

# Project Oil Kenya - Upstream

## Environmental and Social Impact Assessment (ESIA)

Submitted to:

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September 2021

1433956.718.A1



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# NON-TECHNICAL SUMMARY

# Table of Contents

<b>1.0</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	What is the Project? .....	1
1.2	Where is the Project? .....	1
1.3	What are the key aspects of the Project? .....	2
1.4	What is the history of oil development in the area? .....	3
1.5	What is the Project Schedule? .....	3
1.6	What environmental and social studies have been undertaken? .....	3
1.7	What is the purpose of this document? .....	4
1.8	Who approves the environmental and social impact assessment? .....	4
1.9	Who has written this document? .....	4
1.10	How can I view the environmental and social impact assessment? .....	4
<b>2.0</b>	<b>PROJECT DESCRIPTION .....</b>	<b>5</b>
2.1	Who found the oil? .....	5
2.2	What is the licensing status of the Project? .....	5
2.3	What other permits does the Project need? .....	5
2.4	What standards will be applied to the Project? .....	5
2.5	Will the Operator pay taxes and royalties? .....	5
2.6	How much oil is there? .....	5
2.7	What is the oil like? What are its characteristics? .....	5
2.8	How will the wellpads be constructed? .....	5
2.9	How will the oil be extracted from the ground? .....	6
2.10	What will happen to the oil once it has been extracted from the ground? .....	7
2.11	What is the layout of the Project? .....	7
2.12	Where will the Project get its water? .....	8
2.13	How much water will be required? .....	8
2.14	What new roads will be built to reach the oilfields? .....	8
2.15	Where will the Project get its power supply? .....	9
2.16	How will the Project get a power supply to the oilfields? .....	9
2.17	How will waste be managed? .....	9

2.18	How will odour be managed?.....	9
2.19	How will construction materials be brought to the Project site?.....	9
2.20	What land does the Project need and how will it acquire it? .....	9
2.21	How many people will work on the Project? .....	10
2.22	Where will the workers stay? .....	10
2.23	Will there be opportunities for local employment? .....	10
2.24	What opportunities will be created for local suppliers? .....	10
2.25	How will the oilfields be closed when the Project ends?.....	10
<b>3.0</b>	<b>STAKEHOLDER ENGAGEMENT .....</b>	<b>10</b>
3.1	What is the Project approach to stakeholder engagement? .....	10
3.2	What to do if you have a Project-related comment or question? .....	10
<b>4.0</b>	<b>POTENTIAL IMPACTS AND MITIGATION .....</b>	<b>11</b>
4.1	What benefits will the Project bring?.....	11
4.2	What is being done to help the local community benefit from the Project? .....	11
4.3	How will the Project affect those living and using the land? .....	11
4.4	How will the project protect local water resources? .....	11
4.5	What will happen to the oil if there is an accident and it spills or leaks? .....	12
4.6	How will the Project affect air quality? .....	12
4.7	How will the Project affect noise and vibration levels? .....	12
4.8	How will the project support community health and safety, livelihoods and well-being?.....	13
4.9	How will the influx of workers be managed by the Project?.....	13
4.10	How will the Project affect inflation? .....	13
4.11	How will security be maintained in the region? .....	13
4.12	How will cultural heritage (e.g. archaeology, sacred trees, cultural practices) be protected? .....	13
4.13	How will biodiversity be preserved?.....	13
4.14	What will be the visual impact of the Project? .....	14
<b>5.0</b>	<b>ENVIRONMENTAL AND SOCIAL MANAGEMENT .....</b>	<b>14</b>
5.1	How will the Operator manage its environmental and social commitments? .....	14
5.2	What environmental and social information will be publicly available? .....	14
5.3	Who is responsible for managing environmental and social issues throughout the life of the Project? .....	14

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5.4	How will activities be monitored? .....	15
5.5	What are plans for responding to an emergency? .....	15
5.6	How will the health and safety of employees and the local community be managed? .....	15
5.7	How will the Operator ensure that its employees are treated fairly? .....	15

## FIGURES

Figure 1: Location of the Project Area of Influence .....	1
Figure 2: Regional Setting of the Project .....	2
Figure 3: Drilling Rig on a Wellpad Drilling a Well .....	6
Figure 4: The Oil Production Process .....	7
Figure 5: Project Layout within the Local Setting .....	8

## 1.0 INTRODUCTION

### 1.1 What is the Project?

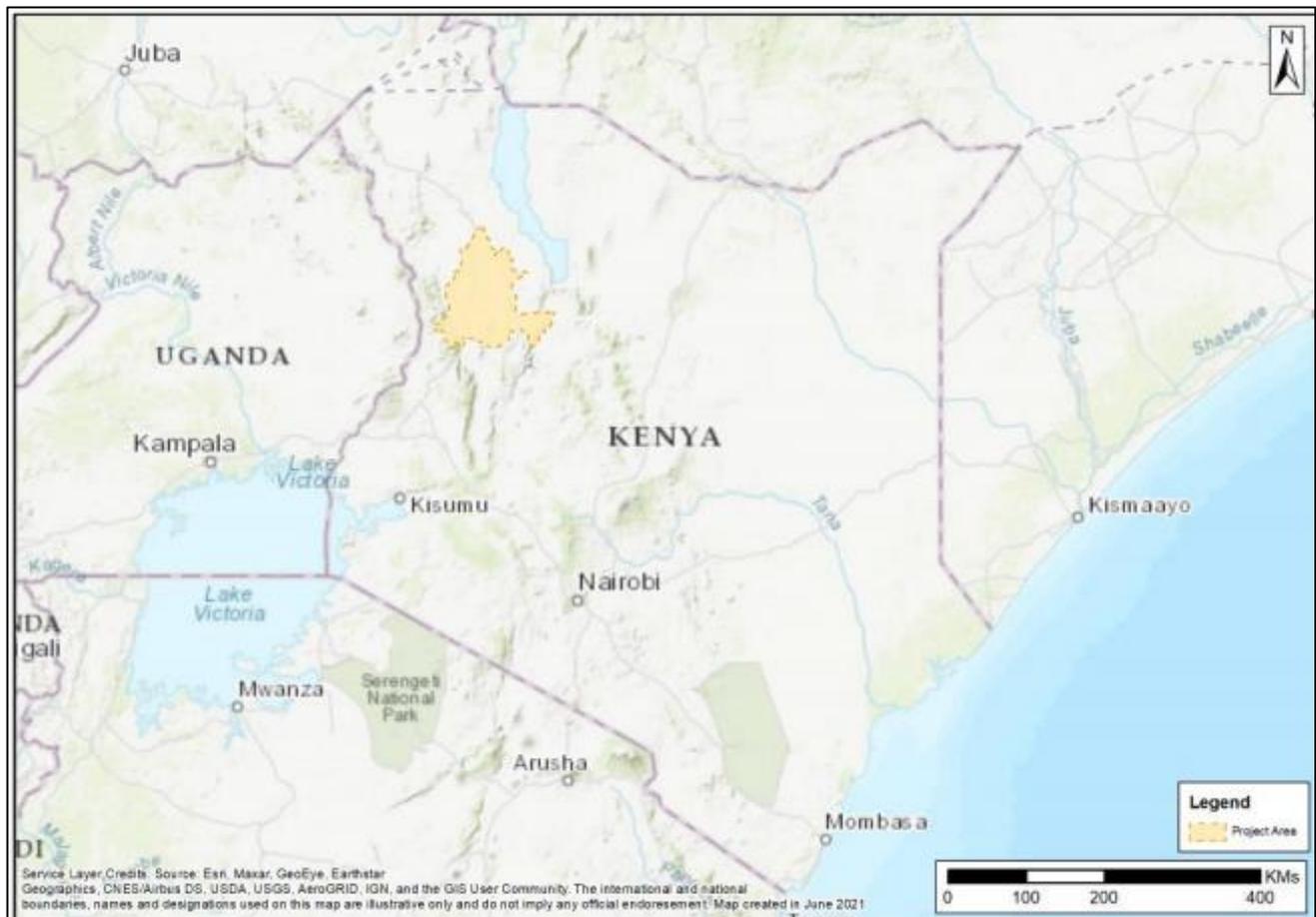
*Project Oil Kenya – Upstream* (“the Project”) is located in South Lokichar, Turkana County in north-west Kenya and is the development of six oilfields with an overall oil production license duration of 25 years.

### 1.2 Where is the Project?

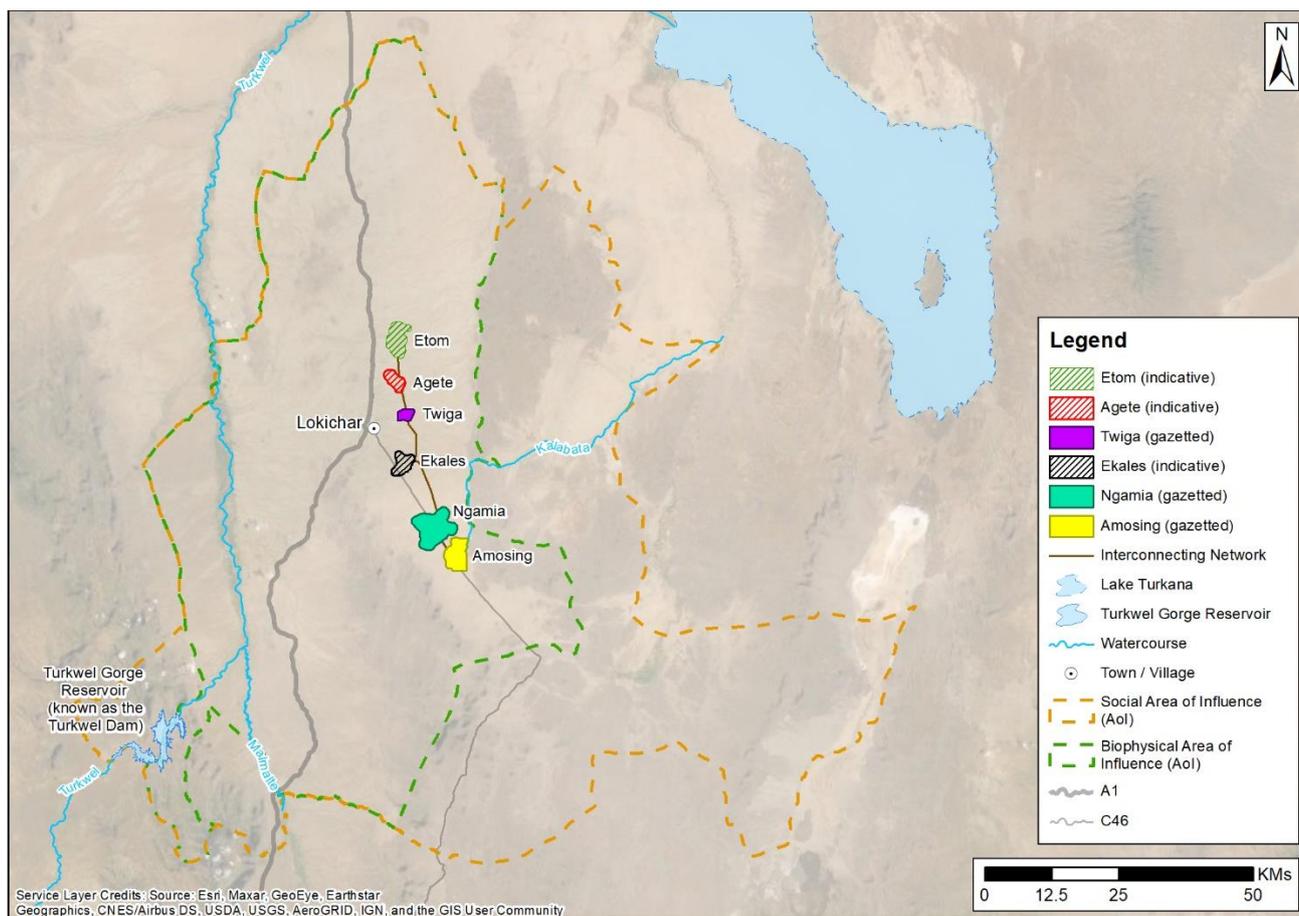
Geographically, the Project is located between Lake Turkana and the Turkwel River valley in north-west Kenya, approximately 450 km north of Nairobi. The nearest town is Lokichar.

The map below (Figure 1) shows the location of the Project’s “Area of Influence” (shaded). The Area of Influence has been considered as part of the environmental and social impact assessment process. The location of the Project’s facilities are shown in Figure 2.

The Project’s facilities are mostly located in Turkana South and Turkana East sub-counties in Turkana County. Water will be sourced from the Turkwel Gorge Reservoir (known as the “Turkwel Dam”) in West Pokot County.



**Figure 1: Location of the Project Area of Influence**



**Figure 2: Regional Setting of the Project**

### 1.3 What are the key aspects of the Project?

The Project is being planned and developed by a Joint Venture of international oil companies, on behalf of the Government of Kenya (represented by the Ministry of Petroleum & Mining). The Joint Venture of oil companies, also known as the Kenya Joint Venture, comprises Africa Oil Turkana Ltd, TotalEnergies E&P Kenya and Tullow Kenya BV.

The Kenya Joint Venture are the Government’s Contractor to implement the Upstream Oil Project under the terms of the Production Sharing Contract and are represented by Tullow Kenya BV as the Operator.

Oil will be produced from production wells located on multiple wellpads across six oilfields called Agete, Amosing, Ekales, Etom, Ngamia and Twiga. The wellpads will be connected to a central processing facility (located within a central facilities area) within the Ngamia oilfield, via a network of buried flowlines. This area will also include waste management facilities and worker accommodation. An engineered landfill will be built nearby.

Once processed, the oil will be transported to Lamu for export via a separately permitted and operated buried pipeline known as the Lokichar to Lamu Crude Oil Pipeline.

Water will be sourced from the Turkwel Gorge Reservoir and used to increase the amount of oil that can be extracted. A pipeline will transport the water from the Turkwel Dam to the processing facility within the Ngamia oilfield. The route and design of this water pipeline is being finalised and will be permitted separately with its own standalone environmental and social impact assessment.

Project infrastructure will include new access roads and electrical distribution via overhead transmission lines between the oilfields. Support facilities will include construction camps and laydown areas.

## 1.4 What is the history of oil development in the area?

There has been previous oil exploration in the Project area. The first exploration well was drilled in January 2012 and subsequent well testing was conducted in 2015, 2017 and 2018.

Tullow Kenya BV (as Operator) was developing a previous form of this Project called the Foundation Stage Development, which included a subset of the proposed oil fields. The Foundation Stage Development has been replaced by this Project.

A project called the Early Oil Pilot Scheme (also known as “EOPS”) was designed to understand the nature of the oil and make sure that infrastructure required for full field development (such as roads) was in place. This was a temporary project which involved transportation of crude oil by road to Mombasa for export and operations. The Early Oil Pilot Scheme project ceased in late 2019.

## 1.5 What is the Project Schedule?

The initial development focuses on the Amosing, Ngamia and Twiga oilfields with first oil from these fields produced three years after a final investment decision has been made for the Project. Ekales, Agete and Etom will be developed over the following five to seven years.

The central facilities area and central processing facility are required at first oil and will be constructed by year three. Production operations (including construction) are expected to last approximately 25 years.

## 1.6 What environmental and social studies have been undertaken?

A national environmental and social impact assessment (often shortened to “ESIA”)<sup>1</sup> has been prepared for the Project as part of the Kenyan permitting process.

The objectives of the environmental and social impact assessment were to:

- Understand how the Project may positively or negatively impact the existing environment and people who live nearby; and
- Find solutions to reduce negative effects to acceptable levels and enhance positive effects.

The environmental and social impact assessment process started in 2016 when the topics and types of studies required were discussed with the National Environment Management Authority (the regulator). It was agreed that the environmental and social impact assessment would focus on:

- The existing physical environment:
  - surface water (rivers, reservoirs, luggas);
  - groundwater (what water is available from underground aquifers);
  - the quality of the air;
  - whether it is quiet or noisy;
  - geology and soils;

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<sup>1</sup> Although Kenyan legislation defines the environmental assessment process as an “environmental impact assessment” or “EIA”, the term “environmental and social impact assessment” or “ESIA” has been used for this assessment process from the outset, to align with international best practice and stakeholder concerns.

- mammals, birds, insects and plants;
- The existing social environment:
  - who lives nearby and how they live and work;
  - local services and infrastructure;
  - archaeology;
  - local culture;
  - what the local landscape looks like.

Studies to understand the existing physical and social environment were carried out between 2016 and 2021 by Kenyan experts in each subject. These studies were then used to assess whether the Project had the potential to cause any impacts that would have a significant positive or negative effect on the physical and social environment. If any effects were identified, then mitigation measures to avoid, minimise, restore, compensate or improve these have been committed to by the Operator to reduce impacts to acceptable levels. The outcome of this process is summarised in Section 4 of this non-technical summary.

## 1.7 What is the purpose of this document?

This document is a non-technical summary of the findings from the environmental and social impact assessment completed for the Project. It aims to describe the Project, the assessment process, key findings and the Operator's commitments to the management and monitoring of any identified environmental and social issues.

## 1.8 Who approves the environmental and social impact assessment?

In Kenya, major development projects require an environmental and social impact assessment to be prepared under the Environment Management and Coordination Act (1999) and the Environmental Management and Coordination (Impact Assessment and Audit) Regulations (2003), and its 2016 and 2019 amendments.

The National Environment Management Authority is the administrative body responsible for the coordination of environmental management activities in Kenya. The National Environment Management Authority is also responsible for the implementation of all governmental environmental policies, as well reviewing and approving environmental and social impact assessments.

## 1.9 Who has written this document?

This non-technical summary has been prepared by Golder Associates (UK) Ltd and its Kenyan counterpart, Ecoscience and Engineering (Ltd) (NEMA Expert Registration No: 11492).

## 1.10 How can I view the environmental and social impact assessment?

The environmental and social impact assessment report is available online at:

[www.tullowoil.com/our-operations/africa/kenya/environmental-social](http://www.tullowoil.com/our-operations/africa/kenya/environmental-social)

Physical copies of the environmental and social impact assessment report are held by:

- The office of the County Commissioner, Lodwar;
- The office of the Deputy County Commissioner, Turkana East, Lokori;
- The office of the Deputy County Commissioner, Turkana South, Lokichar;
- Ministry of Petroleum and Mining, Nyayo House, Kenyatta Avenue, P.O. Box 30582 – 00100, Nairobi; and

- Tullow Kenya B.V., 7th Floor, West End Towers, Waiyaki Way, P.O Box 63298-00619, Nairobi.

## **2.0 PROJECT DESCRIPTION**

### **2.1 Who found the oil?**

Africa Oil and Tullow Oil drilled the first well in the South Lokichar Basin (Ngamia-1 in Block 10BB), in January 2012. This has been followed by several further discoveries.

### **2.2 What is the licensing status of the Project?**

Under Production Sharing Contracts between the Government of Kenya and the Kenya Joint Venture, the Project has exploration licences for Blocks 10BB and 13T. Following submission of the Field Development Plan, once approved by the Government, a production licence for 25 years will be issued.

### **2.3 What other permits does the Project need?**

The Project needs a wide range of other technical permits and approvals in addition to the Environmental Impact Assessment licence which will be granted subject to satisfactory review of the environmental and social impact assessment report by the National Environmental Management Authority. A plan has been prepared to ensure that other necessary permits and approvals are in place in a timely manner to support construction and operations.

### **2.4 What standards will be applied to the Project?**

The Project will comply with all Kenyan environmental and social laws and standards. In addition, the Project will design and manage its activities in line with good industry practice, including International Finance Corporation Performance Standards and World Bank Group Environmental, Health and Safety Guidelines. Compliance with these non-statutory guidelines and standards will be documented in a Supplemental Assessment to be prepared in addition to the environmental and social impact assessment.

### **2.5 Will the Operator pay taxes and royalties?**

Yes, the Operator will pay taxes and royalties, in line with its License Agreements with the Kenyan Government.

### **2.6 How much oil is there?**

Following review of the exploration and appraisal data the Kenya Joint Venture believe 560 million barrels of oil are technically recoverable. The Kenya Joint Venture and the Government of Kenya are working together to agree on what volumes might be economically recoverable.

### **2.7 What is the oil like? What are its characteristics?**

The oil is of good quality and has the consistency of shoe polish. The “waxy” nature of the crude oil means that it will solidify at room temperature. The Project has been designed to keep the oil above the temperature at which it begins to solidify, so that it can be processed and flow through the system.

### **2.8 How will the wellpads be constructed?**

Over 60 well pads will be constructed (or rehabilitated from the previous development) over ten years. The standard wellpad area is 250 m x 200 m.

For each wellpad, the following process will be undertaken:

- The site will be cleared and levelled. Drainage and flood defences will be installed. Some pits will be dug. Access roads will be built, and a perimeter fence will be installed;

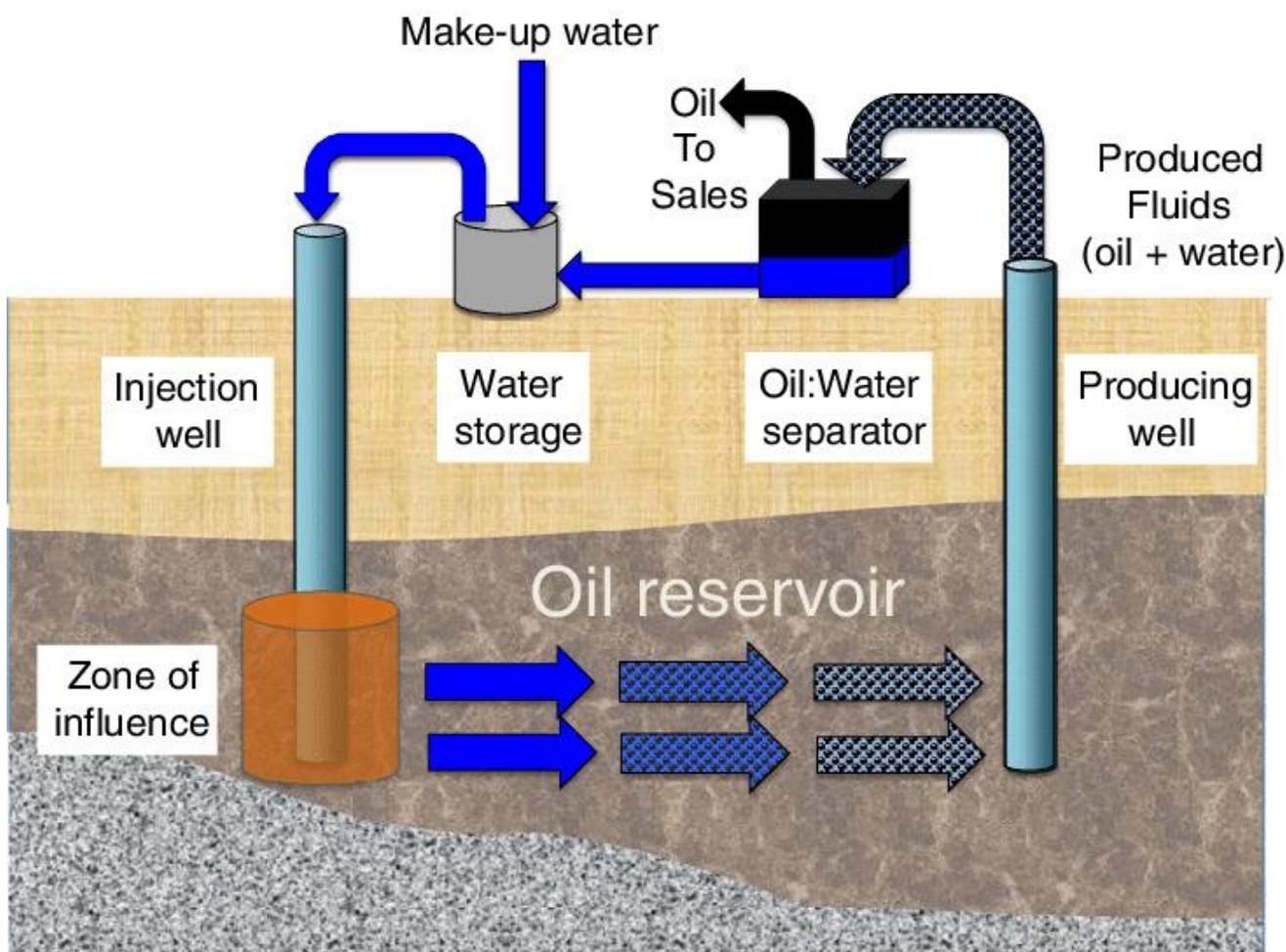
- Wells will be drilled;
- Above ground site facilities will be constructed; and
- Wells and equipment will be commissioned.



**Figure 3: Drilling Rig on a Wellpad Drilling a Well**

## **2.9 How will the oil be extracted from the ground?**

Each oil well will consist of a drilled-out bore which is lined with metal tubing. The oil will flow to the surface and this process will be helped by the injection of water into the oil reservoir to improve the recovery from the oil reservoirs.



Source: Gieg et al, 2011

**Figure 4: The Oil Production Process**

## 2.10 What will happen to the oil once it has been extracted from the ground?

A system of buried flowlines will be connected to the wellpads to transfer the oil to a central processing facility within the Ngamia oilfield.

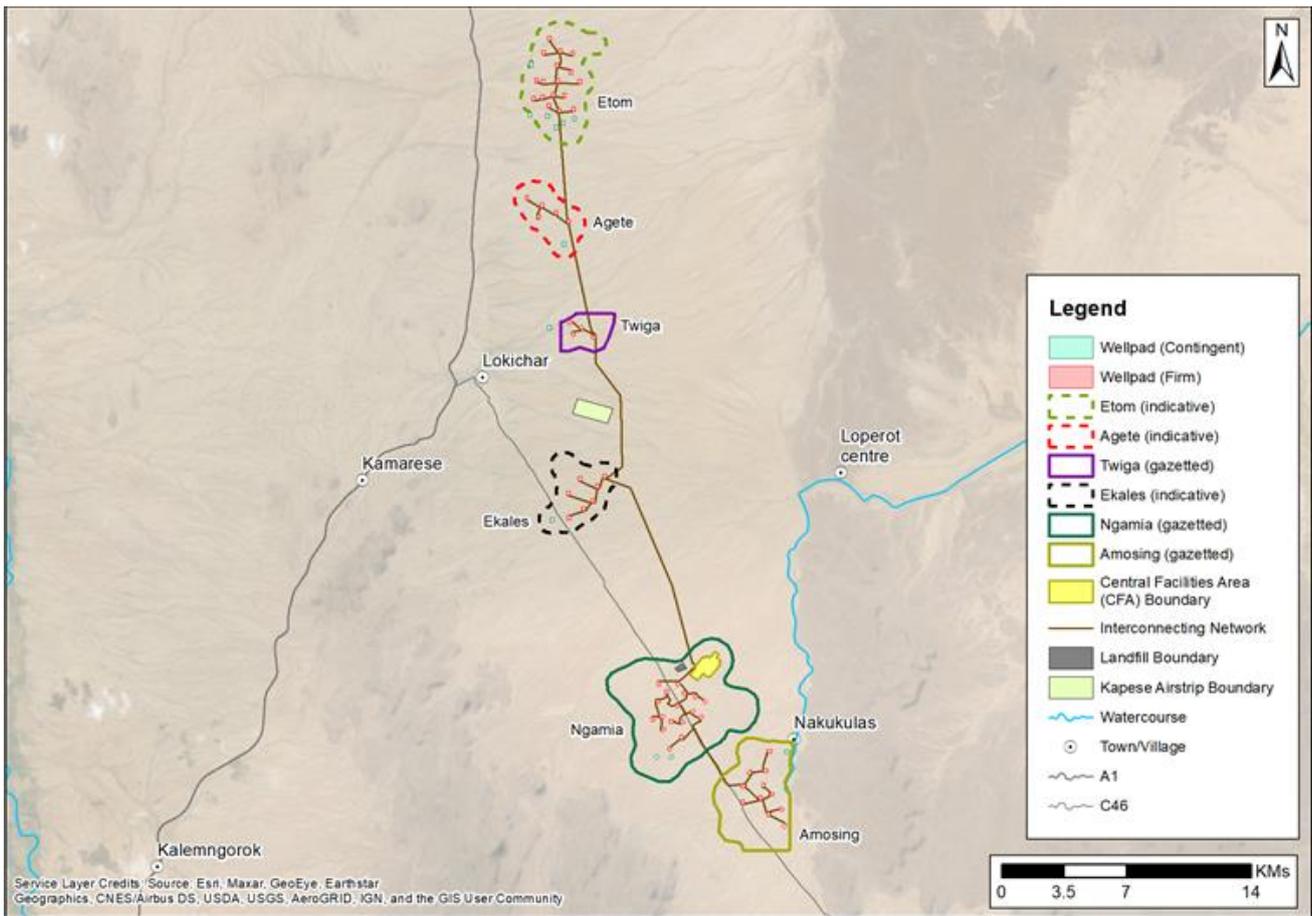
At the processing facility, the produced fluids will be separated into crude oil, gas and water:

- The crude oil will be stabilised to be ready for export via the buried pipeline to Lamu;
- The gas will be used for heat and power generation or compressed and reinjected to the oil reservoir (there will be no routine gas flaring); and
- The water will be treated, heated and injected back into the oil reservoir to help maintain pressure.

## 2.11 What is the layout of the Project?

In total, approximately 60 wellpads will be developed (or rehabilitated) as part of the Project. There are also 12 contingent wellpad locations that have been identified. The contingent wellpads do not need to be developed as part of the current Project but may be required in the future.

On these wellpads, the Project plans to install approximately 1,200 wells, with each wellpad containing 12 to 24 wells. The layout of the Project within its local setting is shown in the map below (Figure 5).



**Figure 5: Project Layout within the Local Setting**

### 2.12 Where will the Project get its water?

During the early part of the construction phase, the Project will temporarily source water from a network of existing boreholes which use the local shallow groundwater aquifers.

Operational water supply for the Project is from the Turkwel Gorge Reservoir to the south-west (Figure 2). A pipeline will transport the water from the Turkwel Dam to the processing facility within the Ngamia oilfield. The route of the water pipeline is currently being evaluated and it will be permitted separately with its own environmental and social impact assessment.

### 2.13 How much water will be required?

During the construction phase the estimated water demand from boreholes will average approximately 1,500 m<sup>3</sup>/day for a period of 22 months.

During operations there will be a peak demand of approximately 26,000 m<sup>3</sup>/day in Year 4 of operations, the water demand will reduce thereafter. For context, this is less than 2% of the average annual inflow to the Turkwel Gorge Reservoir.

### 2.14 What new roads will be built to reach the oilfields?

The Project will construct access roads as required to access the wellpads and other facilities at each oilfield.

## 2.15 Where will the Project get its power supply?

During construction the power supply to construction camps, work areas, warehouses and drill rigs will be provided by temporary diesel generators. Once the wells are operational, the Project will be able to generate all of its power using gas that is produced with the oil.

There is also a planned connection to the Kenyan grid, constructed by the Kenya Electricity Transmission Company who are constructing the Turkwel to Lokichoggio transmission line expansion project, which is passing near to the central processing area at Ngamia.

## 2.16 How will the Project get a power supply to the oilfields?

Overhead transmission lines will be routed from the central processing area within the Ngamia oilfield, to a substation at each oilfield.

## 2.17 How will waste be managed?

A waste management and processing facility will be built at the central facilities area within the Ngamia oilfield. This facility will act as a waste reception, handling, volume minimisation, treatment and storage facility during operations.

An engineered landfill will be constructed early in the construction process, which will accept construction waste and drilling waste whilst the main facility is being constructed. Once the main facility has been constructed, the landfill will accept some operations wastes that cannot be handled at the main facility.

There will be a separate facility near to the engineered landfill which will treat any contaminated drilling muds from the wellpads, to make the muds safe for disposal in the landfill.

## 2.18 How will odour be managed?

All facilities are being constructed in line with good international practice in order to minimise odour emissions at source. Odour will be monitored and action taken if unacceptable odours are identified or if complaints are made.

## 2.19 How will construction materials be brought to the Project site?

The Project will require significant quantities of material to be brought to site to construct the Project. The logistics and transportation required will include all modes of transport, including sea, air, road and rail. A robust transport management system will be established to ensure that goods are transported safely to the Project site.

## 2.20 What land does the Project need and how will it acquire it?

The National Land Commission, on behalf of the Ministry of Petroleum and Mining, are in the process of acquiring gazetted “polygons” of land across the different oilfields.

In the map below, the polygons of land for each oilfield are shown with the gazetted status and the footprint of the facilities shown within the polygon.

The Project has identified a total defined footprint of approximately 1,500 hectares within the polygon land area of approximately 11,000 hectares (see Figure 5). Land outside fenced-off areas will continue to be available for grazing.

Land acquisition for the Project will follow the statutory process to be undertaken by the Government of Kenya to make land available for the Project. In support of the statutory land acquisition process, the Project will undertake additional livelihood support activities to ensure that the livelihoods of affected households are not

adversely affected by the Project. These may include supporting pastureland management and animal husbandry initiatives.

## 2.21 How many people will work on the Project?

It is estimated that there will be a peak of approximately 2,400 workers during construction, and approximately 500 workers during operations. This will be a combination of skilled, semi-skilled and unskilled positions.

## 2.22 Where will the workers stay?

During construction, there will be three temporary construction camps and one permanent camp. These will be located at the central facilities area within the Ngamia oilfield, with satellite camps on the wellpads and elsewhere as required.

For operations, the residential area at Ngamia used for construction will be converted into a permanent camp.

## 2.23 Will there be opportunities for local employment?

The jobs associated with the Project will require varying skill sets and will offer employment opportunities for unskilled, semi-skilled and skilled workers. Final job requirements will be determined during Project detailed design. The Project will implement a local recruitment plan to provide opportunities for local employment.

## 2.24 What opportunities will be created for local suppliers?

Opportunities will be created for local providers of goods and services to participate in Project activities, including working closely with the selected construction contractor.

## 2.25 How will the oilfields be closed when the Project ends?

Assuming there is no other use for Project facilities, all structures and related infrastructure will be dismantled for recycling, sold for scrap, or disposed of at a suitably licensed facility that has been approved by the National Environment Management Authority. Disturbed areas will be appropriately rehabilitated.

## 3.0 STAKEHOLDER ENGAGEMENT

### 3.1 What is the Project approach to stakeholder engagement?

The Project has prepared a stakeholder engagement plan which is publicly available on the website of the Ministry of Petroleum and Mining: <https://www.petroleumandmining.go.ke>

The Project environmental and social impact assessment has been prepared for the multiple stakeholders of Kenya, at community, County and National levels.

Stakeholder engagement for the Project started in December 2015. In 2021, there was a consultation with stakeholders on a previous version of this non-technical summary and the outcomes of the draft environmental and social impact assessment. The objectives of that were to ensure that stakeholders understood the Project (Project disclosure) and the environmental and social issues which it could cause, and the proposed mitigation and monitoring measures. Stakeholder concerns were registered and have been addressed in the final environmental and social impact assessment.

### 3.2 What to do if you have a Project-related comment or question?

The Project has developed a system to ensure that comments or questions are managed in a transparent and timely manner. Stakeholders can either address issues to Project representatives, relevant County administrative offices, or via the Project email. All issues will be addressed at a field level in the first instance

with the aim to resolve issues within a 30-day period. If issues cannot be resolved locally, they will be escalated to ensure timely resolution.

Comments and questions can be logged via:

- Telephone: +254 702 956331; or
- Email: POK@africaoilkenya.com.

Comments and questions can also be provided to local Chiefs and Deputy County Commissioners who will forward them to the Project for resolution.

## **4.0 POTENTIAL IMPACTS AND MITIGATION**

### **4.1 What benefits will the Project bring?**

The Project will invest in the community through the development of Community Development Plans.

The Project will create employment opportunities both directly and indirectly through contractors and suppliers. Business opportunities will be created in the local, regional and national economy relating to the procurement of services. Taxes and other payments which will be paid to National and County governments will also have a positive influence on the continuation of economic growth in Kenya.

### **4.2 What is being done to help the local community benefit from the Project?**

The Operator will provide social investment, building on existing community projects and initiatives (for example education, healthcare, road improvements, community health and livestock grazing programmes and maintenance of water supplies) working with County and National governments.

### **4.3 How will the Project affect those living and using the land?**

The land in Turkana where the Project is located is community land. The National Land Commission, on behalf of Ministry of Petroleum and Mining, have and will acquire gazetted “polygons” of land across the different oilfields. Within those polygons, the Project has identified a defined footprint of approximately 1,500 hectares. In order to minimise the impacts of land acquisition, land not required by the Project within the polygons will continue to be available for grazing.

During construction, some land will be fenced temporarily for safety. During operations there will be permanent restrictions to land in the central facilities area, wellpad areas and landfill, where land will be fenced and there will be no pastoral grazing or settlement access. Where land is no longer available for pastureland use, this will be factored into the Project’s livelihood restoration activities. In instances where households have to be moved, this will be undertaken in accordance with Kenyan law and the Project will provide additional assistance particularly for vulnerable households.

### **4.4 How will the Project protect local water resources?**

During construction and prior to water being available from the Turkwel Gorge Reservoir, the Project plans to use water abstracted from existing wells in the local area. Preliminary studies indicate that this could temporarily reduce the water levels in shallow aquifers, which are used by the community for water supply (hand dug wells) and provide groundwater that supports vegetation growth. To understand this further and prior to construction, extensive studies will be completed to understand the local water environment. Water levels will be monitored throughout construction and will ensure continuity of water supply if any community water supplies are affected.

Any construction work undertaken near watercourses will be planned to take place when water levels are low or when no flow is expected. There are specific procedures for how watercourses (including luggas) will be crossed by Project roads and pipelines or flowlines to manage both water quality and quantity.

Wastes generated by the Project will be stored in a way that no contaminants are disturbed or released into local water courses. Monitoring of groundwater quality (and surface water/hand dug wells where possible) will be undertaken during construction and operation to ensure water quality is within acceptable limits and groundwater levels will be monitored to ensure that there is sufficient water for both the Project and local water users.

The Operator will work with Kerio Valley Development Authority responsible for the Turkwel Dam to ensure the water supply to other water users of the reservoir is not affected by abstraction by the Project.

Water used to test the integrity of flowlines, which may be contaminated, will be reused where possible and will be disposed of via evaporation ponds or discharged in line with Kenyan permitting requirements.

#### **4.5 What will happen to the oil if there is an accident and it spills or leaks?**

All flowlines transporting the oil will be buried. Due to the waxy properties of the oil, if there are any breaks to the flowlines the oil will solidify (the crude is solid at ambient temperatures). Spill response kits will be available at well-pads and the central facilities area and will be used as soon as possible if a spillage or leak occurs.

The Project will have an Emergency Response Plan and necessary equipment in place to respond to emergencies and to call for specialist support if that is required.

#### **4.6 How will the Project affect air quality?**

Some changes to existing air quality are expected during construction and operation. During construction, the main effect will be from deposited dust from construction areas and roads, which can cause a nuisance. Dust levels will be monitored during construction and additional management actions will be taken if needed to reduce generated dust. Traffic numbers on infield roads and on construction routes are not expected to be above levels where air quality issues are anticipated.

During operations, activities at the central processing facility may cause localised exceedances of air quality standards or areas of predicted high magnitude for fine particulates. During detailed design, the central facilities area fence line will be adjusted to incorporate any areas where long-term exposure may be harmful.

#### **4.7 How will the Project affect noise and vibration levels?**

Some changes to existing noise levels are anticipated during construction and operation due to Project activities.

During construction, noise will be generated by the construction of the infrastructure and facilities and the drilling of the wells. If noise during construction is considered likely to be temporarily above acceptable limits, the National Environment Management Authority will be informed. Traffic on infield roads and on construction routes is not predicted to cause significant noise.

During operations, sources of noise will include the central processing facility, wellpads, the landfill and flights to and from the airstrip.

During both construction and operation, there will be a process to inform people who could be affected by noisy activities. This will include information about when, where and how long the works will take place, and areas to be avoided for both settlement and grazing. Signage will be put in place.

No vibration impacts are expected to affect the local community from either construction or operation.

## **4.8 How will the Project support community health and safety, livelihoods and well-being?**

The Operator will work with National Government, County Administration and key stakeholders to build on existing community health, community safety and pastureland management programmes.

## **4.9 How will the influx of workers be managed by the Project?**

Influx of speculative migrants seeking employment will be managed through a combination of monitoring, incentives for reducing uncontrolled migration, management of worker integration with local communities, and public communication.

The Operator will work with National Government, County Administration and key stakeholders to develop an influx working group to review, monitor and support actions to manage Project-induced influx.

There will be a recruitment procedure which will include no informal (“at the gate”) recruitment.

## **4.10 How will the Project affect inflation?**

During construction, increased demand for local goods and services may cause a short-term increase in inflation. During operations, the demand for goods and services is expected to reduce due to the decrease in workforce numbers. The Project will use local and national suppliers to ensure the best market price for goods is sought, which will help to manage local inflation.

## **4.11 How will security be maintained in the region?**

The National Police and other Government agencies are responsible for public security and law and order. The Project will coordinate with these bodies and raise any security concerns to the appropriate authorities.

## **4.12 How will cultural heritage (e.g. archaeology, sacred trees, cultural practices) be protected?**

Multiple measures will be used to protect cultural heritage. An archaeological investigation will be completed prior to construction to see if the remains of past settlement are present where the central facilities area is going to be located. A procedure will be set up to log any archaeological finds during construction in coordination with the National Museum of Kenya.

Graves will be protected through realignment of Project infrastructure or, if required, relocation of the burial, in consultation with affected communities. All staff will be educated on cultural practices and the types of sites that need to be protected including why they are important and where they are located.

## **4.13 How will biodiversity be preserved?**

The Project will avoid sensitive habitats and species wherever possible. Surveys for plants, mammals, birds, reptiles, amphibians, fish and invertebrates have been completed by local expert teams.

If any potential harm or damage to habitats or species has been identified, and it is not possible to avoid it, a series of measures to restore habitats and species and monitor progress is committed to. Some construction activities will be timed appropriately to minimise effects. During construction any impacts on biodiversity due to groundwater abstraction will be monitored and, if required, alternative water supplies will be provided to maintain affected sensitive habitats.

A biodiversity supervisor will be employed by the Project to ensure that all mitigation commitments are delivered. Key sensitive species will be monitored throughout the life of the Project and action, in coordination with the Kenya Wildlife Service, will be taken to protect them should impacts be identified.

## 4.14 What will be the visual impact of the Project?

Visual impacts during the construction and operational phase are mainly related to the presence of buildings, construction equipment, artificial lighting and dust plumes at wellpads, the central facilities area and overhead transmission lines.

During construction, impacts are generally expected to be short-lived with more long-term impacts anticipated during operations. Existing natural planting will be retained where possible to provide and maintain natural screening of infrastructure, the use of artificial lighting will be minimised and managed and traffic speed limits will be managed to reduce dust.

## 5.0 ENVIRONMENTAL AND SOCIAL MANAGEMENT

### 5.1 How will the Operator manage its environmental and social commitments?

The Operator will prepare and implement an environmental and social management system which will meet the requirements of the International Organisation for Standardisation standard, ISO 14001:2015 and the International Finance Corporation Sustainability Framework Performance Standard 1.

Within this management system will be an *Environmental Performance Plan* and a *Social Performance Plan*. These plans will describe how the Operator ensures that environmental and social risks and commitments set out in the environmental and social impact assessment are managed. The Plans provide a transparent means of ensuring that environmental and social commitments are implemented and can be audited. It makes clear who is responsible for each activity, when tasks need to be completed and how they will be monitored and reviewed.

### 5.2 What environmental and social information will be publicly available?

As part of the environmental and social management system, the Operator will develop a range of mechanisms to allow stakeholders to be informed about Project performance in managing environmental and social impacts. These will include involving local stakeholders in participatory environmental monitoring, preparation of an annual environmental and social performance report, regular meetings and audits with the National Environment Management Authority and regular meetings with local community members, representatives and County administrators.

### 5.3 Who is responsible for managing environmental and social issues throughout the life of the Project?

The Operator is responsible for its own performance and the performance of its contractors. During construction, the Operator will supervise the performance of its construction contractors. During operations, the Operator will take direct operational control. The Operator will work closely with the National Environment Management Authority and the County Environmental Committee to ensure issues are managed on a transparent and cooperative basis.

### 5.4 How will activities be monitored?

As part of its *Environmental* and *Social Performance Plans* and based on the requirements outlined in the environmental and social impact assessment, the Operator will develop and implement detailed monitoring measures to ensure that it can check that environmental and social management measures and commitments are working, and that it is fulfilling its regulatory requirements and other commitments.

The Operator will continue to monitor environmental and social risks throughout all phases of the Project, including during decommissioning, and after the Project is closed.

## 5.5 What are plans for responding to an emergency?

The Operator will establish an overall emergency response plan that will define procedures to be following in the event of an accident, incident or other emergency. This will cover a wide range of scenarios and will be coordinated with the Police service and County administration. Appropriate emergency response and medical facilities and resources will be in place to work with the Police and County Administration.

## 5.6 How will the health and safety of employees and the local community be managed?

Worker health and safety management systems and operating procedures will be prepared and will meet the requirements of International Organisation for Standardisation standard ISO 45001:2018.

The Operator and its contractors will comply with all applicable Kenyan worker health and safety legislation during all phases of the Project.

All employees and contractors will be given awareness training on community health, safety and security and a Code of Conduct will be in place to ensure respectful relations are maintained with local communities.

## 5.7 How will the Operator ensure that its employees are treated fairly?

The Operator will be an equal opportunity and non-discrimination employer. All employees will have access to a confidential service to help them in the event of workplace grievances.

The Operator will prepare and implement a Code of Conduct which will apply to employees and contractors. It will outline procedures and requirements to ensure that the Operator and its contractors respect and protect the fundamental principles and rights of workers through promoting personal respect and a safe workplace. This includes:

- fair treatment, non-discrimination and equal opportunities for all workers;
- establishing, maintaining and improving a sound worker-management relationship;
- compliance with applicable national labour and employment laws;
- protecting and promoting the safety and health of workers, especially by promoting safe and healthy working conditions; and
- preventing the use of forced labour and child labour.

# Non-Technical Summary

## Signature Page



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10 September 2021

