



Tullow Kenya B.V.

BIODIVERSITY MANAGEMENT

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Revision Control

REVISION	PARA /SECT	CHANGE DESCRIPTION

This sheet must be completed in detail, at each revision once this document has been approved. Details must include revision number, description and indication of which pages and paragraphs have been revised, date of revision approval and approval indication.

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1 OBJECTIVES

The objective of this framework is to define the approach to be adopted by Tullow Kenya B.V. (Tullow) in relation to the assessment, mitigation and management of biodiversity issues and impacts related to Kenyan operations.

1.1 Biodiversity Goal and Strategy

Tullow seeks to ensure that the biodiversity of Kenya is not adversely impacted by the company's presence in the region. Tullow's goal is, as a minimum, to create no net loss of biodiversity within the region. Tullow aims to reach this goal over the life of its activities in the region and will seek opportunities to achieve no net loss as early as practicable once the project is in operation.

To achieve its goal Tullow's Biodiversity Strategy commits to:

- Identify important biodiversity features (Priority Biodiversity Features) of relevance to the operation and the project-related threats to these biodiversity features.
- Apply the mitigation hierarchy to avoid, minimise and rehabilitate project-related impacts on biodiversity.
- Develop a Biodiversity Offsets Plan and identify Additional Conservation Actions (ACAs) that will, over time, compensate for the residual impacts of the project on biodiversity in Kenya.
- Develop a Monitoring and Evaluation program which is capable of tracking Tullow's journey towards a no net loss position by quantifying the residual impacts (pressures) on biodiversity features, the state of biodiversity features and the adequacy of management responses.
- Facilitate the development, testing and implementation of tools to track and verify the project's journey towards no net loss of biodiversity values.
- Ensure that mitigation and offset objectives, actions and targets are clearly defined within Tullow's biodiversity management plans and that these are integrated into Tullow's management system.
- Seek to capitalise on its position as a regional industry leader in order to minimise the cumulative impacts of oil industry developments on biodiversity in Kenya.
- Engage and consult with biodiversity stakeholders at all stages of the project and build cross-sector partnerships with local communities, various levels of national government, non-government organisations and academic institutions.
- Ensure that the Tullow Biodiversity Strategy is communicated to and aligned with all other Tullow environmental and social/community strategies.

2 ACHIEVING NO NET LOSS OF BIODIVERSITY VALUES

To achieve no net loss of biodiversity values, Tullow will use the mitigation hierarchy to reduce our impacts on biodiversity values through avoidance, minimisation and rehabilitation. Tullow will aim to achieve a no net loss position with the use of biodiversity offsets and additional conservation actions.

3 COMPLIANCE REQUIREMENTS

Tullow will undertake assessment of potential impacts on biodiversity features and ecosystem services to meet national permitting requirements, Tullow requirements and good international industry practice (GIIP) as described in IFC Performance Standard 6. Where a conflict exists between these standards and requirements, the more stringent approach shall be adopted.

4 DEFINITIONS

Avoidance:

Activities that either change or stop actions before they take place, preventing their expected impacts on biodiversity. Avoidance involves positive decisions to change from the normal course of action.

Minimisation:

Activities that reduce the likelihood or magnitude of biodiversity impacts that cannot be avoided or prevented.

Rehabilitation:

Activities to prepare safe and stable land areas that have been disturbed by Tullow activities, followed by re-vegetation to establish specific habitat types. Restoration refers to the recreation of an original habitat type. To be used in net biodiversity impact calculations, areas should be restored to a state where biodiversity values equal those of the original habitat.

Offsets:

Conservation-based actions to compensate for unavoidable biodiversity impacts caused by the actions of Tullow. Offsets can never replace appropriate avoidance and minimisation measures but seek to provide a positive impact to counter residual negative impacts.

Additional Conservation Actions:

Broadly-based management and capacity-building activities designed and intended to support biodiversity, and for which the impacts and outcomes can be difficult to quantify directly.

5 ENVIRONMENTAL ASSESSMENT

All proposed activities will be subject to an appropriate level of assessment commensurate with the nature and scope of the proposed activities.

Procedures for the permitting of individual features (such as an appraisal well) will take account of Tullow biodiversity requirements as applicable. Larger-scale environmental and social impact assessments shall assess the impact of such features (whether already permitted and constructed or planned) as part of the overall assessment.

5.1 Screening

Prior to any activity, Tullow will undertake an initial risk assessment and screening process to identify potential risks and impacts related to the location and scale of planned activities. This will consider proximity to areas of known biodiversity and ecosystem services value.

[See Risk Management Standards T-SNE-STD-0005 and MoC Standard T-SNE-STD-0002]

5.2 Scoping

If the need for assessment is identified, baseline studies will be appropriately scoped to address both biodiversity values and ecosystem services. The scope of baseline studies will include project facilities and any associated or related facilities or activities within the anticipated area of influence.

An assessment of potential impacts will consider activity-related direct, indirect and residual impacts and will also include a consideration of cumulative impacts.

A desktop literature review will be undertaken at a local and/or regional level as appropriate to the proposed activity.

As appropriate, Tullow will consult with relevant stakeholders to assist in the scoping process, particularly in relation to ecosystem services and the reliance of potentially affected communities on biodiversity features.

5.3 Critical Habitat Assessment

Critical habitats are areas with high biodiversity value including those important for endangered and endemic species, migratory species, threatened and unique ecosystems and areas associated with key evolutionary processes.

As part of initial screening, an assessment will be undertaken of the likelihood of proposed activities to impact critical habitat within the area of influence.

As part of scoping, a desktop literature review will be undertaken, including review of existing databases (such as IBAT) at a local and/or regional level as appropriate to the proposed activity. Tullow will also consult with appropriate stakeholders who may hold data or knowledge relevant to the identification of critical habitat.

A critical habitat determination will be prepared setting out the nature and extent of any critical habitat identified, including the definition of any discrete management units over which critical habitat should be considered and assessed.

In areas of critical habitat, Tullow will not implement proposed activities unless:

- No other viable alternatives within the region exist for proposed activity on modified or natural habitats that are not critical habitats;
- The proposed activity does not lead to measurable adverse impacts on the critical habitat biodiversity values and associated ecological processes;
- The project does not lead to a sustained net reduction in the global and/or national/regional population of any Critically Endangered or Endangered species;
- An appropriate long-term biodiversity monitoring and evaluation program is developed and implemented by Tullow.

For critical habitat, Tullow will develop a mitigation and management programme designed to achieve no net loss of those biodiversity values for which the critical habitat was designated.

5.4 Protected Areas Assessment

Legally protected and internationally recognised areas will be identified over the area of influence for the proposed activities and the need to secure any legal approvals within identified protected areas will be determined.

Alignment with government-recognised management plans will be considered and factored into plans and designs.

As appropriate, protected areas will also be considered under the critical habitat assessment.

5.5 Ecosystem Services Review

Appropriate to the scale of the proposed activities, a screening will be undertaken to identify priority ecosystem services comprising:

- Those ecosystem services which the proposed activities are likely to impact resulting in adverse impact on affected communities;
- The services on which the proposed activities are directly dependent for its operations (e.g., water).

Where affected communities are considered likely to be impacted, they will be engaged to participate in the determination of priority ecosystems for detailed assessment. This will consider inter-disciplinary issues where appropriate (such as community health safety and security or cultural heritage).

Priority ecosystem services will be managed in accordance with the mitigation hierarchy.

5.6 Baseline Studies

Baseline studies will be appropriately scoped and will address biodiversity values and ecosystem services across the area of influence for the proposed activities.

5.7 Impact Assessment

The impact assessment will use the mitigation hierarchy to avoid, minimise and mitigate impacts as far as reasonably practicable. Viable alternatives will be considered as part of the assessment.

The biodiversity impact assessment will be integrated into the overall environmental and social impact assessment and will consider both direct and indirect impacts across the area of influence and across the full life cycle of the proposed activities.

Significant residual impacts will be identified for specific mitigation, management and monitoring measures.

Affected communities will be consulted on the impacts identified and the mitigation and management measures proposed.

If applicable, documentation will be prepared to confirm that no measurable adverse impacts will occur on critical habitat values, and that there will be no reduction in global and/or regional critically endangered and/or endangered populations over the duration of the activity, due to the proposed activity.

5.8 Biodiversity Offset Assessment & Action Plan

If the impact assessment identifies significant residual impacts that require offsets, then a Biodiversity Offset Assessment & Action Plan will be prepared to deliver no net loss or net gains (as required).

Offsets will be designed based on best available information and GIIP, and will be supported by suitably qualified and experienced experts. Offsets will be developed on a “like for like or better” principle and will be based around measurable conservation outcomes with the objective of reaching a No Net Loss (NNL) position as a minimum.

5.9 Invasive Species, Pests and Pathogens

If materials or equipment are to be imported, or vessels need to enter territorial waters, a risk assessment will be undertaken of the introduction of alien species and of regulatory requirements. If potential risks are identified, appropriate bio-safety procedures will be developed and implemented. Within areas of natural habitat that are under Tullow’s control, any alien invasive species identified will be eradicated and subsequently the area will be monitored.

5.10 Management System

Biodiversity management will be integrated into the environmental and social management system developed and implemented by Tullow. The regular review of management system effectiveness will be used to ensure that adaptive management and response measures are established to manage biodiversity risks and impacts on an ongoing basis. Long term monitoring will be established for any significant critical habitat values considered likely to be impacted by the proposed activities.