TERMS OF REFERENCE

UNDERTAKE BIO-RIGHTS FEASIBILITY STUDY TO LINK ALTERNATIVE LIVELIHOODS AS INCENTIVE TO THE IMPLEMENTATION OF MANGROVES GENERAL MANAGEMENT PLAN IN RUFIJI DELTA

1. INTRODUCTION

Rufiji Delta Mangrove Forest Reserve was declared a National Forest Reserve in 1928 during the British colonial time and was gazetted under GN No. 30 (Cap 132). The Rufiji Delta Mangroves Forest Reserve covers an area of 53,255 ha and is owned and managed by Tanzania Forest Services Agency (TFS) that is under the Ministry of Natural Resources and Tourism (MNRT). To respond to the ongoing deforestation of Mangroves in the Rufiji delta, the government of Tanzania through Tanzania Forest Service (TFS) Agency and Wetlands International with financial support from the Blue Action Fund (BAF) developed and approved the management plan for the Rufiji delta mangrove forest reserve for the period 2021/22 - 2025/26.

This mangrove management plan includes four zones:

a) Production Zone: Forest areas supporting production

Production zone in the Rufiji Delta extends in the Northern, central and Southern Delta and it covers a total area of 30,000ha. The objective of establishing this category is to maintain productivity of the area while permitting sustainable harvesting of forest resources. Harvesting of mangroves is carried in this zone. Harvesting license is issued for harvesting of mangrove resources according to the harvesting plan and prevailing Government Notice and Guidelines. However, the allowable cut is determined after intensive forest inventory.

b) Total Protection Zone: Forest areas supporting protection

The Delta has 23,255 ha set for total protection. The objective of establishing the total protection forest area is to preserve vegetation and associated fauna and permitting only access for non-destructive and consumptive, scientific uses and protective functions. These are divided into three groups; a) environmentally stressed mangroves, b) mangroves that protect the coast from wind and erosion, and c) mangroves that maintain genetic resources and protect flora, fauna, and mangroves that are 60m from the riverbanks. In this zone, no harvesting is permitted. Research, training and other environmentally friendly activities like ecotourism, beekeeping and worshiping are permitted with permits

c) Development Zone: Forest areas supporting development

The Rufiji Delta in the Northern, central and Southern zones has potential areas that support developments. These areas are regarded as suitably defined, carefully controlled developmental activities at both the commercial level and that of the village. Unlike other zones, criteria for selection of this area depends not only on the nature of the forest but also on that of the adjacent areas. Emphasis here is on activities such as fishing, beekeeping and minor uses of mangroves tree products at the village level. In the few cases in which it would be considered appropriate, the construction of saltpans and aquaculture ponds in form of economic development might be considered. Included in this zone are those areas selected for scientific, educational and demonstration activities. The areas to be set aside for experimental plots are relatively far from villages to reduce the human disturbances factor. However, the proximity of some mangrove stands to towns or villages makes suitable for educational purposes. Unsustainable aquaculture in the Rufiji Delta mangroves that involves clear cutting of mangroves will not be allowed. Rufiji Delta has eco-tourism potentials though it has not been developed and promoted.

d) Rehabilitation/Recovery: Forest areas supporting rehabilitation

The Rufiji Delta has 7,000 ha of degraded mangroves due to human activities and natural calamities. The purpose of setting aside this area is to allow recovery and regeneration of mangroves by restricting access. Areas with good natural regeneration will be left to recover without planting while in areas where natural regeneration will not take place different planting methods will be used. The time to be allowed for recovery will vary from 3 - 25 years depending on the size, type and quality of the wood product desired.

2. Rationale for bio-rights feasibility study

Growing population densities, linked to climate change and land tenure are compromising per capita revenues. As a result, the traditional sources of income have become increasingly insufficient to support the livelihoods of many smallholder communities. These developments have forced many poor people to use unsustainably the environment in order to meet their short-term livelihood requirements. They are forced into a poverty trap that is to fulfil short-term needs, which overexploit environmental resources including mangroves forest, and this constrains long-term development opportunities and drives further degradation. This has a far-reaching impact on the livelihoods of the communities involved in unsustainable exploitation, as well as on stakeholders elsewhere who depend on the ecosystem services that are being degraded. Limited awareness among communities about the importance of ecosystem services for sustaining livelihoods exacerbates the harmful impact of this negative feedback loop on both livelihoods and the environment.

This mangrove management plan is expected to enable communities to manage mangroves resources properly. However this management plan, will only be implemented and deliver the required outcomes if enhancement of community participation is well achieved. This plan recognizes all villages adjacent to the Rufiji Delta Mangrove Forest Reserve with functional Village Natural Resources Committees (VNRCs) as potential local institution for natural resource

base management. Beekeeper's cooperatives, fish farmer's cooperatives, BMU, traders, hoteliers, mangrove pole/log dealers and VNRCs are key local institutions in the implementation of this management. VNRCs are the key players that link the implementation of village natural Resources management plan (VNRMP) and the Rufiji Delta Mangrove Forest Reserve Management Plan. Schools, Women groups and individuals involved in farm forestry will also contribute to the management. These groups will be trained to strengthen their involvement in the management of the reserve. A transparent MoU between the community organizations and Rufiji Delta Mangrove Forest Reserve management will be developed.

The established Village natural resource committees provide a foundation for Joint Mangrove Forest management. The villages, which border the Rufiji Delta, the Village Councils, NGOs, LGA and CBS and Natural Resources Committees representative in collaboration with TFS, will prepare joint management agreements for the Rufiji Delta Mangrove, an agreement that will be between such villages, NGOs and TFS. Each village will be supported to prepare and review by-laws related to the management of the mangrove forest reserve of which will be used to manage the forest reserve on the area of forest reserve allocated to a particular Village for management.

The study conducted by Ntibona, (2022) looked on perceptions of mangrove-dependent communities in the Rufiji Delta on the impacts of conservation initiatives on local livelihoods based on four conservation themes of social impacts of conservation, legitimacy of conservation governance, acceptability of conservation management and ecological outcomes of conservation. Legitimacy of conservation governance influenced the most perceptions. Community inclusion, recognition and appreciation of community interests and priorities are key for sustainable conservation and local livelihoods.

Accordingly, conservation governance systems that are acceptable by people motivate positive perceptions and sense of responsibility towards conservation. Communities would be willing to engage in conservation if their position is adequately recognized and they are given the opportunity to exercise their mandate. Contrary, where conservation governance does not safeguard local views, interests and priorities, it amounts to community discouragement. This recall and emphasize for conservation actors to involve appropriately and adequately communities in conservation decision and planning. The management of the Rufiji Delta for the coexistence of mangroves and human occupations can be accomplished through revenue sharing between the conservation authority and local communities, as it has been done in other conservation areas like the Ngorongoro Conservation Area. (Melita and Mendlinger, 2013; Harris et al., 2020; Kimario et al., 2020) and Jozani–Chwaka Bay National Parks (Carius and Job, 2019).

The deforestation of mangroves has recently been rescinded since October 2021 following up development of this new management plan for the delta for the years 2020/21–2024/25, allowing local communities to license-harvest mangroves for poles only. This is due to the forest inventory carried out in 2018 by Tanzania Forestry Service Agency, which determined forest stocking level, volume and biomass, carbon stock as well as resources distribution. As a result, harvesting quota for poles and logs were estimated. Three species, *Rhizophora mucronata, Ceriops tagal* and *Avicennia marina* are allowed to be harvested from production zone only because the zone has a good tree stand with the tallest trees of a height of more than 5m. This result is

necessitating bio-rights feasibility study to inform how best communities will be involved and collaborate with TFS in the sustainable management of mangroves resources. The key benefit of local community participation in conservation is that it effectively reduces protection costs in terms of time and money input by eliminating the need for outside technical expertise and human resources. Communities are natives of the delta, they have enough local traditional knowledge to manage mangroves, use mangrove resources in their daily livelihoods and are able to implement conservation programme for a longer period. Furthermore, their participation would increase public awareness on the benefits of conservation. The benefits are categorized into ecological (good air quality, increased mangrove quality, coastal area protection, increased fisheries), economic (increased income, creation of job opportunities, addressing social needs), cultural (culture preservation, increased social values), and legal (provision of licenses and proper harvesting plans).

3. Objective and Specific Tasks

The main objective of the consultancy is to undertake bio-rights feasibility study to enable Wetlands International, and Tanzania Forest Service Agency to apply Bio-rights mechanism in the Rufiji Delta as a community incentive for implementing Mangroves management plan for sustainable development of communities and mangrove conservation.

Specific tasks

a) Undertake village bio rights feasibility study to understand opportunities and challenges in implementing bio rights; and inform selection of the villages and communities to implement Bio rights mechanism and a plan for management of mangroves areas of each village;
b) Undertake policies analysis to understand how bio-rights initiatives are linked to policy in various ways. Largely, policies determine what can be accomplished by means of Bio-rights. Policies determine the potential role of local communities in natural resource management as well as the involvement of other relevant local stakeholders in the mangroves management plan implementation. Policies also determine the legal boundaries of what kind of interventions are allowed. Thus, policies either do or do not provide an enabling environment for Bio-rights projects. On the other hand, Bio-rights can serve as a tool to translate policies into practice. Operationalization of policies is considered a major challenge in many countries. Thus, it is very important for Bio-rights and policy development to take place in parallel with each other.
c) Undertake tenure rights analysis as securing of tenure rights to land and resources is a critical aspect of Bio-rights implementation. Where local communities have secure land tenure, this can significantly help to accomplish success. Most importantly, it ensures that local communities have full responsibility for meeting the conservation requirements set out in the contractual agreement, which makes it less likely that a third party will negatively interfere with the project success. Tenure rights provision might also increase wise stewardship of land and resources since communities are more likely to implement long-

term sustainable practices on land that is their own. A risk of granting rights to resources is that long-term management strategies might be difficult to predict or influence. Assessing - and acting on - the pros and cons of rights provision should form an integral part of Bio-rights development and involvement in policy processes;

d) Undertake Law enforcement status and procedures. Involving communities in natural resource management linked to provision of incentives to support changes in unsustainable land use practices is just one means of accomplishing environmental conservation. The opposite approach, strict law enforcement, is also a potentially powerful tool. Community-based conservation and top down law-enforcement are not necessarily mutually exclusive. A potentially very powerful approach would be to incentivize local communities to refrain from unsustainable or illegal resource exploitation by means of Bio-rights, while simultaneously ensuring strict enforcement of contractual obligations;

e) Aligning to existing approaches: Review several approaches that are advocated nationally, regionally and globally and have significant potential for linkage to Bio-rights and propose which approach to be applied in the Rufiji Delta to meet the challenge of efficiently channeling financial benefits to local communities to ensure the sustainable use of resources;

f) Tapping into global markets: Review national, regional and international markets that have been developed applied for the provision of a range of ecosystem services for example, the carbon market, have become comparatively well established and is rapidly expanding. A major challenge for these markets is to ensure that financial resources are optimally used to accomplish the desired conservation objectives while ensuring that payments are provided to the right stakeholders;

g) Community-based Natural Resource Management (CB-NRM): Review and propose how CB-NRM can be applied in the Rufiji Delta. Nationally, efforts are being made to ensure greater involvement of local communities in the development and implementation of policies for the management of natural resources in their surroundings. This is considered desirable from an ethical perspective, but also to ensure that policies are adequately transferred from paper into practice. Over the years, various institutions gained experience with involving local communities in the process of consultation and policy development. Translating these policies into practice, with the sustained involvement of local communities, however, has so far lagged behind. Assuming availability of funding, Bio-rights could serve as a promising means to implement policy plans and shape local perceptions to favor sustainability;

h) Community-based savings schemes: Review and propose Community-based savings schemes such as Vikoba among others which have made significant investments in community-based savings schemes in which local community groups use their own income to generate savings to fund development activities. Focus will be on establishing groups, building capacity for managing financial resources and implementing development initiatives. The skills built through these schemes - such as skills in the distribution of tasks, taking independent action and designing development plans, for example - could greatly contribute to success for Bio-rights implementation. Meanwhile, payments provided for conservation and restoration activities could significantly augment the savings process.

Savings schemes and Bio-rights could be implemented in parallel to each other, or consecutively, starting with a savings scheme (to build relevant capacity) followed by a Bio-rights intervention;

i) Ecotourism: Review and propose ecotourism attractions and mechanisms to be applied in Rufiji Delta. Many forest managers allocate a certain fraction of the revenue from tourism for communities living in or around a protected area. Often such payments are provided in cash. By disbursing community payments as part of a Bio-rights deal will encourage communities to appreciate and participate in conservation activities. TFS and local communities would be able to agree on a sustainability criterion, while creating a platform that enables local communities to be involved in the management of their surroundings. This will allow TFS management to be better adjusted to local aspirations and needs, and enable conflict resolution. Thus Bio-rights could help to transform the relationship between park management and local communities from being strictly financial to a more durable cooperative relationship that allows for participative management of protected areas;
j) Review and propose advantage and disadvantage of labelling products such as honey, timber among others from Rufiji Delta to ensure compliance with labelling requirements, production chains often require considerable reform of a large number of social and environmental aspects. In cases where local communities are involved in the use or cultivation of a certain product, Bio-rights might be well suited to guide this process. The revenue from sales of labelled products can be passed on to local communities by means of Bio-rights to cover the costs of modifying production processes and sustaining new ways of working. Likewise, the approach can help to accomplish the high level of organization and skills usually required to fulfill labelling requirements;
k) Adapting Bio-rights: Review and propose how bio-rights can be adapted in the Rufiji Delta. The typical Bio-rights approach as micro-credit conversion, Payment of Ecosystem Services (PES) and, in some cases, the subsequent establishment of a community-based revolving fund, modified funding structure might be desirable;
l) Identify and propose ways (steps) of involving communities in implementing bio-rights: Bio-rights can be implemented in the field, byproviding practical step-by-step description to help conservation and development practitioners getting started with the approach. These steps includes but not limited to i) project initiation, ii) project development, iii) contract negotiation, iv) practical implementation and v) project monitoring and evaluation.

4. METHODOLOGY

The main methods included:

a) Undertake document review, nationally, regionally and internationally;
b) Undertake interviews with communities, leaders, institutions and NGOs such as Wetlands International staff;,
c) Use Semi-structured interviews: After reviewing the documents, identify key outstanding questions and drafted interview guidelines for different categories of stakeholders;

d) Based on the document review and information from the interviews, the assessment follow a conceptual framework and result/ activities matrix to be developed by the consultant in consultation with Wetlands International. The framework and matrix will be used to structure the description and analysis of the mechanism. Once an initial draft of the report has been prepared, it will be reviewed by Wetlands International;
e) Hold different meetings to build capacity and trust building, presenting findings of the study for implementation, monitoring and sustainability.

5. EXPECTED OUTPUTS / OUTCOMES

a) Inception report;
b) Draft A bio-rights feasibility study report;
c) A bio-rights feasibility study report;
d) Capacity built and agreements signed with at least 10 communities.

6. TIMEFRAME

The total task is expected to be implemented by November 2023

7. PERFORMANCE MONITORING

The Tanzania's Country Programme Coordinator, Regional Mangrove Specialist, Regional Programme Officer and Project Manager will be responsible for the review and approval of all deliverables.

8. CONTRACT TYPE

Wetlands International will issue a fixed-price contract for this work. The contract would comprise a set of fixed payments depending on the submission and acceptance of the deliverables listed in number 5 above, as per the consultant's proposal and subsequent agreements.

9. MINIMUM QUALIFICATIONS AND EXPERIENCE REQUIRED

The Consultant should have the following profile:

(a) A postgraduate Degree in Biodiversity Conservation and Management;
(b) Extensive experience in projects of reforestation, natural resources/ mangrove restoration and rehabilitation of degraded areas;
(c) Demonstrated knowledge and experience in understanding of Bio-rights in natural resources management of not less than 5 years;
(d) Expertise in either Community-based Natural Resource Management (CB-NRM), land tenure rights, Community-based savings schemes, and Ecotourism of not less than 5 years;
(e) Proven experience in undertaking similar assignments particularly stakeholder capacity building for the application of sustainable land and natural resources management practices, livelihood enhancement interventions and bio-rights;

(f) Demonstrated experience of working with coastal communities and in coastal/seascape in Tanzania and particularly in Kilwa, Mafia and Rufiji Delta Ramsar site;
(g) Vast experience in mangrove management planning and implementation and working with Tanzania Forest Services or any forestry conservation institutions in Tanzania;
(h) Understanding on National, Regional and International policies and protocols related to wetlands and mangroves and coastal environment including relevant conventions;
(i) Ability to engage proactively with a range of relevant stakeholders to ensure inclusion of all necessary partners.
(j) Strong analytical skills
(k) Proactive and able to work with minimal supervision and high degree of initiative, reliability, flexibility, and self-motivation.
(l) Fluency in Swahili and English
(m) Willingness to work travel in remote areas like Rufiji Delta in Tanzania

10. MODE OF APPLICATION

Applications with copies of CVs, testimonials and samples of previous work should be submitted on or before 10 October 2023 via email to hreastafrica@wetlands-eafrica.org

All applications should include the following:

i) Letter of **expression of interest** (maximum 1 page)
ii) Technical **proposal** (**maximum 8 pages,** Consultant's profile emphasising previous experience in similar assignment, Description of the proposed approach and methodology with clear justifications, understanding of the ToR and tasks to be accomplished; Proposed work plan;
iii) Financial proposal, which should: Be clear and output-based, highlighting key performance measures, while demonstrating value for money.