abide by the same standards if not better”. This is of course a laudable intention, but there is currently little information on how these standards will be met through project design as well as day-to-day management, and what mechanisms are in place to ensure that these standards are indeed met. This chapter also does not provide any information on the institutional framework, of which environmental enforcement would be part. Even though, the introduction of the EIA report states that one of the objectives of the EIA report would be to “assess institutional requirements for monitoring and management”.

- The NCEA recommends that the proponent specify exactly which standards will be met by the project, as well as provide information on the mechanisms in place to ensure that these standards are met, including agencies within the South Sudanese government responsible for checking whether standards are adhered to. The NCEA would like to draw attention to the standards provided in the IFC Environmental, Health, and Safety Guidelines for Tanning and Leather finishing.

3.4 Current Environment – Baseline information

The current description is very limited. It is not even 2 pages. The sections very briefly describes the existing bio-physical and socio-cultural aspects of the project area. It is said that this was done making use of on-site survey, literature review and existing data bases. However, there is no reference to these sources, nor is there evidence of on-site verification (e.g. through photos of the area or names of people living in the neighbourhood that have been consulted). A map of the area is lacking.

The NCEA also notices that the report states that “It is advised to analyze the river water and the soil in advance of the construction process and use these as baseline for further monitoring during the time span of the project”. This is exactly the kind of information that the EIA report should provide! There is no information on important characteristics of the projects area, such as the land tenure situation, or the existence of any protected areas near or on the project site. More information is also needed on any aspects of the project location that might affect the relevance of risks that are typical to tanneries. For example: are there any groundwater bodies, which may be susceptible to impact from accidental spillage of

contaminants? Or: are there fish species (and/or human consumption of these fish) in the nearby river that would be at risk from pollutants in the treated wastewater of the tannery?

A clear identification of stakeholders, and an explanation of their interest in the project, is also lacking. This is especially important as the project aims to provide employment to many people. How might this affect current livelihoods? Will there be any negative unwanted impacts on gender-equality, for instance?

■ The NCEA recommends a revision of this chapter on baseline environmental and social conditions along the lines of the above observations. Specific attention will need to be paid to the verifiability of the information. The guidelines of the EBRD or the IFC on the environmental and social management of impacts of tanneries could be informative in identifying the relevant factors to describe in the baseline.

3.5 Impacts, mitigation and residual impacts

Impacts during the construction phase

The EIA report states that ‘some part of land will be permanently taken from its previous function. It is critical no third parties have a negative impact from that’. The function of the EIA report is precisely to assess whether or not third parties are affected or not, currently this information is not provided.

Impacts during operational phase

This paragraph describes all major and minor impacts and states these are significant if no mitigation measures will be taken. Diagram 5.2.A. summarizes the environmental impacts of the tannery in a flow chart. It is stated here that the post tanning and finishing parts of the process are not anticipated in Juba.

Mitigation and residual impacts

This section addresses measures for both mitigating (i.e. avoidance, reduction or elimination) of the identified negative environmental impacts of the proposed Horizon project. It also indicates the remaining (residual) impacts. However, currently these are presented as suggestions and options to choose from. It is also stated that “some measures are part of or fall entirely within the project scope, and can be executed directly by the project promoter during the design, construction/erection and production stages of the project programme”. Again, this statement is rather noncommittal, and does not clarify which measures will in fact be taken.

However, some the suggested measures on the list are absolutely necessary, like for instance the end-of pipe techniques, such as the water treatment plant and the incinerator: “The last resort to minimize impact and comply with regulations are end of pipe techniques. In a tannery this is absolutely necessary because all earlier mentioned measures can not avoid remaining problems”.

It remains therefore unclear which options of the long list of suggestions will be executed by the project developer, and what the cost implications are. Good practice EIA follows a certain logical build-up of the heart of the EIA report: 1) identification of impacts, 2) assessment of the importance of impacts, 3) measures to mitigate impacts, 4) an environmental and social management plan. The current EIA report lacks step 2) and 4).

- The NCEA recommends to provide additional information on impacts in this EIA report, as follows:
 - for the construction phase: include information showing consultation with authorities and other stakeholders to make sure that current land use will not be negatively affected by the projet. The suggested environmental protection measures should include budget and resonsibilites;
 - continue with a chapter for the operational phase, containing a step by step assessment of each of the identified impacts. This chapter should end with a summary table providing an overview of identified impacts ánd their importance;
 - finally, include a chapter identifying mitigation measures to implement for each of the impacts. Again, conclude this chapter with a summary table that gives an easy overview of impacts, their importance and ways to mitigate them, and the effectiveness of the mitigation (e.g, for effluents: the load in mg/l per pollutant after mitigation, as compared to the standard adhered to). Distinguish between measures which are absolutely necessary and measures which are optional, including their cost implications and responsibilities.
 - special attention is needed for the proponents proposal to include incineration of solid waste as mitigating measure. Sludge and solid waste from skin handling after tanning contain trivalent chromium that, upon incineration, can transform to **carcinogenous** hexavalent chromium. For sludge, the EIA proposes chrome recovery through pretreatment with phosphoric acids and recycling in a chrome recycler or immobilisation in cement. The EIA does not describe the potential impact of chrome emissions of the proposed incineration of solid waste streams from skin handling after tanning (> 1000 kg of waste per day). This emission should be described, including its dispersion, numbers of exposed persons and potential health impact. The EIA should propose mitigating measures for this potential impact, assess their effectiveness and any possible residual impacts.

3.6 Management and monitoring

This chapter states that proper (environmental) management and monitoring structures are crucial to clean and sustainable production as well as economical operations. The report states: “We advice to put in place a management and monitoring structure in the same way as in Modjo Tannery. Not only capable staff is available, also experience is gained by operating this system”.

The EIA report correctly emphasizes the need for environmental management and monitoring and provides some suggestions for the contents of these plans. However, these seem to be copied from the Modjo Tannery and consequently not specifically tailored to the most important impacts and management thereof for the new tannery in South Sudan. The monitoring plan does mention what needs to be monitored and how, but is not specific regarding frequency, duration, timing, costs, required capacity, responsible persons for monitoring and what should be done in case standards are not met. Monitoring is also is presented as an in-house activity and no mention is made of any role for South Sudanese government in this.

The EIA report places high trust in mitigation of social and environmental risks and impacts: in the conclusion it is stated that: "Tanneries in general are considered as large polluters. Proper mitigation measures need to be in place to make a tannery an acceptable industrial project in any area. Modjo Tannery in Ethiopia is one of the pioneers in the Ethiopian industry to work towards full environmental responsibility and it is the consultants opinion that applying the same management and technology in combination with new technical options can make the Horizon Juba tanning project a durable and environmental responsible project'.

The NCEA applauds this intention, and notes that there is usefull international guidance that can make this ambition concrete (see for example the EBRD and IFC guidance already mentioned eralier). However, this intention should be further substantiated through a very well elaborated, quantifiable and measureable Environmental Management Plan (EMP) and monitoring plan. This should be elaborated before project approval.

- The NCEA recommends the elaboration of an EMP, and its direct integration in the EIA report. The EMP should be presented in a form allowing 1) easy consideration of the acceptability of the proposed project for the decision maker, and 2) once approved, easy implementation and monitoring, including designation of the organisations executing each measure and the necessary budget requirements.

- Similarly, the NCEA recommends the elaboration and integration into the EIA report of a detailed monitoring plan to monitor implementation of the EMP. To ensure execution of the EMP and the monitoring plan, institutional capacity should be identified and appointed as well.

3.7 Annexes

If possible, an EIA report should be clearly structured and understandable, and the information required should be relevant and integrated into the assessment. The Horizon EIA report includes two annexes, but the status of the information provided therein is not clear. The first annex presents pollution limits for discharge of effluents in water bodies for a series of countries (A) and the other one (B) is an offer from a company called ItalProgetti engineering for a waste treatment plant. It remains unclear however if this water treatment plant will be chosen and included as part of the project design. For the proposed incineration plant, also mentioned in the EIA report, such specifications are not given at all.

- The NCEA recommends integration of these annexes into the the EIA report itself so ensure readability of the report. Clarify the relevance on the standards given in annex A, as well as the status of the waste treatment plan specification.