

National Blue Carbon Policy Assessment Mozambique *Summary*



Context

This summary document is based on a larger National Policy Assessment undertaken as part of the UNEP/GEF Blue Forests Project (see page 7). The goal of these National Policy Assessments (NPAs) is to bring together the key policy, legal and regulatory frameworks and incentives which have an

implication for the management of blue carbon ecosystems including items from a perspective of national development, climate change, forestry, biodiversity as well as marine resource management.

Coastal carbon ecosystems in Mozambique

Mozambique has extensive **mangrove forests** (approximately 300,000 ha) and seagrass bed areas (estimated at 43,900 ha). A growing population and intensifying economic usage threatens Mozambique's blue carbon ecosystems, while sea level rise threatens the entire coastline.

An exact **deforestation** rate is not available for mangroves but it is estimated to have increased from 0.2% and 0.7% between 1972 and 2004. The estimated historic loss of seagrass bed areas is 2,755 ha.

Agricultural (land-side) encroachment with slash-and-burn practices, urban development and infrastructure projects, and wood-cutting – both legal but unmanaged and illegal – for construction, firewood, and charcoal production have been responsible for most of the mangrove degradation in the past.

Seagrass beds have been negatively affected by the dredging of channels, shipping and other coastal activities. They are under imminent threat of erosion, sedimentation and nutrient-

loading pollution from onshore activities, pollution from untreated sewage discharge, destructive fishing practices such as beach seining and use of small-mesh nets, dredging, and trampling.

The threats to mangroves and seagrasses are expected to worsen with increased coastal development. Oil spills are likely to occur more frequently with increased shipping and coastal development for Mozambique's ports. A further threat exists in the government plans to massively invest in mining, hydrocarbon extraction and large-scale liquefied natural gas (LNG) logistics. In addition to hydrocarbon extraction, there is a growing interest in heavy sands (titanium) and exploitation has already occurred at several sites.

The growth of tourism is a double-edged sword: while there is an increasing amount resort, utility and coastal development that puts pressure on coastal ecosystems, tourists also want to visit unspoiled nature. This creates an incentive for government to manage these coastal ecosystems sustainably.

Legal protection of mangroves and seagrasses in Mozambique

To date there is no comprehensive protection framework for Mozambique's blue carbon ecosystems specifically. However, **Mozambique's Constitution** of 2004 enshrines a solid protection status for the environment as a whole. The Constitution also defines, in its Article 98, "natural resources in the soil and the subsoil, in inland waters, in the territorial sea, on the continental shelf and in the exclusive economic zone" as "property of the State", and the maritime zone and nature conservation zones, among others, as the "public domain of the State".

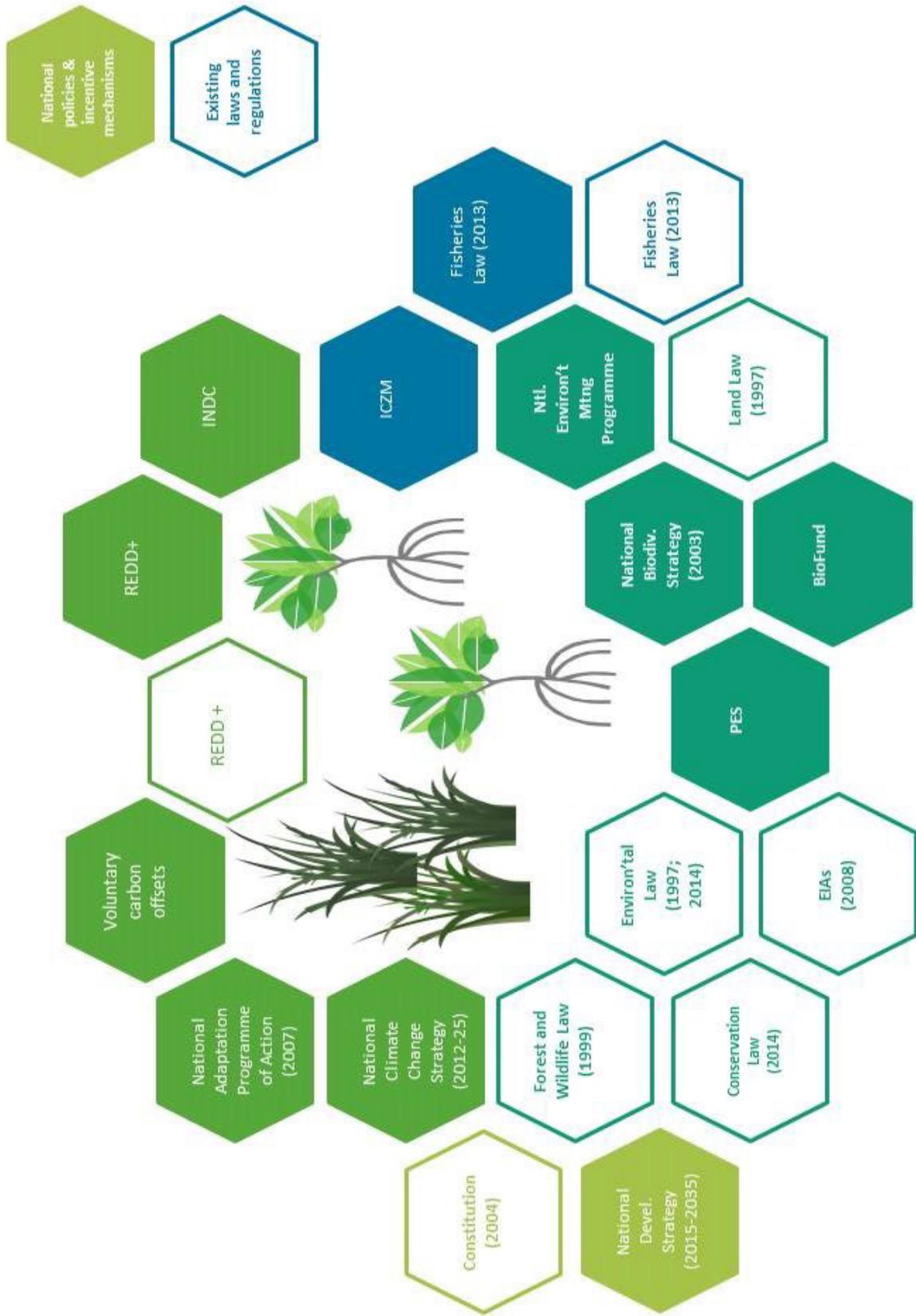
The **Land Law** of 1997, as well as the **Forest and Wildlife Law** of 1999, declares all land, forestry and wildlife resources in Mozambique as "state property". The Land Law distinguishes "Total Protection Areas" and "Partial Protection Areas" within the public domain. The coastal strip up to 100m inland measured from the high tide line – thus, in practice most mangrove areas – are recognized as Partial Protection Areas. Commercial extraction is not allowed. The law does

recognize, however, the possibility for the government to issue "special licences" for specific economic use in the areas concerned. For "partial protection areas", governors may issue these licenses, while the Ministry of Tourism must issue licenses for "total protection areas".

The **Environmental Law** of 1997, later updated in 2014, is a key law that governs the use and management of the environment, prohibiting environmental degradation by barring the development of infrastructure that may have a significant environmental impact in the coastal zone or sensitive areas like wetlands. Projects that may cause destruction in a coastal area are subject to an environmental impact assessment (EIA).

Mozambique has seven **national parks** and six **national reserves**, some of which include important mangrove areas. Other protection obligations come from forestry and wildlife concessions issued by the government.

¹85% of rural energy consumption is derived from fuelwood and charcoal, consuming about 20 million cubic metres of wood a year. These are country-wide figures, but mangroves are affected across the country's coastline.



National development - Climate Change – Forestry / Biodiversity – Coastal and Marine Resources

Existing national laws, policies and initiatives with an impact on blue carbon ecosystem management.

Ministerial Order No. 93/2005 earmarks 20% of the taxes or fees raised with respect to particular areas (such as entrance and licensing fees to parks) for communities living there.

The Conservation Law of 2014 stipulated governance principles for conservation areas, including an obligation for citizen participation in the management and benefits of conservation areas, the establishment and operation of public-private partnerships, and the principle to seek international and cross-border organisation. This Law operates alongside the Land Law of 1997, although it puts into doubt the concept of Partial Protection Areas.

The Fisheries Law of 2013 prohibits the destruction of mangroves for the purpose of installing aquaculture operations and permits interference with mangroves only in certain cases, including for water pumping stations, and for water intake channels to fixed installations on land and to harbours. There are also regulations on preventing pollution in coastal and marine environments (Decree 45/2006), and a regulation on amateur diving (Decree 44/2006). The development of an ICZM strategy is under way.

Policy objectives and incentive schemes for mangroves and seagrasses in Mozambique

National Climate Change Strategy 2013-2025 (ENAMMC) is the key strategic document shaping Mozambique's adaptation and mitigation policy. It builds on three pillars: (i) adaptation, disaster risk reduction and management, (ii) mitigation and low-carbon development, and (iii) cross-cutting issues (including law, institutions and capacity-building).

The recent **Intended Nationally Determined Contribution (INDC)** mentions that the Government is currently updating its plan of action which will include a renewed National Adaptation Plan, though the ENAMMC forms the basis of their climate change response. Previous adaptation plans mention the need to identify rehabilitation techniques for dunes and mangroves to mitigate the effects of erosion, as well as the need for "coastal management centres" to build capacity for training, research and monitoring of the coasts.

The **National Biodiversity Strategies and Action Plan (NBSAP)** aims to identify national priorities on coordination, especially on relevant sectoral policies, programs and strategies. There have also been efforts towards achieving the **2020 Aichi Biodiversity Targets**, namely in the extension of protected areas (from 11% to 16% of national territory), the creation of new national parks, and mangrove rehabilitation projects.

REDD+: Mozambique has been a partner country of the World Bank-sponsored Forest Carbon Partnership Facility (FCPF) since 2008. Upon the completion of the Readiness Preparation Plan (R-PP) proposal in 2011, and its adoption in 2012, an initial amount of donor funding (3.6 m USD) was released for use in the first-phase actions, including the preparation of a REDD+ strategy, the design of a legal and institutional framework, a system for measuring, reporting and verification (MRV), and the establishment of forest reference levels.

Several agencies, including local and international NGOs, have partnered to assess carbon stocks and fluxes in mangrove forests.

Mozambique has experience with **carbon projects** (including the Clean Development Mechanism) and it hosts a forest carbon project developed under Plan Vivo (now defunct).

Mozambique participates in the **UNEP Regional Seas Programme for Eastern Africa** and has ratified the **Nairobi Convention**. The convention encourages and coordinates capacity-building exercises in the sub-region of Eastern Africa, where countries are on their way to implementing national ICZM policies and programmes.

ICZM: While no single institution is responsible for all coastal affairs in Mozambique, the creation of the Ministry for the Coordination of Environmental Affairs (MICOA), now MITADER, was a major step undertaken in integrating a management strategy for natural resources.

Plans for ICZM have been underway since 1994, with the Government approving a number of activities related to ICZM as part of the National Environmental Management Programme (NEMP). Another boost to ICZM work came after the December 2004 Indian Ocean Tsunami, which led to the development of the Mangroves for the Future-Asia Programme. The objective in Mozambique, one of the five countries that form the focus for this work, was to prepare a **Mangrove Restoration Strategy and Action Plan** to better respond to climate and human effects through the protection, rehabilitation and wise use of mangrove ecosystems.

Main gaps

Awareness and enforcement

Many laws, e.g., the Land Law and the Conservation law, contain incongruent concepts and administrative responsibilities.

Law enforcement is an area which needs further improvement, and details of official numbers on fines, penalties, compensation payments or public actions against environmental violations could be made clearly available.

A lack of data on changes in local blue carbon ecosystem (deforestation, degradation, rehabilitation) has resulted in a low level of local awareness about the value of these ecosystems.

Substantial law and institutions

While several protection regimes have been created, **key implementing legislation** is yet to be adopted.

This notably includes implementing legislation on the conditions for issuing licenses of economic use of Partial Protection Areas, meaning the status of mangroves and other blue carbon elements outside of Total Protection and Total Conservation areas is ambiguous.

There are **sources of regulatory confusion**, for example in the overlapping responsibilities for Protection Areas of MITADER and MITUR, which weaken the management approach of both organisations.

Policy development and incentives

Many of the well-developed and well-intentioned initiatives rely on robust follow-through, which has not necessarily been the case, as with the 2006 NAPA.

Mozambique is yet to explore the possibility for community-based compensation schemes. Currently, the rules on the sharing of proceeds from taxes and fees collected from conservation areas suffer from uneven enforcement, delays and a lack of transparency.

Data availability

Robust and up-to-date mapping details are not broadly available.

The total number of mangroves and seagrasses as well as deforestation rates are inconsistent and different numbers from different sources exist.

Main opportunities

Bolstering the roles of local communities

A way to improve implementation may be to integrate local communities into maintenance activities, including surveillance, reforestation and erosion protection inside and outside conservation areas. This community participation could be linked to special concessions for sustainable fishing and timber sustainable harvesting rights.

Enhanced implementation

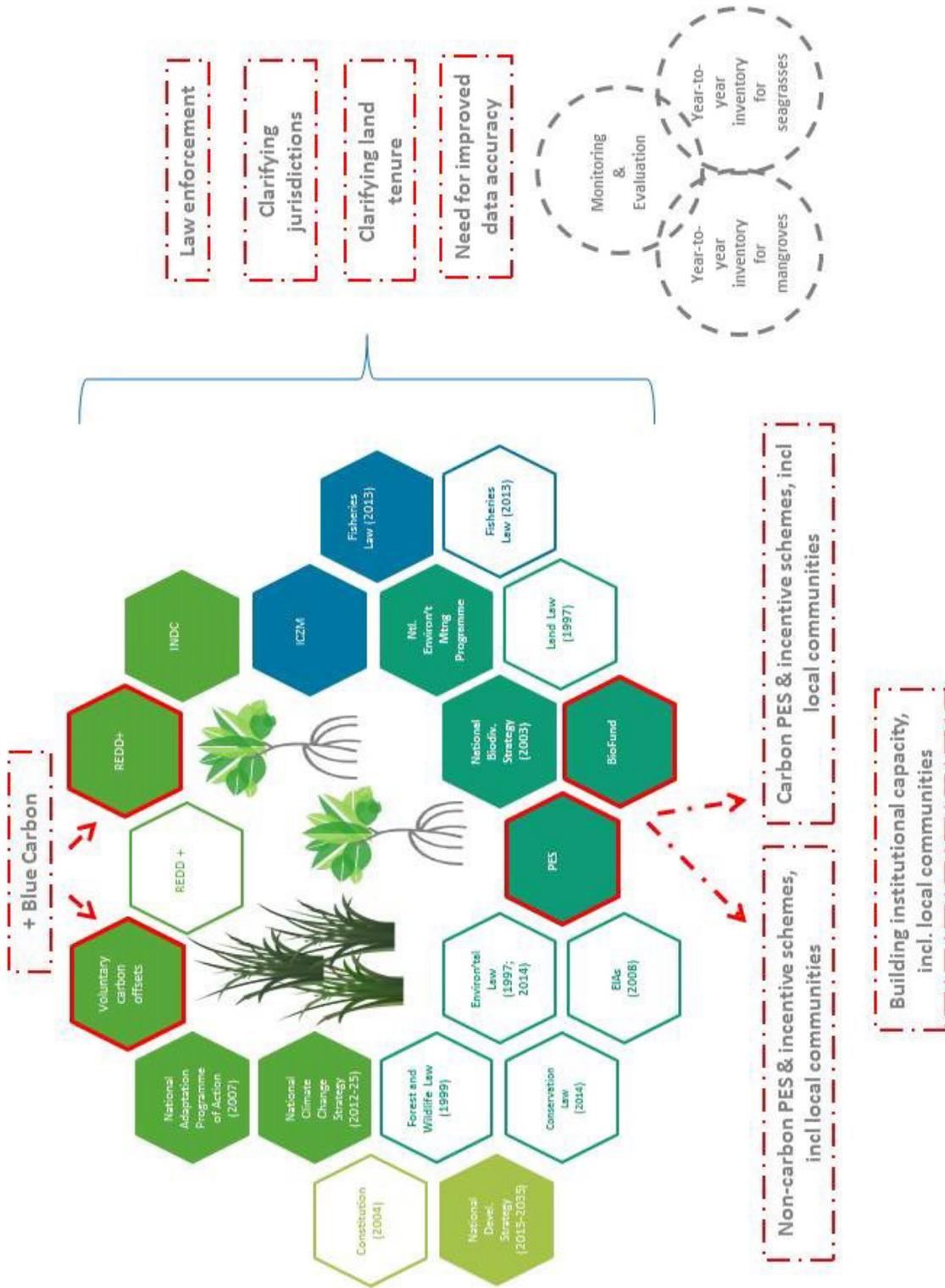
Mozambique's status as a least developed country will help trigger international demand and finance from international carbon markets.

The commitment to carbon market approaches is evident in their piloting of REDD+/FCPF activities. The government should actively support the spread of cookstoves projects (CDM/Gold Standard) as well as put its ENMACC blue strategy in practice and launch through public-private partnerships.

New initiatives

The newly created trust fund **BIOFUND** may be a useful vehicle for blue carbon investment support.





National development - Climate Change – Forestry / Biodiversity – Coastal and Marine Resources

Figure 2: Existing national laws, policies and initiatives with an impact on blue carbon ecosystem management.

About the UNEP/GEF Blue Forests Project

The Global Environment Facility's (GEF) Blue Forests Project is a global initiative focused on harnessing the values associated with coastal marine carbon and ecosystem services to achieve improved ecosystem management and climate resilient communities. The project is implemented by the United Nations Environment Programme (UNEP) with partners worldwide. Project sites include locations in Ecuador, Kenya, Madagascar, Mozambique, Indonesia, the United Arab Emirates, Thailand, and the United States of America. The project also addresses key 'blue forests' knowledge gaps, as well as providing experience and tools to support greater global replication and application of the blue forests methodologies and approaches.

Project website: www.gefblueforests.org

Suggested Citation

IUCN and WWF (2016). National Blue Carbon Policy Assessment - Mozambique: Summary. IUCN, WWF.

Acknowledgments

This report has been written by Moritz von Unger, Silvestrum Climate Associates LLC, and Alexis McGivern, Dan Laffoley and Dorothee Herr for IUCN. For background research, a special thank you goes to Lauren Stabler and Zac Rose. The team from WWF Mozambique Country Office greatly supported the research and reviewed the document: Denise Nicolau and Rito Salvador Mabunda.

The document has received input from the Biofund, Ministry of Land, Environment and Rural Development and Ministry of Sea, Inland Waters and Fisheries.

A special thank you goes to Manuel Menomussanga, Senior Programme Officer, Resilient Coasts IUCN Mozambique Office for his insights as well as to Helen Fox, IUCN.

Full version of the report can be viewed [Here](#).

This report was made possible due to funding by the Global Environment Facility (GEF).

Photo Credits

Romy Chevalier, WWF Mozambique

Layout

Charles El-Zeind, GRID-Arendal



**International Union for
Conservation of Nature**
IUCN
Gland, Switzerland
www.iucn.org



World Wildlife Fund
Mozambique
Maputo, Mozambique
<http://www.wwf.org.mz/>



Blue Forests Project
Arendal, Norway
www.gefblueforests.org