

The Eastern Africa Coastal Forests Ecoregion



**Strategic Framework for Conservation
2005 – 2025**

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Foreword

The geographical region known as the Eastern Africa Coastal Forests Ecoregion (EACFE) takes the form of a mosaic of fragmented forest patches and other habitats stretching along the eastern coast of Africa from Somalia to Mozambique, is a global biodiversity asset, home to thousands of plants and animals that occur nowhere else on earth, including primates, birds, reptiles and amphibians. It also provides important resources for both livelihoods and the cultural activities of local communities.

Over time, these forests have become highly threatened and are in dire need of coordinated action to take care of what remains. Because of the many millions of people who live in the region, this must be done in new ways that addresses both conservation and community needs.

Through the EACFE programme strategy process, a wide range of stakeholders have come together and established a clear set of priorities, operating principles and strategies to achieve the goals of conservation, management and sustainable use of forests in the region. A strong regional partnership has been established between national governments, NGOs, research institutes and other key stakeholders. With the continued support of the international community, this partnership will strive to ensure that this unique region is conserved, managed and sustainably utilized for the benefit of present and future generations.

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List of abbreviations and acronyms

CARE	Cooperative for Assistance and Relief Everywhere
CBNRM	Community Based Natural Resource Management
CEPF	Critical Ecosystem Partnership Fund
CFCU	Coastal Forests Conservation Unit
CIP	Commercial Insects Programme
DCCFF	Department of Commercial Crops, Fruits and Forestry (Zanzibar)
EACFE	Eastern Africa Coastal Forests Ecoregion
EAME	Eastern Africa Marine Ecoregion
EAWLS	East African Wildlife Society
EMCA	Environmental Management and Coordination Act of 1999
FBD	Forestry and Beekeeping Division
FFI	Fauna and Flora International
FLR	Forest Landscape Restoration
FSC	Forest Stewardship Council
FNP	Forum para a Natureza em Perigo (the Mozambican arm of South Africa's Endangered Wildlife Trust (EWT])
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
IBA	Important Bird Area
ICIPE	International Centre of Insect Physiology and Ecology
IGAD	Intergovernmental Authority on Development
IUCN	International Union for the Conservation of Nature (the World Conservation Union)
JBIC	Japanese Bank for International Cooperation
KEFRI	Kenya Forestry Research Institute
KFMP	Kenya Forestry Master Plan
km	kilometre
km²	Square kilometre
KWS	Kenya Wildlife Service
MKUKUTA	Mkakati wa Kukuza Uchumi na Kuondoa Umaskini Tanzania
MoU	Memorandum of Understanding
NAP	National Action Plan
NEMA	National Environment Management Authority
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental Organization
NK	Nature Kenya
NMK	National Museums of Kenya
NORAD	Norwegian Agency for Development Co-operation
NTF	National Task Force
PA	Protected Area
PRSP	Poverty Reduction Strategy Paper
RAP	Regional Action Plan
RTF	Regional Task Force
SADC	Southern African Development Community
TFCG	Tanzania Forest Conservation Group
TRAFFIC	The Wildlife Trade Monitoring network (Joint programme of WWF and IUCN)
UK	United Kingdom
UNCED	United Nations Conference on Environment and Development
USAID	United States Agency for International Development
WCST	Wildlife Conservation Society of Tanzania
WWF	World Wide Fund for Nature

A new approach to coastal forests

The Eastern Africa Coastal Forest Ecoregion including forests and closely related habitats is roughly 6,200 km² in extent, stretching along the eastern African coast from southern Somalia to southern Mozambique. It contains a large number of remnant forest and thicket patches. These patches are typically tiny and fragmented, but contain remarkable levels of biodiversity and exceptionally high levels of endemism, often varying dramatically from one forest patch to the next. The ecoregion's resources also play an important role in the livelihoods of the more than 20 million people who live along the eastern African coast. Coastal forests provide a wide range of wood and non-wood products for local use, but are increasingly threatened by expanding agriculture, charcoal production, uncontrolled fires, unsustainable logging and the expansion of settlements.

Over the last decade, many site-based conservation efforts have been undertaken in the Coastal Forests by a range of government and other agencies. By the early 2000's, however, many of those involved in coastal forest conservation agreed that current efforts were insufficient. A multi-stakeholder process was initiated in 2002, co-ordinated by WWF, to find new and more effective ways to ensure the conservation of the coastal forests. This process adopted a large-scale approach (also referred to as an ecoregional approach), aiming to scale up conservation efforts, focus greater attention on the area, supplement existing work with increased resource mobilisation and improve synergy between site-based interventions.

In the pages that follow, the physical, human and biological features of the region are described, together with WWF's Ecoregion Conservation Approach, aimed at focusing greater attention on the Eastern Africa Coastal Forests Ecoregion. The EACFE programme priority areas for biodiversity are identified, and an analysis of threats and their root causes is provided. A conservation strategy for the region, consisting of an agreed vision statement, conservation goals and targets and strategic components, is also set out, together with proposals for managing implementation. A feature of the strategy-development process has been the involvement of a wide range of stakeholders whose commitment and support will be vital to the effective implementation and long-term sustainability of the programme. The process has been guided by National Task Forces (NTFs) in Kenya, Tanzania, and Mozambique comprising key stakeholders and prominent coastal forest conservation and management practitioners, and a Regional Task Force (RTF) comprised of representatives of the National Task Forces.

A full list of the participating organisations and technical reports produced during the process is to be found at the end of this document.



Livelihood initiatives related to conservation are the most appropriate for sustainable natural resource management.

Box 1: What is ecoregion conservation?

In recent years, conservation agencies have begun to adopt large-scale conservation approaches such as ecoregion conservation in an effort to address the accelerating rate and scale of biodiversity loss. WWF has identified a series of ecoregions, known as the Global 200 Ecoregions that represent all major habitat types in the terrestrial, freshwater and marine realms. Because of their outstanding biological features, these ecoregions deserve greater global attention. The eastern Africa coastal forests are one of the Global 200 Ecoregions.

An ecoregion conservation plan is a strategy for conservation across an entire ecoregion. Ideally it will provide an over-arching framework for how to achieve a biodiversity vision through the presentation of short, medium and long-term goals. It also brings together stakeholders to develop strategies and potential activities - around which long-term collaboration and effective participation of individuals and organizations can be built.

The ecoregion conservation approach seeks to:

- Focus attention on the most important areas for biodiversity and ecosystem services within a biological region
- Align and support existing conservation efforts to improve their effectiveness
- Build and ensure collaboration and participation of key stakeholders
- Enhance knowledge and capacity for research and management
- Conserve biodiversity and biological resources in the context of addressing social and economic needs
- Integrate research, management and policies nationally and across political boundaries
- Focus management on ecosystems and all species, rather than on a single species or natural resource
- Mobilise significant interest and technical and financial resources for implementation.

Ecoregion conservation is not separate from ongoing site-based and related activities, but provides a framework which supports and aligns these activities so that their impacts can be significantly increased. It does this by raising the profile of the ecoregion, building high-level commitment on the part of national governments and other agencies, building partnerships and commitment to implementation, and providing opportunities to leverage significant funding.



Livelihood initiatives: women finishing beadwork on a wood carving.

The unique coastal forests of eastern Africa

A patchwork of hundreds of areas of forest and thicket are scattered along the coastal margins of eastern Africa, embedded within much larger areas of savannah woodlands, wetlands, grasslands and increasingly large areas of farmland. The remaining forests are typically tiny and fragmented, but contain remarkable levels of biodiversity, with species often varying dramatically from one forest patch to the next. These forests and the mosaic of habitats that surround them make up the Eastern Africa Coastal Forests Ecoregion (EACFE).

The EACFE extends across parts of six countries: Somalia, Kenya, Malawi, Mozambique, Tanzania and Zimbabwe (see Figure 1). The northern limits of the coastal forests are in southern Somalia close to the Kenyan border. In the south, the eastern African coastal forests come to an end about 100 kilometres north of Maputo in Mozambique. The eastern limits include the coastlines of Kenya, Mozambique and Tanzania, and the offshore islands of Pemba, Zanzibar and Mafia. The western limits include the riverine forests of the lower Tana in Kenya in the north, the eastern edge of the Eastern Arc Mountains, the Malawi Hills in southern Malawi, and the Haroni and Rusitu Forests in Zimbabwe. The distance of these western limits from the coast varies, but is generally less than 200 km.

The Eastern Africa Coastal Forests Ecoregion as defined here contains two WWF Global 200 ecoregions. They are the Northern Zanzibar-Inhambane coastal forest mosaic ecoregion and the Southern Zanzibar-Inhambane coastal forest mosaic ecoregion. Together, these two WWF ecoregions cover around 6,200 km². The EACFE is also identical to the redefined Coastal Forests' hotspot as recognised by Conservation International, and part of the same area is an 'Endemic Bird Area', as defined by BirdLife International.



Eastern Africa Coastal Forests Ecoregions (in red).

The EACFE is bordered to the east by the Eastern Africa Marine Ecoregion (EAME)—which includes coastal mangrove forests—and to the west by the Miombo Woodlands Ecoregion and Eastern Arc Mountains Ecoregion. These are also priorities for investment and conservation attention for WWF and its partners.

Biological diversity

The EACFE is a complex mosaic of habitats, grading from one to another, according to rainfall, soils and human interactions over millennia. The most distinctive biological attribute of the ecoregion is the exceptionally high levels of endemism found within the remaining closed canopy forest patches. There are various kinds of closed canopy forests including dry forest, scrub forest, *Brachystegia* forest, riverine forest, groundwater forest, swamp forest, and coastal/afromontane transition forest. The forest patches are surrounded by coastal woodlands, wetlands, grasslands and farmlands that are much less biologically distinctive, but still support additional endemic species.

Large areas of the ecoregion's natural habitats have been converted to farmland over many thousands of years of human habitation. Around 400 patches of closed canopy eastern Africa coastal lowland forest remain, with the minimum area of forest and closely related habitats totalling over 6,200 km², or about 2% of the total area of the ecoregion. It is estimated that closed canopy forest extends over 4 km² in Somalia, perhaps as much as 1,050 km² in Kenya, at least 970 km² in Tanzania and at least 4,180 km² in Mozambique. In Kenya and Tanzania most of the remaining coastal forest is found in fragmented patches of limited size, surrounded by coastal woodlands or shifting cultivation.

Detailed biological studies of the eastern Africa coastal forests have documented levels of endemism that make them globally significant for conservation. More than 1,750 plant species and 28 plant genera are endemic, with more than 70% of the endemic species and 90% of the endemic genera being forest or thicket dependant. Many of these endemic plants have ancient affinities to plant groups typical of West African rainforests. Overall, there are more than 4,500 plant species and 1,050 plant genera, with around 3,000 species and 750 genera occurring in the forest. Faunal endemism rates are highest in the invertebrate groups such as millipedes (80% of all the forest species), molluscs (68%), and forest butterflies (19%). Amongst the vertebrates, 7% of forest mammals, 10% of forest birds, 57% of forest reptiles, and 36% of forest amphibians are endemic; a total of at least 80 endemic vertebrate species. Endemic animals include two ancient African mammal groups—elephant shrews (1 endemic species) and bush babies (2 endemic species). There are also three endemic monkeys, all confined to tiny patches of remaining forest habitat. In terms of species richness, there are at least 158 species of mammals (17% of all Afro-tropical species), 94 reptiles, and 1,200 molluscs.

Most closed-canopy coastal forest patches are under formal protected status in Kenya and Tanzania. In Kenya these are found mainly within government-managed Forest Reserves, in the Shimba Hills and Boni National Reserves, and in Kaya forests. In Tanzania they are mainly within Forest Reserves, the Saadani National Park, the Jozani-Chwaka Bay National Park, the Selous Game Reserve, the proposed Ngezi-Vumawimbi Nature Forest Reserve on Pemba and Mafia Island Marine Park. In Mozambique most of the remaining forests do not have formal protected status, although some is found within Forest Reserves and also within the newly declared Quirimbas National Park in the north.

Uses of forest biodiversity

More than 20 million people live within the coastal districts of Somalia, Kenya, Mozambique and Tanzania. These numbers include the large and rapidly-growing populations of eastern Africa's coastal cities and towns including Mombasa, Dar es Salaam, Zanzibar and Beira. Intense poverty across most of the area results in high levels of direct dependence on natural resources, particularly in rural areas.

Coastal communities in rural areas pursue diverse livelihood strategies combining agriculture, fishing, tree cropping and use of forest products. Subsistence cultivation of cassava and maize is the main economic activity in the rural areas of the coast, while forests and woodlands provide a wide range of wood and non-wood products for local use and income-generation. Communities obtain a wide range of food products from forest areas including fruit, tubers, honey, mushrooms and wild animals and birds (bush meat). Other non-wood forest products include fibre for ropes, mats and wall coverings, fodder for livestock and medicinal plants. Fuel wood is the primary energy source in rural areas, whilst charcoal dominates as the major household heat energy in the urban areas and also as a secondary source of income in rural areas. Coastal forest wood is also used for building poles and construction timber, household tools and utensils, and carvings and furniture. More recently, a few communities have begun generating income from non-wood forest products such as butterfly farming and forest-based tourism.

The eastern African coastal forests also have an important cultural value to rural people. A case in point is in Kenya where at least 47 out of more than 107 forest blocks are reserved and protected by the local communities as sacred forests (the Kayas). Kayas, found mostly in Kwale and Kilifi Districts, shelter the graves of important elders and the traditional carved memorial posts (vigango) of the Mijikenda people. In Mozambique and Tanzania there are also sacred forests in most villages, generally harbouring the graves of ancestors, and where extractive use is closely regulated by the communities. These culturally significant sites are sometimes associated with caves within the forest such as at Kiwengwa Forest on Unguja.

The three most important coastal forest products traded beyond rural areas are charcoal, woodcarvings and timber. Charcoal is the main cooking fuel in urban areas of the eastern African coast; it is made locally in the

forest, almost all for commercial purposes. Logging using pit-sawing techniques occurs in almost all coastal forests where timber trees remain, producing round wood and cut timber. In northern Mozambique and southern Tanzania where more extensive forest areas occur, large logs are harvested for export as round wood, some illegally. In Kenya, the large logs are mostly already gone, and timber extraction concentrates on wood carving species. The economic values of these forest products are difficult to estimate both because coastal forests are not treated separately from other forest areas in national data-gathering and because much of the trade in coastal forest resources is uncontrolled and some of it is illegal.

Tourism development has been established in some coastal forests including Shimba Hills, Kaya Kinondo and Arabuko Sokoke in Kenya, Jozani-Chwaka Bay National Park in Zanzibar and to a limited extent Pugu Forest, Kiwengwa-Pongwe Proposed Forest Reserve and Ngezi-Vumawimbi Nature Forest Reserve in Tanzania, and is being initiated in Madjadjane and Quirimbas National Parks, Bazaruto and Gorongosa National Parks; Inhaca and Maputo Special Reserves to a limited extent in Mozambique. Many of these developments include mechanisms for revenue or benefits sharing with local communities. Finally, the high biological diversity of coastal forests offers potential for scientific research and new commercial crop development from genetic resources.

Pressures on forest biodiversity

Degradation and loss of coastal forests and associated habitats and the species that they support is a result of a wide range of natural and man-made causes interacting at different levels and intensities on the east African coastal forest ecosystems. An estimated 60% of natural habitats in the EACFE have been converted over time to farmland and urban areas. Stakeholders have identified three-quarters of the remaining coastal forest areas to be highly or very highly threatened.

Major direct threats to the coastal forests are as follows (in ranked order):

- expanding agriculture
- charcoal burning and fuel wood collection
- uncontrolled fires
- unsustainable logging
- unplanned settlement
- destructive mining practices
- other minor threats e.g. invasive species.

Expanding agriculture: The most important threat facing the natural habitats of eastern Africa, and the coastal forests, is the expansion of agriculture. In general the soils of coastal east Africa are poor and cannot easily support settled agriculture. Coastal agriculture takes the form of short-term shifting cultivation, concentrating on food crops such as cassava and maize, along with some banana, pawpaw and coconut. The soils under remaining patches of lowland forest are more fertile than those of surrounding woodlands and hence face pressure to be converted for agriculture. Growing population pressures also tend to decrease the length of fallow periods. Plantations of coconut, sisal, cloves, rubber, fruit trees and cashew nut also occupy considerable areas of coastal land, replacing lowland coastal forest and other natural habitats.

Charcoal production and firewood harvesting: This is a major cause of forest loss in areas close to large cities and alongside main roads,



Uncontrolled fires are a major threat to coastal forests.

particularly in Tanzania where important forests such as Pugu-Kazimzumbwi are in danger of being cleared for charcoal production. Although not well quantified, the business of charcoal production has heavily impacted forest areas more than 200 kilometres from Dar-es-Salaam, and is spreading ever further into the bush. Away from towns and roads this threat is much less important as local people use firewood for cooking. Most firewood is collected from trees and bushes outside the protected forest areas.

Uncontrolled fires: Although forest fires are a natural phenomenon in eastern Africa, the majority that occur currently are started by people, who use the fire to clear farmland, to drive animals for hunting, to collect honey, and to remove tsetse flies from an area. Some other fires are started accidentally, for example from cigarettes thrown from passing vehicles or by pedestrians. Fire can invade lowland coastal forest patches and thicket vegetation during the dry season. At this time it can be destructive to the vegetation that is not adapted to be burnt. Over time and with frequent and intense burning it is believed that lowland coastal forest and thicket vegetation is converted to more fire-adapted vegetation types similar to Miombo woodlands (dominated by *Brachystegia* and *Julbernardia* species). This results in a loss of the narrowly endemic coastal forest specialist species and their replacement by wide-ranging species typical of Miombo.

Unsustainable logging: The commercial logging of coastal forest tree species occurs mainly in northern Mozambique and remote areas of Tanzania, especially to the south, and to a lesser degree in Kenya. Logging using pit-sawing techniques occurs in coastal forests where timber trees remain. Many forests have already been logged to exhaustion. Particularly heavy exploitation for round wood export recently occurred in the coastal forests of the Rufiji, Kilwa and Lindi Districts of Tanzania, although this has now been stopped. Similar logging for export to the Far East continues in the northern and the central area of Mozambique. Although some of this logging is undertaken using licences obtained from the relevant authorities, some is illegal. Logging of the valuable

trees is often the first major disturbance to a forest, which then progresses to fire wood collection and charcoal burning, and in the worse cases to clearance for agricultural use.



A mother and baby red colobus monkey (*Colobus badius kirki*) in Jozani National Park Zanzibar, Tanzania.

Unplanned settlement: Over much of eastern Africa the expansion of settlements is only partly planned. As Dar-es-Salaam, for example, expands it is starting to encroach into areas of natural habitat, some including lowland coastal forests with high biological values. In some of the protected forests of Kenya and Tanzania (both Forest Reserves and traditionally protected forest areas), settlements have been established within the boundaries of the reserve. When this happens, farming activities also start and there can be much damage to the habitats (e.g. in Kazimzumbwi and Vikindu Forest Reserves close to Dar-es-Salaam). In Zanzibar, the expansion of tourism into some coastal forests is also an issue for concern.

Destructive mining practices: The countries of eastern Africa are endowed with a wealth of mineral resources. In coastal regions these can include gas, gemstones, iron ore, titanium ore, manganese ore, gold, limestone and kaolin. Mining of, for example, limestone, gold, gemstones, silica, iron ore, coral rag and manganese has already

destroyed large areas of natural habitat. Future exploitation of these and other mineral resources presents a threat to remaining forest areas, although in some instances rehabilitation is possible as a case of Bamburi cement rehabilitation initiative in Mombasa Kenya.

Minor threats: Some threats, such as invasive species, are considered to be relatively minor. However these threats need to be carefully monitored to ensure that action is taken so that they do not become more significant.

In the past, there has been overexploitation of some species preferred for carvings especially *Dalbergia melanoxylon* and *Brachyleana huillensis* leading to near depletion of these species within the coastal as well as other forests in Kenya.

Root causes of biodiversity loss

An analysis of the root causes of biodiversity loss, undertaken for the coastal forests ecoregion, has identified factors operating at several levels, from the local level to national and international levels. These are among the more important factors driving the direct threats outlined above.

Local level:

Limited alternative economic activities: Kenya, Mozambique and Tanzania are among the poorest countries in the world with per capita incomes of USD 1,020 in Kenya, USD 1,050 in Mozambique and USD 580 in Tanzania. A significant proportion of the population in these countries, including coastal communities, rely on agriculture for their livelihoods. Direct threats from agricultural expansion and associated fires, in particular, are linked to poverty and limited alternative economic activities in rural areas. As subsistence agriculture is the primary livelihood strategy for most people in rural areas of the coast, the need for land puts negative pressure on forests, even though many forest products are used and valued by local people. A high level of direct reliance on forest products to sustain livelihoods contributes to their overuse in some areas. The lack of affordable energy alternatives also drives the urban demand for charcoal.

Demographic changes: Demographic changes combined with uncontrolled settlement increases overall direct pressures on land, timber and non-timber forest resources. In a region with an average human population increase of 2.5-3.5% per annum, the demand for additional farmland for subsistence agriculture is increasing every year. Population growth, including in-migration, also contributes to expansion of urban settlements. Population increases are also linked to habitat degradation associated with increased demand for firewood, charcoal, timber, building materials and bush meat.

Declining respect for traditional forest protection systems: Small areas of forests have traditionally been conserved as sacred sites, especially in southern Kenya. These areas have been protected by community elders but are now threatened and some cases being destroyed by recent migrants who do not necessarily owe allegiance to traditional authorities. A decline in the respect for elders among other members of the local population is causing further pressures to convert these forests to farmland.

Limited institutional capacities and financial support: While decentralization efforts are focusing more attention and responsibilities at local levels, the local natural resource management agencies are often understaffed (including as a result of past staff retrenchments), poorly funded, and have limited capacity to adopt new management approaches such as ‘participatory forest management’. Financial support for capacity building and management activities, including management of Protected areas (including National Parks and Forest Reserves), and enforcement of regulations on commercial resource extraction, is also limited.

National level:

Limited Consideration of Environmental Impacts of Economic Development Policies: National and Local Governments tend to give priority to economic development activities and will permit the clearance of natural habitats to establish mining, tourism facilities, roads, and agricultural projects. Given the poverty of the eastern African nations, such a development focus is understandable. However, there remains considerable scope for undertaking development that is less environmentally damaging through enhanced integration of conservation objectives in development planning and consideration of environmental impacts.

Inadequate Capacity to Enforce Regulations on Commercial Extraction: Another major issue in the region is the inadequate capacity to enforce forest rules and regulations, such as those on charcoal and timber production.

Illegal activities are both depleting natural resources and limiting the economic value of these activities that is captured by the national economies.

Legal Issues and Land Tenure: The countries of the region have different land tenure systems. In Kenya the current land tenure system leaves a large percentage of rural population without secure title, especially those on the Trust Lands that make up a majority of the land in the country. This limits incentives for people's long-term stewardship of these lands. In Tanzania, recent changes in the Land Law (1999) mean that it is now possible for villages to gain title deeds for their village lands, and also for individuals to obtain deeds for land. This is a change from the past system where land was controlled by the government, and may offer better possibilities for the management of forest resources at the village level.

Inadequate Institutional Coordination and Integration of Sectoral Policies: At the national level, conflicting objectives and policies among government ministries and departments have also contributed to the loss of habitats across the region. In both Tanzania and Kenya there are over 20 sectoral policies that either directly or indirectly affect forest management and conservation practices, with no clear mechanism for ensuring linkages between these different policies and Acts. However, the governments of Kenya, Mozambique and Tanzania have started putting mechanisms in place to address this issue.

International level:

Macro Economic Policies of the International Financial Institutions: Structural Adjustment Programmes promoted by the International Monetary Fund and World Bank have resulted in significant reductions in the number of public sector employees. These reductions have particularly affected staff numbers in natural resource management sectors, with adverse impacts on the enforcement of existing environmental policies and on the development or implementation of new ones.

International Market Demands: International demands for timber drive legal and illegal logging in the coastal forests, with little current demand for sustainable management. During 2002 and 2003 the coastal forests of southern Tanzania were seriously over harvested, with round wood from high value timber trees being cut and exported from Dar es Salaam, Kilwa and Mtwara ports – much illegally. Significant efforts were made to bring this trade under control and a log export ban enacted by the government during 2004 has improved the situation considerably. Similar logging for export continues in northern Mozambique as well as Beira, Quelimane and Pemba in Mozambique. Long-haul tourism is also growing in popularity in Northern countries, with tourists focused on coastal regions with a good climate, such as the coastline of eastern Africa. If well planned, the growth of this sector could help facilitate economic growth through the promotion of ecotourism, which would satisfy the needs of both sustainable development and biodiversity conservation. However, the development of mass tourism along the Kenya coast and in Zanzibar has placed considerable additional pressure on coastal forest habitats.

Conservation opportunities

Among the major opportunities available to address conservation and sustainable management challenges in the EACFE is an enabling environment prevailing in all three countries. Three national policy directions are discernable:

- A trend towards decentralization of planning and implementation of conservation and development activities to local communities, districts and local authorities, which is expected to impact on ownership and responsibility for conservation and management;
- A trend towards greater involvement of stakeholders in planning and decision making for forest management through participatory forest management, which is expected to lead to more rational decision making in favour of conservation and sustainable utilization of resources; and
- A national focus on poverty reduction in all three countries, which is expected to reduce pressure on coastal forest resources.

Another major opportunity is the fact that all three countries are signatories to regional and international agreements that can be used to link the implementation of this strategy to the fulfilment of national requirements of these conventions. Relevant conventions include:

- The Convention on Biological Diversity (CBD)
- The UN Convention to Combat Desertification (UNCCD)
- The UN Framework Convention on Climate Change (UNFCCC)
- The Convention on International Trade in Endangered Species of Wild Fauna & Flora (CITES)
- The World Heritage Convention

The involvement of many international organisations (bilateral, multilateral and NGOs) in forest conservation efforts in all three countries provides a significant opportunity to support conservation activities at the local, national and ecoregional scales. In many countries, donors are also moving away from supporting individual projects, to more general support to the forestry sector, with the priorities being defined by the countries themselves. This trend presents a very significant opportunity for the implementation of the Eastern Africa Coastal Forests Ecoregion strategy. The adoption of the EACFE strategy by the three countries will provide a framework to ensure that investment in the area is directed strategically. The trend towards donor ‘basket funding’ is also continuing as countries continue to demonstrate good governance and may overtake project funding as a mechanism for implementing conservation action on the ground.

One of the prevalent donors working to assist coastal forest conservation at the current time is the Critical Ecosystem Partnership Fund (CEPF). This is a global programme, designed to support conservation efforts in critical biodiversity hotspots around the world. It has funding from the Global Environment Facility (GEF), the Government of Japan, Conservation International, the John D and Catherine T. McArthur Foundation and the World Bank. The eastern Africa coastal forests (together with the Eastern Arc Mountains) are already receiving support in view of their biodiversity importance and USD 7 million has been committed to support conservation activities (primarily by civil society) over a period of five years 2003-2008.



Forest Stewardship Council (FSC) certificates were awarded in 2005 to a farmers’ association (Coast Tree Products), a carvers’ association (Akamba Wood Carvers’ Association) and an enterprise development promoter (the Kenya Gatsby Trust). This signifies a Chain-of-Custody (COC) process. (WWF EARPO / David MAINGI)

Other programmes within eastern Africa region that are relevant to coastal forests include the Eastern Africa Marine Ecoregion Programme (EAME), the Miombo Woodlands Ecoregion Programme, the GEF medium sized project for Kwale, and the proposed GEF project for Kichi Hills and Rondo Plateau, substantial funding through the Tanzania's Forest and Beekeeping Division for participatory forest management, the Tanzania Coastal Zone Management Programme and a French GEF project in the Quirimbas National Park in Mozambique. The EACFE programme will work closely with these programmes to identify opportunities for collaboration and synergy.

At the regional and sub-regional levels a number of organizations have environmental programmes that could support interventions in the Eastern Africa Coastal Forest Ecoregion. These include IGAD (Kenya), SADC (Mozambique, Tanzania), East African Community (Kenya and Tanzania), NEPAD (all three countries) and the African Union. The challenge will be to identify opportunities for raising coastal forest issues in these programmes as they are being formulated.

Developing an ecoregion strategy

Over the past decade, many site-based conservation efforts have been undertaken in the coastal forests by a range of government and non-government agencies. By the early 2000s, however, many of those involved in coastal forest conservation had determined that current efforts were insufficient. In February 2002, a consultative process was initiated through a regional stakeholder workshop on eastern Africa coastal forests. This workshop was held in Nairobi and involved thirty-one stakeholders and scientists from the three countries containing the largest areas of coastal forests – Kenya, Mozambique and Tanzania. The objective of this workshop was to review and recommend new ways of addressing conservation and sustainable development of coastal forests. It was initiated, coordinated and funded by WWF (with assistance from the Ford Foundation) at the request and with the support of stakeholders.

This stakeholder workshop confirmed that past conservation and management of coastal forests had been characterised by sectoral approaches focused on single conservation or management objectives, such as water catchment, timber supply or biodiversity. In spite of the similarity of issues, threats and challenges, interventions both within each country and across countries had tended to take place in isolation without regard to synergy and sharing of experience. Stakeholders therefore agreed on the need for a large-scale approach – also referred to as an ecoregion approach – that would galvanize and focus greater attention on the eastern Africa coastal forests ecoregion. In particular, it was felt that this strategy would lead to more integrated conservation and sustainable management of eastern Africa coastal forest resources. Thus began a multi-stakeholder process which has become known as the Eastern Africa Coastal Forests Ecoregion strategic programme development process.

Also at this workshop, a Regional Task Force and National Task Forces made up of representatives of key agencies in the respective countries were established to spearhead and guide the development and implementation of the ecoregion strategy, coordinated by WWF. Following the February 2002 regional stakeholder workshop, a series of individual National stakeholder workshops led to the operationalization of the National Task Forces.



EACFE Regional Task Force meeting in Zanzibar (March 2005) endorsed this document.

Once established these groups participated in developing consultation and planning processes at national and regional levels. These consultations provided the main input into the national programmes and priority action plans presented here, and allowed the further refinement of the ecoregion strategic framework. This process has been further informed by a number of studies commissioned to fill in gaps in knowledge relating to coastal forest resources and their uses (including socioeconomics, policy and enabling environment, implementation linkages, resource assessment, lessons learnt, updating biodiversity data and trade). (These studies are listed at the end of this document.)

This Strategic Framework for the EACFE provides an umbrella for a wide range of complementary initiatives by partner agencies, and ensures that their objectives and outcomes are aligned with one another and that together they support the achievement of the vision. In the EACFE, a number of funding agencies have recently provided significant co-financing support through partner agencies and national governments to the implementation of aspects of the programme, including the three governments, civil society organisations, CEPF, GEF, Ford Foundation, the private sector, WWF and other partners.

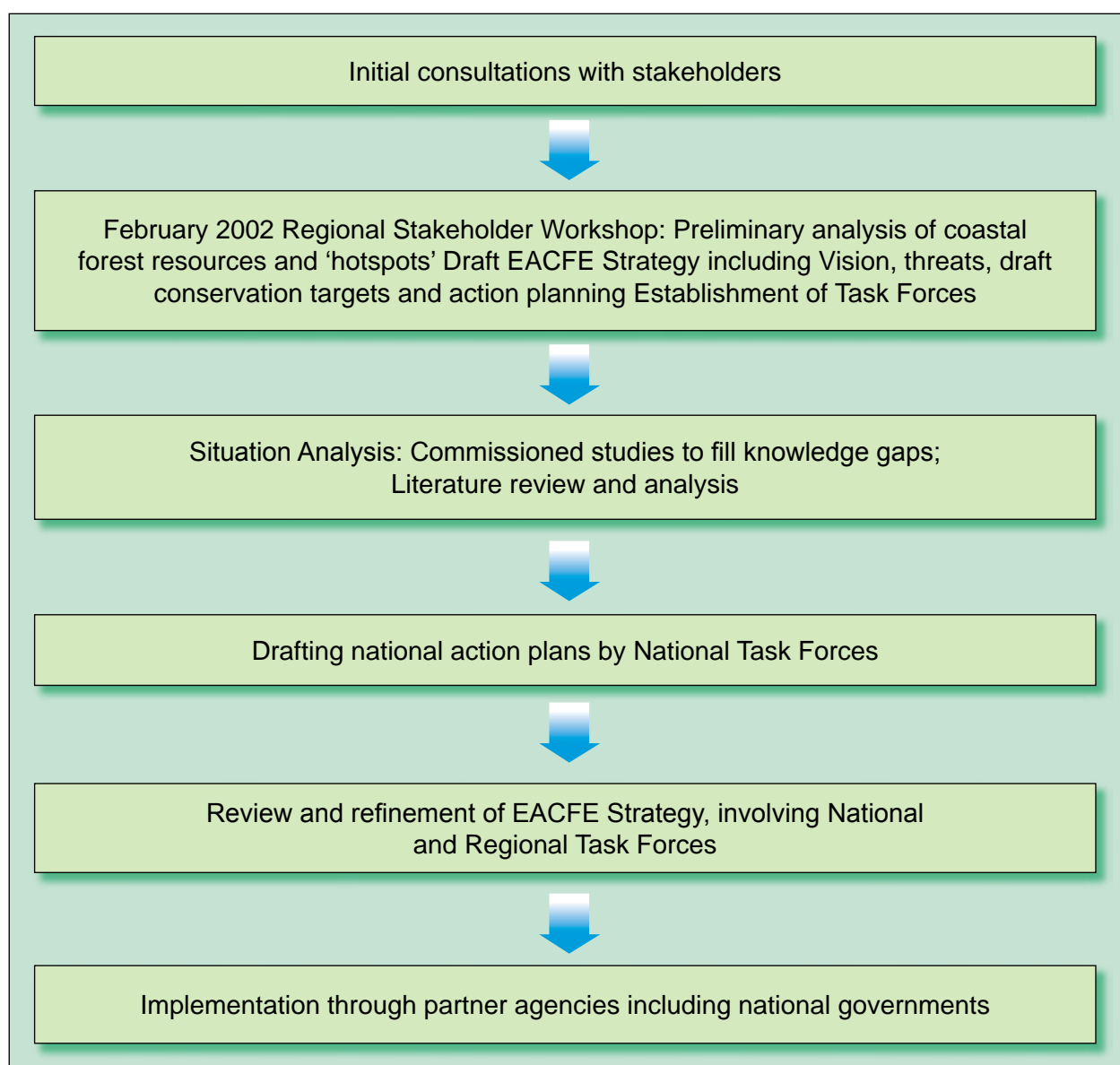


Figure 2. Overview of EACFE programme Strategy Development Process

Defining a 20-year strategic framework

Ecoregion conservation is an approach that attempts to go beyond the interventions adopted in the past, where projects were often undertaken at a local level in an uncoordinated way. There are three principal elements that make this approach different. First, biological targets, priority areas and critical ecological processes across the ecoregion are identified in a collaborative manner. Second, action in these ecoregions is supported by action at national and international levels to enhance the policy, legal and institutional environment (the enabling environment) in which site-based action takes place. Third, local action is undertaken on the basis of an ecosystem or landscape approach. The approach is holistic and strategic, and aims to catalyze and coordinate action by a range of stakeholders, improving the opportunities for shared learning and replication of successes.

The EACFE programme Strategic Framework has been formulated within a participatory process that has established a partnership for implementation. The 20-year Strategic Framework comprises:

- An EACFE ‘vision statement’
- Priority areas for action in each country
- A series of ecoregion targets
- Operating principles
- Six strategy components:
 - Conservation of priority forest landscapes
 - Support for site-based conservation efforts in protected areas, collaborative management areas and community-based management areas.
 - Support for sustainable livelihoods
 - Capacity building
 - Enhancing the enabling policy and legal environment
 - Enhancing knowledge and information on coastal forests to improve local management and influence decision-making

Implementation will be undertaken through National Action Plans (NAPs) complemented by a Regional Action Plan (RAP), and makes provision for co-ordination at national and ecoregional levels, to ensure that the various activities support and complement each other, and that the process is monitored and reviewed.

The Strategic Framework complements and provides a means of linking related initiatives that are being undertaken in the region by national governments and international agencies. These include the Eastern African Marine Ecoregion Strategic Framework, which focuses on coastal and marine conservation issues in a similar manner as well as the Miombo ecoregion.

Ecoregion vision statement

Ecoregion conservation efforts in the EACFE are guided by a common ecoregion vision statement, which describes the over-arching goal that stakeholders would like to achieve in the ecoregion over the long term:

“The coastal forests of eastern and south-eastern Africa are conserved, managed and sustainably utilised for the benefit of present and future generations.”

This vision encapsulates the concept of environment and sustainable development as defined by the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992.

Box 2: Reversing the trends in biodiversity loss: a long-term conservation strategy for eastern Africa coastal forests

How fast are we losing biodiversity in the coastal forests of Eastern Africa? What needs to be done to reverse the trend? Although we don't know enough, we know that action cannot be postponed. We need to act now and with conviction to address the problem.

In the first few years, the EACFE will be laying the foundations for later phases, trying out new ideas, demonstrating the value of alternative approaches, and testing the feasibility of implementing them at a larger scale. We will be working towards creating an enabling environment to support our site-based work.

In later phases, EACFE will expand its scale of activities, consolidate the gains made, and extend work to new areas where action may be called for. EACFE will measure the effectiveness of its work at key moments, and use this information to review the strategy, refine the approach, and ensure that it makes a difference.

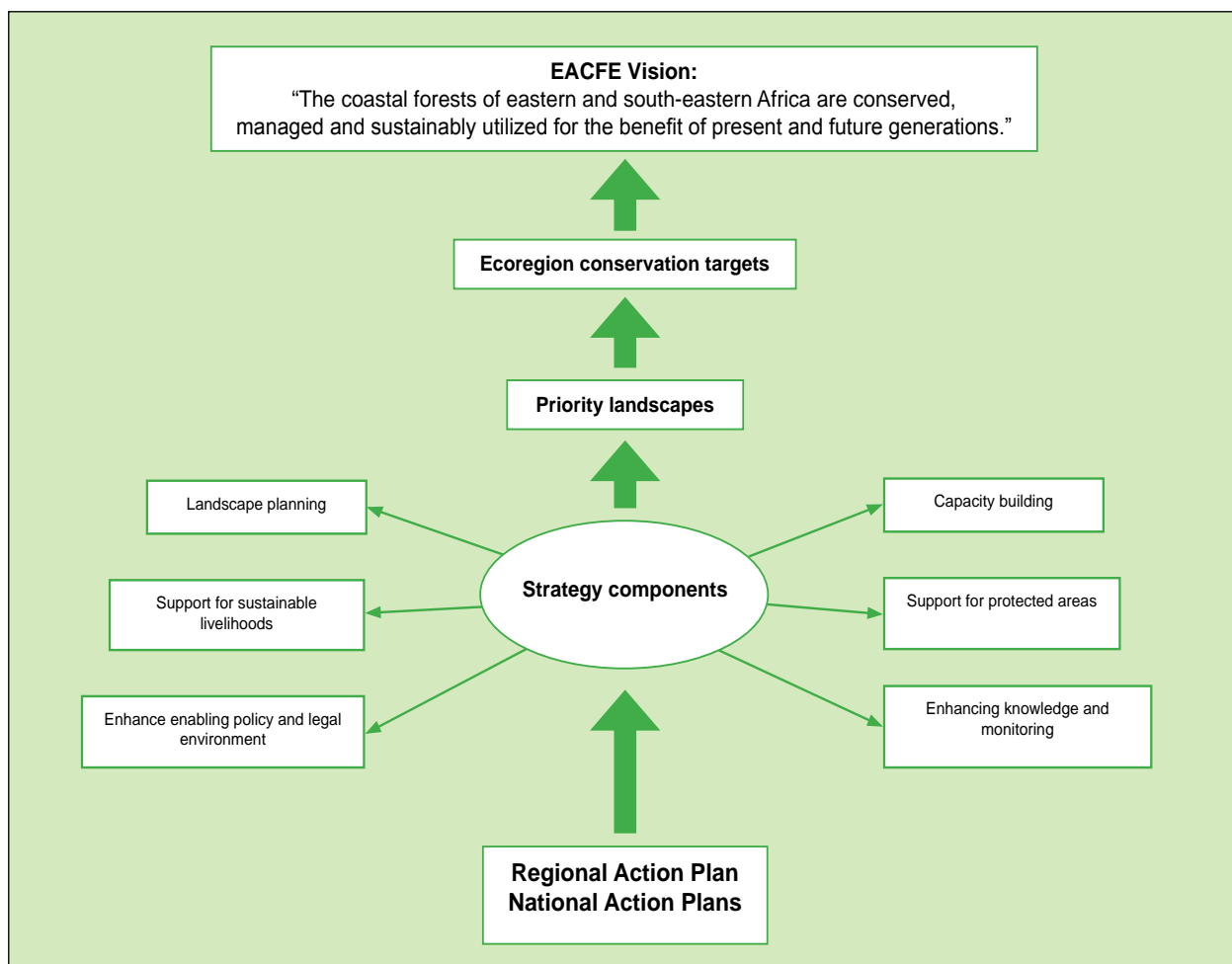


Figure 3. Overview of the EACFE Strategy

Ecoregion targets

Ecoregion conservation targets describe the outcomes that need to be achieved to safeguard the biodiversity values of an ecoregion. They provide a foundation for measuring success in conservation efforts.

Two kinds of targets have been developed for the EACFE: firstly, targets describing desired impacts on the state of biodiversity; and secondly, targets describing changes in the pressures on biodiversity. It is acknowledged that some of the targets below will prove difficult to measure, given current knowledge regarding the coastal forests, and that the targets will need to be revised from time to time as this knowledge improves.

Targets relating to the state of biodiversity

Target 1: Coastal forest habitat

Goal: Loss of closed canopy coastal forest habitats, especially the legume-dominated and mixed forests types, which contain the most endemic species and livelihoods values, is significantly slowed.

Indicators: By 2015

- At least 6,000 km² of closed canopy coastal forest are conserved in the eastern Africa region;
- No more Kaya forests or sacred forests are destroyed (either completely or partially) in southern Kenya, Tanzania and Mozambique as elders reassert their authority in these traditional forests, and gazette of these are finalized in Kenya (Plans are at an advanced stage to gazette the Kaya forests);
- The number of Village Forest Reserves (incorporating coastal forest habitat) in Tanzania is increased;
- Regeneration of least 500 km² of coastal forest occurs within well-managed sites; and
- At least 100 km² of forest corridors are created between isolated forest patches within individual priority forest landscapes.

Target 2: Other habitats

Goal: Adequate areas of other habitats in the coastal zone of eastern Africa remain to support species, ecosystem and use values.

Indicators: By 2015

- At least 800 km² of *Brachystegia* woodland, 50 km² of *Hyphaene* palm savannah, 20 km² of wetlands and 30 km² of edaphic grasslands are well conserved in the ecoregion; and
- At least 10 corridors of these other habitats are created between isolated areas of closed canopy coastal forest.

Target 3: Coastal forest endemic and/or threatened species

Goal: Assessments of endemic and/or threatened coastal forest species within target landscapes show no declining population trends over a 10 year period.

Indicators: By 2015

- Endemic and/or threatened coastal forest plant and animal species are confirmed to persist within the key landscapes;
- Populations of Clarke's weaver, Sokoke pipit, Sokoke scops owl, east coast akalat, Ader's duiker and golden-rumped elephant shrew are stable or increasing within the Arabuko Sokoke forest landscape;
- Populations of Ader's duiker, Pemba flying fox, Pemba blue duiker, Pemba Fischer's turaco, East Coastal Akalat, Zanzibar sombre greenbul, Pemba Scop's owl, Pemba sunbird, Pemba African goshawk, Pemba brown parrot and Zanzibar red colobus monkey are increasing within Unguja and Pemba;
- Populations of the Tana river red colobus monkey and Tana river mangabey monkey are stable or increasing within the Tana River landscape;
- Populations of Sokoke scops owl, east coast akalat and Swynnerton's forest robin are stable or increasing in the Usambara Lowlands/Tanga landscape.
- The number of colonies of *Saintpaulia* spp. is stable or increasing in the Usambara lowlands/Tanga landscape;
- Breeding populations of the east coast akalat and Spotted ground thrush are stable or increasing in the Rondo forest landscape;

- Known endemic and threatened (IUCN red list) plants are confirmed to still exist in the Kwale, Usambara, Pugu Hills, Rondo and Uluguru lowlands landscapes; and
- Populations of Rondo galago in the Pugu Hills, Matumbi Hills and Rondo landscapes are stable or increasing.
- Population status of the Zanzibar leopard is known.

Target 4: Non-forest endemic and/or threatened species

Goal: Population assessments of endemic and/or threatened species within non-forest habitats show no declining population trends over a 10 year period.

Indicators: By 2015

- Endemic and/or threatened non-forest species are confirmed to persist within the key landscapes;
- Populations of Malindi pipit are stable or increasing within the grasslands of the Kwale landscape;
- Populations of elephant are maintained within the ecoregion, but densities are prevented from increasing to the point where they destroy important coastal forest habitat (e.g. as is occurring in the Shimba Hills); and
- Populations of black rhinoceros, leopard, lion and African hunting dog are stable or increasing within the remote regions of the ecoregion (e.g. Selous, Saadani in Tanzania and coastal forests of northern Mozambique).

Targets Relating to Pressures on Biodiversity

Target 5: Pressures on Coastal Forest Habitats

Pressures on coastal forest habitats are reduced by at least 50% across the forests of Kenya, Mozambique and Tanzania (as measured using threat reduction assessment methodology).

Indicators: By 2015

- Rate of illegal logging for export of round wood is reduced by at least 50% from within the Forest Reserves of southern Tanzania and northern and central Mozambique (including Quirimbas National Park) as measured by field survey and TRAFFIC records;
- Encroachment for agriculture or settlement is halted within the Forest Reserves of the ecoregion, as measured through aerial/satellite photography;
- The coastal tourism carving industry switches from the unsustainable exploitation of 'black wood' trees from coastal forests to various forms of 'good woods' that can be sustainably harvested over the longer term; and
- No licenses are issued for coastal sand extraction to obtain titanium ore from beneath coastal forest habitats.
- Regulations are in place to ensure that the trade in coral rag does not negatively impact on the coastal forests.



Logging in the coastal forests such as in Kilwa and Rufiji districts (Tanzania) needs enhanced management and monitoring.



Jozani Forest Reserve now a national park (Zanzibar, Tanzania) serves as an example of a successful joint government–community conservation initiative and a tourist destination within coastal forests of eastern Africa.

Target 6: Coastal forest species pressures

Goal: No coastal forest endemic species becomes more threatened due to preventable human activities.

Indicators: By 2015

- Trade quotas for coastal forest endemic birds, mammals, reptiles and amphibians are set using the precautionary principle at levels well below minimum sustainable off-take; no trade from Forest Reserves;
- Hunting pressure on Ader's duiker in Jozani and Arabuko Sokoke is reduced to levels that have no impact on reproductive success
- Hunting of elephant and rhinoceros for meat, ivory and horn remain at levels that have no impact on the population dynamics of these species; whilst continuing to support hunting control measures
- Collection of *Saintpaulia* spp. and cycad species, by botanists and commercial operators, remains at levels that have no impact on the overall populations of these vulnerable plant groups.
- All *Maesopsis eminii* from within the Ngezi-Vumawimbi proposed Nature Reserve have been removed.

Identification of conservation landscapes

The EACFE programme has adopted a “landscape approach” to conservation. Working at landscape scale provides opportunities to develop approaches that take both people and their interactions with forests into account. The most important coastal forest landscapes have been identified, each encompassing a number of priority sites in a mosaic of other land uses and habitats.

The choice of priority landscapes and sites areas was based on the following criteria:

- Level of endemism and threats: Priority sites proposed were those with high levels of endemism and species richness.
- Size and level of site: Larger forest patches were considered a priority for conservation intervention, as they have greater potential to maintain ecological processes and functions such as water catchment systems and migration corridors.
- Flagship species: Areas which are home to flagship species which have a minimum viable population and home range were prioritized. The potential of these species for related education, research and fundraising was also taken into account.

Kenya

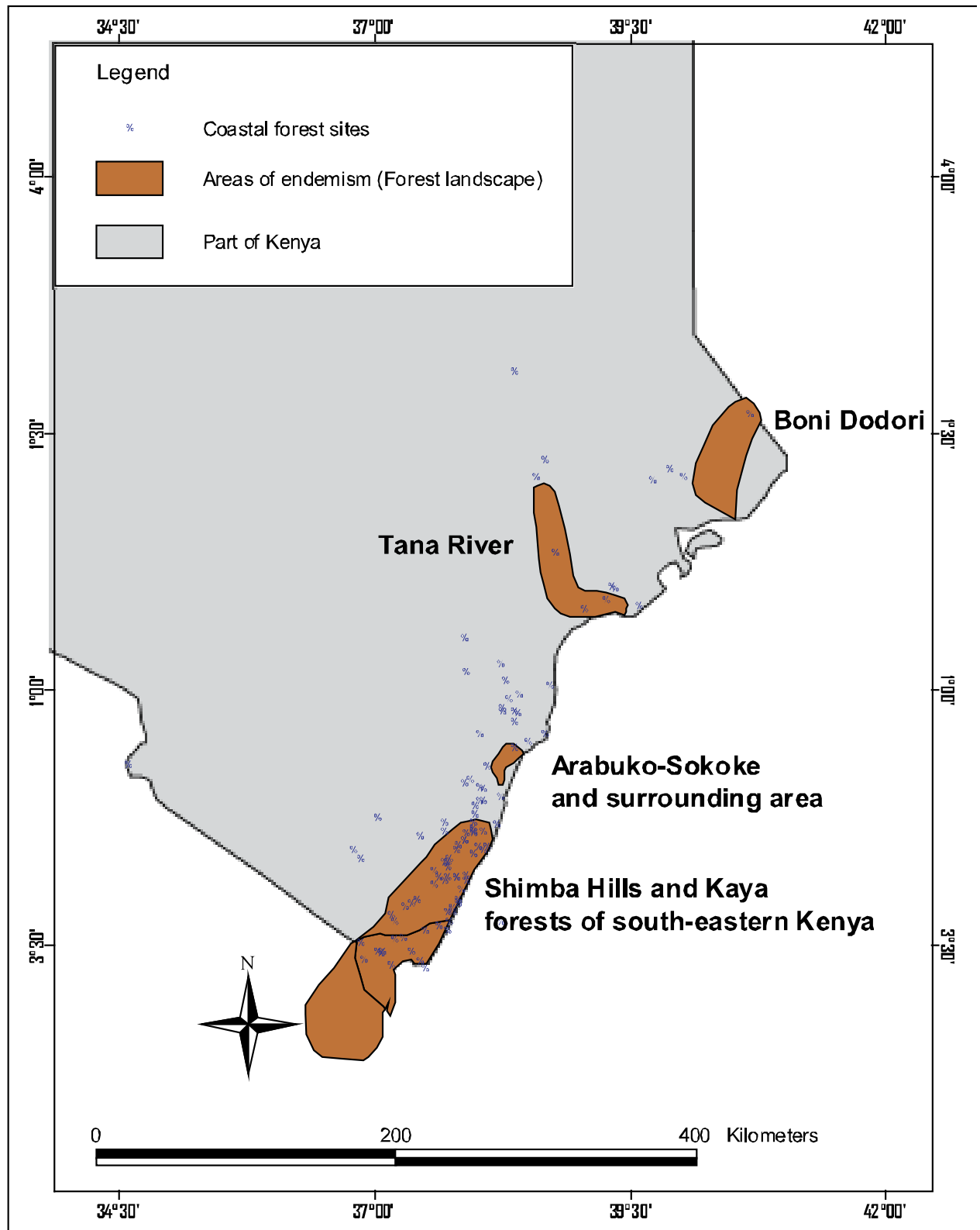


Figure 4. High priority conservation landscapes in the coastal forests of Kenya.



Shimba Hills forests provides one-third of the water supply to Mombasa City, Kenya.



The Chiridzene community in Mozambique gets all their water supply from their sacred forest catchment.

Table 1. Priority Sites Within Kenya by Priority Landscapes

Priority Site	Priority Landscape	Area (km ²)	Status	Strict plant endemics	Strict vertebrate endemics	Threat type	Threat level	External assistance
Witu and Lamu forests		15	FR			R, S, AG, NP	Very high	none
Boni/Lunghi area			UP			R, Ag	High	none
Dodori and Boni forests		220	NR/FR			R, AG (NP Boni)	High/Very high	none
Tana River gallery forest	Tana River	11	NR	>4	7	NP, R, Ag, S	Very high	ICIPE, CEPF AND JBIC
Maindi (N) <i>Brachystegia</i> woodlands	Tana River	300	UP			R, S	High	none
Tana River delta	Tana River	10	UP			NP, R, AG, S	Very high	none
Arabuko Sokoke	Arabuko Sokoke	370	NR/FR	>4	1	R, S, U	High	Nature Kenya/Bird Life, ICIPE, (GEF, CIP
Mwangea Hill	Arabuko Sokoke	15	TL		0	R, S	Very High	none
Shimba Hills, including Mwaluganji	Kwale Forests	77	NR	>12	0	R,S	High	none
South Kwale forests or Buda Complex	Kwale Forests		NM/FR	>10	0	Ag, R, S	High	Ford Foundation, GEF, ICIPE, NMMK, (CFCU), WWF
Kilibasi	Kwale Forests	2	UP			R	High	none
Kaya forests (47 sites)	Some in Kwale Forests	28	NM	>4	?	Ag, R, S	Very high	Ford Foundation, GEF, ICIPE, NMMK, (CFCU), WWF
Total		1,048						

Status: NM=National Monument, FR=Forest Reserve, NP=National Park, UP=Unprotected, TL=Trust Land

Threat Type: R=Resource Use, Ag=Agriculture, S=Settlement, NP=Not Protected, U=Urban



A tree Farmer in Kilifi, Kenya. He is a member of the FSC-certified tree growers association.



Butterfly (Kipepeo) farmer training centre, Gede, Malindi district in Kenya.

Tanzania

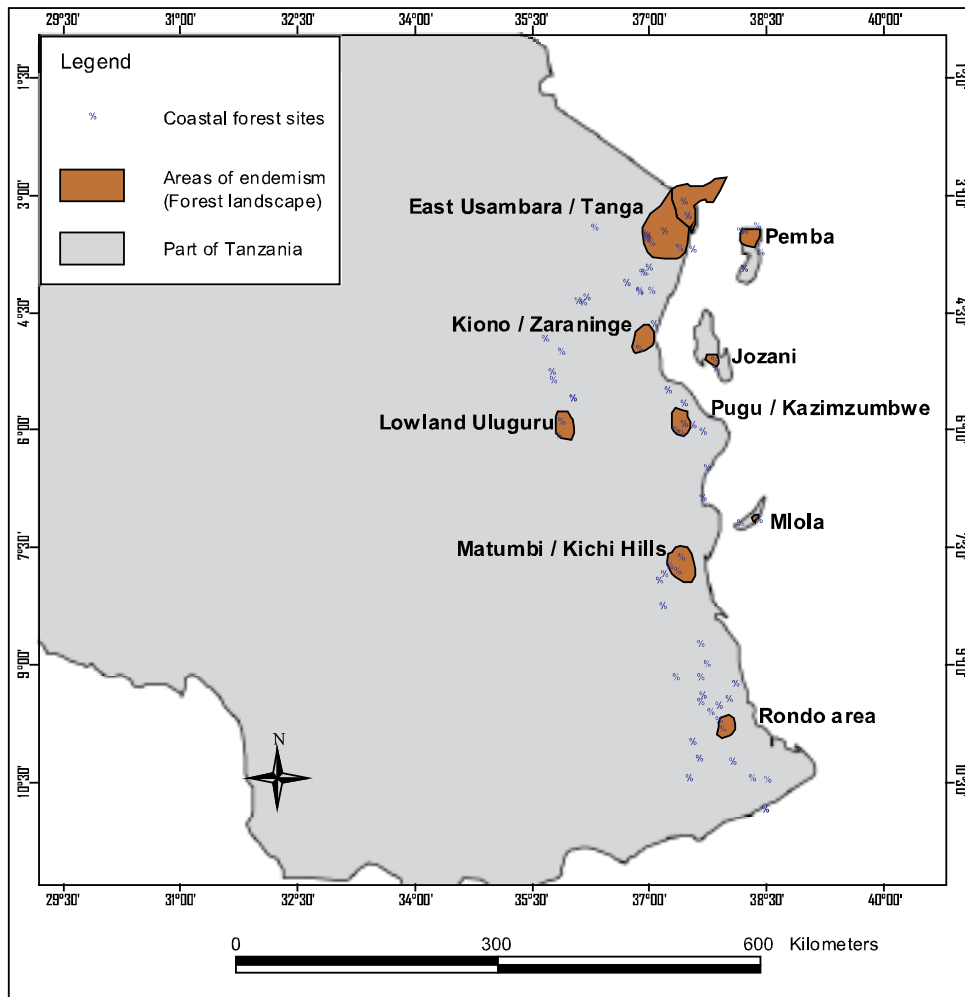
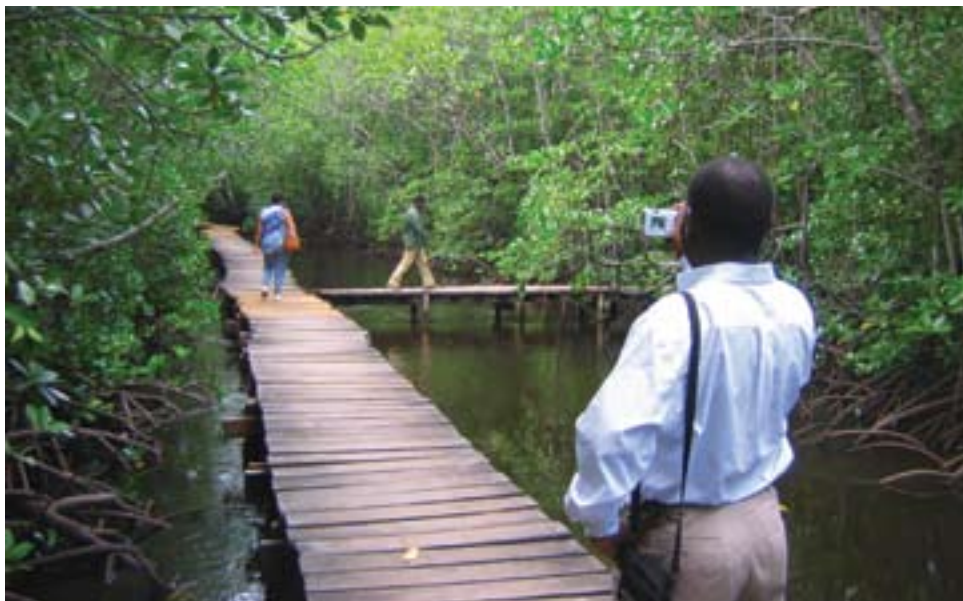


Figure 5. High priority conservation landscapes in the coastal forests of Tanzania.



A tourist mangrove walk in Jozani National Park Zanzibar (Tanzania) is an example of conservation initiatives linking EACFE and Eastern African Marine Ecoregion (EAME)

Table 2: Priority sites within Tanzania by priority landscapes

Priority Site	Priority Landscape	Area (km ²)	Status	Strict plant endemics	Strict vertebrate endemics	Threat type	Threat level	External assistance
Lowland East Usambara	East Usambara/Tanga	100	FR,UP	>20	2	AG, R	high	WWF, TFCG
Pemba Island (including Ngezi-Vumawimbi)	Ngezi - Vumawimbi	19	Natural Forest Reserve	>10	5	R	High	Government of Austria and FFI
Gendagenda	Kiono-Zaraninge	28	FR	4	1	R, AG	High	None
Kiono-Zaraninge	Kiono-Zaraninge	17.8	NP	>2	0	R, Ag	Very high	National Parks
Unguja Island	Jozani-Chwaka Bay National Park	50	NP	>7	>1	R, Ag, S	High	None
Ruvu North	Pugu-Kazimzumbwi	2	FR	0	0	R, U	Very high	TFCG
Ruvu South	Pugu-Kazimzumbwi	20	FR	0	0	R, Ag, S	Very high	TFCG
Pugu-Kazimzumbwi	Pugu-Kazimzumbwi	10	FR	12	2	R, Ag, U	Very High	WCST
Pande	Pugu-Kazimzumbwi	10	GR	2	0	R, U		None
Kimboza	Lowland Ulugurus	4	FR	17	1	R	M	NORAD
Matumbi-Kiwengoma	Matumbi-Kichi Hills	20	FR	>3	2	R, Ag	High	None
Kichi Hills	Matumbi-Kichi Hills	20	FR	0	0	R, Ag	Very high	None
Litipo	Rondo area	4	FR	>16	1	Ag, R	High	None
Rondo	Rondo area	25	FR	>50	4	Ag	Very high	None
Total		329.8						

Status: NM=National Monument, GR=Game Reserve, FR=Forest Reserve, NP=National Park, UP=Unprotected, TL=Trust Land

Threat Type: R=Resource Use, Ag=Agriculture, S=Settlement, NP=Not Protected, U =Urban

External assistance: FFI=Flora and Fauna International; TFCG=Tanzania Forest Conservation Group; WCST=Wildlife Conservation Society of Tanzania

Mozambique

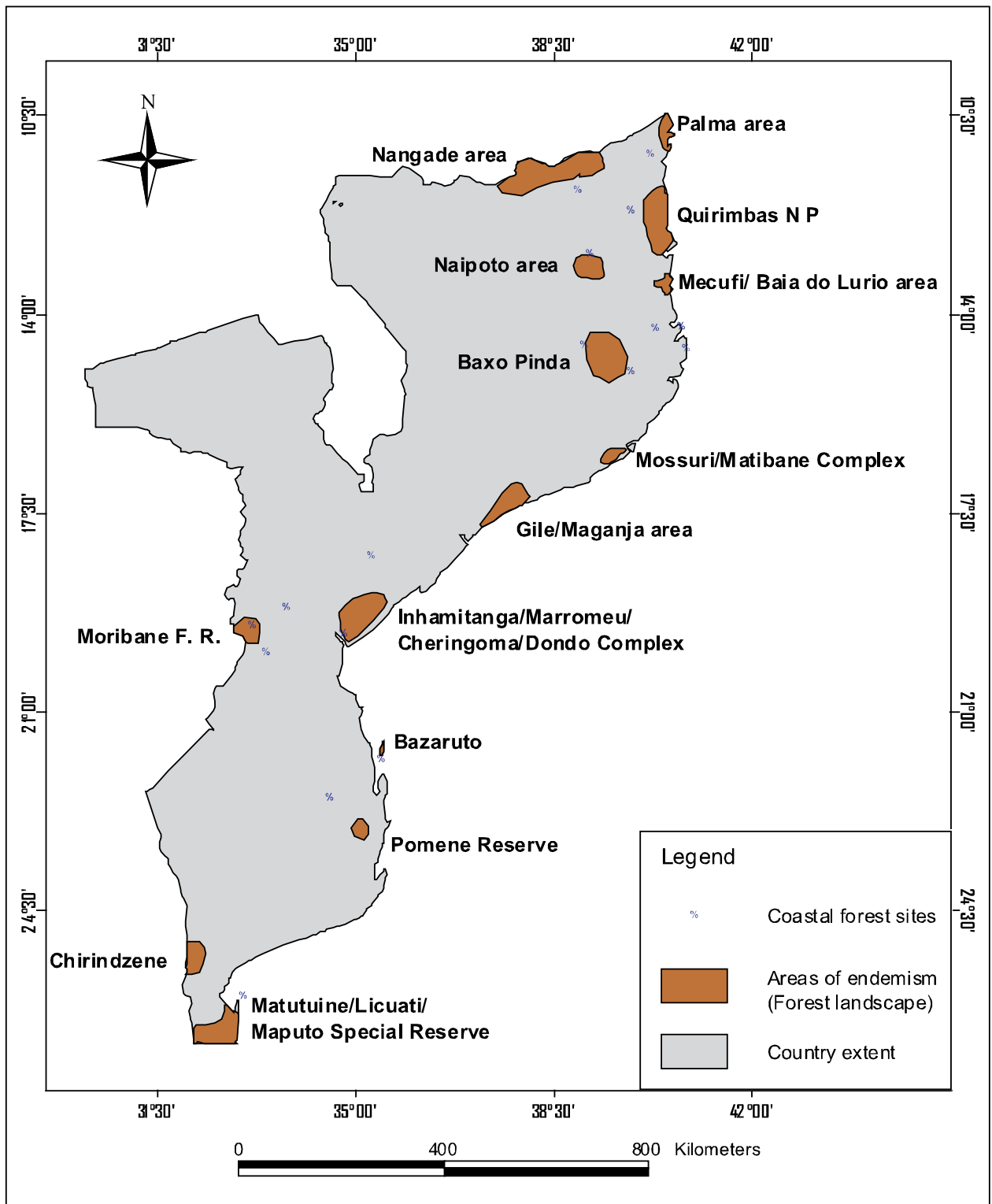


Figure 6: High priority conservation landscapes in the coastal forests of Mozambique.



Chirindzene sacred forest in Mozambique, a community multipurpose protected area

Table 3: Priority sites within Mozambique by priority landscapes

Priority Site	Priority Landscape	Area (km ²)	Status	Strict plant endemics	Strict vertebrate endemics	Threat type	Threat level	External
Quirimbas National Park	Cabo Delgado area	7,500	NP			L, Ag, F	High	WWF
Naioto Area	Cabo Delgado area		None			L, Ag	High	None
Palma	Cabo Delgado area		None			Ag, L	High	None
Nangade	Cabo Delgado area		None			Ag, L, F	High	None
Mecufi-Baixa do Lurio	Cabo Delgado area		None			F, L	Very high	None
Matibane	Nampula	199	FR			L, Ag, C	Very high	None
Baixo Pinda	Memba area	196	FR			L, Ag, F	Very high	Angoche
Mossuril Complex	Mossuril		None			Ag, F	Very High	None
Gile Reserve area	Zambezia		PA			F	High	None
Maganja da Costa	Zambezia		None			L, Ag, F	High	None
Moribane FR	Manica	53	FR			Ag, L	Very high	None
Inhamitanga/Marrom, Cheringoma/Dondo/Gorongosa	Sofala area	7,000	NP, FR & other			L, Ag, F	Very high	None
Bazaruto	Inhambane area	1,600	NP			Ag, F	Very high	WWF/ FNP
Pomene	Inhambane	200	Reserve			F, Ag	Very high	None
Chirindzene	Xai-Xai area		SR			-	Low	None
Matutuine/Licuat	Maputo	19	FR			L, C	Very high	None
Maputo Reserve	Maputo	700	Reserve			F, L, Ag, G	Very high	None
Total		17,467						

Status: NM=National Monument, GR=Game Reserve, FR=Forest Reserve, NP=National Park, UP=Unprotected, TL=Trust Land

Threat Type: R=Resource Use, Ag=Agriculture, S=Settlement, NP=Not Protected, U =Urban

External assistance: FFI=Flora and Fauna International; TFCG=Tanzania Forest Conservation Group; WCST=Wildlife Conservation Society of Tanzania

Components of the ecoregion strategy

Six EACFE Strategy Components set out the priority actions required to achieve the targets for the ecoregion. An important element is a landscape approach to conservation, essential for a landscape mosaic such as the coastal forests. The strategy components also include both a focus on formal protected area management and a focus on sustainable use and local livelihoods, grounded in management of forest resources for both biodiversity and human needs. At the same time, the concerns of capacity building, policy reform, and improving knowledge and monitoring are also addressed.

The six strategy components are:

- Conservation of priority forest landscapes
- Support for protected areas
- Support for sustainable livelihoods
- Capacity building
- Enhancing the enabling policy and legal environment
- Enhancing knowledge and monitoring

This package of strategy components provides a holistic framework for action by all stakeholders. It helps to align with their various activities so that duplication and gaps are eliminated, and focuses their work on common goals. It encourages synergy, allowing for diverse contributions and improving opportunities for shared learning, networking and mutual support. It provides a context for donors, locating their contributions within the broader programme in a coherent way.



Migrating elephants of Shimba hills nature reserve and Mwaluganje elephant sanctuary in the Coastal forests - Kenya

Strategy component 1: Conservation of priority forest landscapes

Across much of the Eastern Africa Coastal Forest Ecoregion, particularly in Kenya and Tanzania, forests have become highly fragmented and remain mostly in the form of forest patches surrounded by farmland, woodlands and other areas of intensive human use. Forests in Mozambique are less fragmented but – with relatively large and growing populations in coastal areas – forest lands are in demand to meet a range of human needs. The continued fragmentation and degradation of coastal forest resources combined with high levels of human poverty in the region demands a “landscape approach” to forest conservation and management that takes into account both biodiversity and human needs. A multiple-use management approach at the landscape scale, which looks holistically at people and their interactions with forests and other resources, is therefore an important component of the EACFE strategy. This approach has been applied successfully in the Jozani-Chwaka Bay National Park and this approach may be applied elsewhere within the EACF Ecoregion.

Coastal forest landscapes collectively aim to capture the majority of the biological values of the region, while at the same time ensuring that human land uses and interactions with the forests can be considered. Undertaking management planning within these areas at a landscape scale offers potential to:

- Address limitations of site-based efforts;
- Identify the combination of forest protection and management practices required to meet both conservation and community needs;
- Promote forest restoration and connectivity over larger scales, including protected and non-protected areas;
- Engage and promote responsibility for conservation and sustainable use among non-local actors, such as the private sector; and
- Promote greater coordination among the multiple actors and mandates operating in priority conservation landscapes.

Through landscape planning, the EACFE programme will seek to identify the combination of management practices required to meet both conservation and community needs. Landscape planning must be undertaken in partnership with all key stakeholders, including local communities, government (especially local government) and the private sector. It must also be undertaken in keeping with national policies and processes for participatory land use planning. Landscape planning may involve reaching out to new, non-local stakeholders with an interest in the broader landscape – such as through trade – and involving them in negotiations to ensure they play a constructive part in integrated management strategies.

Landscape planning is based on the following key principles:

- Land use decisions are subject to fair negotiation among all stakeholders;
- Effective and fair mechanisms exist to resolve conflicts;
- Trade-offs are made explicit and reconciled by legal sanction or payments;
- Payments are made to people who forego local benefits in favour of off-site environmental objectives;
- Land and resource tenure and access rights are clear and can be defended legally;
- Research and especially spatial analysis tools are used to increase the range of options available; and
- Management and outcomes are continually monitored.

Potential activities under this component include:

- Planning sustainable agricultural land use;
- Identifying and implementing alternative agricultural practices, including alternatives to fire as a land management tool;
- Identifying and implementing alternative methods for charcoal production;
- Improved planning of settlement expansion;
- Developing local participatory forest/land use plans (e.g. District Development and Village Land Use Plans);
- Identifying where and how restoration efforts can be undertaken with local communities;
- Identifying and negotiating new protected areas; and
- Linking agricultural development and extension services.
- Restoration of mangroves as considered appropriate by the respective countries.

Box 3: What does Landscape Planning entail?

The EACFE programme will support landscape plans which address the need to:

- Identify, in consultation with stakeholders, gaps and priorities for action, as well as mechanisms for coordinating the work of various stakeholders;
- Develop management plans for forests, including community management and restoration programs;
- Improve community awareness on wise use of forest resources;
- Increase capacity for enforcement, including support to community-based protection; and
- Promote sustainable livelihoods (largely through improving mainstream livelihoods) to reduce pressure on resources and habitats.



Kaya Kinondo ecotourism project in Kwale – Kenya, A successful sacred forests community management initiative.

Strategy component 2: Support for protected areas

Protected areas are a core element of the long term conservation of the EACFE and the majority of the remaining habitats in Kenya and Tanzania are found within the protected area system managed by Central, Local or Village Governments. Within the EACFE priority forest landscapes there are sites, often existing protected areas, of especially high conservation importance. While sites encompassing the full range of habitat types in the ecoregion should be conserved, conservation of the important forest patches, particularly those which are already under some form of conservation management, is of particular importance. Priority forest sites have been identified through the EACFE programme planning process and are listed in the previous section on priority landscapes and sites.

In Kenya and Tanzania, over 80% of remaining forest patches are found within government gazetted Forest Reserves. A smaller number are found within reserves declared for wildlife conservation (including National Parks, Game Reserves and National Reserves). In Kenya other forest patches are protected by local communities as kaya forests. In Mozambique, few of the forests are protected under any official protected area designation, although the new Quirimbas National Park in the north of the country covers important areas of coastal forest habitat.

Conservation and sustainable use of forests and other habitat types may be undertaken through a range of management regimes, including government protected areas, co-management areas and community forestry areas. This strategy component focuses on conservation through establishment and effective management of government-protected areas. (Co-management and community forestry approaches are addressed in Strategy Component 3: Support for Sustainable Livelihoods.)

Under the EACFE programme, anticipated activities within this strategy component include:

- Supporting the gazettement of protected areas to cover key biodiversity protection gaps, for example in northern Mozambique, on Zanzibar, and any proposed reserves that are not yet declared;
- Assisting government to better manage the existing protected areas within the coastal forests, for example by providing management support, searching for sustainable financing options, and upgrading the status of key areas for example by giving them IUCN protected area codes;
- Assisting communities to develop and then manage Village Forest Reserves under their own authority as a source of livelihoods and for the maintenance of forest habitats;
- Assisting the governments of the region to embed the results of this coastal forest strategy within their own policies, laws and regulations, and linking the protected area development to donor 'basket' funding opportunities;
- Providing technical and financial support to protected area institutions to carry out forest surveys, production of GIS maps and production of management plans;
- Advocating stakeholder participation and benefit-sharing in the management of all protected forests in the region;
- Developing an EACFE programme database and carrying out regular monitoring on biodiversity status and resource use and making information available to partners;
- Supporting an enabling policy environment for establishment and effective management of protected areas;
- Developing and testing new sustainable financing mechanisms for protected areas; and
- Developing project proposals and seeking funding jointly with protected area institutions.

Strategy component 3: Support for sustainable livelihoods

A key challenge across the Eastern Africa Coastal Forests Ecoregion is the combination of high levels of poverty and resource dependence among growing populations with the fragility and limited extent of remaining forests. While people use and value a wide range of forest and related resources, the overriding demand for agricultural land – to support primary agricultural livelihoods in rural areas – and the huge urban demands for charcoal and building wood results in conversion of forests and woodlands. Long-standing traditions of stewardship of nature have been eroded through a range of causes, including exclusionary approaches to forest conservation which create few incentives for long-term sustainable management. In this context, efforts to support sustainable livelihoods depend on increasing the value of sustainably-managed coastal forests to people – including through

increasing their rights and access to them – while at the same time identifying alternatives to take pressure off scarce resources, particularly wood.

A major trend in forest management across the region is the shift to participatory approaches that devolve ownership and management roles to local communities and others, and emphasize benefit sharing. This process is furthest developed in national policy and legislation in Tanzania, although it is also underway in Kenya and Mozambique. The focus of this EACFE strategy component is to strengthen capacities and incentives that will support sustainable livelihoods for local communities, in the context of regional trends towards enhancing community-based management.

The EACFE programme will seek to support several dimensions of sustainable livelihoods that include the following activities:

- **Supporting resource rights of local communities under the framework of new policies and laws:** Resource rights and local access are a critical foundation for sustainable livelihoods strategies as well as for successful and equitable governance of forest resources. Some work in this area will focus at the local level, such as support for design and implementation of participatory forest management plans for specific forest areas. At the same time, it will be important to engage at the policy level to help shape the enabling context of policies and guidelines for participatory forest management, and also to help build the effectiveness of local government agencies taking on new approaches and responsibilities for supporting the resource rights of local communities in resource management.
- **Institutional capacity building and empowerment:** New participatory forest management approaches will require strong community-level management institutions as well as new collaborative relationships with both government and the private sector. Important activities for the EACFE programme include support to build capacity for management of natural resources and economic activities at the local level, support to empowerment of local communities so they can establish effective and equitable relationships with other new partners, and capacity building of local government and the private sector to partner effectively with local communities. Because many decisions that impact local level resources and livelihoods are taken at district and national levels, among others, it will be important to ensure that local communities are increasingly represented at these higher levels and empowered to engage with and influence decision making. Facilitating lateral networks and linkages across communities for mutual learning and empowerment is another important area of work for community management and sustainable livelihoods in the EACFE.
- **Sustainable resource use activities may include:**
 - Identifying and promoting better management practices for use of coastal forest mosaic natural resources (especially for non-wood products);
 - Identifying and promoting alternatives for meeting resource-based livelihoods needs outside natural forests (especially for wood products), such as plantations for carving wood;
 - Environmental education and awareness regarding longer-term trends in natural resources and the impacts of extractive activities; and
 - More effective regulations and enforcement against unsustainable use.
- **Enhancing sustainable livelihoods:** While participatory forest management provides a foundation for increased economic benefits to communities, in most cases significant and sustainable livelihood impacts will depend upon increasing the returns generated from non-timber forest, agricultural and related products through value-added processing, product diversification and/or improved market links that allow local people to receive a higher proportion of the value of what they sell. Because increasing the value of a given resource can also drive increased pressure on it, efforts to promote livelihood improvement and sustainable resource management (above) will need to be developed hand-in-hand, within an overall process of improved governance.

Given the fragility of remaining forest areas in the EACFE, it will also be particularly important to explore livelihood alternatives that do not depend upon resource extraction, for example through tourism or the development of markets for coastal forest insect species. At the same time, alternative livelihoods should be rigorously tested for economic viability, with particular attention paid to marketing and market demand (in addition to sustainable sourcing). Developing strategic partnerships with other organizations with economic development expertise (government, private sector, NGO) is key to success and long-term sustainability. The EACFE programme will need to partner with organizations with development expertise in designing and implementing sustainable livelihood activities, including credit and financing sources. Direct links with the private sector, with particular attention to ensuring balanced and equitable relationships with communities, will also be critical to success.



Charcoal export landing site in Bagamoyo, Tanzania. This is an example where linking with EAME on control may be useful.

The EACFE programme recognizes that households practice diverse livelihood strategies, and that these often differ among men, women and children. Different ethnic groups, wealth groups, genders and age groups may also be affected very differently by changes in livelihoods opportunities and incentives. It will be important, therefore, not to assume that a community is homogeneous and to ensure that the views of all resource users are consulted in developing livelihood-related initiatives.

Finally, because in many areas communities rely both on coastal forest and marine resources for their livelihoods, and sustainable livelihoods is a major thrust of marine conservation efforts in Eastern Africa Marine Ecoregion (EAME), it will be important to link sustainable livelihoods efforts in the EACFE programme with those undertaken through the EAME partnership both at District level and, where relevant, at site level.

Strategy component 4: Capacity building

Effective implementation of strategies for conservation of the eastern Africa coastal forests will require enhanced capacity across the wide range of stakeholders involved in resource management, including communities, NGOs and government at various levels. Effective implementation will also require enhanced financial resources to support the work of conservation and sustainable resource management. Currently, government authorities responsible for the management of the lowland coastal forests within both protected and unprotected areas have limited financial resources, are under-resourced in terms of manpower, and often need further training or other elements of capacity building. District level government is particularly important as the main implementation level for natural resource management in all three countries. Village institutions, proposed as alternative managers of forest resources under participatory forest management approaches, also need capacity building to be able to manage forest resources effectively.

Capacity building activities for EACFE conservation include:

- Carrying out national (government, NGOs and communities) capacity needs assessment and prioritization;
- Promoting and supporting capacity-building activities of local communities and NGOs;
- Developing ecoregion capacity development strategies and pursuing funding support for implementation;
- Organising and facilitating national or regional workshops and short term training for resource managers in key capacity needs areas (forest management, forest certification, economic diversification);
- Supporting exchange visits across related projects in different parts of the ecoregion to promote learning and lateral networks (e.g. village banks and wood carving associations);
- Identifying and disseminating opportunities for post graduate education in resource management; and
- Organizing every two years an ecoregion forum involving scientists, EACFE and Eastern Africa Marine Ecoregion practitioners and others to exchange information, experiences and best practices. These forums will serve as platforms for the exchange of current knowledge on biodiversity conservation and forest management.

Conservation finance activities include:

- Facilitating the development and establishment of conservation trust funds;
- Supporting the development of long-term conservation finance and management systems for Protected Areas; and
- Supporting the establishment and running of village banks in selected areas.



Kaya Kinondo village bank, a successful pilot project in Kenya (The pictures shows the bank board members outside the bank).



Training at MS Training Centre for Development Cooperation (MS-TCDC) in Arusha of seven WWF-sponsored participants. Also in the photograph are two MS-TCDC staff members and a WWF staff member.



District Forest Officer Kilwa (Tanzania) together with Eastern Africa Marine Ecoregion (EAME) and Eastern Africa Coastal Forests Ecoregion (EACFE) staff introducing an FSC certification process to village government members in Kilwa, Tanzania.

Strategy Component 5: Enhancing the enabling policy and legal environment

An ecoregional approach works on a number of levels, including site, landscape, national and international levels. Work at site and landscape level is supported by work addressing the broader policy and legal environment affecting natural resource management. An enabling policy and legal environment includes policies concerned specifically with conservation and natural resources management, as well as economic development policies and activities that impact the coastal forests. By removing policy constraints, an enabling policy environment affects the way resources are managed across a whole country, not just in a particular priority area.

Coastal forest ecosystems of the EACFE are subject to a number of pressures from economic activities such as agriculture, charcoal production, timber trade and mining. The policy and legal environment in the EACFE must support efforts to address these key pressures through, for example, better regulation of the charcoal and timber trade, and the development of alternative energy sources. The articulation of policies and guidelines on participatory forest management is another important issue facing the ecoregion. Other issues include harmonization of policy approaches in the different countries, and the need for policy advocacy to ensure that coastal forests receive attention in the context of broader national policy development.

Policy activities for the EACFE programme include:

- Identifying and prioritizing required policy actions;
- Promoting integration of conservation and natural resources management needs;
- Working in partnership with government and others to implement policy and legal frameworks, including engaging the private sector in areas such as charcoal production and the timber trade;
- Supporting efforts of governments to meet international obligations for conservation and sustainable development;
- Promoting evidence-based policy-making by linking information and experience from on-the-ground activities to policy makers;
- Catalysing and supporting policy dialogue meetings at national and ecoregion levels on common policy issues such as participatory forest management, and facilitate participation of decision-makers;
- Supporting national and regional reviews of selected policy issues to document and disseminate good practices and experiences;
- Developing tools for policy and legislation implementation; and
- Identifying and developing opportunities for the eastern Africa coastal forests in the context of relevant regional and global agreements.
- Supporting regional cooperation on the regulation of the timber trade and other emerging issues affecting the coastal forests.
- Advocacy for energy policies that significantly reduce dependence on the coastal forests as a source of domestic energy.



Promoting efficient and alternative energy use initiatives in Tanzania: Use of energy conserving wood stoves (left) and cookers that use *Jatropha curcus* oil (right).



A workshop on initiating a forest certification national process in Kenya, Nairobi 2005.



A successful FSC piloting process in good woods project Kenya Certificates were given to tree growers, wood carvers and Chain of Custody in 2005.

Strategy Component 6: Enhancing Knowledge and Monitoring

Coastal forest sites in Kenya and much of Tanzania have been relatively well studied in terms of birds, mammals and plant groups. The social values of coastal forests have also been studied, especially forests in the vicinity of large urban areas like Pugu/Kazimzumbwi (Dar es Salaam), and in areas with active field projects (e.g. Arabuko Sokoke and the sacred forests in Kenya). However, many forests in southern Tanzania and Mozambique have not been studied and their biological values remain unknown. Even information on the area of forest remaining could rise or fall significantly with further research.

Important gaps in knowledge that impact on the ability of an ecoregional programme to deliver tangible impacts include:

- The area of coastal forest in each country remains open to interpretation. A standardized assessment across the ecoregion is needed to develop an agreed baseline against which forest area changes can be measured. This is very crucial for Mozambique where the Southern limit still needs to be agreed;
- The area and importance for conservation of other habitat elements of the coastal forest mosaic (including woodlands, wetlands and farmlands) remain to be established. A habitat map for the ecoregion and assessment of the conservation values and status of each habitat are needed;
- The economic values of the coastal forests have not been clearly established. Many of the new participatory and joint forest management arrangements are based on an assumption that coastal forests can be managed to provide economic benefits for local people sufficient to generate incentives for conservation. However, the actual benefits that can be derived and conservation linkages need to be tested;
- Priority areas and effective methods for forest restoration need to be identified, implemented and replicated;
- Agricultural practices that require less land and reduce conversion pressures on remaining coastal forest patches need to be better understood, at least within conservation organisations. This would allow better conservation field projects, especially those at the landscape scale, to be designed and implemented; and
- There is a need for fuller investigation of trends and dynamics of key trade-related threats, in particular round wood logging (for both local and export markets) in southern Tanzania and northern Mozambique and charcoal burning near Dar es Salaam and Tanga in Tanzania, and near Maputo, Beira and Nacala in Mozambique.

Knowledge gaps

The following activities are proposed to fill key knowledge gaps:

- Compiling a database on the species values of coastal forest sites. This might be the same database as that used and maintained by BirdLife for IBA sites and for overall biodiversity by CEPF to measure their conservation outcomes;
- Supporting preparation of Geographic Information Systems (GIS) maps of coastal forest patches in each country and embedding these GIS products within relevant national bodies (NGO and government);
- Completing a baseline habitat area analysis across the ecoregion, with particular emphasis on the forest resources of northern Mozambique;
- Undertaking targeted biological surveys, especially in southern Tanzania and priority areas in Mozambique;
- Undertaking socioeconomic studies on the scale of economic benefits available from coastal forests;
- Undertaking ‘Threat Reduction’ and ‘Management Effectiveness’ assessments across a sample of coastal forest sites to provide a baseline for tracking changes;
- Studying the economic contributions of coastal forests to National Gross Domestic Product (GDP) and local livelihoods;
- Conducting research on indigenous knowledge of the coastal forest flora and fauna;
- Investigating the patterns and intensity of trade in logs from the forests of southern Tanzania and northern Mozambique to make recommendations to management agencies;
- Investigating further the charcoal trade in the main coastal towns to establish how much originates from coastal Forest Reserves and hence should be prevented by the relevant authorities;
- Establishing website links to provide a reliable and authoritative source of information on the coastal forest habitat types; and
- Providing support to national focal points to input relevant information into the website and hence allow the countries themselves to keep the information current, either by direct upload onto the site, or by linking to nationally-based websites.

Monitoring

The coastal forests of eastern Africa have no monitoring programme in place at the current time. The governments of eastern Africa each have their own systems of monitoring habitats and protected areas, but these are often somewhat rudimentary due to lack of resources available for the task. A monitoring system should measure changes in the state of the coastal forests (habitat area, species status and levels of disturbance), the pressures on the forests (types and levels of various threats), and the response of humans to conserving the forests (area of protected lands, management effectiveness of existing reserves etc.). Nationally-owned and controlled databases need to be established to hold and manage the relevant data and nationally owned and managed GIS facilities are also required to spatially map and analyse changes in the various attributes of importance over time.

The EACFE programme needs to work with all partners to put in place the required data from all, or a sample of, forests in order to determine the current situation and measure changes. Many of the knowledge activities outlined above would provide baselines against which changes can be measured. This work should also draw on remote sensing work and assessments of biodiversity values and forest disturbance values already conducted by national universities and groups such as Frontier-Tanzania, BirdLife International, WWF, TFCG, TRAFFIC and others.



Overgrazing by elephants in Mwaluganje, Kenya. This calls for a balance between wildlife numbers and available vegetation.



Brick mining around Kaya Waa, Kenya. Livelihood and conservation issues need to be addressed simultaneously.

Regional action plan

Catalysing action across the EACF Ecoregion

Within the framework of SADC and the East African Community, the governments will make efforts to harmonize key forest policies and regulatory mechanisms whilst recognising and respecting differences in each country's approach. There will be continued trans-boundary consultation and dialogue.

A key responsibility of the EACFE Regional Co-ordinator and the Secretariat will be to catalyse implementation in priority areas and around priority issues identified in the Strategic Framework. In the first phase of implementing the strategic framework, the EACFE programme's regional activities will focus on mobilising funding for priority areas and issues, and on facilitating and co-ordinating the activities of the National Task Forces.

Funding for regional activities

While most fundraising focuses on site-based work in the priority areas, some funding is also required for work at a regional level, and for regional coordination. The priority sources of funding for programme implementation at regional level are:

- WWF, where both WWF-UK and WWF-Switzerland are providing funding for EACFE regional co-ordination, as well as defined activities (e.g. ecoregional, country and site-based) that support conservation on the ground;
- CEPF, where regional action is focused on gaining improved knowledge of biodiversity in Kenya and Tanzania (for coastal forests and Eastern Arc Mountains) and on administration of a Small Conservation Grants Programme for the civil society within the Eastern Arc and coastal forests; and
- The Ford Foundation, where the focus of regional action is on supporting regional EACFE programme co-ordination activities, and funding site-based projects including ecotourism projects and village banking initiatives, studies on the domestication of useful indigenous plants and traditional plant uses and beliefs.

Fundraising for site-based activities

The conservation problems facing coastal forests are mainly at the field operational level. Hence a focus of the programme is on obtaining funding to support government and communities in achieving better conservation outcomes for the heavily threatened coastal forests of Kenya and Tanzania, and the less impacted forests of northern Mozambique. Priority actions are:

- Working to operationalize a GEF medium sized grant and co-financing to improve conservation in the forests of Kwale District of southern Kenya;
- Working to operationalize a similar GEF medium sized grant and associated co-financing to improve the protected area system of Tanzanian coastal forests, focused on two priority landscapes (Matumbi/Kichi Hills and Rondo Plateau) identified by the strategy, and the conservation and management of the Zanzibar forests; and
- Working with CEPF to harmonise investment in field-based conservation activities across the Kenyan and Tanzanian coastal forests.

National action plans

The EACFE strategy is a 20-year programme of work for the entire ecoregion. Much of the implementation in the first phase will take place through National Action Plans, drawn up by National Task Forces in Kenya, Mozambique and Tanzania.

Each National Action Plan will contain the following elements:

- An analysis of the conservation capacity;
- Identification of desired outcomes; and
- Action in priority areas.

In all areas, the EACFE programme will strive to complement the work of other organisations with similar aims, taking account of existing management plans and promoting multi-stakeholder planning and implementation processes.



Clean and fresh water river in Quirimbas, Mozambique

Kenya

Conservation capacity

Kenya has a strong base of institutions, expertise and experience in conservation, management and sustainable utilization of coastal forest resources. The necessary national policy and strategic frameworks processes are in place and draft documents available. These include the Poverty Reduction Strategy Paper (PRSP), the Environmental Management and Coordination Act of 1999 (EMCA), which established the National Environment Management Authority (NEMA) the Kenya Forestry Master Plan (KFMP, 1994) and the Forests Act No. 7 of 2005 which brings communities and the private sector among other stakeholders to the centre of forest management. Other relevant documents include a forest policy (Sessional Paper No. 9 of 2005) now in parliament for approval, a Forestry Department Strategic Plan (2005-2009, unpublished) and National Participatory Forest Management (PFM) Guidelines that are about to be finalized.

Kenya has a large number of institutions involved in coastal forest activities, including those for research and NGOs. These include the Kenya Wildlife Service (KWS), the National Museums of Kenya (NMK), the Kenya Forestry Research Institute (KEFRI), Nature Kenya (NK), International Centre of Insect Physiology and Ecology ICIPE and East African Wild Life Society EAWLS. The Kenya Forest Department has Memoranda of Understanding (MOUs) with some of these agencies (KWS, NMK, KEFRI, ICIPE, and NK) in order to streamline collaboration and enhance complementarity.

The Kenya Forest Department's Conservation and Forest Extension Service Programme covers the six coastal districts. Several projects are already ongoing including:

- Kaya Kinondo Ecotourism Project (sacred Kaya forests) with support from WWF (includes funding from the Ford Foundation and CEPF);
- Kaya Muhaka (CEPF)
- Arabuko Sokoke Forest Management and Conservation Project with support from USAID and BirdLife Germany through Nature Kenya; and
- Coastal Forest Conservation Unit of the National Museums of Kenya with support from WWF-EARPO, Ford Foundation,
- Commercial Insects Project (CIP) of ICIPE, and Forest Department.

Desired outcomes

- Halt the decline in the quality and quantity of the existing Kenyan coastal forests within protected areas by 2015 and improve the condition of at least 50 km² (i.e. quality here implies species diversity and richness while quantity refers to area and biomass)
- At least 20% of Kenya's currently unprotected coastal forests are placed under protected status by 2010.
- At least 50% of coastal requirements for wood products (timber, carvings, wood fuel) are met from plantations and farm forestry
- At least 15 small coastal forests (less than 6 km²) and at least four large coastal forests (over 6 km²) are under participatory forest management (PFM) and contributing to improved livelihoods of local communities by 2015.

Action in priority areas

Implementation of the EACFE Strategic Framework will be undertaken through partner agencies and initiatives, and will focus in the initial phase on supporting and facilitating action in Tana River, Shimba Hills, Kaya Kinondo/Kwale and Digo-Kaya forests:

- **Lower Tana River Forests Project.** An initiative funded by CEPF which aims to:
 - Increase the ability of local populations to benefit from and contribute to biodiversity conservation; and
 - Restore and increase connectivity among fragmented forest patches.
- **Shimba Hills Project.** An initiative that aims to support community livelihood initiatives (WWF with Bamburi/Lafarge forest landscape restoration (FLR) initiatives). It is now being scaled up to a larger FLR Kwale to include all PAs and forests within the district.
- **Kaya Kinondo Project.** This project aims to retain the sacred nature of the forests and at the same time provide modest economic benefits. Aspects of the project include group capacity building, site planning, tour guide training, business management and scaling up the experiences on linking cultural tourism and traditional forests.

- **Kwale District Forests Project.** This GEF funded project will focus on:
 - Improved management and conservation of the biodiversity of Kwale District forests achieved through awareness raising, monitoring, forest rehabilitation, land use mapping, management planning, and protection;
 - Building institutional and local capacities for better management and conservation of Kwale forests;
 - Participatory Forest Management in target forests, integrated with traditional practices in Forest Reserves containing Kaya forests;
 - Strengthened community capacities for income generation through alternative livelihoods;
 - Developing and marketing alternative livelihood products from forest-adjacent communities; and
 - Harmonising and promoting existing and future policies and mechanisms for forest conservation, sustainable management and use.
- **Live butterfly/forest exhibit.** This is located in Mombasa (NMK/USAID) and is aimed at awareness-raising and improving of livelihoods (especially marketing); environmental education and advocacy.



Tree planting initiative for improving both conservation and water catchment. (WWF-UK / Brent STIRTON/ Getty Images)

Inset: A water hole for collecting clean water from a village catchment area. (WWF-UK / Brent STIRTON/ Getty Images)



Tanzania

Conservation capacity

The institutional framework in Tanzania is spearheaded by the Forestry and Beekeeping Division (FBD) in the Ministry of Natural Resources and Tourism on the mainland, and the Department of Commercial Crops, Fruits and Forestry (DCCFF) in Zanzibar, and includes universities and research institutions. Civil society involvement in coastal forests conservation include NGOs such as WWF, the Tanzania Forest Conservation Group (TFCG), the Wildlife Conservation Society of Tanzania (WCST), CARE International, and smaller local NGOs.

The Government of Tanzania is fully committed to the conservation and sustainable management of forests, including coastal forests. This is demonstrated by the increased government budget for conservation and forestry activities, including retention schemes on government revenue collected that can be used directly by the Forestry and Beekeeping Division.

The National Forest Program provides the overall framework for policy implementation. Tanzania has an operational forest policy 1998, a revised Forest Act 2002, a National Forest Programme 2001 and a framework and supportive guidelines for Community Based Forest Management. The Poverty Reduction Strategies for both Tanzania and Zanzibar have been in place for a number of years and the National Strategy for Growth and the Reuction of Poverty, (commonly known in Tanzania as MKUKUTA) was launched in mid 2005. The country has a National Environmental Conservation Awareness Programme that includes coastal forests. This programme targets local communities and is being implemented with support from the Government, parliamentarians, communities, the private sector, civil society and donors. The main challenge therefore is in operationalising these instruments due to financial and capacity constraints, and in forging links between these and EACFE activities.

Desired outcomes

- At least eight coastal forest priority areas maintain their forest cover by 2010 to ensure the continued existence of their coastal forest endemic plant and animal species and ecosystems;
- At least 30 km² (30%) of the coral rag forest area on Unguja and Pemba become classified forest areas by 2010;
- At least 10 gazetted and 20 ungazetted additional coastal forests are under integrated participatory forest management by 2010; and
- At least 30 coastal forests support sustainable activities contributing to poverty alleviation and economic development by 2010 without harming habitat and species value.

Action in priority areas

Implementation of the EACFE Strategic Framework will be undertaken through partner agencies and initiatives, and will focus in the initial phase on supporting and facilitating action in Lower East Usambaras, Ruvu South, Pugu-Kazimzumbwi, Rufiji/Lindi Forests (includes Namakutwa, Kitope, Tong'omba, Pindiuro, and Ngarama North and South), Rondo Plateau and associated forests (Chitoo, Litipo, Nyangmara), and Zanzibar.

In particular, projects will focus on:

Forest Landscape Restoration in the lowland East Usambaras (WWF Finland);

- Conservation around Kiono-Zaranninge and Mlola in Mafia (WWF Norway);
- Support for village banks in the Pugu Kazimzumbwi area (CARE);
- CEPF funding will focus on:
 - Increasing the ability of local populations to benefit from and contribute to biodiversity conservation, especially in and around East Usambara/Tanga, Matumbi-Kichi, Gendagenda-Msumbugwe and Jozani-Chwaka Bay Forest;
 - Restoring and increasing connectivity among fragmented forest patches in the Eastern Arc Mountains and coastal forests hotspot, especially in East Usambara/Tanga and Matumbi-Kichi;
- GEF funding for Tanzania will focus on:
 - Enhancing the protected area system for coastal forest habitats;
 - Improved management of coastal forest resources in the Matumbi-Kichi and Rondo-Litipo-Chitoo landscapes, and on Zanzibar, through enhanced capacities for forest protection and participatory forest management;

- Supporting the development of participatory forest management plans for at least four existing National Forest Reserves, and developing local by-laws for at least one Village Forest Reserve in both the Matumbi-Kichi and Rondo-Litipo-Chitoo landscapes;
- Developing environmentally compatible income-generating activities or revenue-sharing activities within the Matumbi-Kichi and Rondo-Litipo-Chitoo landscapes;
- Enhanced public understanding of the value of coastal forests and the impact of human behaviour on their biological, ecological and sustainable economic values, producing political will to conserve them; and
- Initiating natural resource monitoring in the Matumbi-Kichi and Rondo-Litipo-Chitoo landscapes, linked to management interventions.



Some of the hundred of thousands of bats in an abandoned Kaolin mine tunnel, Pugu Forest Reserve, Tanzania (WWF-EARPO / Neil BURGESS)

Mozambique

Conservation capacity

The main focal institutions for forest conservation in Mozambique are the National Directorate of Forest and Wildlife in the Ministry of Agriculture and Rural Development, the Ministry of Environmental Affairs and the Ministry of Tourism. Other institutions include the national universities and NGOs.

Government commitment to coastal forest conservation activities is high. A forest policy paper is in place, the Poverty Reduction Strategy is in place and a sector-wide approach to forest management has been adopted-with a focus on community involvement. However, the coastal forests of this country are not well studied. This presents special challenges and opportunities, including the need for mapping and resource assessment as a starting point for planning and sustainable management.

Coastal forests are covered under the National Programme for Protection, Conservation and Utilization of Agriculture, Forestry and Wildlife Resources. Other programme opportunities include:

- Local community conservation projects in coastal provinces.
- Biodiversity conservation initiatives in National Parks.

Desired outcomes

- The status and extent of the Mozambican coastal forests are documented by 2010 for the purposes of effective planning and management;
- At least four coastal forest areas are officially declared as national Protected Areas by 2010;
- Effective management capacities for coastal forests are in place and operational by 2010;
- Pressure on coastal forests is reduced by at least 50% by 2015, through alternative livelihood options;
- One medium scale (100 km²) pilot CBNRM project is identified and implemented to identify alternative fuel and timber resources which could be sustainably utilized for income generating in coastal forests by 2015; and
- The rate of illegal logging and charcoal burning is reduced by at least 50% by 2010.

Action in priority areas

Implementation of the EACFE Strategic Framework will be undertaken through partner agencies and initiatives, and will focus in the initial phase on supporting and facilitating action in Quirimbas National Park with a focus on areas that fall within the EACFE and adjacent communities, as well as on the forests around Maputo and all sacred forests.

Action will focus on:

- Supporting the establishment of the Quirimbas National Park.
- Developing a participatory management plan process for the forests around Maputo.
- Supporting the Forestry Department in putting in place a sustainable harvesting regime for coastal forests.
- Supporting government and research institutions in documenting the biodiversity values of coastal forests.
- Supporting the establishment of new Forest Reserves and marking of their boundaries.

Strategy operating principles

Consultations with stakeholders in this process, in addition to experiences from other ecoregional programmes, have identified several operating principles that guide the implementation of coastal forest conservation and management programmes at national and ecoregion levels. These include:

- Building on and working with and within the national frameworks for conservation and sustainable management of forest resources, and ensuring in particular a strong link with on-going site specific programmes and projects, and related ecoregional programmes such as the Eastern Africa Marine Ecoregion Programme and the Miombo Woodlands Ecoregion Programme;
- Developing country-driven ecoregional programme that are owned by the respective national institutions responsible for coastal forests development;
- Building strong inter-country collaboration stemming from individual country's comparative advantages and collective strengths, and improved opportunities for shared learning and exchange of experiences;
- Designing a programme that has a long-term perspective consistent with ecosystem cycles, and is flexible and holistic enough to allow different partners to find their niches;
- Creating synergy between national and ecoregion programmes and activities; and
- Ensuring strong links with other ecoregion programmes including the Eastern African Marine Ecoregion and the Miombo Woodlands Ecoregion.

These principles have guided the development of the conservation strategy for the EACFE.

Box 3: Landscape approach to conservation

Ecosystem conservation goes beyond the management of protected areas, to what is known as a **landscape approach**. This is a holistic approach that takes into account the linkages between different habitats, the relationship between humans and the natural environment, and the network of protected areas within an area. It is an integrated, multi-sectoral approach that looks for trade-offs among conflicting objectives. It is undertaken through participatory decision-making processes that involve a range of stakeholders, including resource users, local government and conservation agencies. A landscape management agreement could include the multiple use of a given forest, including conservation of a part or the whole of a specific forest patch for a specific purpose, be it as a watershed or a biodiversity/game reserve, while allowing certain other sustainable uses.



Hippos of Pindirola forests – Kilwa, and Colobus monkeys of Jozani – Zanzibar, Tanzania



WWF Africa Forest Forum 2006 participants share sacred sentiments with local communities of Chiridzene in their sacred forest, a coastal forest in Mozambique (In uniform is the Chief and head of the community, while on the extreme right is Dr. Sam Kanyamibwa, Deputy Director WWF Africa Madagascar Programme).

Coordinating and managing implementation

The EACFE programme has adopted an approach to implementation based on cooperation between stakeholder agencies working to achieve similar goals. Co-ordination of the implementation process, essential to realizing the vision, will be undertaken through national and ecoregional structures, linked closely to the existing government agencies.

Acknowledging the importance of developing partnerships for co-ordination, the EACFE programme has established a functional National EACFE Task Force in each country comprising partner agencies, and a Regional Task Force, made up of at least four representatives of each of the National Task Forces. The EACFE Regional Co-ordinator and Secretariat, currently hosted by WWF, are tasked with co-ordinating and managing the activities of the Regional Task Force and National Task Forces.

Regional EACFE Task Force: The focus of the work of this task force is on the enabling environment of the ecoregion, and it is thus responsible for strategic planning, facilitating implementation, identifying potential funding sources, monitoring and evaluation, and promoting awareness. A significant function is linking activities of EACFE to other ecoregional programs and projects such as the EAME Programme and CEPF funded initiatives. This committee is made up of representatives of National Task Forces.

National EACFE Task Forces: These task forces, established through participatory processes, comprise members of key stakeholder agencies and prominent individuals, serving in their personal capacities. They provide advice and assistance on the implementation of the relevant coastal forest National Action Plans, both at the level of the priority areas and within the enabling environment, foster debate and networks, and disseminate information on the state of the eastern Africa coastal forests.

EACFE Programme Technical Reports

The following reports were produced to support the EACFE strategy-development process:

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Matiku, P. *The Coastal Forests of Kenya: Forest data, threats, socio-economic issues, values, stakeholders, challenges, strategies, investment and enabling environment. A national synthesis report for the development of the WWF-EARPO Eastern Africa coastal forests Ecoregion Programme*. Nature Kenya, Nairobi for WWF-EARPO, 2004.

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WWF *The Status of Timber Trade in Southern Tanzania Review of trade data and stakeholder perceptions* 2005

Younge, A., Negussie, G., and Burgess, N. *Eastern Africa Coastal Forest Programme Regional Workshop Report*, WWF-EARPO, Nairobi, February 2002.

EACFE Programme Participating Institutions

Bamburi Cement/Lafarge, Kenya
 CARE Tanzania
 Experimental Center for Forestry
 Confederation of Economic Associations
 Department of Commercial Crops, Fruits and Forestry (DCCFF-Zanzibar)
 Department of Forestry, Eduardo Mondlane University (DEF-UEM), Mozambique
 Division of Environment, Vice President's Office, Tanzania
 Environmental Working Group (GTA)
 Forestry and Beekeeping Division (FBD), Tanzania
 Forestry Department (FD), Kenya
 Frontier Tanzania
 International Centre of Insect Physiology and Ecology (ICIPE)
 Kenya Forest Research Institute (KEFRI)
 Kenya Wildlife Service (KWS)
 Ministry for the Co-ordination of Environmental Affairs (MICOA), Mozambique
 National Directorate of Forestry and Wildlife, Ministry of Agriculture and Rural Development (DNFFB/MADER), Mozambique
 National Environmental Management Authority (NEMA), Kenya
 National Environmental Management Council (NEMC), Tanzania
 National Museums of Kenya – Coastal Forest Conservation Unit (NMK-CFCU)
 Nature Kenya
 Tanzania Forest Conservation Group (TFCG)
 TRAFFIC
 Tsunza Conservation Trust
 United Nations Development Programme – Global Environment Facility (UNDP–GEF)
 United Nations Development Programme (UNDP)
 Wildlife Conservation Society of Tanzania (WCST)
 World Wide Fund for Nature (WWF)



Fetching water. (WWF-UK / Brent STIRTON/ Getty Images)



Tree nursery. (WWF-UK / Brent STIRTON/ Getty Images)



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