

SOUND PLANNING AND MANAGEMENT FRAMEWORK IS NECESSARY FOR MAFIA ISLAND DEVELOPMENT

INTRODUCTION

The main purpose of the Millennium Challenge Compact (MCC) is to reduce poverty by stimulating economic growth, increasing household incomes, and raising the quality of life through targeted infrastructure investments. The projects that constitute the agreements are in transport, energy and water sectors. The implementation of these projects is expected to help Tanzanians address the inadequate transportation network by improving roads and airports that will increase commerce and help connect communities with markets, schools, and health clinics. In addition, the program will improve the reliability and quality of electric power and extend electricity service to communities not currently served. The water projects will increase the availability and reliability of safe potable water for domestic use and commercial purposes, which will increase the health and productivity of Tanzanians by reducing the incidence of water-related diseases, particularly among children.

Mafia Island is rich in marine biodiversity, supporting a variety of fish species as well as prawns and octopus. Fishing is an important economic activity engaging many people on the island and fishermen from other areas in Tanzania. Most of the important fish species, beside the octopus, have been over-exploited. Mafia Island is also rich in large wildlife resources. For example, two species of toad and gecko that occur nowhere else in the world, as well as large fruit bats (flying foxes) are found in Mafia. Other resources found in Mafia include land, people and archaeological sites that are important for tourism development on Mafia Island.

Mafia has become an important destination for tourism, serving a global tourism market that links Mafia with Zanzibar, Rufiji, Kilwa,

the Selous Game Reserve in southern Tanzania and the northern tourism circuit of Ngorongoro, Serengeti, and the Kilimanjaro Mountain. The flow of passengers, aircraft movement, and cargo freight to or from Mafia has increased since 1999 and it is expected to rise even further by 2030, to about 1.4 million kgs of cargo and about 180,000 passengers. Mafia is also attracting investors in the energy sector through gas drilling and exploration at Ndagoni area on the Island.

ISSUES

Mafia is an archipelago consisting of eight small islets. Access to Mafia is either by sea or by air, and only for very few people. The poor state of the airport and the absence of a real harbour make neither of these options reliable. Therefore, part of the problem for Mafia Island development is poor transportation that has denied the island people opportunities to increase production or to obtain highly skilled workers that could contribute to the development of the Island.

The Mafia airport upgrade and refurbishment program and the various investments and development activities taking place in Mafia may have positive and negative implications to the overall local economy, local communities and the fragile island ecosystem. Currently, illegal fishing practices, deforestation, and over fishing of some species are occurring. These pressures are taking place amid inadequate planning and management framework that should guide sustainable utilization of natural resources in Mafia.

It is against this background and in view of the proposed airport development in Mafia that, the Ministry of Infrastructural Development in collaboration with Millennium Challenge Compact and the

Millennium Challenge Account- Tanzania (MCC/MCA-T) initiated a Strategic Environmental Assessment (SEA). The aim of the SEA was to provide a long-term planning framework for Mafia Island that will help MCC and the Government of Tanzania prioritize investments that will be triggered by the airport upgrade, and to ensure that the activities will be compatible with Mafia's environmental conditions. The SEA has also suggested a carrying capacity framework that could be adopted for various activities. For example, the initial plan was to build an airport that could accommodate at least 100 passengers per hour or at least one airplane landing and taking off every 1.5 hours. Growing tourist arrivals will stimulate demand for tourism-related facilities such as lodges and hotels, diving centres and services, increase visitor density and circulation on the island, increase economic activity, and promote social interactions (and tension) between local populations, visitors and migrant workers.

Without adequate environmental management, the development of these facilities and others associated with the airport upgrade may result in direct and permanent modifications to the physical environment, potentially causing long-term environmental damage, and subsequently intensifying poverty levels on the island.

In the light of the insufficient capacity to provide the necessary coordination and guidance for development in Mafia, the socio-economic and ecological sustainability of the development initiatives is highly questionable without heavy investment by the central and district governments in supporting key planning initiatives and activities. The Central and District Governments must prioritize and technically and financially support the following policy recommendations:

POLICY RECOMMENDATIONS

1. *IMPROVE GOVERNANCE*

Some of the challenges facing Mafia Island stem from poor governance. Improvement in governance related to natural resources is of paramount importance in Mafia. In collaboration with local communities, the District Council must ensure effective management of duties and responsibilities and enhance accountability, transparency in decision making and rule of law. The District should undertake the following measures:

- Establish and strengthen the District Environmental Management Coordination Office and mainstream environmental issues in the District plans, and between the District and Central Government.
- Establish and enforce by-laws that protect the environment.
- Undertake targeted Capacity Development programme (e.g. to the District Planning Department, Finance Committee and Finance Department) in preparation and management of plans and effective utilization of resources.
- Ensure greater participation of local people (regardless of age, religion or gender) in planning and decision making on issues that affect their livelihoods.
- Carry out sensitization to prepare local people for the opportunities that the airport upgrade project and subsequent potential economic activities will provide the people of Mafia.
- Social, cultural, institutional and financial barriers must be addressed to allow the people of Mafia be part of the changing process.

2. *UNDERTAKE LONG TERM COMPREHENSIVE RESOURCE PLANNING PROCESSES*

The proposed development is likely to cause significant changes in the way resources will be utilized in Mafia. It is important to

undertake a comprehensive planning process in order to determine various resource uses and limits in order to ensure their conservation. The following plans are recommended:

- MDC should prepare a Comprehensive Land Use Plan for Mafia to:
 - Discourage direct purchase of land by investors from customary or statutory landowners. All investors should obtain land through the Tanzania Investment Centre (TIC).
 - Discourage local people from selling land; instead encourage them to go into joint venture using their land for investments. This approach will implement **MKURABITA** policies in Tanzania.
- The Ministry of Natural Resources and Tourism in collaboration with the Mafia District Council should prepare and implement an *Integrated Tourism Master Plan for Mafia* based on national tourism priorities, carrying capacity and limits of acceptable use analyses.
- Ministry of Infrastructure Development in collaboration with Tanzania Port Authority and Mafia District Council (MDC) should develop an *Integrated Jetty Development Plan* (to include Kilwa, Rufiji, Mkuranga, and Mafia). The majority of the stakeholders in Mafia prioritized jetty development as critical for their development. Such an infrastructure will link key economic and growth centres.
- Mafia District Council should develop a Waste Management Plan
 - The Plan should identify sites for solid and liquid waste disposal; define solid and liquid waste treatment and handling procedures and incentives to those who reduce waste generation.
- Environmental Assessment and other tools for assessment of projects and programmes must be fully adopted. For this to take place, capacity-building

programmes must be developed and implemented. The following actions are recommended to MDC. All projects and programmes that would be developed in Mafia must comply with requirements of the Environmental Management Act Cap 191.

3. ADDRESS ENVIRONMENTAL IMPLICATIONS OF DEVELOPMENT ACTIVITIES

These covers the following areas:

- **Water.** Ministry of Water and Irrigation Development in collaboration with MDC should conduct ground water survey to determine quantity and quality of available sources before large-scale development takes place. Water is critical in determining limits of acceptable use for lodges and industries in Mafia.
 - All development activities must install water efficiency systems to curb wasteful use.
 - Distribute safe and clean water to people through an improved water distribution system and network. Give special considerations to small islands that do not have reliable sources and to water harvesting techniques.
- **Energy requirements.** The use of charcoal must be discouraged at all costs:
 - New tourism development projects should get at least 50% of their energy from renewable sources (e.g. solar and wind)
 - As a long term measure, Ministry of Energy and Minerals should connect Mafia District to the national power grid through underwater cables
- **Tourism:** visiting various attractions
 - Set limits for visitors to fragile and sensitive areas such as cultural sites, marine areas for diving and sport fishing.
 - Control the number of visitors and passengers using Mafia airport in

order to limit the expansion of hotels, lodges and other facilities that may trigger more pressure on natural resources.

- **Marine resources:** Development processes may heavily affect Mafia Island Marine Park. Therefore:

- Central Government must ensure there are adequate human, material and financial resources to meet the challenges.

4. IMPLEMENT ACTIVITIES AIMED AT ENHANCING ECONOMIC BENEFITS

Development activities to be triggered by the airport upgrade could stimulate economic growth in Mafia however, for the people of Mafia to benefit, the following must be addressed:

- Communities must be sensitized to take advantage of opportunities offered by the airport upgrade to improve agriculture, livestock and fisheries production for local and outside markets
- A Vocational Training Centre in should be built Mafia to train youths of all sexes and religions in various skills needed in new developments (e.g. masonry, electrical services, plumbing, painting, mechanical, carpentry, tailoring, tour guiding, languages, etc)
- MDC in collaboration with banks should encourage establishment of credit schemes to benefit small entrepreneurs
- Small-Micro Enterprises must be promoted women and youth groups
- Revitalize coconut farms and copra industry to provide more income to farmers

5. UNDERTAKE MEASURES TO REDUCE NEGATIVE SOCIAL EFFECTS

The proposed airport upgrade and the ancillary activities could have negative effects on the social systems and relationships in Mafia. The following recommendations are provided to address

the social implications of the proposed development:

- Sensitization to local communities about the cultural implications of the development activities
- A code of conduct for tourists in Mafia must be developed and enforced
- MDC should build more secondary schools and provide them with modern facilities (e.g. computers), and ensure girls complete secondary education
- MDC and Ministry of Health and Social Welfare should provide mobile sea boat clinic to serve small islets.
- Prime Minister's Office, Regional Administration and Local Government should provide more staff and equipment to meet expected demand
- MDC and Ministry of Health should support existing NGOs and District HIV/AIDS programmes: outreach, mobile testing, expand treatment and information centres and provide more Voluntary Counselling and Testing (VCT) facilities.

Mafia District Council should ensure that there is close collaboration with all relevant Central Government institutions and that development activities are integrated into local plans. MDC should also work with Central Government in mobilization of resources for effective management of the environmental aspects on the Island.