

Draft of the 10-year Management Plan

North-East Tobago
Man and the Biosphere Area

unesco
Man and the Biosphere Programme

FOCUS: Sustainable Land Management

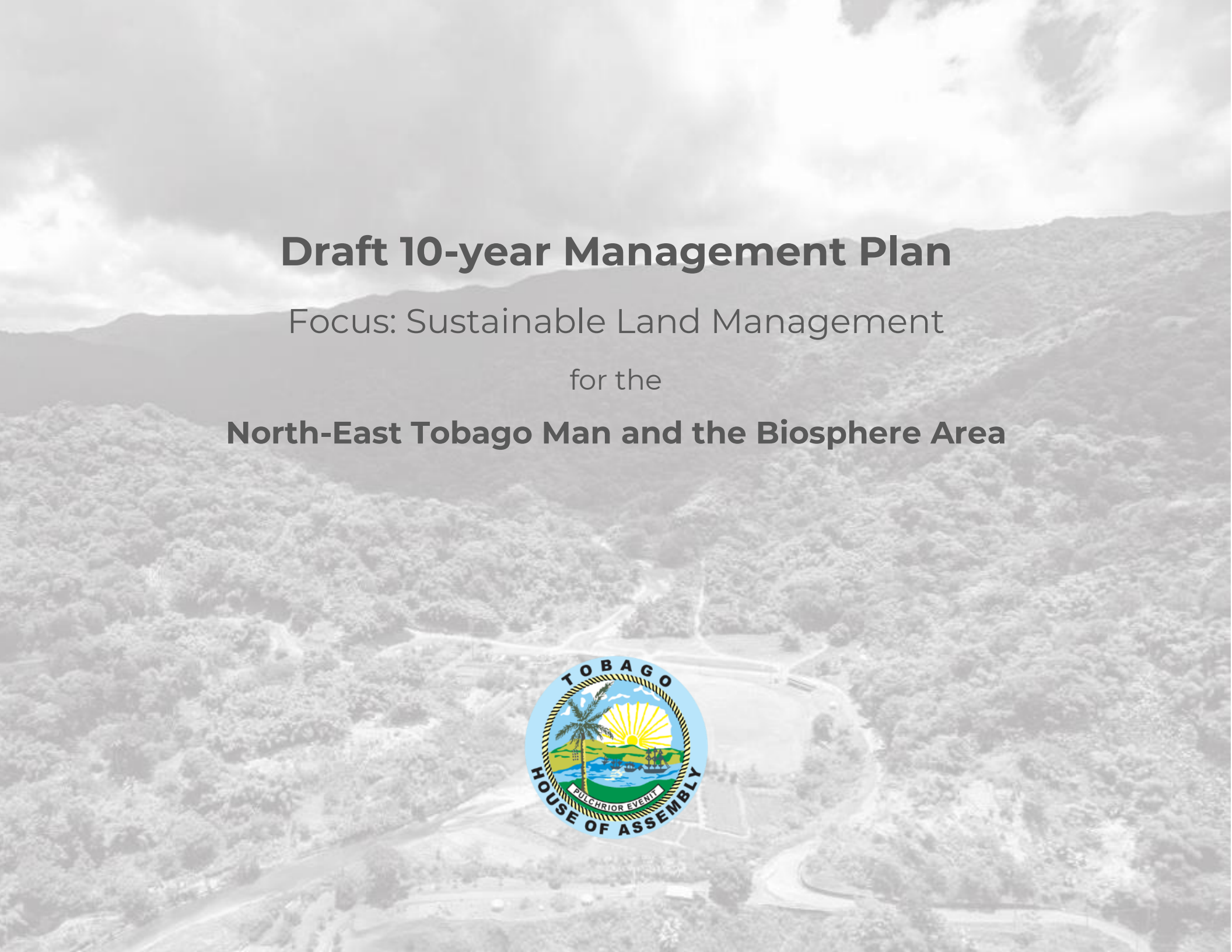
February 2024

Draft 10-year Management Plan

Focus: Sustainable Land Management

for the

North-East Tobago Man and the Biosphere Area



SITE DESCRIPTION SUSTAINABLE LAND MANAGEMENT

The United Nations define Sustainable Land Management (SLM, (2)) as "*the use of land resources, including soils, water, animals, and plants, for the production of goods to meet changing human needs, while simultaneously ensuring the long-term productive potential of these resources and the maintenance of their environmental functions*".

The Food and Agricultural Organization (FAO) points out that SLM is crucial to minimising land degradation, rehabilitating degraded areas, and ensuring the optimal use of land resources and requires collaboration and partnership at all levels: land users, technical experts, and policy-makers.

It further states that SLM is based on four common principles:

- land-user-driven and participatory approaches,
- integrated use of natural resources at ecosystem and farming systems levels,
- multilevel and multistakeholder involvement, and
- targeted policy and institutional support, including development of incentive mechanisms for SLM adoption and income generation at the local level.

Figure Land development in NE Tobago without protection against soil erosion



The NETMABR Nomination Form describes the sustainable development objectives for the management of the BR in referring to the Sustainable Development Goals (SDG) of the 2030 Agenda. The management components of sustainable agriculture and sustainable land management contribute to achieving the following SDG goals:



SDG 1. End poverty in all its forms everywhere.
Comment: There is no extreme poverty in Tobago.
Objective: To diminish poverty through applied research, education, capacity building, facilitating demonstration projects, lowering entrepreneurial risks, and fostering innovation and transition to a sustainable green and blue economy.



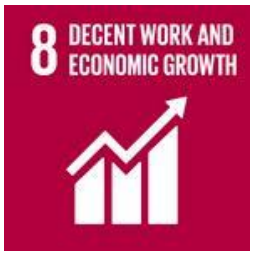
SDG 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.
Comment: There is no extreme hunger in Tobago. Food security is threatened to by dependency on imports; there is access to healthy nutrition.
Objective: To increase food security and improve access to high nutrition value goods through the promotion of sustainable agriculture and fisheries with the context of a green and blue economy.



SDG 3. Ensure healthy lives and promote well-being for all at all ages.
Objective: To provide education regarding the connection between ecosystem and human health and discourage activities that threaten cultural and natural heritage as well as the wellbeing of residents.



SDG 6. Ensure availability and sustainable management of water and sanitation for all.
Comment: To various degrees, every household has access to clean drinking water. Water resources are not sustainably managed and wastage is rampant. Wastewater is mainly treated, to various degrees, on the household level.
Objective: Protect vegetation and specifically forest cover within the BR, reduce pollution of waterways and encourage sustainable use.



SDG 8. Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.

Comment: There is a high level of employment due to governmental unemployment relief programmes. Wages are not keeping up with inflation rate.

Objective: Support the development of livelihood opportunities based on the sustainable use of natural and cultural resources.

SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.



Comment: Infrastructure is relatively resilient; NE Tobago's economy is much more natural-resource-based than industry, which is in line with the preferred lifestyle of residents. Innovation is needed to develop a regenerative green and blue economy.

Objective: Improve resilience of communities and infrastructure by supporting resilient ecosystems and innovative approaches to sustainable development.



SDG 11. Make cities and human settlements inclusive, safe, resilient, and sustainable.

Comment: Human settlements in the proposed NETMABR are relatively safe and inclusive but not very resilient.

Objective: To improve community resilience, especially against climate change, through innovation and knowledge exchange and promote sustainable blue and green economies.

SDG 12. Ensure sustainable consumption and production patterns.



Comment: This applies specifically to over-harvesting of natural resources and the ab-, and mis-usage of synthetic pesticides and herbicides.

Objective: Support the transition towards a green and blue economy; discourage activities that threaten cultural and natural heritage as well as the wellbeing of residents.



SDG 13. Take urgent action to combat climate change and its impacts.
Objective: Monitor the effects of climate change, exchange knowledge through networks, and improve climate change resilience of communities and natural resources.



SDG 15. Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
Comment: Desertification is not yet a threat in NE Tobago.
Objective: Reduce direct and indirect threats to ecosystem health and biodiversity.



SDG 17. Strengthen the means of implementation and revitalise the global partnership for sustainable development.
Objective: Actively participate in the MaB network.

SLM opens up major opportunities for both the environment and the people who depend on it.
Adoption of good SLM practices, is essential for improved environmental management and allows land users to:

- conserve biodiversity and agrobiodiversity;
- minimise land degradation and rehabilitate degraded areas;
- optimise the production of healthy food (food security), animal feed, fibre, and forest products;
- improve soil management for fertility (nutrient and organic matter) and resilience to erosion;
- derive sustained livelihoods and benefits (income; well-being; culture) from the land;
- reduce risk of pollution and degradation of water resources;
- optimise water cycling, storage, and efficient use of water/water productivity;
- sequester carbon and reduce GHG emissions;
- increase sustainability and resiliency;
- maintain the provisioning of ecosystem services for future generations; and
- enhance resilience to climate and to natural disasters (flood, drought, storms, and landslides).

The National Action Programme (NAP) to Combat Land Degradation and to Mitigate the Effects of Drought in Trinidad and Tobago: 2018-2030 (15), and The Final Country Report of the Land Degradation Neutrality (LDN) Target Setting Programme (TSP) (12) of the Ministry of Planning and Development, drafted in August 2020, provide an excellent overview on the topic on a national basis.
Within this context, it is important to note that the agricultural sector and its potentially negative impacts on ecosystem- and human health in NE Tobago is currently very limited; however, this might change in the future. The most significant land degradation in the BR is caused by landslides (often as a result of previous forest fires), construction and infrastructural activities (unfortunately, often as a result of THA projects), dredging of rivers, and destruction/pollution of wetlands. Soil erosion is heavily impacting fragile coastal fringe reefs, especially in association with rivers that run through residential areas and have lost their natural vegetation (Roxborough and Man-o-War Bay had significant coral cover in the 80ties, all of which is almost entirely destroyed).
For the purpose of this document, only those sections of the NAP and the LDN-TSP relevant for SLM and LDN in the NETMABR are referenced below.
On 06 August 06 2000, Trinidad and Tobago ratified the Convention to Combat Desertification and by so doing legally agreed to implement Land Degradation Neutrality (LDN), which is linked to Sustainable Development Goal Target 15.3 "*By 2030, combat*

desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world". The government has revised the National Action Programme to Combat Land Degradation and to Mitigate the Effects of Drought in Trinidad and Tobago and developed a sustainable development strategy that leverages LDN and provides a framework for mainstreaming and implementation.

For the future managers of the NETMABR, it is therefore important to understand that SLM and LDN practises implemented in the BR are assisting the GoRTT to fulfil its legal obligations under the Convention and use this argument to lobby for financial assistance from THA and GoRTT and inhibit land degradation caused by the private or public sector.

The following activities outlined in the above-mentioned documents and relevant to the BR, will contribute to meeting the national target:

- Rehabilitation of degraded forest and increase forest carbon stock by 5% by 2030.
- Collection, analysis and intelligible dispersion of data regarding land productivity, land cover and soil organic carbon (SOC) data for future monitoring needs.
- Raising Knowledge Attitude and Practice (KAP) regarding SSM/SLM and LDN in support of addressing the drivers of land degradation.
- Regenerate forests and biodiversity through sustainable forestry management, including aspects of land/forest management legislation, updating land use policy to incorporate LDN, foster functional inter-agency cooperative frameworks and upscaling of the reforestation programme.
- Mainstreaming of sustainable soil and land management (SSM + SLM) into Tobago's policy and institutional frameworks.
- Implementation of sustainable soil and land management, including capacity building of farmers and other community stakeholders and the application and use of organic amendments and soil conservation practices.
- Ensure that LDN principles and counter balancing strategies are incorporated in land use policy development and the practices of the Tobago House of Assembly. Design and implement a communication campaign on SSM/SLM in support of LDN and land use policy reforms.

Vision 2030, the National Development Strategy for Trinidad and Tobago, identifies the use of transformative projects and programmes within the government as a key approach to sustainable development. This framework considers the recommendations

of the Global Mechanism of the UNCCD for addressing land degradation. The following projects and programmes are identified in the Vision 2030 as critical to addressing land degradation:

- the National Reforestation and Watershed Rehabilitation Programme (NRWRP),
- the Integrating Water, Land and Ecosystems Management in Caribbean Small Island Developing States (GEF-IWEco) Project,
- Biodiversity Conservation & Agroecological Land Restoration in Productive Landscapes of Trinidad & Tobago (GEF-BIOREACH),
- Strengthening Coastal and Marine Climate Resilience through Upland and Coastal Ecosystem Based Adaptation and Community Engagement in the Caribbean (this project has a target area in NE Tobago and is implemented by IICA),
- CSIDS-SOILCARE Phase1: Caribbean Small Island Developing States (SIDS) multi-country soil management initiative for Integrated Landscape Restoration and Climate-Resilient Food Systems (GEF), ans
- Implementation of the Voluntary Guidelines for Sustainable Soil Management for the improvement of agricultural production, water availability and carbon capture in soils in Latin America and the Caribbean (LAC) (https://www.fao.org/3/bl813e/bl813e.pdf)

Figure Fishermen hauling in the catch of the day (Jason Nedd)

