



Netherlands Commission for
Environmental Assessment

Review of Scoping Report and Terms of Reference for the Environmental and Social Impact Assessment for the East Africa Crude Oil Pipeline

UGANDA



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Advisory Report by the NCEA

To Ugandan National Environment Management Authority (NEMA)

Attn Mr Arnold Ayazika Waiswa, Ms Patience Nsereko, Mr Michael Benard Ikanut,
Ms Enid Turyahikayo, Mr Isaac Israel Godfrey Ntujju

From The Netherlands Commission for Environmental Assessment (NCEA)

Date 29 September 2017

Subject **Review of Scoping Report and Terms of Reference for the Environmental and Social Impact Assessment for the East Africa Crude Oil Pipeline in Uganda**

By: the Secretariat of the Netherlands Commission for Environmental Assessment – Ms Ineke Steinhauer, with input from a working group of experts

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Contact:

W: www.eia.nl

T: +3130 234 76 60

E: ncea@eia.nl

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1. Introduction

1.1 Background

In 2006, commercial quantities of oil were confirmed to exist in the Lake Albert basin in Uganda. The oil companies in Uganda (CNOOC, Total and Tullow) finished the exploration phase and are now headed into development, which will consequently lead to the production of Uganda oil resources. Once produced, the crude oil will be partly refined in Uganda to supply the local market and partly exported to the international market. The export to the international market will be through an export crude oil pipeline: the East Africa Crude Oil export pipeline (EACOP, see map in [Annex 4](#)). This pipeline will be constructed and operated through a Pipeline Company with shareholding from the Uganda National Oil Company, the Tanzania Petroleum Development Corporation and the three oil companies.

The EACOP is 1445 km long, and will transport crude oil from Kabaale in Uganda to the Chongoleani peninsula near Tanga port in Tanzania. The pipeline route was selected by the Government of Uganda as the least cost and most robust route. Due to the viscous and waxy nature of the oil, the pipeline will need to be heated along the entire route, making the EACOP the longest electrically heated pipeline in the world. The pipeline will be buried (1,2 m. deep), and in some cases it will required to be bored under waterways and roads by using horizontal drilling. Some facilities will be aboveground such as coating plants and pipeline storage yards, additional work space for fuel, waste etc. and access roads and borrow pits. The pipeline also involves pumping stations and pressure reduction stations. Once the Final Investment Decision has been taken, construction is expected to take 3 years. Two companies have been contracted to undertake the Environmental and Social Impact Assessment (ESIA), an international consultant (RSK Environment Ltd) working with a local consultant (Eco & Partner).

1.2 Request of the Ugandan National Environmental Management Authority (NEMA) and involvement of NCEA

The NEMA received the Scoping report and Terms of Reference for undertaking the ESIA for the East African Crude Oil Pipeline by the end of July 2017¹. NEMA enquired whether the ESIA scoping report could be reviewed by the NEMA team along with a team from the NCEA (see [Annex 1](#) for request). For this purpose, the NEMA team travelled to the Netherlands so as to interact better with the NCEA team that was identified to review the submission. This not only enabled the NEMA review team to appreciate the issues that may arise/be the output from the review but is also part of capacity development on the NEMA side. The context for the joint review is as follows:

- NEMA selected 5 persons travelling for the review. The visit consisted of 5 working days (1 week) to enable the team interact with different experts from the NCEA team. The visit took place from 18–22 September 2017.

¹ Environmental and Social Impact Assessment Uganda Scoping Report EACOP, 25th of July 2017. 491 pages.

- NEMA is only responsible for the review of the environmental and social aspects of the project that lie within their jurisdiction. They initiated direct contact with their colleagues in Tanzania (NEMC). The company indicated that two separate submissions would be made to NEMA–Uganda and NEMC–Tanzania, however, NEMA had advised that a summary be prepared on the whole project as part of the ESIA.
- The legal framework does not provide any specific timeline for the response to the ToR, however, NEMA expressed that they could work within about 6 weeks (from the date of ESIA submission) at most to ensure they provide the response.
- NEMA had its own funds for arranging the visit (budget from Norwegian funded Oil for Development programme).

According to the Ugandan EIA regulations of 1998, the Scoping report and ToR will have to be reviewed by NEMA in consultation with the relevant lead agencies before the actual ESIA is conducted, to ensure that key environmental and social concerns associated with the proposed project are included.

1.3 Expert working group

This advice is prepared by a joint working group of experts of the NCEA and Uganda NEMA. The group comprises expertise in the following disciplines: natural resource management, oil and gas development, environmental geohydrology, social sciences and EIA and SEA application. The composition of the working group and the background of the individual experts is found in [Annex 2](#). The NEMA professionals are also listed in [Annex 2](#).

For the preparation of this advice, the Dutch working group members were not able to visit the project site and meet with stakeholders in Kampala and along the pipeline route. The review is done having taken knowledge of the information contained in the Scoping report. Not having visited the project site and the receiving environment, the working group cannot guarantee the relevance of all observations it has made in this advisory review.

Note that the working group does not express an opinion on the feasibility or acceptability of the project itself, but comments on the quality and completeness of the ESIA scoping report. In the case of shortcomings, the consequences for decision making are assessed and recommendations are given for supplementary information needed to address these shortcomings.

1.4 Approach taken by the NCEA experts and NEMA

Prior to the visit to the NCEA, preparatory work had been done by the NEMA and NCEA teams:

Preparations by NEMA team

NEMA had their internal review and the review with the Lead Agencies (LA). The objective of the internal review meeting was to obtain an understanding of the project and a quick check of the adequacy of the scoping report and ToR. The approach adopted therefore was a quick scan of the project description, legal framework, impact evaluation and methods (scoping of impacts for the assessment) and the ToR (Chapter 8). During the LA review, a more detailed review was undertaken where the representatives of the various sectors verified the information, identified the gaps and provided further guidance for the ESIA.

The LA review included representatives from the District Local Governments, who are an important stakeholder in regard to verifying the information in the scoping report. These 2 documents (from NEMA and LA review meetings), were shared with NCEA and were finally taken into consideration into the response to the developer. NEMA was not able to undertake site visits, those will be planned during review of the ESIA report once submitted. In regard to the discussions with NEMC–Tanzania: NEMA had initiated contact with them, but at the time they only received the Scoping report and ToR a day earlier (on 15th August 2017) and hence NEMA could not have much discussion on the same. However, they agreed to share the outcomes from each party's review and conclude by end of September 2017.

Preparations by NCEA team

The NCEA team members received the following guidance:

- Prepare a few pages (or power point presentation) with comments and observations.
- Consider whether there are any omissions in the Scoping report/ToR and if there are, whether these omissions are vital to the decision-making process (= approval of ToR by NEMA at this stage).
- Also consider whether the proposed ToR (Chapter 8) for the ESIA are complete, and/or perhaps proposing to assess too much/irrelevant information?
- Use the approach: observation → justification → recommendation (what further information is required?).
- Please conclude your observations/comments with 3–5 key issues (bullets) based on your expert judgement and give your overall judgement on the Scoping report/ToR.
- Explain which approach you used for your review, e.g.:
 - Information reviewed? Whole report? Only parts within your field of expertise?
 - Criteria/review frameworks used? Means of verification? Similar ESIA reports?

Programme site visit

The programme during the visit consisted of several elements:

Following the welcome remarks of the NCEA director, and a round of personal introductions, a presentation was held by one of the NCEA technical secretaries on SEA/EIA applied to the North South Pipeline in The Netherlands, including an explanation on the functioning of the NCEA itself. This was followed by a NEMA presentation on the EACOP project state of affairs and NEMA EIA requirements. Thereafter the NCEA experts each presented their first observations including Q&A and discussions.

NEMA does not have provisions for stakeholder/public consultation during the scoping stage. Therefore they did not undertake detailed stakeholder engagement (with NGOs etc.) but rather an engagement was arranged with all the relevant Lead Agencies. However, following NCEA good practice on stakeholder participation in EIA, some NGOs stakeholder concerns were presented by IUCN Netherlands on behalf of their Ugandan partners.

NEMA was specifically interested in getting the hands-on/practical aspects of reviewing this particular project. Therefore, after having heard all presentations, the dynamics of the review were agreed upon with both teams. NCEA team members started to read and comment on the NEMA findings, and NEMA team members looked at NCEA team members observations into more detail. A site visit was undertaken to Schoonebeek (NAM oil production), which gave new insights and lessons learned for the review process (see 1.5).

The final two days of the visit were used by the NEMA team to consolidate all inputs with guidance from the NCEA experts. The output is presented below in the next chapter and will be presented to the client before the end of September.

The detailed programme during the visit is presented in [Annex 3](#).

The ESIA scoping report indicates that use has been made of the Ugandan National EIA regulations of 1998, Guidelines for EIA in Uganda of 1997, the EIA Guidelines for the Energy Sector of 2004 (and 2014) and international standards and guidelines. These were taken as a point of departure during the review by the NCEA/NEMA teams. The Dutch NCEA also used its own practical international experience in relation to reviewing ESIA's for comparable projects².

The aim of this review is quality assurance. On the one hand, the working groups checked whether the ESIA scoping report contained the information it should, in line with the regulations and the (sector) guidelines. At the same time, it was verified whether the ESIA report scoping contained adequate, accurate and sufficient information (on environmental and socio-economic impacts and on options/alternatives to deal with these) to guarantee that all essential environmental and socio-economic information will be provided in the ESIA for sound and well-balanced decision making and through a transparent and inclusive process.

1.5 Lessons learnt

The review process included a site visit to Schoonebeek Oil field to get an insight into similar onshore installations and operations including an oil processing facility, pipeline infrastructure, and production wells, and their co-existence with communities (settlements and farming).

A few vital lessons from this are:

- The EACOP project might have benefited from a Strategic Environmental Assessment prior to the development³. However, given the time available within the national planning frameworks, this was not possible. This is a lesson that Uganda (and Tanzania) can benefit from for future development projects of this magnitude.
- Additionally, the permitting requirements for various projects components/phases should be adhered to. The Schoonebeek case study used for this review has for instance required more than 700 permits although they are all not active at the same time.
- Decommissioning can be discussed to a limited extent in the ESIA given the life time (25 years) of the pipeline. There is a need to follow the national laws and international best practices. However, the EIA report should make reference to the existing legal requirements in regard to decommissioning of the pipeline.

² <http://api.commissiemer.nl/docs/mer/diversen/keysheet11.pdf>

³ There has been done an SEA for the Albertine Graben approved in 2015. The SEA that is referred to here is about the trajectory selection of the pipeline: through Kenya or through Tanzania, with various alternatives.

2. Main review findings

The NCEA/NEMA teams are of the opinion that the ESIA scoping report is in general well written. The scoping report is well structured, contains most of the required elements, has good maps and graphics, which increases comprehensiveness. The report is readable and in line with international practice with respect to approach and methodologies.

In view of the very short timelines indicated for the completion of the ESIA process for the project, the review teams recommend that the ESIA should aim at:

- Meeting legal requirements as part of the Ugandan permitting process
- Focusing very effectively on the very key issues with respect to social and environmental impacts.

The NCEA/NEMA teams nonetheless noted that the ESIA scoping report had several serious shortcomings and recommends that the gaps should be incorporated in the ToR and addressed during the ESIA and preparation of the report. Chapters 3–4 discuss these issues in more detail. This information is a **necessary condition** for good quality ESIA to be of use for effective and well balanced decision making.

The review process has also revealed that it is necessary/recommended to undertake separate ESIA's for the major project subcomponents as follows:

- The **Tilenga Feeder pipeline** which is an upstream development and entirely subject to local Ugandan regulatory requirements; and
- The **East African Crude Oil Pipeline (EACOP)**, which is a midstream development and will be subject to Ugandan and Tanzanian regulatory requirements.
- Other infrastructure such as camps, material storage yards, and pipeline coating yards among others should be subjected to separate ESIA's as they have not been given adequate attention in the scoping report and ToR.

3. Key priority areas

The ESIA should address the following key areas besides the scope identified in the ToR:

1. Socioeconomic issues

a. Land use disturbance/damage:

The ESIA report should provide a clear description of the potential extent/magnitude of disturbance and displacement of persons/settlements including compensation. A well communicated compensation scheme should be provided in the RAP that should be part of the ESIA process.

b. Access restrictions:

The ESIA should determine the extent to which access will be restricted (temporarily or permanently). The ESIA/RAP should provide measures to mitigate the impact of any access restrictions.

c. Management of expectations and anxiety:

Provide upfront, clear, concrete and well communicated procedures for provision of goods and services, hiring labour, including conditions and duration. Honest and realistic estimates should be provided in regard to labour requirements for the project, as well as training and transfer of knowledge. Clear communication procedures should be documented to provide regular updates on the project activities.

A transparent and realistic plan with respect to increasing/boosting potential benefits of the project by investing money (any CSR undertakings are encouraged but should be done in consultation with the relevant government/local authorities).

d. Management of project personnel:

Concrete plans for the management of the project workforce should be provided including prohibition of hunting (and monitoring this), and fraternization restrictions to mitigate socioeconomic risks/impacts on the communities in the project area.

2. Physical Environment

a. Disturbance of local hydrology and hydrogeology:

The ESIA should provide clear descriptions of how the pipeline construction will be undertaken without causing significant (geo)hydrological changes for instance for wetlands and other areas with vulnerable water conditions. Mitigation measures should be provided for all impacts that cannot be avoided.

b. Disturbance to soils and landscapes:

The ESIA should demonstrate that any disturbances to soils and landscapes for the project will be mitigated effectively. In particular, the procedures of work along the escarpment wall, managing excavated soils and site rehabilitation after the construction stage should be documented.

c. Impacts of noise, vibrations and dust:

Clear avoidance/mitigation measures should be documented to manage nuisance arising from project activities.

3. Biodiversity

a. Impacts on biodiversity:

The ESIA should clearly provide the extent of the ecosystems that will be disturbed and the duration of the disturbance, particularly habitats for species of conservation concern (like the chimpanzee) and migration routes, linking project activities to potential impacts on biodiversity. Concrete measures to prevent/minimize unnecessary disturbance should be documented. The ESIA should propose a monitoring plan of key elements of biodiversity, which are most vulnerable to the disturbance.

4. Incidents and emergencies

The Albertine rift area and sections of the proposed route are prone to seismic activity which poses risks to the pipeline. The ESIA should assess and provide measures to address risks (such as geohazards, sabotage, spills, explosions, etc). Potential environmental and social consequences of these risks with regard to the pipeline should be addressed and it should be demonstrated how these risks have been integrated into the design.

The Project description/evaluation should demonstrate the effectiveness of safeguards (developed in compliance to National Legislation and International Standards) in the event of force majeure/pipeline failure/spills that could arise during the implementation of the project.

5. FEED–ESIA–FID Correlation / Interaction

It is important that the ESIA aspects inform the FEED and FID for this project. The developer should demonstrate that the ESIA and its recommendations are integrated into the FEED and FID.

4. Other observations

1. Project objectives, description and justification
Provide a clear description of the entire project (1145Km) to give a good understanding of the development by Regulatory entities so that decisions/compliance requirements are not considered in isolation but rather with hindsight of implications to the entire project.
2. Legislative and regulatory considerations and policies, plans and programmes
The ESIA for Tilenga feeder line should make reference to the SEA for the Albertine Graben and adhere to the applicable recommendations of the SEA.
3. Institutional framework and procedural requirements
Whereas reference is made to many international conventions and agreements, the obligations and requirements of these conventions to the pipeline project are not highlighted. The ESIA should provide the linkage and requirements of the pipeline project with these conventions, many of which have not been domesticated yet. There is need to revise the scope to those relevant for the project.
4. Public and agency involvement
There is insufficient attention given to the social issues during the scoping exercises and the ToR are similarly lacking in terms of the ESIA strategy to address social concerns such as livelihoods, use of ROW, unrealistic expectations (e.g. employment available to locals), land use rights, and compensation among others. Clear strategies to address/manage social issues should be provided in the ESIA.

Not all relevant groups were identified and consulted during the scoping. The proposed stakeholder engagement plan referred to in chapter 8 should be comprehensive for the EIA process and the entire project cycle. This should include marginalized groups such as women and the elderly and entities that may influence the project such as Members of Parliament.

Whereas social issues should be presented in the ESIA, the report should demonstrate how these concerns have been taken into consideration. The Resettlement Action Plan should be developed and submitted alongside the ESIA report to provide a better understanding of how these issues have been handled.

5. Evaluation of Impacts
The ESIA should go beyond evaluation of direct impacts and demonstrate consideration of the indirect impacts arising from this project such as the opening up of areas which may cause bigger and long-term environmental, social, demographic and biodiversity impacts. The ESIA should clearly show where new temporary and permanent roads will be constructed as a result of the project. Similarly, the potential residual impacts from the implementation of this project should be identified and addressed during the ESIA.

6. Management and Monitoring Plan

While extensive baseline studies are being proposed, the potential impacts of the project should be emphasised and the correlation between the project and the baseline should be clear. Here, the need for baseline studies also depends on the actual design of the project activities and its interference with the pristine environment or existing anthropogenic activities and constructions.

A comprehensive management and monitoring plan for the project should be developed indicating the capacity requirements (logistical and human resource) and associated costs (for instance increased management costs of Protected Areas) to implement the plan. This should be done in consultation with the relevant lead agencies. The rationale behind the monitoring programme should be clear and it should be demonstrated that it is effective to address environmental and social concerns of the project. For instance, the rationale behind the surface water and ground water monitoring programmes is not clear.

The ESIA should document which management plans/actions therein are applicable for specific sections of the pipeline and associated activities/projects.

Annex 1: Request for advice

Van: Patience Nsereko [<mailto:pnsereko@nemaug.org>]
Verzonden: donderdag 1 juni 2017 08:28
Aan: Ineke Steinhauer <Isteinhauer@eia.nl>; 'Christine Kasedde' <ckasedde@nemaug.org>
CC: 'Johnny Auestad' <johnny.auestad@miljodir.no>; iigntuju@nemaug.org;
maanyu@nemaug.org
Onderwerp: RE: follow-up collaboration with Netherlands Commission for Environmental Assessment

Dear Ineke,

I hope this email finds you well. Greetings from this end.

Following on from our discussions and email exchange last month, we can now tell, with some confidence, that NEMA will receive the Scoping report and Terms of Reference for undertaking the EIA for the East African Crude Oil Pipeline by end of this month (June 2017). We are suggesting that the submission can be reviewed by our team here along with a team from the NECA. That is, the team would travel to the Netherlands so as to interact better with the team that may be identified to review the submission. This would not only enable the review team to appreciate the issues that may arise/output from the review but would also be part of capacity development on our side.

I would like to pick your thoughts on this and how we can best arrange the review.

Hoping to hear from you.

Kind regards,

Patience

Annex 2: Composition of working group

Project name: Review Scoping report and ToR for EIA for EACOP – Uganda

Project number: 7228

| Name | Contact information |
|---|--|
| Mr Rudy Rabbinge Chair | The Netherlands Commission for Environmental Assessment (NCEA) |
| Ms Ineke Steinhauer Technical Secretary | NCEA |
| Mr Arend Jan van Bodegom Natural Resources Management | Wageningen University & Research (WUR), Centre for Development Innovation (CDI) |
| Mr Jacobus Petrus (Bopp) van Dessel Oil and Gas Development | Bopp Solutions |
| Mr Jasper Griffioen Hydrogeology | TNO Geological Survey |
| Mr Tom Ogwang Social Sciences | Mbarara University of Science and Technology |
| Ms Vanda Fortes Project Secretary | NCEA |
| | |
| Mr Arnold Ayazika Waiswa Director Environmental Monitoring and Compliance | Ugandan National Environment Management Authority (NEMA) |
| Ms Patience Nsereko Senior Environment Inspector (Oil and Gas) | NEMA |
| Mr Michael Benard Ikanut Senior District Support Officer | NEMA |
| Ms Enid Turyahikayo Senior Environment Inspector | NEMA |
| Mr Isaac Israel Godfrey Ntujju Principal Environment Inspector | NEMA |

Annex 3: Programme of site visit

Joint expert review of the Scoping report and ToR for undertaking the Environmental and Social Impact Assessment for the East African Crude Oil Pipeline at the NCEA offices in Utrecht, the Netherlands, 18 – 22 September 2017.

| | |
|-----------------------------------|--|
| <p>Monday 18 September</p> | <ul style="list-style-type: none"> • Welcome by Veronica Ten Holder/Rob Verheem, director NCEA and director NCEA international • Getting to know each other, round of personal introductions • Introductory tour through NCEA offices, including short interviews with one of our technical secretaries working in The Netherlands, one of the project secretaries etc. to get impression of their daily work • Presentation by Sjoerd Harkema, technical secretary, on review of EIA for North–South Pipeline in The Netherlands and review procedure in The Netherlands • Ugandan delegation, presentation on context of oil/gas developments/EACOP and explaining Ugandan EIA procedure. • First round of General observations by working group members on scoping report, agree on working approach based on available documentation and division of task. • Agree on next steps with the whole team. |
| <p>Tuesday 19 September</p> | <ul style="list-style-type: none"> • Further detailed review of Scoping report/ToR • Presentation by the Dutch partner of the Uganda Shared Resources, Joint Solutions (SRJS) programme (NGO/CSO), with is IUCN–The Netherlands, to share some of their concerns/observations (after consultation with Afiego/ECOTRUST/NAPE and WWF Uganda and their partners) regarding EACOP (Scoping report). |
| <p>Wednesday 20 September</p> | <p>Site visit to Schoonebeek 08.00–19.00</p> <ul style="list-style-type: none"> • Welcome at “De Boo Schoonebeek” • Opening/Introduction (Eric Dorenbos/Ineke Steinhauer) • Schoonebeek Oilfield (Anieke Vroome) • EIA Schoonebeek, permits and social impact (Hans Ardesch) • Water injection Twente (evaluation process) (Evert Holleman) • Movies waterinjection and Pipe in Pipe project (Hans Ardesch) • Lunch • Fieldtour Schoonebeek area (Hans Ardesch) • Visit to oil museum Schoonebeek, including drinks after visit |
| <p>Thursday 21 September</p> | <p>Drafting first version of review report, based on all observation so far, including those from site visit. NB: The Ugandan team will be responsible for compiling the comments, with guidance from NCEA team.</p> |
| <p>Friday 22 September</p> | <p>Finalization of review report</p> |

