

WWF Environmental and Social Safeguards Categorization Memorandum

<p>Project Title: Food Systems, Land Use and Restoration in Tanzania’s Forest Landscapes</p>	<p>Date: 12/08/2020</p>
<p>Project Location and salient physical characteristics relevant to the safeguard analysis:</p> <p>The two target landscapes are the Kilombero district within the Kilombero sub-basin on mainland Tanzania (1,356,130 ha), and the North A/North B districts on Zanzibar (hereafter referred to as North-Unguja landscape, 43,100 ha). Both landscapes are specifically targeted for rice cultivation, as supported by various government and private-sector led initiatives.</p> <p>The Kilombero district is in mainland Tanzania and hosts the majority of the Kilombero Valley Ramsar-designated wetland system, as well as other areas of high biodiversity significance such as part of the Selous Game Reserve, Tanzania’s largest National Park and a designated World Heritage Site, parts of the Eastern Arc Forests. These important conservation areas are connected through several wildlife migration corridors, which cut across the landscape. Diverse mammals, amphibians, fish and bird species populate the area, among which 75% of the world’s Puku antelope population. The Kilombero Valley is targeted for agricultural expansion under the Southern Agricultural Growth Corridor (SAGCOT), Tanzania’s largest agricultural development program. In this regard, the 2002 Ramsar status assessment already noted concern with regard to expansion of commercial and small-scale agriculture in the valley, which at present has already led to the conversion of at least 60% of the wetland area into cultivated land, with detrimental effects on the biodiversity in the wetland system, as well as downstream wildlife areas. Rice cultivation is one of the main crops that has seen rapid growth over recent decades, attracted by the favorable conditions by the low-lying wetlands systems in the Valley. 90% of production is rain fed, represented by low yields, but production is expected to further increase in the future, with planned irrigation schemes expected to boost opportunities.</p> <p>The Kilombero Valley is characterized by its large populations of large mammals (e.g. buffalo, elephant, hippopotamus, lion, and puku), and hosts the world's largest Puku population. The Valley is also home to one of the largest populations of Nile crocodile in Africa, is known as an important breeding ground for bird species such as the African open-bill, white-headed lapwing, and the African skimmer, and is home to a range of endemic species including the Udzungwa red colobus monkey, the Ulanga weaver and two undescribed species of cist-colas. The Kilombero river is home to 23 species of fish including three species of fish not found downstream in the Rufiji: <i>Alestes stuhlmannii</i> and two species of <i>Citharinus congicus</i>. Fish from the Rufiji River system migrate upstream to the Kilombero to spawn, usually at the beginning of the rains in November with peak spawning activity coming in December.</p> <p>In recent years the increase of farming encroachment in the valley has put pressure on the only two remaining wildlife corridors: the Nyanganje Corridor and Ruipa Corridor. The valley constitutes one of the most fertile areas in Tanzania, and in the past decade the availability of unprotected land has attracted a large number of migrants into the floodplain and the miombo woodland. As a result, large areas of the miombo have been cleared for farming and cattle</p>	<p>Project Categorization (A,B,C): B</p>

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grazing. Although the majority of the villagers are subsistence farmers, mainly cultivating rice and maize, the extent of human encroachment is so significant that it threatens the survival of many species and the viability of the whole ecosystem. Similarly, mining activities (the proper mining and exploration licenses) have also been observed to be emerging as a threat to the valley. The degradation of the miombo woodlands and the floodplain is of great concern as their importance as a wildlife refuge is likely to increase as the remaining corridors are getting more and more fragmented.

The majority of the (mainly rural) population in the Kilombero Valley are subsistence farmers of maize and rice, as well as fishing and livestock. In addition, there are large plantations of teak wood in the Kilombero valley. In the lower floodplain, rice cultivation constitutes the main crop system, in light of the favorable conditions in the seasonably flooding wetland systems. The production system is mainly rain fed, with one annual crop, resulting in very low yields (1.5 to 2 t/ha). However, the Kilombero Valley also hosts Tanzania's main irrigated rice production facility, Kilombero Plantations Limited (KPL). Although KPL has stopped production due to unfavorable economic conditions, the scheme is expected to go through a restart. Rice production is expected to further grow with planned investments for irrigation schemes in the Valley. In the north-west of the district, Illovo Sugar Company's sugar-cane plantations occupy most of the low-lying area.

The Kilombero holds great potential for expansion of agricultural irrigation and hydropower production. Large increases in agricultural irrigation in this sub-basin have been planned under SAGCOT, with the irrigated farm area in the dry season expected to increase from 6,512 ha, as measured in 2010, to 110,891 ha by 2035. However, the Rufiji basin Integrated Water Resources Development Plan (IWRDP) shows that the consumptive water use scenarios for 2025 and beyond will cause depletion of dry season flows below Environmental Flow Requirements (EFRs) in the Kilombero River. Strategies defined in the IWRDP include (a) transferring water from wet to dry seasons through suitable storage management (damming) and (b) using conjunctively surface and ground water sources.

The Kilombero sub-basin also has high hydropower development potential, with several major hydropower stations proposed over the planning horizon. The proposed hydropower stations (i.e., Ruhudji, Mpanga, Taveta-Mnyera, and Ikondo power stations) are all located in mountainous catchments with little existing and projected consumptive water use. For this reason, existing and proposed hydropower stations in the Kilombero sub-basin are expected to meet their power generation targets even under the 2035 water use scenarios, although there are question related to their long-term prospects.

The **Unguja landscape** covers historically rich coral rag forests and hosts the islands' major aquifer systems, which is the basis for food crop production. The demand for food has driven large-scale conversion of forest lands, resulting in high levels of land degradation. Because of its irrigation potential, the area is a main target for ongoing investments in the rice production sector. In particular, a large-scale investment in irrigated rice production is currently underway, under the 'Rice Irrigation Infrastructure Project', implemented through a loan by KOREA Exim

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Bank/SMZ with a value of US\$64,500,000, which will support the construction of four irrigation schemes that foresees in the creation of reservoirs (dams) as water sources, as well as boreholes for groundwater abstraction.

North A represents the northern-most district on Unguja Island, covering an area of 211 km², sharing borders with North B in the South, and the Indian Ocean in the North, West and East. The estimated total population of North A district was 105,880 (51,566 male and 54,214 female) during the latest census in 2012 (DoURP, 2012) with an annual growth rate of 2.4% and a Human Development Index of 3.5 and the second lowest level of literacy (65%) in Zanzibar.

Agriculture is the predominant occupation of the workforce and contributes 87 percent of the average incomes of farming households in the district, with fishing and tourism accounting for the remaining. About 59 percent of North A district population do practice subsistence farming, with major food crops being paddy, banana, yams, cassava, tomatoes, maize and millet, and the major cash crops being cloves and seaweeds. Agricultural practices are generally low intensity, characterized by a high dependence on rain-fed agriculture, poor agricultural practices, high post-harvest losses, inadequate access to agricultural inputs and appropriate irrigation technologies, and the use of primitive farm tools.

North B district lies in North part of Unguja Island covering an area of 220 km². It is bordered by Central district and Western B to the South, North A district to the North and the Indian Ocean to both, West and East. The District headquarter is situated at Mahonda (DoURP, 2012).

According to the 2012 National Population and House Census, North B District has a population of 81,675 inhabitants, of which 40,548 are male and 41,127 are female with an average household size of 4.7. The population density has increased dramatically over the past decades, increasing the pressure on land for the production of crops (HBS, 2009/10).

The main food crops grown in the district include banana, sorghum, maize, coco yams, vegetables and cassava. Performance of the agriculture sector in the district is good due to availability of rains, fertile lands, extension services, availability of inputs and a favorable land tenure system. Production of food crops such as rice, banana, maize and legumes have been increasing in recent years.

Up to 30-40 years ago, North A and North B districts were known to be very fertile and composed of various tree species such as Mitomondo, Misufi, Miembe, and Mitondoo. However, much of the area's rich forests were heavily cut to make space for agriculture, with only remnants of the original forest cover remaining. This causes the disappearance of valuable tree species, including their protection of the rivers and ponds in the district.

An important feature of the North A and B region is its aquifer systems, the largest and most important source of freshwater on Unguja Island, which provides the basis for both domestic water supply and irrigated agriculture, rice being a particularly important crop in this regard, in particular in light of the Government's plans for the expansion of irrigated rice production and the related construction of two reservoirs and multiple boreholes. Being the 'water tower' of

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Unguja, this important livelihoods source is important to preserve, which is main reason for the selection of these two focal districts for this project.

Project Description:

The Project 'Food Systems Land Use and Restoration in Tanzania's Forest Landscapes' is a child project under the GEF Food Systems, Land Use and Restoration (FOLUR) Impact Program. The key environmental problem to be addressed by the project is the degradation of Tanzania's rich forest lands and wetlands and the related loss in forest health and biodiversity, under the pressure of rice expansion and other agricultural development, which has detrimental effects on the delivery of ecosystem services and related livelihood and economic opportunities.

Based on the overall theory of change, the project is divided into four individual components, the first three of which are focusing on one of the main axes of FOLUR action, and the fourth providing for the supporting coordination and monitoring, evaluation and learning aspects of the project:

Component 1 involves the application of an Integrated Landscape Management approach, including developing land-use plans and related water protection plans, and operationalize their implementation by creating an enabling environment.

Component 2 focuses on the development of sustainable and socially inclusive value/supply chains for the rice production sector, including the development of supporting governance, finance and market approaches that will drive sustainable value chains.

Component 3 involves the development and implementation of concrete landscape restoration activities in the target landscapes, including the creation of enabling conditions for upscaling.

Component 4, focuses on coordination, cooperation, and M&E, including knowledge sharing, learning, and synthesis and communication of experiences nationally and regionally (see following section).

In addition to the safeguards standards triggered below, the four safeguards standards apply to all WWF projects:

- **Environmental and Social Risk Management**
- **Consultation and Disclosure**
- **Community Stakeholder Engagement**
- **Grievance Mechanism**

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Safeguard Standards Triggered	Yes	No
Natural Habitats	X	
Pest Management		X
Indigenous Peoples	X	
Involuntary Resettlement	X	
Cultural Resources		X
Community Health and Safety	X	

Summary of Key Safeguard Issues:

The proposed project has been screened according to the Standard on Environmental and Social Risk Management and 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. Any adverse environmental and social impacts are site specific and can be mitigated. Since the exact location and/or nature of potential investments have not yet been determined, an Environment and Social Management Framework (ESMF), including a Process Framework (PF), will be prepared to conform to WWF's Environment and Social Safeguards Framework.

Standard on Natural Habitat: Overall, activities of the Project will produce significant conservation benefits and any potential adverse environmental impacts on human populations or environmentally important areas including forests, grasslands, and other natural habitats are expected to be very limited. This Standard has been triggered as a precaution for activities being carried out inside sensitive ecosystems.

Standard on Involuntary Resettlement: There will be no land acquisition or involuntary resettlement of individuals and/or families under the proposed project. While the proposed project will not cause displacement of people from their homes, the Standard is triggered because there might be certain access restrictions to HCV forests/lands and the associated natural resources in order to enhance biodiversity and ecosystem functions. A Process Framework will be prepared as part of the ESMF to conform to WWF's Environment and Social Safeguards Framework.

Standard on Indigenous People: There are 120 different ethnic groups throughout Tanzania, with 100 dialects spoken. As a precautionary approach, this Standard is triggered as there might be ethnic groups that are considered indigenous people present in the project landscape. Within the Kilombero landscape (mainland Tanzania), nomadic herders from the Maasai and Barabaig ethnic groups could be found in or near the project area. Guidance on ensuring proper consultation with these ethnic groups will be included in the Stakeholder Engagement Plan and the ESMF. If these ethnic groups are present where project activities are taking place, informed consultation will occur as stipulated in the ESMF and SEP to conform to WWF's Environment and Social Safeguards Framework.

Standard on Pest Management: The activities are not expected to trigger the Standard on Pest Management as the proposed activities do not include the promotion or usage of pesticides but will aim to

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reduce the amount of fertilizers and pesticides used by strengthening farmer capacity on the proper use of chemicals and fertilizers (e.g. integrated pest management and good agriculture practice).

Standard on Cultural Resources: This Standard is not triggered as the project is highly unlikely to have an impact on cultural resources.

Standard on Community Health, Safety and Security: This standard is triggered as there are potential negative environmental impacts and implications for labor standards related to on-farm practices and post-harvest activities under Output 2.2.2, as well as small construction projects primarily for small-scale infrastructure under Output 3.1.1 and Output 3.1.2, if not carried out properly. There shall be guidance on mitigation measures in the ESMF to address these impacts.

Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The project expects to achieve improved conservation and sustainable use of natural resources as its long-term impact of project interventions, which will be both environmentally and socially positive.

Required actions: (type of ESIA, ESMP, IPP, IPMP, RAP, consultations, disclosure)

An Environmental and Social Management Framework, including a Process Framework, will be prepared and disclosed before Agency approval.

A Stakeholder Engagement Plan will be prepared and disclosed during Prodoc development stage.



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