



LAKE NAIVASHA BASIN ECOSYSTEM BASED MANAGEMENT PROJECT

Environmental and Social Management Plan (ESMP) for Community Health and Safety in the Lake Naivasha Basin

1 Project Background

Lake Naivasha is one of the two freshwater lakes in the Kenyan part of the Rift Valley. The Lake Naivasha Basin (LNB) is challenged by land degradation, water pollution and loss of biodiversity, resulting in a reduction in provision of ecosystem services. This is caused by a number of threats, in particular (i) poor agricultural practices by small scale farmers in the upper catchment; (ii) overgrazing and illegal logging in the lower, middle and upper catchment; (iii) pollution of water bodies from farmlands, settlements and industries; (iv) over-abstraction of water resources; (v) urbanization, agricultural expansion, infrastructure development and other types of development associated with land use change; and (vi) impacts of climate change.

The key objective of Lake Naivasha Basin (LNB) Ecosystem Based Management Project is to restore forest ecosystems and reduce land degradation in the LNB catchment for increased protection of Lake Naivasha's water resources, biodiversity, and associated ecosystem services to support the local and national economy. The project is being implemented over a period of four years and is funded by the Global Environment Facility (GEF) through the Worldwide Fund for Nature (WWF-US). The project aims to promote sustainable agricultural practices, enhance farmer capacity, and strengthen community-based natural resource management within the Lake Naivasha Basin.

The project is structured around 4 key components:

- i. Component 1: Strengthening the enabling conditions for integrated landscape management in Lake Naivasha Basin
- ii. Component 2: Market and financial mechanisms for implementation of the LNB Integrated Management Plan
- iii. Component 3: Improved land management in LNB
- iv. Component 4. Knowledge Management and Monitoring and Evaluation

The National Environment Trust Fund (NETFUND) is the Lead Executing Agency for the project. The day-to-day management of the project is being implemented a Project Management Unit (PMU), with responsibilities for the coordination of work between the various partners in the project and leading on specific components of work. Several executing partners most notably Kenya Forest Services (KFS) and National Environment Management Authority (NEMA) are engaged in the implementation and coordination of specific project components.

In compliance with WWF Environmental and Social Safeguards Framework (ESSF), as detailed in WWF's Environmental and Social Safeguard Integrated Policies and Procedures (SIPP), the Lake Naivasha Ecosystem Based Management Project was screened according to WWF's Standard on Environmental and Social Risk Management.

The Project has been categorized as a Category "B" project, given that it is essentially a conservation initiative expected to generate significant positive and durable social, economic and environmental benefits.

WWF's safeguards standards require that any potentially adverse environmental and social impacts are identified and avoided or mitigated. The Project triggers WWF's Standard on Community Health and Safety. This standard has been triggered because some of the planned on-farm practices and post-harvest activities, as well as water harvesting and efficient water use techniques like irrigation infrastructure may have potential negative environmental and health impacts, as well as implications on labour standards, if they are not undertaken correctly or their risks not minimized

2 Purpose of the ESMP

This Site-Specific ESMP is a project-specific source document detailing the environmental and social protection requirements to mitigate and minimize the adverse impacts. ESMP's primary purpose is to ensure that the environmental requirements and social commitments associated with the project are carried forward into implementation and operational phases of the project and are effectively managed. The specific objectives of this ESMP are:

- Minimizing any adverse environmental, social and health impacts resulting from the project activities,
- Conducting all project activities in accordance with the relevant Kenyan Laws and WWF's safeguard operational policies and guidelines,
- Preventing environmental degradation because of either individual subprojects or their cumulative effects,
- Enhancing the positive environmental and social outcomes of project activities.
- Ensuring that the proposed mitigation measures are feasible and cost-efficient,
- Providing an Action Plan to ensure that the project impact mitigation measures are properly implemented and monitored,
- Ensuring that all stakeholders are equitably engaged in the project's activities preparation and implementation, that their concerns are fully addressed and their own goals and desires are considered.

3 Planned Activities

The activities that relate to this ESMP include the following:

- i. Field days with demonstration of practices
- ii. Establish model farms with selected farmers for peer learning
- iii. Support selected farmers with materials for conservation agriculture practices, including provision of soil testing, certified seeds, compost/mulching tools

- iv. Protection and restoration activities on key riparian degradation areas implemented (in particular passive restoration through natural regeneration)
- v. Participatory development and implementation of Lake Riparian Area Code of Conduct for LNB stakeholders

4 Potential Social and Environmental Impacts

Potential negative impacts for the planned activities may include:

- i. **Exposure to waterborne diseases-** During the training for target farmers to transition to Sustainable Agriculture practices, elements of water harvesting and efficient water use techniques will be promoted. Water harvesting techniques such as shallow wells and small dams may pose environmental impact on spread of waterborne and water-related diseases
- ii. **Temporary violation of human rights especially customary rights of access to forest resources due to restricted access because of controlled grazing.** The principles of natural regeneration as applied in the restoration work recommend minimal disturbance and reduction of stressors. Some of the disturbances are as a result of human activities during grazing and collection of firewood / other forest non wood products. Controlling the activities to allow natural regeneration would demand temporary restricted access to restoration sites.
- iii. **Occupational injuries-** The restoration work of the degraded site may include mechanical removal of invasive plant species in the forest and establishment of simple fences. These tasks involve community members working as casuals on various sites and pose risks of physical injuries should an accident occur
- iv. **Pollution-** The promotion of safe pesticides and integrated pest management methods, use of regulated fertilizers may pose soil and water pollution. Usage of polluted water may cause disease.

Positive impacts include:

- i. Improved sanitation- Implementation of Lake Naivasha Riparian Area Code of Conduct will enhance Water, Sanitation and Hygiene in the basin
- ii. Restoration activities will increase water infiltration leading to increased water quantity and quality in water sources
- iii. Improved waste management- Capacity building on water management will lead to proper waste management in the basin strengthened local emergency response systems. Training of Ward Agricultural officers and climate change officers will integrate disaster risk reduction and planning to enhance emergency response in the basin.
- iv. Reduction in Human -Wildlife conflict. Proper spatial planning and management of riparian areas and the integrated management of the basin will result in reduced

incidences of attack by wildlife (Hippos attacking human beings and destroying property).

5 Mitigation Measures for Environmental and Social Impacts

Potential impact	Impact scale	Proposed mitigation measures	Responsible party
Spread of waterborne diseases	Long term High Impact	<ul style="list-style-type: none"> Conduct hygiene awareness campaigns and promote safe water storage and sanitation facilities. 	County Governments, NEMA, NETFUND
Poor waste disposal leading to pollution	Long term High Impact	<ul style="list-style-type: none"> Implement community waste management systems and strengthen local by-laws. 	County Governments, NEMA, NETFUND
Pollution from use of pesticides	Long term High Impact	<ul style="list-style-type: none"> Train farmers on Integrated Pest Management (IPM) whereby farmers are encouraged to use biological controls (natural predators, resistant crop varieties, crop rotation). Apply pesticides only as a last resort and based on monitoring and economic thresholds. Regular training for farmers on safe handling, mixing, and application and correct dosage and timing Create awareness on health risks and first aid for pesticide poisoning and safe Storage and disposal of pesticide containers 	NETFUND County Governments KEPHIS
Occupational risks to community workers	Short term Medium Impact	<ul style="list-style-type: none"> Train farmers on effective use of PPE, first-aid, and enforce occupational safety standards. Awareness of safety measures during restoration activities 	NETFUND, KFS

Potential impact	Impact scale	Proposed mitigation measures	Responsible party
Temporary suspension of community rights on access forest resources.	Short term High Impact	<ul style="list-style-type: none"> • Provide alternative areas within the forest (areas that have ecosystem stability) for community members to access forest resources • Forest zone to allow partial access for areas that have now active restoration activities taking place. • Inclusive and participatory consultation with all the stakeholders on benefits of Lake Naivasha Code of conduct 	NETFUND, KFS

6 Consultation, Disclosure and Grievance Mechanisms

Community consultations and screening were held in each sub-catchment to identify risks and mitigation measures. Awareness of the existence of relevant Grievance redress mechanisms was also undertaken with training of GRM champions from identified community groups. Any grievances arising due to implementation of the Lake Naivasha Project will be handled as described in the project's Environmental Social Management Framework. This is through existing county systems, the project-level grievance desk, NETFUND GRM and WWF's independent grievance mechanism

For Complaints and Compliments in relation to this **Environmental and Social Management Plan (ESMP)**:

Write to:

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