



THE SOCIAL AND ENVIRONMENTAL COMPLIANCE ASSESSMENT FOR TILENGA OIL PROJECT



A CIVIL SOCIETY FIELD MONITORING REPORT

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ACRONYMS

Central Processing facility
Civil Society Coalition for Oil and Gas in Uganda
Civil Society Organization
Corporate Social Responsibility
Environment and Social Impact Assessment
Environment Health and Safety
Environmental Impact Assessment
Front End Engineering and Design
Horizontal Directional Drilling
International Finance Corporation
Joint Venture Partners
Ministry of Energy and Mineral Development
National Environment Management Authority
Personal Protective Equipment
Project Affected Persons
Resettlement Action Plan
TotalEnergies E & P Uganda
United Nations Environment Program
World Health Organization

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We also extend appreciation to CSCO member organizations and their representatives, for taking part in the field monitoring exercise and making numerous technical contributions during the preparation of this report.

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EXECUTIVE SUMMARY

The development of oil resources in Uganda has transited from exploration to development. This has triggered development of infrastructure projects that will facilitate production and transportation. Some of such infrastructures include the East Africa Crude Oil Pipeline (EACOP), Central processing facilities, oil roads, the airport, and feeder pipelines among others. The development of these infrastructure projects has social, environmental and economic implications. Sustainable development of the oil and gas sector calls for strict adherence and compliance to not only international best industry practices, but also national laws and policy guidelines. Ensuring compliance calls for a concerted effort between project developers, regulators, project host communities and third-party monitors. Over the years, CSCO has collaborated with the oil companies, the Petroleum Authority of Uganda (PAU), Ministry of Energy and Mineral Development (MEMD), National Environment Management Authority and other stakeholders to monitor environmental and social compliance in the oil and gas projects.

This report therefore, presents the findings of the CSO monitoring exercise conducted in July 2023, focusing on infrastructure developments in the Tilenga Oil Project Area. The report also provides suggestions for areas that require improvement.

The monitoring activity leading to this report encompassed several phases. These included pre-field visit activities, the field visit, and a post-field visit. The pre-visit phase involved planning meetings, development of monitoring tools and check-lists and harmonization of the field visit monitoring program with the regulator and oil companies. The field visit involved site assessments, walk through tours, focused group discussions and briefing sessions. The post-field visit phase involved seeking clarification on key issues from various stakeholders and validating the information contained in this report.

The findings indicated that overall, TotalEnergies (TEPU) and the Petroleum of Authority of Uganda (PAU) demonstrate a commitment to observing environmental and social safeguards and standards, and are receptive to enhancing operational practices. Some of the exemplary practices exhibited included:

a) Availability of several well-established safeguards and management plans aligned with national and international legislative frameworks. These safeguards management plans offer comprehensive information on the potential project impacts and corresponding mitigation measures.

- (b) Establishment of adequate emergency preparedness and response systems.
- (c) Provision of facilities for waste storage and separation.
- (d) Compliance with sanitation and hygiene requirements.
- (e) Provision and display of adequate signage and labelling at all the construction sites visited within the Tilenga oil project area; and
- (f) Implementation of livelihood support and restoration projects for Project Affected Persons (PAPs).

The identified gaps requiring attention include, (a) lapses in dust emissions and control of material spillages from transportation trucks, (b) failure to implement suitable designs for storm water disposal at resettlement houses, (c) weak drainage and erosion control systems, (d) failure to display Environmental and Social Impact Assessment (ESIA) Certificates of Approval and site lay-out maps, (e) failure to preserve aesthetic beauty at construction sites, and (f) limited integration of sustainability strategies for livelihood interventions and enterprises.

The monitoring report provides the following recommendations:

- **Update and align the safeguards management plans:** Petroleum Authority of Uganda, National environment Authority should work with TotalEnergies (TEPU) to update and align the safeguards and management plans to ensure synchronization with the Tilenga Environmental and Social Impact Assessment (ESIA) Environmental and Social Management Plan (ESMP).
- **Display ESIA certificates of approval and site lay-out maps:** Petroleum Authority of Uganda, National environment Authority should work with TotalEnergies (TEPU) TEPU and the project subcontractors to ensure display of ESIA certificates of approval and site lay-out maps in accessible areas at the construction sites, in compliance with Regulation 52 of the Uganda National Environment and Social Impact Assessment Regulations (2020).
- Strengthen dust control measures during operations: TotalEnergies (TEPU) and its sub-contractors should Implement measures to adequately cover all trucks transporting murram and other construction materials to prevent spillage and dust emissions.

- Establish the link between project site operations and the current human wildlife conflicts in the area: The project should undertake a study to assess the noise and vibration impact of drilling and construction activities on Elephants and other wildlife in the Murchison Falls National Park and surrounding communities.
- **Put in place measures for flood and erosion control:** The project should ensure regular cleaning of drainage channels on construction sites to remove overgrown vegetation along the Right of Way (RoW) and to prevent blockage and flooding issues. The project should also put in place erosion control measures on all construction sites.
- Strengthen livelihood and restoration program for PAPs and integrate these programs in District Local Governments planning framework: TEPU and its sub-contractors should extend additional training in post-harvest handling, animal management and promote peer-to-peer learning. There should be deliberate efforts to create synergies between livelihood restoration programs and other government poverty alleviation programs.

CHAPTER 1: INTRODUCTION AND BACKGROUND

1.0 Introduction

This report documents a monitoring exercise conducted by CSCO, forming part of the ongoing third-party monitoring efforts within Uganda's oil and gas sector. It outlines the background, purpose, and objectives of the monitoring activity, provides description of the sites visited, approach taken, the scope, and the tools utilized for the data collection. Additionally, the report presents key findings, conclusions, and recommendations arising from the monitoring exercise.

1.1 Background

Following the discovery of commercial petroleum resources in Uganda in 2006, the country experienced substantial and ongoing investment in upstream petroleum activities. Intensive exploration and appraisal efforts resulted in further petroleum discoveries and a comprehensive evaluation of these findings. This endeavor, led to confirmation of 6.5 billion barrels of stock tank oil initially in place (STOIIP), with 1.4 billion barrels deemed recoverable¹. As a result, the upstream petroleum sub-sector is transitioning into the development and production phases of the value chain. The anticipated commencement of petroleum production in the country necessitates the development of infrastructure to enhance the value of the extracted petroleum.

Consequently, the country has taken significant strides in planning and implementing infrastructure development across the petroleum upstream, midstream, and downstream sub-sectors. In the upstream, the Tilenga and Kingfisher Projects have been devised to process 230,000 barrels per day (with the Tilenga project designed to process 190,000 barrels per day and Kingfisher project designed to process 40,0000 barrels per day). These projects will transfer the crude oil through feeder pipelines to the Kabale hub for custody and subsequent transfer between the East African Crude Oil Pipeline (EACOP) and the refinery.

Key projects in the midstream section of the petroleum value chain encompass the East African Crude Oil Pipeline (EACOP), the Greenfield Refinery, the Refinery Product Pipeline and Storage. Presently, Uganda

1 Ministry of Energy and Mineral Development, 2022

relies on petroleum product imports, mainly transported by road through Kenya and, to a lesser extent, Tanzania. As the country prepares for petroleum production and value addition from confirmed petroleum resources, it also has an opportunity to address the longstanding issues of petroleum product supply insecurity.

Despite these advancements, concerns persist that the ongoing and planned construction of upstream facilities could negatively impact both people and environmental resources if not properly managed. Uganda, being a signatory to the United Nations Conference on Environment and Development (UNCED), is urged to consider the crucial linkages between environment and socio-economic development. Principle 4 of the Rio Declaration² emphasizes the importance of stakeholder partnerships in the implementing development projects and achieving sustainable development goals.

Environmental conservation amidst oil development necessitates collaborative efforts from the government, oil companies, civil society, and citizens alike. This imperative is clearly articulated in Uganda's National Oil and Gas Policy (2008), which addresses clean energy concerns in the petroleum sector. The policy outlines the roles of various stakeholders in managing the country's oil resources, emphasizing the importance of engagement by Civil Society Organizations (CSOs) to monitor and ensure the responsible management of oil and gas activities.

In October 2022, CSCO conducted monitoring of the TILENGA and Kingfisher projects and subsequently shared its monitoring report, and made recommendations to government, respective agencies and oil companies. The report was appreciated by both the Petroleum Authority of Uganda, as the regulator of the sector, and the oil companies. It triggered actions that have contributed to the improved governance of the sector. It is within this context that CSCO partnered with TotalEnergies and PAU to conduct another monitoring exercise on the Tilenga project and its ancillary sub-components in July 2023.

1.2 Objectives

The major objective of the monitoring exercise was to assess the social and environmental compliance of the TILENGA project, and to provide recommendations to mitigate its negative impacts.

² World Commission on Environment and Development (1987). Our Common Future. Oxford: Oxford University Press. p. 27. ISBN 019282080X

1.2.1 Specific Objectives

The monitoring exercise was guided by two specific objectives:

- i. To monitor progress of the implementation of the TILENGA project and identify best practices and key areas of concern, and gaps requiring specific detailed attention.
- ii. To generate recommendations aimed at mitigating negative environmental, social-economic, and cultural impacts of the project.

CHAPTER 2: APPROACH, SCOPE, AND METHODOLOGY

2.1 Introduction

The monitoring visit was conducted in collaboration with TotalEnergies and the Petroleum Authority of Uganda (PAU). It spanned two days, commencing on Monday, July 17th, 2023, and concluding on July 19th, 2023. The monitoring was structured into three distinct thematic areas- (i) soil and biodiversity, (ii) Environment, Health and Safety (EHS), and (iii) socio-economic and cultural thematic areas. The CSCO team comprised 16 members and throughout the exercise, participants observed and appreciated the sector's progress, noted industry concerns, and engaged in reflection meetings that synthesized participants' observations into a CSCO report³.

The activities carried out during the monitoring exercise included (a) visiting sites and taking walk-through tours in selected sites, (b) taking pictures to gather evidence and drawing conclusions, (c) holding discussions with the TotalEnergies personnel, contractors' representatives, PAU, and selected members of PAP communities, (d) observing and taking note of thematic issues identified on site, and (e) participating in daily briefs and wrap-up meetings.

The monitoring activity consisted of three distinct stages; pre-field activities, field/on-site activities, and post-field activities.

2.2 Pre-field activities

The pre-field activities involved reviewing of various documents, including the TILENGA Project Environmental and Social Impact Assessment (ESIA) of 2019, the Tilenga ESIA Certificate of Approval of 2020, the project Environmental and Social Management Plans (ESMPs), Resettlement Action Plans (RAP) 1-5, as well as relevant national legislative frameworks and international standards pertaining to the oil and gas infrastructure developments and environment. This review of the Tilenga project ESIA report enabled the monitoring team to gather crucial information regarding: (a) the baseline conditions of the Tilenga project; (b) the commitments, mitigation actions, and monitoring indicators outlined prior to the installation and construction

³ Specific monitoring tools/checklists were prepared to guide the observations, comments, and interviews

of the project facilities; and (c) the prevailing social and cultural issues within the project's areas of influence. This information served as the foundation for designing appropriate field monitoring tools and checklists, to assess environment and social compliance.

2.3 Field Visit activities

TotalEnergies Uganda (TEPU) provided a field visit plan and identified the sites to be visited ahead of the visit. The plan was thoroughly discussed, and a schedule developed collaboratively between TEPU and CSCO. This coordination was crucial for harmonizing the activities and ensuring that the monitoring exercise did not disrupt on-going construction operations at specific sites.

During the on-site field visit, the team conducted site orientation and debriefing sessions, engaged in question and answer sessions with site managers, and meticulously documented and recorded the observed evidence. This approach facilitated comprehensive assessment and documentation of the project's compliance with environmental and social safeguards and standards.

Figure 1: Debrief and induction meeting of CSCO members at TotalEnergies Base camp in Bugungu, Buliisa district.



Figure 2: CSCO members in a group discussion sessions at MIKA Hotel, Hoima District.



2.4 Post-field phase

Following the on-site visits, the team conducted a post-field visit to engage with the project-affected persons (PAPs) and District Local Government leaders in Buliisa and Hoima. This engagement aimed to capture their views and perspectives on the ongoing Tilenga project infrastructure developments in their areas. Focus group discussions were held with selected PAPs living near Rig 2 in Ngiri 3, Kirama village, Kigwera Subcounty, Buliisa District, and Rwamutonga LC 1 in Hoima District. Additionally, key informant interviews were conducted with district local government leaders of Buliisa and Hoima. This process facilitated further validation and triangulation of data collected during the initial monitoring visit.

Subsequently, all collected data from on-site, pre-and-post-field visits were thoroughly discussed and analyzed to ensure accurate reporting. CSO teams with diverse technical and professional expertise were assigned to synthesize results according to different thematic areas, including Environment, Health and Safety (EHS) issues, soil and biodiversity, and socio- economic, and cultural aspects. A draft report was then produced and underwent several proof-reading and validation meetings to ensure quality of the final report.

2.5 Limitations

This exercise primarily relied on field observation, desk review of

documents, debrief meetings with TotalEnergies E&P Uganda (TEPU) staff, the Petroleum Authority of Uganda (PAU), and with the contractors' teams. The monitoring exercise did not include supportive tests or assessments such as soil, water, air, plant, animal body tissue sampling, and laboratory analysis, or wildlife/animal behavioral assessments related to field-based construction and drilling operations.

Certain key components of the visited sites were viewed from a distance, limiting the teams' ability to closely examine certain aspects around restricted areas such as the Central Processing Facility (CPF) construction area at the Industrial Area, and the well-pad/rig area at JBR-5. However, TEPU ensured that the CSO team captured key information about these restricted areas by providing verbal details from vantage points. It should be noted that some information, especially on quantities and statistics was not readily available.

Similar to the previous monitoring of October 2022, there was insufficient time for detailed investigation and inquiry during the current exercise (July 2023). To address this limitation, a post-field monitoring visit was conducted to interact with the project-affected persons to fill gaps left during the on-site visit. This facilitated triangulation and verification of information received from oil companies and government representatives, thereby ensuring the quality of the results presented in this report.

2.6 Description of sites visited

2.6.1 Description of the Tilenga Project Area

The Tilenga Project, operated by TotalEnergies E&P Uganda (TEPU), encompasses three (03) Production Licenses (PLs) from Contract Area (CA) -1 and three (03) PLs from LA-2. The PLs include Jobi-Rii-5, Gunya, Ngiri, Kasamene-Wahrindi, Kigogole-Ngara and Nsoga.

The project comprises the following facilities:

- i) Development of a Central Processing Facility (CPF) with capacity to process 190,000 barrels of oil and 700,000 barrels of total liquid per day.
- ii) Drilling of over 426 wells (200 water injector wells, 196 oil producer wells, 2 polymer pilot wells and 28 reference wells) planned to be drilled on 31 well-pads.
- iii) Construction of over 160 kilometers of flow-lines which will transport crude oil and water from the wells to the CPF.

- iv) Installation of a 95 km 24-inch feeder pipeline which will transport the processed crude oil from the CPF in Buliisa to the export hub and Refinery in Kabaale in Hoima District.
- v) Other supporting infrastructure includes the Victoria Nile Crossing, Temporary and Permanent Operation Support Base camps, and a Lake Water Abstraction Station⁴.

It's important to note that key activities being implemented by the licensees and monitored by the Petroleum Authority of Uganda (PAU) for the Tilenga project include the Front-End Engineering and Design (FEED) study, the Environment and Social Impact Assessment (ESIA) study, procurement and contracting of Wells and Drilling Related Services, Technical Surveys, Sub-Surface Studies, and Land Acquisition. The total land requirement for the Tilenga Project is approximately 2,400 acres. The land acquisition process involves developing and implementing five (05) Resettlement Action Plans (RAPs) in a phased manner.

⁴ Tilenga Project ESIA (2019)



Figure 3: Map showing Tilenga project area

Source: Tilenga Project ESIA (2019).

2.6.2 Sites visited

a) RAP 2-5 Resettlement Housing

The RAP 2-5 Resettlement Housing initiative encompasses households affected by various components of the Tilenga project, including RAP 2 for flow lines and water abstraction, RAP 3 for well pads, RAP 4 for feeder pipeline, and RAP 5 for access roads. This process follows RAP 1 for the Industrial Area, which concluded its resettlement process in 2021. The relocation exercise for RAP 2-5 commenced in August 2022 and was ongoing at the time of the field visit in July 2023. By July 2023, approximately 58% of the sites for project-affected persons

(PAPs) were yet to be handed over to beneficiaries by TEPU. These beneficiaries include PAPs residing in villages such as Karanwango, Kirama, Kakindo, Uduk, Avogera, Buhirigi, Ndaragi, Nyapeya, Kasinyi, and Kijumbya in Buliisa district. Teltec Investments Limited and ATX were responsible for the general relocation exercise on behalf of TEPU, providing orientation and psycho-social support to relocated families. Additionally, Living Earth Uganda was contracted by TEPU to handle a component of livelihood restoration in the Tilenga project area.

b) Jobi Rii-5 (JBR-5) Well-pad Construction Area

The Jobi Rii-5 (JBR-5) well pad, located in exploration block CA-1 north of the Victoria Nile within Murchison Falls National Park, spans approximately 3.7 hectares. It is designated as a production and injection network site, facilitating the transfer of production fluids from the well pad to the CPF and injection water from the CPF to the well pad during the production phase. Like other well pads situated north of the Victoria Nile, the JBR-5 well pad includes a tunnel section beneath the Victoria Nile using the Horizontal Directional Drilling (HDD) technique to connect the JBR production field with the CPF in Kasinyi village, Buliisa district, situated south of the Victoria Nile.

c) Industrial Area in Kasinyi village, Buliisa district

The Industrial Area, situated south of the Victoria Nile in Kasinyi village, Ngwedo sub-county, Buliisa district, lies outside Murchison Falls National Park (MFNP) and spans 780 acres of land⁵. The area is designated to include both permanent and temporary facilities, covering approximately 307 hectares upon completion. The Temporary Facilities Area encompasses various project components such as the construction support base, offices, medical facilities, material warehouses, laydown areas, construction workshops, concrete batching plant, storage facilities, logistics support center, and integrated waste management area. Additionally, the Industrial Area will feature support services facilities such as a refueling area, car park area, security, and visitors center. The Central Processing Facility (CPF) will also be situated within the Industrial Area, covering an area of approximately 52 hectares, with plans to produce up to 190 thousand barrels of oil per day.

⁵ The site is restricted to the acreage defined by the coordinates 36N 330101 242958, 330687, 241578, 328800, 240777, and 328214 242157 (Tilenga CoA, 2020)

CHAPTER 3 KEY FINDINGS AND OBSERVATIONS

3.1 Good Practices Observed

a) Adequate preventative measures on oil spills and bitumen waste

Evidence from the site visits in the Tilenga project area shows that there were no signs of accidental spills. There were adequate measures to prevent oil spills at all the construction sites visited. Oil spill management kits were readily available at all the sites in line with Regulation 5(1) of the National Oil Spill Contingency Regulations (2020). The Regulation provides that a licensee under the Petroleum (Exploration, Development and Production) Act, 2013 or the Petroleum (Refining, Conversion, Transmission and Midstream Storage) Act, 2013 shall have the duty to prevent an oil spill by ensuring that any person carrying out work on their behalf, either personally or as an employee, contractor or subcontractor, prevents an oil spill.

b) Compliance with Sanitation and Hygiene requirements

There were sanitary facilities including toilets, eco-loos, and hand washing facilities at all the active construction sites visited. There were also a number of signage materials encouraging the workers and all the Persons on Board (POBs) to wash their hands.



Figure 4: Pictures showing sanitary facilities such as water points for hand washing and movable toilets on sites.

c) Provisions for waste separation

There were provisions for waste separation at all the active construction sites within the Tilenga project area. This good practice is commendable and is in line with the IFC General EHS Guidelines for handling waste at construction Facilities (2007), which provide that non-hazardous waste, such as paper, cardboard, glass, aluminum, and plastic, should be collected separately and recycled. Also, the biodegradable solid waste is being composited for the generation of compost manure.

Figure 5: Color waste bins for separation of different waste types at the industrial area in Buliisa district.



d) Compliance with requirements to wear Personal Protective Equipment (PPE)

The workers at all development sites visited had basic PPE (safety shoes, gumboots, reflective vests, helmets and nosal masks) for protection from hazards such as dust, aerosols, and bites from insects and reptiles. This practice complies with Section 19(1) of the Uganda National Occupational Health and Safety Act (2006), which mandates an employer to provide adequate and suitable protective clothing and equipment to workers. Furthermore, it was observed that TEPU has reserved PPEs for visitors to ensure everyone's safety while on the sites.

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Figure 6: CSCO field team wearing personal protective equipment (PPE) at the industrial area construction site.



e) Adequate signage and labelling at the construction sites

Construction sites in the Tilenga project area were all well labelled with safety marks such as "No smoking" signs, "Slow Down Speed Limits," and the "Wear PPE" signs" among others. Additionally, names of Persons on Board (POBs) were displayed at the entrance of sites, except for the JBRI-5 Well-Pad Construction site, where the names of POBs were located in a restricted area for visitors.

Figure 7: Safety signage at the industrial construction site in Kasinyi village, Buliisa district.



f) Compliance with requirements for noise pollution

An assessment of the noise at the various construction sites including JBR 5 and the industrial park, revealed that the noise levels ranged from 55 to 85 dB, which falls within the normal range for human beings. This suggests that the drilling and construction activities are compliant to the noise requirement for human beings stipulated in the law. However, it's important to note that this may not necessarily apply

to animals, birds and other wildlife. For instance, cattle have been reported to tolerate noise levels in the range of 60–90 dB (Daily Global, 2017)⁶. Additionally, elephants have been reported to be unable to hear frequencies above 10.5 kHz at an intensity level of 60 dB⁷, and they are intolerant to seismic/vibration frequencies above 12 kHz at an intensity of 90 dB.

The monitoring did not collect and analyse the seismic or vibration data, thus it was unable to determine whether this had an effect on the elephant population. However, there were reports of elephants exhibiting altered behaviour following the commencement of drilling and construction operations. Therefore, it is difficult to completely rule out the possibility of drilling and construction exercises having had an impact on elephant behaviour. A specific study is needed to verify whether drilling and construction activities (thus far) have indeed affected the behavior of elephants in Murchison Falls National Park and surrounding communities.

g) Implementation of livelihood support and restoration projects for Project Affected Persons (PAPs)

The monitoring team established that there were a number of livelihood and restoration projects to support the PAPs. These include: permanent houses and associated infrastructure (such as the kitchen and solar panels for lighting), ventilated improved pit latrines, water harvesting system; the use of improved cassava variety (such as NAROCAS); the utilisation of cassava chippers and associated silos for storage of cassava; and the adoption of the improved breed of goats (such as Karahari reds). When adopted correctly by the Project Affected Persons (PAPs) and the associated community, these facilities and projects will improve livelihoods of PAPs.

h) Adoption of improved designs of resettlement houses for Project Affected Persons (PAPs)

The CSCO monitoring report (2022) highlighted lapses in the design of resettlement houses, specifically the absence of ramps for the physically challenged at the entrance. However, this monitoring exercise (2023) established that the lapse was addressed, as evidenced by one

7 Rickye Heffner and Henry Heffner (1980). Hearing in the Elephant (Elephas Maximus). American /association of the Advancement of Science. https://www.utoledo.edu/al/psychology/pdfs/comphearaudio/ Hearing_in_the_Elephant_Elephas_maximus_SC1980.pdf accessed 30/08/2023

⁶ Daily Global (2017) https://www.dairyglobal.net/health-and-nutrition/ health/effects-of-noise-on-cattle-performance/ accessed 30/08/2023

of the newly constructed RAP 2-5 resettlement houses in Ngwedo. This practice is commendable, and is in compliance with Section 7.1.5 of the National Physical Planning Standards and Guidelines (2011), which stipulates that building designs must consider the needs of the disabled, particularly those with mobility handicap.





i) Emergency preparedness response

The sites visited, such as the JBRI-5 Well-Pad construction area and the Industrial Area, had several emergency response facilities and equipment. These included oil spill contingency kits, fire-extinguishers, first aid boxes, and emergency assembly points placed in visible and accessible areas. This practice aligns with the IFC World Bank (2007) General Guidelines, which mandate facility operators to establish public emergency response programs and ensure that the spill-handling equipment and tools for major accidents are readily available in visible and accessible areas of the facility. Figure 9: Emergency Oil Spill Response Kit (in the encirclement) at JBRI-5 Well -Pad construction site in Murchision Falls National Park.



Figure 10: Emergency assembly point at the Industrial Area Construction site in Buliisa District



3.2 Weak Areas that Need Strengthening

3.2.1 Environment, Health and Safety issues

The monitoring team identified a number of compliance issues relating environment, health and safety that required attention of both government and the oil companies. These include the following:

i) Safeguards, Management Plans and Frameworks

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Through document review and debrief meetings with TEPU, it was confirmed that all field operations of the company are guided by a comprehensive set of well-established management plans. These plans are listed under annex-1 of the Tilenga ESIA Certificate of Approval (2020). They include the Tilenga Physical Environment Management Plans (eight in number), social management plans (over ten in number), the Biodiversity Management plans (six in number), and Emergency Preparedness Plans (six in number), among others. CSCO found that the Tilenga safeguards management plans are thoroughly aligned with the national and international legislative frameworks. Also, they provide adequate information on potential impacts and their indicators, proposed mitigation measures, responsible personnel, monitoring indicators, data sources, and planned methods of data collection for each monitoring indicator.

However, CSCO observes that the plans need strengthening in the following areas:

- a) There are no strategies for enhancing positive impacts of the project. Most of the reviewed plans do not indicate how the positive impacts of the Tilenga project (as identified in the ESIA) will be enhanced. This is the case with the Physical Environment Management Plan (PEMP), Social Management Plan (SMP), the Site Restoration Plan, Waste Management Plan, Stakeholder Engagement Management Plan (SEMP), and the Tourism Management Plan among others. Thus, there is a need to update the captioned plans to provide enhancement strategies for the positive impacts of the project, ensuring compliance Uganda's Ministry of Water and Environment (MWE) Guidelines (2011) and IFC World Bank Standards (2012) guidance on the development of project management plans.
- b) The Plans are not well aligned with the commitments and assurances specified in the Tilenga ESMP (refer to Volume V, page 200 of the Tilenga ESIA). For instance, the ESMP lists several aspects and indicates the various management plans where each issue would be comprehensively addressed. However, it is observed that most of the management plans address new issues and neglect those prescribed in the ESMP. This creates a mismatch between the safeguards listed in the management plans and those outlined in the ESMP, which serves as the overarching management framework above other associated project management plans. This issue is particularly noticeable in the Tilenga Dust Control Plan, the Local Content Management Plan, and the Social Management Plan (SMP) among others.

ii) Display of ESIA Certificates of Approval and site lay-out maps

The previous CSCO monitoring report of 2022 indicated that all construction sites visited in the Tilenga development area had ESIA Certificates of Approval (CoA) and site layout maps clearly displayed at the sites' noticeboards; These notice boards were positioned in conspicuous places, adhering to the best industry practices and in conformity with regulation 52 of the Uganda National Environment and Social Impact Assessment Regulations (2020) hence, ensuring easy access for workers and visitors.

However, during the July 2023 field visit, it was observed that this practice seemed to have been abandoned. For example, at the JBRI-5 well pad site, the noticeboard which previously displayed the site layout map and the ESIA CoA was moved from its previously accessible area for visitors to a restricted location. Similarly, at the industrial area construction site in Buliisa, site layout maps and the ESIA Certificates of Approval were absent. This lapse needs correction to comply with the requirements set forth under regulation 52 of the Uganda National Environment and Social Impact Assessment Regulations (2020).

iii) Dust emissions and control of materials spillages from transportation trucks

During the previous monitoring (2022), it was noted that TEPU contractors effectively controlled dust emissions using water bowsers. The spillage of construction materials from transportation trucks was also mitigated by covering the trucks with tarpaulins.

However, the current monitoring conducted in July 2023 observed that this practice seems to have been abandoned. No water bowsers were observed during the visit, resulting in evident dust emissions. The trucks carrying materials from construction sites were uncovered, especially along the section of C1 road near JBRI-5 well pad construction area.

If not adequately addressed, dust emissions may have negative impacts on the health wildlife in Murchison Falls National Park (MFNP). Additionally, for human community-based projects such as the industrial area construction site in Buliisa, uncontrolled dust emissions may cause health problems to the people in the nearby communities. This would be contrary to Article 39 of the Constitution of the Republic of Uganda, 1995 (as amended) which guarantees the right to a clean and healthy environment for every Ugandan. Figure 11: Dust emission and uncovered contractor's truck along C1 road near JBRI-5 well-pad construction area.



iv) Designs for storm water disposal at resettlement houses

In 2022, the civil society monitoring team highlighted deficiencies in the designs for storm water disposal at resettlement houses. During the current visit in July 2023, it was found that while grass had been planted in the compounds of the PAPs houses in response to TEPU's commitment following CSCO's previous observation, the issue of gutters not properly being connected to any outfall drainage system still persists.

It is important to note that the failure to connect gutters to an outfall drainage system creates dampness in buildings and accelerates weakening through capillary attraction and the seepage of uncontrolled storm water. Leaving building gutters open is contrary to regulation 3.3.6.1 of the National Building Control Regulations.

Figure 12: Gutters from the roof at one of the newly constructed Tilenga RAP2-5 Resettlement houses (in the encirclement) not connected to any outfall drainage system for safe disposal of storm water.



v) Inadequate drainage and erosion control systems

CSCO observed that drainage and erosion control remain a challenge, particularly at the Industrial Construction site and at JBRI-5 well pad construction area. Signs of erosion, including gullies, were evident at the viewpoint area (visitors' view ramp) at the JBRI-5. Additionally, water ponding was observed at various sections of the Industrial area.

Furthermore, the following deficiencies in drainage system management were noted at the industrial area:

- a. Blocked and clogged drainage channels: Some drainage channels were found to be silted and blocked with sediments, indicating a lack of regular cleaning contrary to the requirements of the National Physical Planning Standards and Guidelines (2011)
- b. Absence of settling basins /containment basin for surface run-off: It was revealed through debrief meetings with site representatives that surface run-off is released into the surrounding environment. This practice contradicts the provisions of the Physical Planning standards and guidelines (2011) as well as the Public Health Act Cap 281 of the Laws of Uganda, both of which discourage the direct release of surface run-off from facilities into surrounding

environments. The National Physical Planning Act recommends the installation of settling basins at facilities to collect surface run-off, allowing for proper management through treatment before release into public drainage channels, rather than into the open environment.

vi) The effect of Rig 2 in Ngiri 3 on nearby communities in Buliisa district

a) Noise and vibrations

Interactions with selected community representatives (i.e. PAPs) living near Rig 2 in Ngiri 3, Kirama village, Kigwera Sub county in Buliisa District revealed that oil activities at rig 2 in Ngiri 3 have generated unbearable noise, vibrations, and light intrusion. This was further confirmed by the district technical leaders, who emphasized that the noise and vibrations from oil activities, especially at Ngiri 3, have affected domestic birds and the people living near the site (within a distance of 10-30 meters) (see Figure 11).

Figure 13: Households located very close to Rig 2 in Ngiri 3, Buliisa community



b) Community unrest due to arrest threats

Community members expressed concern over arrest threats and the approach used by the government authorities in resolving the issues related to the attempted burning of Rig 2 in Njiri-3. It was noted that during police investigations, the immediate community neighbouring the rig was considered as the first suspects (after sniffer dogs ended up at their households), and consequently, these individuals were booked into police custody. Community members expressed dissatisfaction that women were arrested instead of men, considering that the men had fled at the time of arrest. The arrested women were released on bond after engagement by the district leadership.

The district technical leadership, engaged through key informant interviews, noted that conducting arrest, especially of wrong suspects, was not the best approach to addressing this conflict. Instead, a better approach of community engagement and conflict resolution should have been pursued to better understand the root cause of the attempted burning of the rig.

3.2.2 Waste Management, Sanitation and Hygiene

The common types of wastes generated at most of the visited sites included used rugs and cotton material, non-hazardous waste such as paper, metal scrap, food waste, as well as hazardous waste such as used oil, muds, and cuttings. These different types of waste are handled by respective waste management companies licensed by NEMA. Non-hazardous waste is managed by Luwero Industries, used oil by Canadian oil, paper and cardboard by Global Paper industries, while hazardous waste is managed by the Albertine Waste Management Venture. However, the CSCO team observes that certain aspects of waste management practices need to be improved. Some of the aspects that require improvement include:

i) Waste littering

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Although there were no significant incidents of littering at the sites, prohibitive signs of waste littering were not observed at most of the visited sites. For instance, there were no waste bin provisions for visitors at the viewpoint area at the JBRI-5 well-pad construction site, yet visitors frequently visit the place. The main rig area, where waste facilities are located, has restricted access, and therefore visitors may not access the area to dispose of waste.

ii) Handling of hazardous waste by workers

It was observed that some workers, especially at the Central Processing Facility construction site, were handling hazardous waste with bare hands. Additionally, it was noted that the color-coded waste segregation bins at this site were not being used as prescribed. The team found mixed waste in some bins. At JBRI-5, the viewing point where visitors are addressed did not have any waste management containers. Furthermore, there was evidence of abandoned plastic waste at the Central Processing Facility in Bulisa.

Figure 14: A worker handling waste without gloves. Note that the red container is for hazardous waste at the entrance of the CFP in Buliisa



Figure 15: Abandoned plastic waste at the Central Processing Facility in Buliisa



3.2.3 Biodiversity and community protection issues

i) Community-wildlife conflict reported in Ngwedo and Nwoya

There are fears among community members, especially in Ngwedo sub-county, Buliisa district, that the continued attacks from elephants and the destruction of people's crops is due to the intensified oil and gas activities in the Murchison falls National Park. Media reports such as kazi-Njema news (2022 and 2023) have also attributed the human-wildlife attacks on oil and gas operations. These reports indicate that an estimated 40 acres of crop, including: maize, sweet potatoes,

cassava, jackfruits, pawpaw, and bananas in sub counties of Ngwedo, Kigwera, Buliisa, Bugana, and Kisvani, were destroyed by stray animals, particularly elephants (Atuhairwe, 2022).

Further interactions with PAPs living near Rig 2 in Ngiri 3, Kirama village, Kigwera Subcounty, Buliisa District, confirmed that the elephants frequently attack the community and destroy gardens in areas adjacent to the park. In some cases, these attacks result in loss of lives. They attributed the issue of elephants' migrations and attacks to the ongoing oil exploration activities. One respondent had this to say:

> "I am 47 years old, but I have never seen elephants' migration like now, I think it's the lights, noise, and vibrations of rigs that has forced them out of their area. Three people have so far died because of elephants, gardens destroyed and we are likely to have no food in the coming few months".

The foregoing assertion was supported by the Buliisa district technical leaders who confirmed that elephants are increasingly invading communities compared to past years. The district leaders appreciated initiatives being pursued by Uganda Wildlife Authority (UWA), Hoima Caritas Development Organization (HOCADEO)⁸, and SaferWorld, who were trying to respond to the issue of elephant attacks. These initiatives include; scaring away the elephants and installation of electric fences to prevent elephants from straying into agricultural gardens and farmlands.

ii) Loss of aesthetic beauty

It was observed that some of the areas within the Tilenga project, especially, around most of the construction sites and their surroundings have lost aesthetic beauty. This is due to the ongoing clearance and construction activities, which are associated with vegetation loss, dust emissions, water ponding, and surface run-offs. For example, the presence of gullies, water clogging, and dust emissions at both the industrial areas, and at the JBRI-5 well pad construction area have made these sites and their surroundings lose their aesthetic health and beauty (see Figure 14).

⁸ HOCADEO is a local NGO, operating in the districts of Hoima, Kikuube, Masindi, Buliisa, Kiryandongo, Kibaale, Kagadi and Kakuumiro



Figure 16: Marks of erosion (Gullies) exhibiting signs of loss of aesthetics at the JBRI-5 well pad site.



3.2.4 Social, economic and cultural issues

It was established through document review and debrief meetings with TotalEnergies that all field operations of the company are guided by a number of well-established management plans as listed under annex-1 of the Tilenga ESIA Certificate of Approval (2020). These include the Tilenga Physical Environment Management Plans, which are 8 in number; the social management Plans (over 10 in number), the Biodiversity Management Plans (6 in number); the Emergency Preparedness Plans (6 in number); and the Resettlement Action Plans (RAPs) (2020); among others.

As stipulated in the RAPs (2020), the Tilenga project is committed to re-establish the livelihoods of the Project Affected Persons (PAPs) to an equal or greater level as compared to the position before project activities. However, CSCO observes the following issues of concern based on the field monitoring visit and the associated interactions with the PAPs:

i) Lack of goats' pen/shelter for the boar goats

During the field monitoring visit in Ngwedo sub-county, the CSCO team was shown an improved goat breed (i.e., Karahari reds) from South Africa purposed for cross breeding to enhance the local goat breeds for meat production. The goat was tethered on a rope and tied under a tree shade. Interactions with PAPs in Rwamutonga LC 1 in Hoima District through focus group discussions (FDGs) indicated that while
the PAPs were given improved goat breeds, they were not supported to construct appropriate goat housing/shelters that meet the minimum requirements for goat rearing, such as proper ventilating and aeration, among other necessary conditions. Unsurprisingly, the predominant issue reported by both the PAPs and district leaders during followup exercises was that of goats dying after receiving them as part of the livelihood improvement package. It should be noted that the best management practice for the distributed breed is construction of a goat shelter (to protect from wind, rain, and heat) and keeping the goats on a raised ground to control pest infestation, especially worms.

Figure 17: Improved breeds of goats which were given to the PAPs In Buliisa.



Figure 18: Hoima - Photo of the house where goats for the PAP in Hoima are kept which is unsuitable for goats.



ii) Inadequate knowledge, skills and technologies for post-harvest handling/management by the PAPs and project affected community

While TEPU has implemented interventions to enhance value addition in selected crop value chains like cassava through provision of the cassava chipper under the livelihood restoration programme, the PAPs and the community visited during the monitoring exercise demonstrated inadequate post-harvest handling and management skills and knowledge. Despite showing proficiency in operating the cassava chipper, the monitoring team noted that the same PAP was still drying maize on bare ground. This indicates persistent knowledge gaps and barriers, such as limited skills, poor attitudes, and the inability to afford technology and equipment, among other limitations, especially concerning post-harvest handling of food.

Figure 19: Maize and cassava dried on the ground by one of the PAPs that operates the cassava chipper machine in Ngwedo, Buliisa district.



iii) Weak integration of sustainability strategies for livelihood interventions and enterprises

While the project implemented various initiatives aimed at restoration of the livelihoods of the PAPs, the monitoring team noted a weak integration of sustainability strategies and mechanisms during the design, planning, and implementation of the livelihood restoration activities. This deficiency was evident in the following forms:

a) Farmer groups established by the project exhibited weak leadership and governance structures, lacking rules and regulations such as group constitutions. These groups must be registered with the Local Government as community development organizations, associations, or groups for their sustainability.

- b) Members of the farmer group lacked adequate knowledge and skills for managing different food value chains promoted by the project, such as cassava and maize. For example, maize was still dried on the bare ground by group members, highlighting the need for awareness and sensitization programs on hygiene, food safety, and post-harvest handling.
- c) While some technologies demonstrated by the project, such as cassava chippers and silos, showed promise, they were still at a small scale to meet demands, particularly during bumper harvests.
- d) There was weak involvement and linkage with the Local Governments and other development partners, with the program primarily involving the PAPs, TEPU, and the subcontractors. There was minimal structure in place to facilitate the scaling up and extension of interventions to other non-PAP members of the community.

v) Introduction of new plant and animal varieties, practices and equipment vs. culture and norms of PAPs

It is commendable that TEPU introduced new plant and animal varieties, (e.g. NAROCAS cassava variety, Karahari reds goats breed), practices, and equipment (such as cassava chipper and storage silos) as part of the interventions implemented for restoration of the livelihoods of the PAPs. However, these new technologies, practices, and equipment changes the previous way of livelihoods, culture, practices, values, and norms of the PAPs and project-affected community. The transition to apply and use these new technologies requires time, attitude, and mindset change for the PAPs and associated community. Without this in place, these technologies may not be easily adopted by PAPs, limiting the anticipated positive impacts on livelihoods improvement. Figure 20: Some of the technologies such as (left) cassava chipper for processing cassava, (right) cassava silos for storage of the processed cassava, introduced to the PAPs and project affected community



vi) Environmental cost of the cassava chipper machines

While the cassava chipper may meet the technical fit requirements in terms of social and economic costs, there are concerns regarding its environmental impact requirements. It was noted that the cassava chipper runs on a diesel engine, which is associated with the release of greenhouse gases. Thus, alternative clean energy sources, such as solar power should be explored to operate the cassava chipper. Solar technology not only reduces environmental impact, but lowers maintenance costs as well. Additionally, the operation of the chipper machine generates dust, posing potential long-term health risk to the users. Therefore, users should receive awareness about these issues and be provided with appropriate protective gear.

vii) Untimely supply of planting materials to the PAPs

During the follow up monitoring exercise in Ngwedo, Buliisa district, and Hoima, the PAPs confirmed receiving food rations such as cassava flour, sim-sim seeds, cooking oil, and maize for six months, along with planting material (seeds) from Living Earth Uganda. However, they expressed concerns that the planting materials were sometimes delivered late and out of the planting season. This poses a risk of the materials drying up and not fulfilling their intended purpose. Additionally, there were reports of low germination rate for the maize, particularly in the Rwamutonga area.

viii) Weak integration of the livelihood restoration programmes in Government development plans and strategies

Local government leaders, both technical and political, from Buliisa and Hoima districts, who were engaged during the follow up exercise, highlighted that while they participate in providing technical advice on verifying crop varieties and livestock breeds, as well as in valuing community properties damaged by wildlife and pests, the districts lack support to integrate livelihood restoration programs into their plans and policies. This lack of mainstreaming in district plans limits the sustainability of the livelihood restoration program, reducing it to mere handouts rather than a structured initiative. Consequently, the longterm benefits of the program would be compromised compared to if it were integrated into district plans and strategies.

vix) Limited involvement and participation of district leaders

The district leaders from Buliisa and Hoima highlighted several challenges that limit their participation in the Livelihood Restoration Programmes:

- a) Limited information sharing about ongoing oil development activities: TEPU has not shared Memorandums of Understanding (MoUs) or contracts signed with commissioned services providers with the District Local Governments. As a result, the local governments are unaware of committed outputs and associated budgets from the interventions. This lack of transparency contradicts the Local Government Act, (1997), which requires development actors to disclose their interventions for inclusion in rolling Local Government Development Plans.
- b) Weak implementation of mechanisms for structured joint planning and regular reporting: There is a lack of structured mechanisms for joint planning and regular reporting on the progress of implementation of the Livelihood Restoration Programme interventions, particularly pronounced in Buliisa compared to Hoima district.
- c) Lack of a budget for local government participation in monitoring and verifying the results of the Programme interventions.
- d) TEPU's failure to share reports from specialized studies: Reports from specialized studies, such as those on routine biodiversity monitoring or community attacks by elephants, are not shared with the local governments.

The local government leaders expressed dissatisfaction of TEPU's

failure to adhere to existing local government guidelines in the design and implementation of the Livelihood Restoration Programme interventions. This unstructured engagement, limited participation, and involvement of local governments hinders effective integration of the programme interventions into District Development Plans, thus limiting effective implementation of the programme.

CHAPTER 4 CONCLUSIONS AND RECOMMENDATIONS

This chapter presents conclusions and recommendations aimed at improving the implementation of oil projects in Uganda and compliance with the social and environmental compliance.

4.1. Conclusions

The oil and gas industry in Uganda is rapidly advancing, with critical infrastructure under construction. As further development is pursued, third-party monitoring remains crucial for implementing mitigation measures and ensuring governance of the sector. Monitoring of environmental and social compliance in the oil and gas sector requires a concerted joint effort of all the key players ranging from government agencies to non-state actors. Experiences from the monitoring adds value to successful implementation of government projects.

Monitoring of environmental and social compliance in sensitive sectors such as extractives requires collaboration between government and extractive companies, local government and communities. This collaboration should be facilitated by joint planning and harmonization of tools to avoid conflicting messages.

The monitoring process identified both best practices and areas needing improvement, which require responsive actions from TEPU and other stakeholders. Overall, the compliance monitoring process was timely and effective in achieving its objectives. Continuing such monitoring efforts will contribute to the sustainable development of the oil and gas sector in Uganda.

4.2. Recommendations

(A) Recommendations to TEPU, PAU, and UWA

Update and align the safeguards management plans: Petroleum Authority of Uganda, National environment Authority should work with TotalEnergies to update and align the safeguards and management plans to ensure synchronization with the Tilenga Environmental and Social Impact Assessment (ESIA) Environmental and Social Management Plan (ESMP).

Display ESIA certificates of approval and site lay-out maps: Petroleum Authority of Uganda, National Environment Authority should work with TotalEnergies and the project sub- contractors to ensure display of ESIA certificates of approval and site lay-out maps in accessible areas at the construction sites, in compliance with Regulation 52 of the Uganda National Environment and Social Impact Assessment Regulations (2020).

Strengthen dust control measures during operations: TotalEnergies and its sub-contractors should Implement measures to adequately cover all trucks transporting murram and other construction materials to prevent spillage and dust emissions.

Establish the link between project site operations and the current human wildlife conflicts in the area: The project should undertake a study to assess the noise and vibration impact of drilling and construction activities on elephants and other wildlife in the Murchison Falls National Park and surrounding communities. The looming community-wildlife conflict reported in sub counties of Ngwedo, Kigwera, Buliisa, Bugana and Kisvani requires urgent mitigation actions including but not limited to the following:

- (a) TEPU in collaboration with the Uganda Wildlife Authority should simplify and publish the key findings from the routine monitoring reports, which point to some of the reasons communities are attacked by the elephants.
- (b) TEPU should pursue engagements with the affected communities to create awareness about safety measures which the community can undertake in a situation of elephant attacks.
- (c) The Uganda Wildlife Authority should compensate the affected community for the properties (outside the protected area) destroyed by the wildlife, e.g. elephants, as stipulated in the Uganda Wildlife Act, (2019).
- (d) The Uganda Wildlife Authority in collaboration with TEPU (through its Corporate Social Responsibility initiative) and Development Partners should fast-track the implementation of innovative biological strategies scaring away elephants, e.g. establishment of apiaries along the elephant trails. This has been done in Bwindi Impenetrable National park by Uganda Wildlife Authority in collaboration with the Wild Wide Fund for Nature and the adjacent community, so far it has yielded good results.

(e) The Uganda Wildlife Authority should fast-track the installation of the electric fence along the park boundary to prevent the wild game from reaching the community.

Put in place measures for flood and erosion control: The project should ensure regular cleaning of drainage channels on construction sites to remove overgrown vegetation along the Right of Way (RoW) and to prevent blockage and flooding issues. The project should also put in place erosion control measures on all construction sites.

Strengthening market linkages: Strengthen market linkages and access to business development services for PAPs and project-affected communities. This would enhance sustainability of livelihood restoration initiatives.

Strengthen livelihood and restoration program for PAPs and integrate these programs in district local governments planning framework: TotalEnergies and its sub-contractors should extend additional training in post-harvest handling, animal management and promote peer-to-peer learning. For example, PAPs benefiting from improved goat breeds should be supported and trained on construction raised goat pens/shelters with proper ventilation to protect goats provided. There should also be deliberate efforts to create synergies between livelihood restoration programs and other government poverty alleviation programs.

The integration of the Livelihood Restoration Programme interventions into the Local Government rolling Development Plans can be enhanced through pursuing the following actions: (i) Sharing with Local Government leadership information about commitments and associated budgets reflected in the various agreements they sign with the commissioned services providers. (ii) Sharing information from specialized reports, e.g. reports on studies on routine biodiversity monitoring, including the community attacks by the elephants, (iii) strengthen mechanisms for regular reporting for updating the Local Government leadership about the progress in the implementation of the Livelihood Restoration Programme, clearly underpinning the results/ achievements and associated emerging issues. This will enable Local Governments to effectively deliver on their roles and responsibility of close supervision and monitoring of large government projects to benefit the local community and the country, as stipulated in the National Energy Policy for Uganda, (2023) (MEMD, 2023).

Lighting management: TEPU should redirect the lights to point inside the Rig area (in Ngiri 3, Kirama village, Kigwera Sub county in Bulisa District) rather than outside to reduce on the light exposure to the

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neighbouring community.

Conflict resolution: TEPU should consider alternative approaches to resolve the emerging conflict at the Rig 2 in Ngiri 3, Kirama village, Kigwera Sub county in Bulisa District. Such approaches should be participatory involving the key stakeholders (including the community, Local Government leaders & opinion leaders) for better understanding of the root causes of the conflict and then generate responsive resolution. The District Community Development Department will play an important role in the conflict resolution.

Timely supply of planting materials: TEPU should ensure that the service providers commissioned under the Livelihood Restoration Programme procure and supply planting materials to the PAPs in time ahead of the rain season. Besides, TEPU and PAU should regularly monitor the performance of the sub-contractors under the livelihood restoration programme to ensure their services are aligned to the contractual commitments and obligations.

Recommendations to civil society B)

Civil Society groups should facilitate issue-based policy dialogues at all levels of government as platforms for information sharing among the various actors and stakeholders involved in the oil development activities

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ANNEXES

Annex 1: Observations on the level of implementation of the previous (2022) CSCO field monitoring recommendations

CSCO PREVIOUS RECOMMENDATION	TEPU RESPONSE	OBSERVED SITUATION (July, 2023)	Required Action
 Non-compliance with the requirement to fence-off construction sites. Although construction sites like the industrial area in Buliisa is adequately fenced, others such as JBRI-5 well construction area in Murchison Falls National Park, including those situated in human communities such as Pad-3 oil well development area were not fenced. This poses danger, especially to wildlife, domestic animals, safety of workers, as well as security risks related to vandalism of construction materials. Fencing of construction sites prior to any construction activities is a compliance requirement under Condition (vii) of the ESIA Certificate of Approval for the Tilenga project. Similarly, the Published Best Industry Practices such as the IFC 	Construction site at JBR5 has now been fully fenced. In addition, the construction sequence has been amended to ensure that fencing is established immediately after clearing, grubbing and removal of top and subsoil has taken place on new well-paid construction areas. Joint weekly inspections are being undertaken with UWA to ensure that these measures are followed	The site was well fenced	No further action required

CSCO PREVIOUS RECOMMENDATION	TEPU RESPONSE	OBSERVED SITUATION (July, 2023)	Required Action
Inadequate drainage and erosion control systems: This was more evident at Avogera health center III in Buliisa, and along C1- road in Murchison Falls National Park, at the industrial area in Kasinyi village, and at JBRI-5 well pad construction area for the Tilenga projects. The practice is contrary to Section 5.10.2 of the National Physical Planning Standards (2011), which requires all infrastructure developments in Uganda to have proper provisions for control of erosion and stormwater run-off based on the best management practices.	 The issue of drainage and erosion control has been taken as a key learning from the initial construction sites witnessed by the team during the visit. The following measures have now been implemented to ensure that surface water ponding and erosion is minimized: Silt traps have been incorporated into the drainage design to ensure that any sediments and turbid water is retained. These traps are also cleaned out regularly. Establishment of drainage systems have been brought forward in the construction sequence for new well pads to ensure adequate management of surface water. Top soil management has been improved along C1 road. 	 CSCO observed that the issue of drainage and erosion control still remains a challenge, especially at the Industrial Construction site, and at JBRI-5 well pad construction area. Marks of erosion, notably gullies, were present at the view point area (visitors' view ramp) at the JBRI-5. At the Industrial area, water ponding was evident at different sections of the site. Furthermore, at the Industrial area, the following laxities on drainage system management were observed: (a) Blocked and clogged drainage channels. Some drainage channels at the industrial area were silted and blocked with sediments. This indicates laxities in regular cleaning of the channels contrary to the requirements of the National Physical Planning Standards and Guidelines (2011). (b) There were no settling basins /containment basins for surface run-off at the facility. As such, it was established through debrief meetings with site representatives that surface run-off is released into the surrounding environment. This practice is contrary to the provisions of the Physical Planning standards and guidelines (2011) as well as the Public Health Act Cap 281 of the Laws of Uganda all of which discourage the direct release of surface run-off from facilities into surrounding environments. The National Physical Planning Act recommends the installation of settling basins at facilities and sites. The purpose is to ensure surface run-off from facilities gets collected in the settling basins where it can be managed through treatment before letting it out into the available public drainage channels, and NOT letting it out into the open environment. 	 a) TEPU should encourage the Contractors of the Industrial Area Construction site in Buliisa to conduct regular cleaning of drainage channels to remove overgrown bush, sediments and silt so as to minimize effects associated with blocked drainage channels; b) There is urgent need to put in place retention /settling basins for surface water collection at the industrial area in Buliisa, and at JBRI-5 well-pad construction site. Once in place, the settling basin should be; (i) covered to prevent / protect avifauna/ birds and flying insects from easy access. This is because surface run-off in retention basins is potentially contaminated with oils, heavy metals and trace element pollutants; uncovered retention basins are also associated with aerial transfer of pollutants to nearby communities through wind action; (ii) The surface water that collects in retention basins should be tested and treated before letting it out into the available public drainage system OR otherwise should be reused (after treatment) for other non-portable uses such as watering of flowers or dust suppression at the sites in accordance with the National Physical Planning Standards and Guidelines (2011). c) Furthermore, surface run-off from the oil related construction facilities (treated or untreated) should not be released into communities due to public health concerns associated with such gray water, and the potential conflicts this may create between communities and the project.

CSCO PREVIOUS RECOMMENDATION	TEPU RESPONSE	OBSERVED SITUATION (July, 2023)	Required Action
The Well Marker at JBR-5 had cracks and exposed iron bars which is a potential danger to grazing animals at the site. TotalEnergies Uganda should renovate the well marker at JBR-5 restoration site and cover its exposed iron bars so as to ensure safety of wildlife that visits the site.	This is well noted. TEPU Biodiversity and Logistics maintenance team will assess the site and repair the marker.	The Well Marker area was not visited by the CSCO team during the July 2023 monitoring activity.	No further action required.
Landscaping: Once excavation and building activities are completed at construction sites, TotalEnergies should consider to landscape the front of the sites with grass and indigenous tree species to enhance the aesthetics of the sites and areas adjacent to them in accordance with Section 5.11 of the National Physical Planning Standards and Guidelines (2011).		This observation is still relevant and should be observed by TotalEnergies and Contractors so as to comply with Section 5.11 of the National Physical Planning Standards and Guidelines (2011).	All ongoing construction sites within the Tilenga project area should observe the landscaping requirements in accordance with the National Physical Planning Standards and Guidelines (2011).
Flood Lighting. Effort should be made to protect wildlife and communities from lighting intrusion from the construction sites and during the operations phase. This can be ensured by making lights at the sites to only shine into the facilities and not into neighboring plots or highways. Section 6.10 of the National Physical Planning Standards (2011) provides further guidance on this issue. Establish monitoring programs to assess the effectiveness of passageways for the primates and other wildlife forms along the C1-road			

CSCO PREVIOUS RECOMMENDATION	TEPU RESPONSE	OBSERVED SITUATION (July, 2023)	Required Action
Sanitation, Hygiene and community health: There were also no symbols or signage at the latrines to indicate GENDER or the PWD stances contrary to provisions of the Public Health Act Cap 281 and the IFC World Bank requirements (2007). lack of symbols on latrines was also observed at the newly constructed toilets at Avogera Health Center III in Buliisa district. Additionally, there were no receptacles for used pads at toilet facilities to cater for the hygiene of female workers.	The Company has handed over the OPD Unit to Buliisa District Local Government. This recommendation will be made to the district and facility management. The District Local Government will also be encouraged to implement this recommendation at all other Health Centres under their management.	Noted	TEPU should ensure that the commitment made (in form of response to the previous CSCO report of 2022) of encouraging the District Local Government of Buliisa to implement symbols or signage at the latrines to indicate GENDER or the PWD stances is followed-up and implemented at Avogera Health Center III and at all other Health Centres under their management in the district.
Designs of the PAP resettlement houses in relation to access for the Physically Challenged Persons: There is a need to improve the design of the resettlement houses for future projects to make houses fit for, and/ or allow for easy accessibility of the houses to the physically handicapped (these may include PAPs or their visitors, the elderly and the sick). This should be done in accordance with Section 7.1.5 of the National Physical Planning Standards and Guidelines (2011) which stipulates that the design of buildings must take into account the needs of the disabled, particularly those with a mobility handicap.	Recommendation about installation of Ramps at the entrance of the houses has been taken into consideration. This is already being implemented to improve accessibility for the physically handicapped.	CSCO observed that the new PAP house in Ngwedo had ramps in compliance with the CSCO previous recommendations on this issue.	The practice of constructing houses with ramps is commendable and should be maintained as it complies with Section 7.1.5 of the National Physical Planning Standards and Guidelines (2011), and eases accessibility to houses by the sick members of the family and the physically challenged persons like children (infants), PWDs, etc.

CSCO PREVIOUS RECOMMENDATION	TEPU RESPONSE	OBSERVED SITUATION (July, 2023)	Required Action
Inadequate designs for storm water disposal at resettlement houses: All resettlement houses had gutters for storm water management, these (the gutters) were not properly connected to any outfall drainage system contrary to regulation 3.3.6.1 of the National Building Control Regulations. If not checked, this lapse may lead to flooding and erosion threats around homes of the resettled persons, and may as well create a risk of dampness and weakening of buildings through seepage of uncontrolled storm water.	Recommendation noted. Some of the rainwater harvests are channeled to the 5000 litres water tanks installed on each house. Planting of grass in the compound is part of the greening programme and this can also reduce soil erosion due to run off water. Drainage within the compound is being improved upon.	Grass was planted but designs for storm water management are still unimproved. The issue of the gutters which are not properly connected to any outfall drainage system still remains. It should be noted that failure to connect gutters to any outfall drainage system creates dampness in buildings, and accelerates weakening of buildings through capillary attraction and seepage of uncontrolled storm water, attracts reptiles and insects into buildings, flooding of sites as well. The practice of leaving building gutters open is contrary to regulation 3.3.6.1 of the National Building Control Regulations. Gutters from the roof at one of the newly constructed Tilenga RAP2-5 Resettlement houses in Ngwedo (in the encirclement) not connected to any outfall drainage system for safe disposal of stormwater.	

Annex 2: TotalEnergies' Response to CSCO Findings and Recommendations following the Site Visit in July 2023

No	Issues	Responses
	Biodiversity and Environment	
1.	Compliance with requirements for Noise Pollution There were reports of Elephants having altered behavior following the commencement of drilling and construction operations. It is therefore hard to completely rule out the possibility of drilling and construction exercises having had an impact on Elephant behavior. "A study is needed to verify whether drilling and construction activities (this far) have had an impact on the behavior of elephants in Murchison Falls National Park and surrounding communities.	 The Company recognizes that there is increasing concerns regarding the risk and impact of Human Wildlife Conflict (HWC). The Murchison Semliki landscape is an established wildlife corridor in which elephants historically ranged. Nonetheless environmental and social sustainability requires that measures are taken to prevent or mitigate human wildlife conflict. The company is working closely with Uganda Wildlife Authority to develop and appropriate response that addresses HWC issues occurring within the area. The following measures are currently being implemented by the Company to help combat this issue: Elephant monitoring has been ongoing since 2013. This monitoring is carried out by Wildlife Conservation Society (WCS) in collaboration with Uganda Wildlife Authority (UWA). The data shows that the ranging behavior of collared individuals does not differ significantly for different project phases. In addition, the collared individuals ranging behaviors in community areas within Nwoya showed no change in behavior as a result of oil and gas activities inside the park. That said, monitoring will be extended to collaring individuals ranging south of the Nile to understand their movements and to design mitigations for hotspot areas experiencing HWC. The company is currently in discussions with WCS to develop a HWC intervention plan which will detail specific measures to be implemented by UWA with support from the company. Details of this plan will be made available to CSCO in the next quarter.

No	Issues	Responses
2.	 Safeguards Management Plans and Frameworks It was established through document review and debrief meetings with TEPU that all field operations of the company are guided by a number of well- established management plans. These include the Tilenga Physical Environment Management Plans which are 8 in number; the social management plans (over 10 in number), the Biodiversity Management plans (6 in number), and the Emergency Preparedness Plans (6 in number) among others. However, CSCO observes that the Plans need strengthening in the following areas; a) Strategies for enhancing positive impacts of the project. Most of the reviewed Plans do not indicate how the positive impacts of the Tilenga project (as identified in the ESIA) will be enhanced. This is the case with the Physical Environment Management Plan (PEMP), Social Management Plan (SMP), the Site Restoration Plan, Waste management Plan, Stakeholder Engagement Management Plan (SEMP), and the Tourism Management Plan among others. Thus, there is need to update the captioned plans to provide enhancement strategies for the positive impacts of the project, and in compliance with Uganda's Ministry of Water and Environment (MWE) Guidelines (2011) and IFC World Bank Standards (2012) guidance on development of project management plans; b) The Plans are not well aligned to the commitments and assurances specified in the Tilenga ESMP (see Volume V, page 200 of the Tilenga ESIA). For instance, the ESMP lists a number of aspects therein and indicates the various management plans picked on new issues and abandoned those prescribed in the ESMP. This creates a mismatch between the safeguards listed in the management plans, it is observed that most of the management plans und hose in the ESMP (which is the overriding management plans). This issue is more evident in the Tilenga Dust Control Plan, the Local Content Management Plan, and the Social Management Plan (SMP). 	 For Biodiversity, the company is in process of reviewing the Biodiversity Management Plans. In particular: Strategies to generate positive impacts are identified within the Biodiversity Ecosystem Services Action Plan. This plan clearly specifies the targets to achieve No Net Loss to Natural Habitat and Net Gain to Critical Habitat. The plan also identifies the key ecosystems for intervention. Specific activities and interventions are detailed in the Net Gain Master Plans – the company will look to formalize and share these documents although they remain living and subject to regular update. The Biodiversity Monitoring and Evaluation Framework is currently being developed for the project. This will provide a means to clearly track performance. KPIs are also referred to in each of the Biodiversity Management Plans but are currently being further developed. Details of these measures shall be shared with CSCO. It is recognized that the Tourism Management Plan requires update. The company is currently engaged in a lot of tourism management activities at field level including track upgrades and regular stakeholder engagements. The plan is due to be updated following the issue of the report detailing the linkages between Oil and Gas and Tourism Sectors. This report has been commissioned by PAU in collaboration with Uganda Tourism Board (UTB). The Tilenga Project's Emissions (including fugitive emissions such as dust) resulting from activities undertaken by TEPU and its Contractors. Continuous monitoring of impact of project activities on air quality is ongoing through installed polludrones at Industrial area, Jobi Rii O5 and Ngiri O3 with real time broadcasting of data to guide mitigation measures. Contractors are continuously monitoring the impact of their activities on air quality through daily reporting on dust suppression, keeping updated maintenance and service records for all plants, equipment, and vehicles. Third party monitoring is undertaken on a quarterly

No	Issues	Responses
		The social management plans focus on mitigating negative impacts as well as amplifying the positives ones through fit for purpose management programs. The management programs focus on social risks and impact management related to preservation of culture, health, road safety, local content among others. All these interventions are aligned to the Tilenga Project social commitments in the ESIA. These management plans are also living documents that are periodically updated for operational relevance and based on stakeholder feedback.
		Community Content Economic Development Plan: The programs focus on positive impacts related to agriculture, community capacity building as well as skilling for the wider communities beyond the Project Affected Households. Various enterprise as such crop, fisheries, livestock, apiary will be promoted within the Tilenga Project Area. The interventions focus on access to markets for the primary and secondary production.
		Stakeholder Engagement is being conducted based on the ESIA commitments of the Tilenga Project.
		Four (4) major categories are being engaged (Civil society, business, communities, and Authorities) on a regular basis. In 2023, the Company initiated a relational engagement approach for communities, where community liaison officers (CLOs) regularly visit community members to update them on project progress and record any project concerns, with the aim of limiting operational stoppages as well as ensuring quick responses to community concerns.
		Local Content Management Plan: The National Content Framework elaborates in detail the national content strategy, strategy for national content delivery and strategy for monitoring national content. Section
		6.2 provides the detail on the alignment with the ESIA. It clearly elaborates the potential positive and negative impacts as extracted from the ESIA, the mitigation measures, the key performance indicators and the responsible keyholders.
		All ESMPs implementation activities are aligned with the ESIA and the principle of continuous improvement. These are under review at this time and CSCO will be able to get updated versions when complete and approved.

No Responses Issues З. Display of ESIA Certificates of Approval and site lay-out maps This guidance is noted. The shift of these points was majorly due to the handover of facilities from one contractor to another. This brought about the need to move the documents in more The previous CSCO monitoring report of 2022 indicated that all construction sites weatherproof areas. These are now available at all notice boards/ check points in project facilities. All visited in the Tilenga development area had ESIA Certificates of Approval (CoAs) contractors within the project also have these certificates pinned to their respective noticeboards. and site lay-out maps clearly displayed at the sites' noticeboards; And that the noticeboards were placed in conspicuous places for easy access to workers and visitors in accordance with best industry practices and in conformity with regulation 52 of the Uganda National Environment and Social Impact Assessment Regulations (2020). However, it was noted during the July 2023 field visit that the practice seemed to have been abandoned. For instance, at JBRI-5 well pad site, the noticeboard which previously displayed the site-layout map and the ESIA CoA seems to have been transferred from the previously accessible area (for visitors) to a restricted one. At the industrial area construction site in Buliisa, site-layout maps were displayed at the entrance of the facility but the ESIA Certificates of Approval were not. This lapse needs to be corrected in order to comply with the requirements set under regulation

52 of the Uganda National Environment and Social Impact Assessment Regulations

(2020).

No Issues

Responses

4. Dust emissions and control of materials spillages from transportation trucks

During the previous monitoring, it was noted that the TEPU Contractors controlled dust emissions through the use of water bowsers, and that spillage of construction materials from the transportation trucks were controlled by covering trucks with tarpaulins. However, the current monitoring (July 2023) noted that the practice seems to have been abandoned as no water bowsers were observed during the visit. Dust emissions were evident, and uncovered trucks carrying materials, muds and cuttings from construction sites were observed; especially along the section of C1 road near JBRI-5 well pad construction area. If not adequately addressed, dust emissions may negatively impact wildlife in Murchison Falls National Park (MFNP), as well as lead to a loss in the aesthetic beauty of the Park. For the human community-based projects such as the industrial area construction site in Bullisa, uncontrolled dust emissions may cause health problems to nearby communities contrary to Article 39 of the Constitution of the Republic of Uganda, 1995 (As Amended) which calls for a right to a clean and healthy environment for every Ugandan.

Dust suppression by contractors is an on-going activity undertaken daily. Environment Health and Safety (EHS) officers continuously monitor the need for the suppression and accordingly deploy the trucks in those locations. Truck drivers are continuously reminded of the need to cover the trucks carrying materials and maintain speed limits during the daily toolbox meeting. The impact of project activities on the national park ecosystem is monitored routinely through various biodiversity studies on-going.

Findings are widely shared with contractors to implement mitigation measures for any outliers.

On the day of the inspection, there must have been some laxity in suppression on the side of the contractor – SINOPEC but TEPU will continue to emphasize and implement dust suppression activities (Below Picture). Runoff collection and its utilization for this dust suppression is also utilized where practical. Dust suppression is also communicated in project toolbox talks



Muds and cuttings from Construction sites come from Water Well Drilling and they are carried in sealed Vacuum trucks (as below) thus the event of spilling is untannable.



No	Issues	Responses
5.	Designs for storm water disposal at resettlement houses The previous CSCO monitoring report (2022) noted lapses in the designs for storm water disposal at resettlement houses. The current CSCO visit (July 2023) however, established that although grass was planted in the compounds of the PAPs houses as per TEPU's commitment and response to CSCO's previous observation, the issue of the gutters which are not properly connected to any outfall drainage system still remain. It should be noted that failure to connect gutters to any outfall drainage system creates dampness in buildings and accelerates weakening of buildings through capillary attraction and seepage of uncontrolled storm water. The practice of leaving building gutters open is contrary to regulation 3.3.6.1 of the National Building Control Regulations.	The main gutters are connected to the rainwater harvest tanks. This means that the larger amount of rainwater flows into the tanks for household use, which is 5,000 litres. The downpipes are installed past the concrete apron (veranda) that protects the foundations of the building. The hard base below the down pipe aids in flow of the water away from the splash apron. There is therefore little likelihood of storm water flowing into the foundations of the house and creating dampness or weakening the building.
6.	 Inadequate drainage and erosion control systems CSCO observed that the issue of drainage and erosion control still remains a challenge, especially at the Industrial Construction site, and at JBRI-5 well pad construction area. Marks of erosion, notably gullies were present at the view point area (visitors' view ramp) at the JBRI-5. At the Industrial area, water ponding was evident at different sections of the site. Furthermore, at the industrial area, the following laxities on drainage channels. Some drainage channels at the industrial area were silted and blocked with sediments. This indicates laxities in regular cleaning of the channels contrary to the requirements of the National Physical Planning Standards and Guidelines (2011) ii. There were no settling basins /containment basin for surface run-off at the facility. As such, it was established through debrief meetings with site representatives that surface run-off is released into the surrounding environment. This practice is contrary to the provisions of the Physical Planning standards and guidelines (2011) as well as the Public Health Act Cap 281 of the Laws of Uganda all of which discourage the direct release of surface run-off from facilities into surrounding environments. The National Physical Planning Act recommends the installation of settling basins at facilities and sites. The purpose is to ensure surface run-off from facilities gets collected in the settling basins where it can be managed through treatment before letting it out into the available public drainage channels, and NOT letting it out into the open environment 	 This has been well noted. The issue of stormwater management and siltation is currently being addressed as follows: A full review of surface water drainage for the worksites has been completed. The design of surface water management measures including attenuation basins, retention basins and silt traps is done on case-by-case basis. A remedial action plan has been identified for each worksite with clear recommendations for improvement. Remediation of areas at JRB5 well pad (including weekly emptying of silt traps, accelerated restoration of earth berms, installation of rip rap within drains, restoration of the area to south-west of JBR5 is currently being replanted, offshoots drainage to minimize single point loading and regular maintenance of the drainage system as a whole. Regular monitoring of the performance of remedial measures is also being undertaken by way of daily inspections by field teams, weekly inspections by UWA and TEPU and regular aerial surveys to assess effectiveneess of measures. It is not possible to retain all surface water on our sites, therefore discharge to the surrounding environment is allowed for in the ESIA. The Company is committed to improving the current situation by ensuring appropriate design of settlement, treatment, and attenuation measures.

No	Issues	Responses
7.	 The effect of Rig 2 in Ngiri 3 on nearby communities in Buliisa district a) Discomfort through noise and vibrations Interactions with selected community representatives (i.e., PAPs) living near Rig 2 in Ngiri 3, Kirama village, Kigwera Sub County in Bulisa District revealed that oil activities at rig 2 in Njiri 3 have generated unbearable noise, vibrations and light intrusion. This was further confirmed by the district technical leaders who emphasized that the noise and vibrations from oil activities, especially at Ngiri 3 have affected domestic birds and pregnant women leaving near the site (within a distance of 10–30 meters) (see Figure 11). b) Community unrest due to arrest threats Community members expressed concern over arrest threats and the approach used by the government authorities in resolving the issues related to the attempt to burn Rig 2 in Njiri-3. It was noted that during investigations by police, the immediate community neighboring the rig were considered as the 1st suspects (after sniffer dogs ended up at their households) and consequently these were booked in police custody. Community members expressed on bond after engagement by the district leadership. The district technical leadership engaged through key informant interviews noted that conducting arrests (especially of wrong suspects) was not the best approach of addressing this conflict. A rather better approach of community engagement and conflict resolution should have been pursued to better understand the root cause of the attempt at burning of the rig. 	The Company is conducting a vibration impact study on the houses around the houses at NGRI 03 with the aim of establishing whether there is a correlation and causation between the project activities and the impacts on houses. The Company will provide a detailed report at the end of Q1 2024, the findings of whichwill be shared with key stakeholders. The company ensures that best available industry technology to minimize noise and vibrations, and impact on households around the rig. We urge CSCO to thoroughly investigate and provide scientifically verifiable evidence on how noise and vibrations resulting from oil activities have affected pregnant women, since it is an allegation and not a confirmation, it's crucial to ensure the accuracy and completeness of this information before publishing this claim. Activities with potential high peak noise like utilization of forklifts etc. have been reduced during nightime operation and only started in emergencies. Prior to rig mobilization, noise modelling was carried out for a typical rig at a site and information utilized to work on noise reduction measures. To this end, the drilling rig has padded covers to limit on noise while solar lighting is utilized to limit the demand for diesel driven power sources which would potentially emit more noise. This concern is well noted. However, this particular incident was a grave one that could have damaged the rig, workers on site, and community members living close to the well pad. The magnitude of the risk and the negative implications for Law and Order meant that the Police took lead in carrying out investigations, and as a private company, we cannot interfere in an ongoing investigation being conducted by law enforcement officer. Nonetheless, our security team liaised with the Police in compliance with Voluntary Principles on Security and Human Rights (VPSHR) to emphasize the need to protect the rights of the arrested persons. The district technical leadership has direct access to law enforcement officials in the district, CSC
8.	Waste Management, Sanitation and Hygiene The common waste types generated at most of the visited sites included; - Used rugs and cotton material, non-hazardous waste such as paper, metal scrap, food Waste etc., hazardous waste such as used oil, and muds and cuttings. The different types of waste were being handled by respective waste management companies licensed by NEMA. Non-hazardous waste was being handled by Luwero Industries, Used oil was being handled by and managed by Canadian oil, Paper and card- boards were being managed by Global Paper industries. The Albertine waste management venture was handling Hazardous waste. The CSCO observes that the following aspects of waste management practices needed to be improved upon;	As per the Waste management strategy for the project, all waste generated from the project must be managed and disposed by one Contractor (Albertine Waste Management JV) appointed by Company. Albertine Waste Management JV has also signed MOUs with licenced disposal facilities that ensure the wastes are adequately recycled, re-used, or treated and disposed as per the regulatory requirements. Most importantly, the CPY target through the waste handler Albertine WMJV is to greatly minimize waste ending up in landfills through designing and refining sustainable waste treatment solutions.

No	Issues	Responses
	i) Waste littering Although there were no significant incidents of littering at the sites, no prohibitive signs of waste littering were observed at most of the visited sites. For instance, there were no waste bin provisions for visitors at the viewpoint area at the JBRI-5 well- pad construction site yet currently visitors frequent the place. The main rig area where there are waste facilities had restricted access and therefore visitors might not access the area to dispose waste.	New signage on sound waste management including prohibition of littering were in production at the time of the visit. These and other environmental compliance signage shall be installed at various locations. Waste Contractor will provide waste bins to minimize waste littering at the JBR-05 visitor's viewpoint. We are also ensuring that housekeeping remains a fundamental component of all Contractors' daily toolbox talks. Weekly Company-Contractor HSE tours on all worksites (every Saturday 8:00-8:30am) and the Monthly Green Walk (for joint cleaning & de- littering) in the community and worksites are some the efforts being championed by the Company towards improved Housekeeping. The Waste Contractor Albertine WMJV collects, weighs and keeps track of this Green Walks waste for accountability and commitment efforts of Contractor Worksites towards better housekeeping. This is a continuous effort. Of recent, we have also benefitted from the Regulator-NEMA's feedback to place more emphasis on ensuring our Contractors undertake Regular environment-specific trainings to inculcate among other aspects of better housekeeping and waste segregation culture amongst the workers. Waste segregation at source is an important component of the company waste management plan, ensuring maximization of opportunities for waste Recycling, Re-use and Recovery.
	(ii) Handling of hazardous waste by workers It was observed that some workers, especially at the JBRI-5 well-pad construction site, were handling hazardous waste with bare hands. It was further observed that the color-coded waste segregation bins at this site, are situated in the middle of the busy site, and the bins are placed in an area that is restricted to visitors which compromises the ability of visitors to meet the intentions for which the color-coded bins were made.	Workers' safety is a core value at TotalEnergies, and the company takes measures to ensure workers on the project can return to their families safely after work. Workers are provided with personal protective equipment and regularly sensitized and supervised about the criticality of taking the safety measures provided. The company recognizes that everyone has a role to play in ensuring safety in the Tilenga Project and committed to continuous sensitization to ensure that workers adopt a strong awareness of safety risks and adopt the safety culture necessary to avoid those risks.

No Issues

i.

Responses

9. Biodiversity and community protection issues

Community-wildlife conflict reported in Ngwedo and Nwoya

There were fears among community members, especially in Ngwedo sub-county, Buliisa district, that the continued attacks from elephants and the destruction of people's crops by wild animals is due to the intensified oil and gas activities in the Murchison falls National Park. Media reports such kazi-njema news (2022 and 2023) have also attributed the human-wildlfife attacks on oil and gas operations. These media reports indicate that an estimated 40 acres of crop (including: maize, sweet potatoes, cassava, jackfruits, pawpaws and banana) in sub counties of Ngwedo, Kigwera, Buliisa, Bugana and Kisvani were destroyed by stray animals, particularly elephants (Atuhairwe, 2022).

Notable is that further interaction with the PAPs (living near Rig 2 in Nairi 3. Kirama village, Kigwera Subcounty, Buliisa District) through focus group discussions confirmed that the elephants attack communities and destroy crop farms for community members leaving adjacent to the park. In some cases, these attacks had resulted in loss of lives. They attributed the issue of elephants migrations and attacks to the on-going oil exploration activities. Thus, one of the respondents had this to say; "I am 47 years old, but I have never seen elephants' migration like now, I think it's the lights, noise and vibrations of rigs that has forced them out of their area. Three people have so far died because of elephants, gardens destroyed, and we are likely to have no food in the coming few months". The foregoing assertion was supported by the Buliisa district technical leaders who confirmed that elephants were increasingly visiting human communities compared to past years. These visits were, especially, in the oil neighboring areas such as Ngwedo and Wanseko communities. The district leaders however, appreciated initiatives that were being pursued by the UWA and Hoima Caritas Development Organization (HOCADEO) (a local NGO, operating in the districts of Hoima, Kikuube, Masindi, Buliisa, Kirvandongo, Kibaale, Kagadi and Kakumiro) and SaferWorld who were trying to respond to the issue of elephant attacks through tactics that scare away the elephants; and through the installation of electric fences to prevent elephants from straying into agricultural gardens and farm lands.

The Company understands that here are increasing issues of human wildlife conflict. Elephants range within the Murchison Semliki landscape and it is a known wildlife corridor. The company is working closely with Uganda Wildlife Authority to address HWC issues occurring within the area. The following measures are currently being implemented by the Company to help combat this issue:

- Elephant monitoring has been ongoing since 2013. This monitoring is carried out by WCS in collaboration with UWA. The data shows that the ranging behavior of collared individuals does not differ significantly for different project phases. In addition, the ranging behaviors of collared individuals in community areas within Nwoya showed no change in behavior as a result of oil and gas activities inside the park.
- That said, monitoring will be extended to collaring individuals ranging south of the Nile to understand their movements and to design mitigations for hotspot areas experiencing HWC
- The company is currently in discussions with WCS to develop a HWC intervention plan which will detail specific measures to be implemented by UWA with support from the company. Details of this plan will be made available to CSCO in the next quarter.

No	Issues	Responses
	ii. Loss of aesthetic beauty of the area before construction of the Industrial area at Kasinyi village in Buliisa	Greening and landscaping works are ongoing at various areas. There is also the utilization of biodegradable material to hold slopes and check on erosion and siltation related challenges.
	It was observed that the aesthetics in the Tilenga project area had changed within the area, especially, around most of the construction sites and their surroundings. This could be due to the ongoing clearance and construction activities which are associated with vegetation loss, dust emissions, water ponding, and surface run-offs exhibited by presence of marks of erosion, notably gullies. For example, the presence of gullies, water clogging, and dust emissions at both the industrial area, and at the JBRI-5 well pad construction area have made these sites and their surroundings lose their aesthetic health and beauty (see Figure 14).	These have the ability to hold soil in place as revegetation occurs. There shall also be greening of various areas and berms within the project area We envisage opportunities for resource re-use and efficiency within the project area. Waste Contractor Albertine Waste Management Joint Venture effective August commenced the re-use of Sewerage Treatment Plan (STP) treated effluent water compliant with the National Effluent Discharge Standards for dust suppression on project roads. As operations pick-up, additional benefits like vegetation irrigation, greening within project are among others will be enhanced. To check on potential pollution, impermeable lining/ concrete lining is utilized to ease clean-up and collection of water. The water ponding area.
	Social, Economic, and Cultural issues	
10.	Thus, as stipulated in the RAPs, (2020), the Tilenga project is committed to re- establish the livelihoods of the Project Affected Persons (PAPs) to an equal or greater level as compared to before project activities. However, CSCO observes the following emerging issues/gaps based on the field monitoring visit and the associated interactions with the PAPs: Lack of a goat's pen/shelter for the boar goat During the field monitoring visit in Ngwedo sub- county, the CSCO team was shown an improved goat breed (i.e. Kalahari reds) from South Africa purposed for cross-breeding to improve the local goat breeds in respect to meat production. The goat was tethered on a rope and tied under a tree shade. Interactions with PAPs in Rwamutonga LC 1 in Hoima District through focus group discussions (FDGs) indicated that whereas the PAPs were given improved goat breeds, they were not supported to construct appropriate goat housing/shelters that meet the minimum requirements for goat rearing, e.g. proper ventilating and aeration among other suitable conditions. Unaspiringly, the dorminant issue reported by both the PAPs and district leaders interacted with during follow-up exercises, was that of goats which died after receiving them as part of the livelihood improvement package. It should be noted that the best management practice for the distributed breed is construction of a goat shelter (for protection from wind, rain and heat) and keeping the goats on a raised ground to control pest infestation, especially worms.	Project Affected Households (PAHs) have been exposed to good goat husbandry practices through trainings on the best practices for animal husbandry including goat housing to fill the knowledge gap and provided with breeding animals to increase access to improved breeds. On the other hand, PAHs are encouraged to use the acquired knowledge and skills to improve the performance of their enterprises by putting in place structures such as goat houses. This increases the appreciation of project ownership by supported PAHs. It is clearly going to be a process for some PAHs to appreciate the need for constructing improved animal shelters as we have consistently advised them to. The project does not cover shelter construction however model shelters were done for the PAHs to help them to practically learn. The project aims to empower PAPs with the knowledge and assets they require to be able to sustain improvements beyond the life of the livelihood restoration project. It is important to note that we already have 135 offspring from the 50 Boer bucks distributed to PAPs.

No	Issues	Responses
11.	Inadequate knowledge, skills, and technologies for post-harvest handling/ management by the PAP and project affected community Whereas TEPU had pursued interventions for value addition on selected crop value chains like cassava through provision of the cassava chipper under the livelihood restoration programme, the PAPs and the community visited during the monitoring exercise demonstrated that they had inadequate post-harvest handling and management skills and knowledge. Thus, despite the skills displayed by one of the PAPs in operating the cassava chipper during the field monitoring exercise, CSCO observed that the same PAPs were still drying maize on a bare ground. This indicates that there are still some knowledge gaps/barriers (e.g., limited knowledge & skills; poor attitudes; inability to afford technology and equipment among other limitations) especially, with respect to post-harvest handling of food.	Farmers are currently trained on hygiene, food safety, and post-harvest handling and some have adopted recommended practices. However, many farmers continue with traditional practices. The training will continue to support farmers to translate new knowledge and skills into practice, and then into habits. We are hopeful that behavioral and cultural changes will happen as they begin to see the impact on prices of their goods as they organize to access bigger and better markets as groups.
12.	 Weak integration of sustainability strategies for livelihood interventions and enterprises Whereas the project had various initiatives aimed at restoration of the livelihoods of the PAPs, the CSCO team noted that there seems to have been weak integration of sustainability strategies/mechanisms during the design, planning and implementation of the livelihood restoration activities. These were exhibited/manifested in the following forms; a) Farmer groups established by the project and interacted with had weak leadership and governance structures. They did not have rules and regulations (group constitutions) and were loose in nature. These groups need to be registered with the Local Government as either community development organizations, associations, or groups for their sustainability. 	 Groups were formed at different stages of formation hence their leadership structures as well. However, the second year is characterized by group strengthening practices that are expected to improve group performance holistically including registration up to district level. There are currently 89 farmer groups formed since March 2022 at the start of the project. The groups undergo leadership training, and which is done all the different stages. The 89 groups are also registered with both the subcounty and districts. 15 Farmer groups are currently participating in the Parish Development Model. This is possible only if groups are registered with the local government and are strong in their governance. This group of 15 represents early adopters in the normal distribution of adaptation to change. The objective then is to continue support to all groups so that the majority can achieve a sustainable level of good governance. We expect that the nature of stable groups will increase as capacity is built.

No	Issues	Responses		
	b) The farmer group members had inadequate knowledge and skills for management of the different food value chains (e.g., cassava, maize) which the project is promoting. For instance, maize was still dried on the bare ground by members of the farmer groups. This calls for awareness and sensitization programs on hygiene, food safety, and post-harvest handling. Some of the technologies demonstrated by the project	The groups are still undergoing post-harvest management training. We are hopeful that behavioral and cultural changes will happen as they begin to see the impact on prices of their goods as they organize to access bigger and better markets as groups. The project aims to give PAPs a kick start and ideally for the farmer groups to continue getting		
	e.g., cassava chippers and the silos were good and promising. However, these were still at small scale to meet the demands especially during a bumper harvest of crops/ cassava.	better, acquire more equipment through the increased production. Right now, even the few items are yet to be maximumly used. The cassava Chippers have an output capacity of 600 – 800kgs/ hr, and Smart Silos have a storage capacity of 1.25 tones, The capacity of the chippers is adequate for existing production, and as we are yet to find the silos at full capacity, we cannot yet conclude that they're too small scale.		
		The provided materials such as silos and chippers are for startup on the journey to the market. The groups have started on saving funds as an appreciation to scale up the technologies provided by the project leading to their enterprise expansion. This is a very big achievement on the side of farmers to move away from the handout syndrome that compromises ownership and sustainability of project intervention.		
	c) Weak involvement and linkage with the Local Governments and other development partners. The program seemed to be a preserve of the PAPs, TEPU, and the subcontractors with minimal or no clear structure to facilitate the scale up and out of the interventions to other non-PAP members of the community.	TEPU has a clear plan to expand livelihood support to non-PAP community members through the Community Agriculture Program to start in 2024.		
13.	Introduction of new technologies vs. culture and norms of PAPs It's commendable that TEPU introduced new technologies (e.g., NARO Casse cassava variety, Karahari reds goats breed), practices and equipment (cassava chipper, cassava storage silos) as part of the interventions implemented for restoration of the livelihoods of the PAPs. Despite this, these new technologies, practices and equipment seemed to contradict with the previous way of livelihoods, culture, practices, values and norms of the PAPs and project affected community. The transition by the PAPs and associated community to apply and use these new technologies requires time as well as attitude and mindset change for the PAPs and associated community. Without this in place, these technologies may not easily be adopted by PAPs. This may hence limit the anticipated positive impacts of the technologies and practices in respect to livelihoods improvement.	The technologies promoted are responding to the prevailing challenges associated with low productivity and production coupled high post-harvest losses that put at risk the food security and incomes of households. The introduced technologies are not contradicting but rather complementing the existing practices to ensure that farmers achieve higher benefits. For example, farmers are encouraged to use clean materials for planting of local cassava to ensure food security (garden storage). On the other hand, farmers are encouraged to grow NAROCAS1 varieties for income generation as it has a high turnover due to its gestation period. It should be noted that the development of the Livelihood Restoration plan involved stakeholders at all levels and its focus on food security and improving the standards of living of Project Affected Households is at the core. Interventions are monitored and tracked and so far, there are promising for example beans in Bullisa did not perform well and the PAPs preferred Groundnuts which we have added. We indeed appreciate that the changes need time, and the project will endeavor to remain flexible. All Livelihood Restoration contractors held district kick off meetings before project implementation where they were expected to continuously share work schedules and hold update		

No	Issues	Responses
14.	Doubts over the environmental cost of the cassava chippers Whereas the Cassava chipper could to some extent meet the technical fit requirements in respect to social and economic costs, there were questions/gaps regarding the environment requirements. It was noted that the chipper runs on a diesel engine, which is associated with the release of greenhouse gases. Thus, alternative clean energy sources (e.g., solar) could be used to run the chipper. Such technologies are also associated with less management costs in terms of maintenance. Besides, the machine generates some level of dust, which can over time, present a long-term health risk to the users. Thus, the users should be sensitized about this implication and be given protective gear, where necessary.	Regarding the environmental cost of cassava chippers, the company welcomes recommendations of suppliers of solar powered chippers if available in the market.
15.	Untimely supply of planting materials to the PAPs The PAPs interacted with during the follow up monitoring exercise in Ngwedo, Buliisa district and those in Hoima confirmed that they received, cassava flour, sim sim, cooking oil and maize as food rations for six months, planting material (seeds) as well from Living Earth Uganda. However, they cited a concern that in some cases, these materials were supplied late and out of the planting season, and the germination rate for the maize was low, especially in Rwamutonga area. This presents a risk of these materials drying up, thus end up not serving the intended purpose.	In such cases, PAPs have informed the Community Liaison Officers and redress has been given in form of distribution of other inputs or receiving more in the next season. The contractor teams always carry out feedback meetings during which complaints are received and PAPs receive feedback.
16.	Weak integration of the Livelihood Restoration Programme in Local Government Development Plans and strategies. Local Government leaders (i.e. technical and political) of Buliisa and Hoima districts, interacted with during the follow up exercise reported that although leaders participate in providing technical advisories with respect to verification of the type of crop varieties and livestock breeds, and in the valuation of community properties (especially crops) destroyed by wild game and vermines, the districts are not supported to mainstream livelihood restoration programs in district plans and policies. This limits sustainability of the livelihood restoration program and relegates it to merely handouts rather than a structured one. This further limit the would- be-intended long-term benefits of the program than when integrated in district plans and strategies	The project provides platforms for both technical and local government teams to participate in planning, supervision and reviewing of implementation progress. Technical teams are involved in drawing of specification of input materials such as cassava cutting, beans, maize, ground nuts sweet potatoes etc. to be distributed to the PAPs (verification at source and distribution), training of farmers and groups, periodic review of project implementation through RPC meetings and DIRCOs. The farmer groups formation is spearheaded by Development Officer (CDO) in collaboration with project Community Liaison Officers (CLOs) to ensure that they also benefit from other government programs such as Parish development Model and emyoga. Through the Parish Development Model (PDM), fifteen (15) farmer groups are already benefitting from the PDM. The NON-PAPs have also benefited trough sharing of planting materials example cassava cuttings and through trainings offered by the Community based facilitators.

No	Issues	Responses	
17.	Limited involvement and participation of district leaders The district leaders from Buliisa and Hoima districts, clearly pointed out the following challenges, which limit their participation: a) Weak information sharing about the ongoing Oil development activities. For instance, TEPU has never shared the Memorandums of Understanding (MoU)/ contracts (they signed with the commissioned services providers) with the District Local Governments. Subsequently, the latter are not aware of what has been committed as outputs and associated budget from the Livelihood Restoration Programme interventions. Despite, the Local Government Act, (1997), stipulates that Development actors should disclose their development interventions for inclusion in the rolling Local Government Development Plans.	Implementation of Livelihood Restoration is a household level intervention, it has more interactions with the village level and the Subcounty leadership compared to the community level (which is yet to begin). Therefore, activities have been on the lower structures however, the District Local Government (DLG) leadership is periodically updated on the progress and the DLG was consulted, validated the LR choice enterprises, case in point is the livestock enterprise, it was not in RAP 1 but was later included after the DLG recommendation. The company shares the scoped of work, activities, deliverables, and milestones with The District Local Government. Contractual oversight is led by the Petroleum Authority of Uganda on behalf of the Government, and that includes the Local government.	
	b) Weak implementation of mechanisms for structured joint planning and regular reporting on progress of implementation of the Livelihood Restoration Programme interventions. This was more prevalent in Buliisa compared to Hoima district.	The project provides platforms for both technical and local government teams to participate in planning, supervision and reviewing of implementation progress. Technical teams are involved in drawing of specification of materials to be supplied (verification at source and distribution), training of farmers and groups, periodic review of project implementation through RPC meetings and DIRCOs.	
	c) Lack of a budget to facilitate the Local Government leadership to participate in the monitoring and verification of the results from the implementation of the Livelihood Restoration Programme interventions.	A proposal has been developed (yet to be approved) on District Local Government (DLG) monitoring of Livelihood Restoration and Social impact activities to cover the DLG Teams during the periodic site visits.	
	d) Local government leaders expressed their dissatisfaction of TEPU's failure to follow existing Local Government guidelines in the design and implementation of the Livelihood Restoration Programme interventions. Thus, the unstructured engagement, limited participation and involvement (e.g. providing technical advisories/backstopping; joint decision making; joint planning; monitoring and evaluation; conflict resolutions; and enforcement of Government policies and laws) limits effective integration of the Livelihood Restoration Programme interventions into the District Development Plans. There by limiting effective implementation of the program.	The scopes of work were shared at the initiation of the Livelihood Restoration activities with the district to ensure supervision by government and oversight on agreements with contractors is performed by PAU. In addition, copies of the RAP reports and annexures which included the Global Livelihood restoration were shared with districts. The district local government as a government institution may engage directly with the industry regulator or Ministry of Energy and Mineral Development (MEMD) to request access to additional documents. That's the requisite due process. TEPU has been holding DIRCO, RPC update meetings, for all interventions, disclosure meetings have been held. Livelihood Restoration contractors have engaged district stakeholders, midterm project updates were held in the three districts that is in Buliisa, Hoima and Kikuube. Needs assessments done with community development officers, beneficiary lists shared for verification among others.	
	e) TEPU does not share reports from specialized studies, e.g., reports on studies on routine biodiversity monitoring, including the community attacks by the elephants.	All reports on surveys and monitoring are obtainable with authorization through the Petroleum Authority of Uganda. For issues of reporting about the Human Wildlife conflict, the Chief Park Warden of Murchison falls national park should be contacted.	

No	Issues	Responses	
	Recommendations to TotalEnergies EP Uganda (TEPU)		
•	TEPU should update and align the safeguards management plans to bring them in sync with the Tilenga ESIA ESMP. This will in turn ensure consistency between the safeguards plans and the ESMP. Thus, this results in easy implementation of the mitigation measures and strategies therein.	TEPU takes note of this and confirms that the safeguards in place are aligned with company ambitions, and commitments in the ESIA.	
•	TEPU should encourage project Contractors to display ESIA certificates of approval and site lay- out maps in conspicuous and accessible areas at the construction sites in compliance with Regulation 52 of the Uganda National Environment and Social Impact Assessment Regulations (2020).	ESIA certificates display and the benefits of this practice including adherence to conditions of approval shall continue to form part of the awareness sessions for all onboarding contractors and also provided in routine Toolbox talks and trainings	
•	All trucks carrying murram and other construction materials should be adequately covered with tarpaulins to prevent spillage of materials and dust emissions.	TEPU takes note of this and shall continue emphasizing this aspect to all responsible contractors including awareness on the benefits of this practice	
•	TEPU should undertake a study to assess the drilling and construction noise and vibration impact on Elephants and other wildlife for this stage of the oil and gas operations in the Murchison Falls National Park and surrounding communities.	TEPU shall continue with studies on elephant behavior and collate information in line with recorded noise and vibration levels within the project area in liaison with UWA, PAU and NEMA	
•	The Contractor should ensure regular clearing of overgrowing vegetation from all drainage channels along the RoW so as to prevent blockage and clogging that could result into flooding issues.	This is noted and shall form part of the continuous guidance to contractors. TEPU carries out routine maintenance of these areas	
•	There are fears of pollution of public water sources and soil resources from surface run-off that comes from the industrial area construction site, especially during the rainy seasons.	TEPU is in the process of constructing retention ponds as guided by specialized studies and shall continue to monitor water quality among other aspects throughout the project cycle TEPU also informs CSCO that all pollution potential areas like fuel storage areas, chemical storage points are bunded to check on potential spillage into the drainage system. The water from the industrial Area is runoff from the natural flow away from these areas. As rightly stated, the drainage systems shall also have silt traps and be planted with vegetation where applicable	

No	Issues	Responses	
•	TEPU and the Industrial Area Construction Contractor should put in place adequate drainage management measures as follows;	Harvested or surface water collected in retention pits is reused as part of the valorization strategy. After completion of the retention pits construction water discharge shall be controlled to various	
	a) Such systems should entail drainage channels, check-dams, filter trips (filter barriers), a settling basin (retention /containment basin) and, planted vegetation where applicable;	points as reasonably practicable as possible	
	b) The surface water that collects in retention basins should not be released in the community but rather, it should be tested and treated and then directed to the available public drainage system (as opposed to releasing it to the community). Alternatively, the treated surface run-off water should be reused (after treatment) for other non- portable uses such as watering of flowers or dust suppression at the sites in accordance with the requirements of the National Physical Planning Standards and Guidelines (2011);		
	c) TEPU, Contractor and Uganda Wildlife Authority should fast track the process of putting in place permanent fence around the JBRI-5 Well-pad construction areas.	TEPU appreciates the recommendation on fast tracking the permanent fence installation and shall continue to engage UWA on this.	
•	There is urgent need by TEPU and PAU to support the integration of livelihood restoration programs in District Local Government plans and strategies so as to ensure long-term benefits of the program to PAPs and the oil host communities.	This guidance is well noted.	
•	The integration of the Livelihood Restoration Programme interventions into the Local Government rolling Development Plans can be enhanced through pursuing the following recommendations/actions:	a) The local government as a government arm has access to the industry regulator and MEMD who oversee program contracts on behalf of the government.	
	a) TEPU should share with Local Government leadership information about commitments and associated budgets reflected in the various agreements they signed with the commissioned services providers. Furthermore, information from specialized reports, e.g., reports on studies on routine biodiversity monitoring, including the community attacks by the elephants.		
	b) TEPU should strengthen mechanisms for regular reporting for updating the Local Government leadership about the progress in the implementation of the Livelihood Restoration Programme, clearly underpinning the results/achievements and associated emerging issues. This will enable Local Governments to effectively deliver on their roles and responsibility of close supervision and monitoring of large government projects to benefit the local community and the country, as stipulated in the National Energy Policy for Uganda, (2023) (MEMD, 2023).	b) This is ongoing through the routine District Resettlement Committee (DIRCO) and the Resettlement Planning Committee (RPC) meetings.	

No	Issues	Responses
	c) TEPU should develop and support implementation of mechanisms for joint monitoring of the implementation of the Livelihood Restoration Programme interventions. This should actively involve the Local Government leadership and can be conducted two time in a year.	This is noted.
•	As part of the strategy for promoting the goat enterprise under the livelihoods restoration programme, TEPU should consider constructing raised goat pens/ shelter or houses with good aeration and ventilation for the boar goats given to the PAPs. This will protect the goats from wind, rain, heat and controlling pest infestation, especially worms.	The project does not cover shelter construction however model shelters were done for them to practically learn. The project aims to empower PAPs with the knowledge and assets they require to be able to sustain improvements beyond the life of the livelihood restoration project.
•	TEPU should conduct responsive and targeted trainings and awareness on postharvest handling for the major food value chains (e.g. maize, cassava) for the PAPs and project affected community.	TEPU is already conducting training on post-harvest equipment handling through farmer groups.
•	Some community members should be identified for extra training through a training of trainers (ToT) for additional knowledge & skills on post-harvest handling. These would take up the role of community-based trainers/facilitators for responsive and timely technical backstopping to their peers.	Community based facilitators do offer additional trainings to other community members.
•	More robust post-harvest handling technologies need to be adopted especially for the major food value chains. These should be introduced to the PAPs and project affected communities. For example, maize cribs can be constructed, and farmers trained on how to construct and dry maize in the crib. Besides, even proven traditional indigenous knowledge practices for post harvesting handlings should be promoted.	This has been noted and to be review.
•	Mechanisms for strengthening market linkages for the PAPs & project affected communities and their associated access to business development services should be pursued.	TEPU is already being sone through the farmer groups that are now forming into trade associations.
•	TEPU should strengthen the focus on the PAPs approach in Livelihood restoration activities through structured engagements with the immediate neighbors and wider project affected community. This will contribute towards overall community transformation through scale up and out of the knowledge, skills and technology.	There is a planned agricultural support program for the wider community which will commence in Q1 2024.
•	The looming community-wildlife conflict reported in sub counties of Ngwedo, Kigwera, Buliisa, Bugana and Kisvani requires urgent mitigation actions including but not limited to the following:	This is well noted and shall be discussed in subsequent engagements
	a. TEPU in collaboration with the Uganda Wildlife Authority should simplify and publish the key findings from the routine monitoring reports, which point to some of the reasons communities are attacked by the elephants.	

No	Issues	Responses
	b. TEPU should pursue engagements with the affected communities to create awareness about safety measures which the community can undertake in a situation of elephant attacks.	This is well noted and shall be discussed in subsequent engagements
	c. The Uganda Wildlife Authority in collaboration with Development Partners should compensate the affected community for the properties (outside the protected area) destroyed by the elephants, as stipulated in the Uganda Wildlife Act, (2019).	This is well noted and shall be discussed in subsequent engagements
	d. The Uganda Wildlife Authority in collaboration with TEPU (through its Corporate Social Responsibility initiative) and Development Partners should fast-track the implementation of innovative biological strategies scaring away elephants, e.g. establishment of apiaries along the elephant trails. This has been done in Bwindi Impenetrable National Park by Uganda Wildlife Authority in collaboration with the Wild Wide Fund for Nature and the adjacent community, so far it has yielded good results.	This is well noted and shall be discussed in subsequent engagements
	e. The Uganda Wildlife Authority in collaboration with the Development Partners should fast-track the installation of the electric fence along the park boundary to prevent the wild game from reaching the community.	This is well noted and shall be discussed in subsequent engagements
•	The integration of the Livelihood Restoration Programme interventions into the Local Government rolling Development Plans can be enhanced through pursuing the following recommendations/actions:	This is ongoing through the routine District Resettlement Committee (DIRCO) and the Resettlement Planning Committee (RPC) meetings.
	a) TEPU should share with Local Government leadership information about commitments and associated budgets reflected in the various agreements they signed with the commissioned services providers. Furthermore, information from specialized reports, e.g. reports on studies on routine biodiversity monitoring, including the community attacks by the elephants.	
	b) TEPU should strengthen mechanisms for regular reporting for updating the Local Government leadership about the progress in the implementation of the Livelihood Restoration Programme, clearly underpinning the results/achievements and associated emerging issues. This will enable Local Governments to effectively deliver on their roles and responsibility of close supervision and monitoring of large government projects to benefit the local community and the country, as stipulated in the National Energy Policy for Uganda, (2023) (MEMD, 2023).	This is noted.
	c) TEPU should develop and support implementation of mechanisms for joint monitoring of the implementation of the Livelihood Restoration Programme interventions. This should actively involve the Local Government leadership and can be conducted two time in a year.	This is noted.

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No	Issues	Responses	
•	TEPU should manage the noise pollution at Rig 2 in Ngiri 3, Kirama village, Kigwera Sub County in Buliisa District within the acceptable levels as stipulated in the National Environment (Noise Standards and Control) Regulations, 2003 (S.I. No. 30 of 2003).	emission activities like utilization of forklifts e.t.c to daytime operations. There is also a third-party	
•	TEPU should redirect the lights to point inside the Rig area (in Ngiri 3, Kirama village, Kigwera Sub County in Buliisa District) rather than outside to reduce on the light exposure to the neighboring community.		
•	TEPU should consider alternative approaches to resolve the emerging conflict at the Rig 2 in Ngiri 3, Kirama village, Kigwera Sub County in Buliisa District. Such approaches should be participatory involving the key stakeholders (including the community, Local Government leaders & opinion leaders) for better understanding of the root causes of the conflict and then generate responsive resolution. The District Community Development Department ill play an important role in the conflict resolution.		
•	TEPU should ensure that the service providers commissioned under the Livelihood Restoration Programme procure and supply planting materials to the PAPs in time ahead of the rain season.	This is well noted, however, the program endeavors to align with the unpredictable changes in the weather patterns.	

Annex 3: TotalEnergies' responses to observations on the level of implementation in the 2022 CSCO field monitoring report

CSCO PREVIOUS RECOMMENDATION	TEPU RESPONSE	OBSERVED SITUATION (July 2023)	REQUIRED ACTION	COMMENTS FROM TEPU
Inadequate drainage and erosion control systems. This was more evident at Avogera health center III in Bullisa, and along C1-road in Murchison Falls National Park, at the industrial area in Kasinyi village, and at JBRI-5 well pad construction area for the Tilenga projects. The practice is contrary to Section 5.10.2 of the National Physical Planning Standards (2011), which requires all infrastructure developments in Uganda to have proper provisions for control of erosion and storm water run-off based on the best management practices.	 The issue of drainage and erosion control has been taken as a key learning from the initial construction sites witnessed by the team during the visit. The following measures have now been implemented to ensure that surface water ponding and erosion is minimized: Silt traps have been incorporated into the drainage design to ensure that any sediments and turbid water is retained. These traps are also cleaned out regularly erosion is minimized: Silt traps have been incorporated into the drainage design to ensure that any sediments and turbid water is retained. These traps are also cleaned out regularly erosion is minimized: Silt traps have been incorporated into the drainage design to ensure that any sediments and turbid water is retained. These traps are also cleaned out regularly Establishment of drainage systems have been brought forward in the construction sequence for new wellpads to ensure adequate management of surface water Topsoil management has been improved along C1 road 	CSCO observed that the issue of drainage and erosion control remains a challenge, especially at the Industrial Construction site, and at JBRI- 5 well pad construction area. Marks of erosion, notably gullies were present at the viewpoint area (visitors' view ramp) at the JBRI-5. At the Industrial area, water ponding was evident at different sections of the site. Furthermore, at the Industrial area, the following laxities on drainage system management were observed; iii. Blocked and clogged drainage channels. Some drainage channels at the industrial area were silted and blocked with sediments. This indicates laxities in regular cleaning of the channels contrary to the requirements of the National Physical Planning Standards and Guidelines (2011) iv. There were no settling basins /containment basin for surface run-off at the facility. As such, it was established through debrief meetings with site representatives that surface run-off is released into the surrounding environment. This practice is contrary to the provisions of the Physical Planning standards and guidelines (2011) as well as the Public Health Act Cap 281 of the Laws of Uganda all of which discourage the direct release of surface run-off from facilities into surrounding environments. The National Physical Planning Act recommends the installation of settling basins at facilities and sites. The purpose is to ensure surface run - off from facilities gets collected in the settling basins where it can be managed through treatment before letting it out into the available public drainage channels, and NOT letting it out into the open environment.	Bullisa to conduct regular cleaning of drainage channels to remove overgrowing bush, sediments, and silt so as to minimize effects associated with blocked drainage channels; b) There is urgent need to put in place retention /settling basins for surface water collection at the industrial area in Buliisa, and at JBRI5 well-pad construction site. Once in place, the settling basin should be; (i) covered to prevent/ protect avifauna/birds and flying insects from easy access. This is because surface run-off in retention basins is potentially contaminated with oils, heavy metals and trace element pollutants; uncovered retention basins are also associated with aerial transfer of pollutants to nearby communities through wind action; (ii) The surface water that collects in retention basins should be tested and treated before letting it out into the available public drainage system OR otherwise should be reused (after treatment) for other non -portable uses such as watering of flowers or dust suppression at the sites in accordance with the National Physical Planning Standards and Guidelines (2011). c) Furthermore, surface run-off from the oil related construction funtreated) should not be released into communities due to public health concerns associated with such grey water, and the potential conflicts this may create between communities and the project.	TEPU is currently implementing mitigation measures provided by the specialist and shall provide more studies on this. CSCO shall be updated on the findings of these subsequent studies. TEPU is also in the process of installing biomac material to further increase soil and slope stability as a way of checking on erosion and siltation

CSCO PREVIOUS RECOMMENDATION	TEPU RESPONSE	OBSERVED SITUATION (July 2023)	REQUIRED ACTION	COMMENTS FROM TEPU
Landscaping. Once excavation and building activities are completed at construction sites, TotalEnergies should consider to landscape the front of the sites with grass and indigenous tree species to enhance the aesthetics of the sites and areas adjacent to them in accordance with Section 5.11 of the National Physical Planning Standards and Guidelines (2011).		This observation is still relevant and should be observed by TotalEnergies and Contractors so as to comply with Section 5.11 of the National Physical Planning Standards and Guidelines (2011).	All ongoing construction sites within the Tilenga project area should observe the Landscaping requirements in accordance with the National Physical Planning Standards and Guidelines (2011).	Indeed, as mentioned, landscaping and revegetation shall be carried out as excavation and building activities are completed. As is the practice, pots restoration monitoring shall be carried out in liaison with relevant government agencies.
Sanitation, Hygiene, and community health. There were also no symbols or signage at the latrines to indicate GENDER or the PWD stances contrary to provisions of the Public Health Act Cap 281 and the IFC World Bank requirements (2007). Lack of symbols on latrines was also observed at the newly constructed toilets at Avogera Health Center III in Buliisa district. Additionally, there were no receptacles for used pads at toilet facilities to cater for the hygiene of female workers	The Company has handed over the OPD Unit to Buliisa District Local Government. This recommendation will be made to the district and facility management. The District Local Government will also be encouraged to implement this recommendation at all other Health Centers under their management.		TEPU should ensure that the commitment made (in form of response to the previous CSCO report of 2022) of encouraging the District Local Government of Buliisa to implement symbols or signage at the latrines to indicate GENDER or the PWD stances is followed-up and implemented at Avogera Health Center III and at all other Health Centers under their management in the district.	TEPU will continue engaging with the District Local Government to have them place the signages at the health center's sanitation facilities.

CSCO PREVIOUS RECOMMENDATION	TEPU RESPONSE	OBSERVED SITUATION (July 2023)	REQUIRED ACTION	COMMENTS FROM TEPU
Inadequate designs for storm water disposal at resettlement houses. Despite the fact that all resettlement houses had gutters for storm water management, these (the gutters) were not properly connected to any outfall drainage system contrary to regulation 3.3.6.1 of the National Building Control Regulations. If not checked, this lapse may lead to flooding and erosion threats around homes of the resettled persons and may as well create a risk of dampness and weakening of buildings through seepage of uncontrolled storm water.	channeled to the 5000 liters water tanks installed on each house. Planting of grass in the compound is part of the greening programme and this can also reduce soil erosion due to run off water. Drainage within		Grass was planted but designs for storm water management are still unimproved. The issue of the gutters which are not properly connected to any outfall drainage system remains. It should be noted that failure to connect gutters to any outfall drainage system creates dampness in buildings and accelerates weakening of buildings through capillary attraction and seepage of uncontrolled storm water, attracts reptiles and insects into buildings, flooding of sites as well. The practice of leaving building gutters open is contrary to regulation 3.3.6.1 of the National Building Control Regulations.	The main gutters are connected to the rainwater harvest tanks. This means that the larger amount of rainwater flows into the tanks for household use, which is 5,000 liters. The downpipes are installed past the concrete apron (veranda) that protects the foundations of the building. The hard base below the down pipe aids in flow of the water away from the splash apron. There is therefore little likelihood of storm water flowing into the foundations of the house and creating dampness or weakening the building.

Annex 4: List of CSCO Members organisations that participated in the Monitoring exercise

No.	ORGANIZATION NAME	REPRESENTATIVE
1.	South Western Institute for Policy and Advocacy	Edward Natamba
2.	Pro-Biodiversity Conservationists in Uganda	Paul Twebaze
З.	Citizens Concern Africa	Sam Mucunguzi
4.	Civic Response for Environment and Development	Charles Muhumuza
5.	Avocats Sans Frontiers	Michael Musiime
6.	Global Rights Alert	Richard Orebi
7.	Water Governance Institute	Henry Bazira
8.	Advocates Coalition for Development and Environment / CSCO Secretariat	Dickens Amanya, Oscord Mark Otile, James Opito, and Fatia Nassali
9.	Oxfam	Siraji Magara
10.	Environmental Alert	Vanessa Nakitto
11.	Practicing Environmentalists and Managers' Organization (PEMO)	Julius Ssenyonjo
12.	Monitoring team Leader	Dr. Joshua Zake (Ph.D.)
13.	Climate Change individual consultant	Irene Ssekyana

ABOUT ACODE and CSCO

The Advocates Coalition for Development and Environment (ACODE) is an independent public policy research and advocacy think tank based in Uganda. ACODE's work focuses on four programme areas: Economic Governance; Environment and Natural Resources Governance; Democracy, Peace and Security; Science, Technology and Innovation. For the last eight consecutive years, ACODE has been ranked as the best think tank in Uganda and one of the top 100 think tanks in Sub-Saharan Africa and globally in the Global Think Tanks Index Report published by the University of Pennsylvania Think Tanks and Civil Societies Program (TTCSP).

The Civil Society Coalition on Oil and Gas (CSCO) is a loose coalition of over 60 civil society organizations that work to promote sustainable development of Uganda's oil and gas sector. Over the years, CSCO has collaborated with the oil companies, the Petroleum Authority of Uganda (PAU), and the Ministry of Energy and Mineral Development (MEMD) to monitor the Upstream and Midstream oil and gas activities in the Albertine Graben. CSCO is hosted at ACODE.



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