

Conservation Strategy

A Rocha Dakatcha Nature Reserve

Creating a safe haven for five Red Listed species
in the Dakatcha Key Biodiversity Area, Kenya



Organisation - A Rocha Kenya

 **A ROCHA KENYA**, Kenyan Registered NGO (reg.no.OP.218/051/9949/1274)

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A well-established local organisation

A Rocha Kenya (ARK) is a well-established Christian environmental NGO registered in Kenya and **committed to practical biodiversity conservation** through scientific research, environmental education and sustainable community-based conservation programmes.

Since 1999, we have been working closely with local authorities, communities and conservation organisations to **restore threatened habitats and protect endangered species** within two landscapes: Arabuko-Sokoke Forest (ASF) and Dakatcha Woodland (DW); and two coastal seascapes: Mida Creek and the Watamu Marine National Park.



A proven track-record in project management

Our technical, managerial and financial experience in initiating and managing projects is demonstrated through our projects including:

- Implementing the [Arabuko-Sokoke Schools and Eco-Tourism Scheme](#) (ASSETS), which uses eco-tourism funds to provide eco-bursaries to children living around the forest. Over 900 students have been funded through secondary school and their families engaged in income-generating conservation activities.
- Setting up long-running bird monitoring schemes: locally by running regular waterbird counts and bird ringing studies; nationally by being the lead partner in implementing the citizen-science [Kenya Bird Map](#) in 2013; and internationally by scaling up the atlas to the Africa Bird Atlas Project.
- Publishing digitized datasets for Arabuko-Sokoke Forest (ASF) biodiversity on the [Global Biodiversity Information Facility](#) to inform management decision-making, using funding from the European Union Biodiversity Information for Development programme. ARK is just one of four GBIF publishers in Kenya.
- Contributing to the governance of the Watamu Marine National Park through the Global Challenges Research Fund project "Community Capabilities and Marine Protected Area Governance" in collaboration with the University of St Andrews, UK.
- Effectively engaging with local communities to help improve livelihoods and increase their understanding of caring for the environment through sustainable living with a focus on restorative farming methods.



A solid field understanding of Dakatcha Woodland (DW)

ARK has been working in the Dakatcha Woodlands (DW) for 20 years. Our **scientific monitoring** has confirmed the **importance of this woodland for endangered and endemic species** such as Sokoke Scops Owl (*Otus irenae*), Clarke's Weaver¹ (*Ploceus golandi*) and Golden-rumped Elephant-shrew (*Rhynchocyon chrysopygus*). We started land acquisition in 2014 in response to the rapid habitat loss observed, and have already acquired 9 570 acres of forest of a planned 13 500 acres reserve, the A Rocha Dakatcha Nature Reserve (ARDNR). We are working with local churches, farmers and schools in this area around the reserve to engage them in habitat protection and restoration, and provide sustainable income-generating activities.

Our track record of trusted relationships with communities, solid knowledge of the natural environment, and successful land purchase in the area puts us in a vantage position to establish the necessary protected area.



A broad network of expertise

ARK is a member of the international A Rocha network, which is a member of the International Union for the Conservation of Nature (IUCN). The ARDNR is part of A Rocha's [African Tropical Forest Programme](#), through which four African A Rocha organisations share resources, networks and expertise on forest and protected area management, with close support from A Rocha International.

Project area - ARDNR

Project area & wider landscape

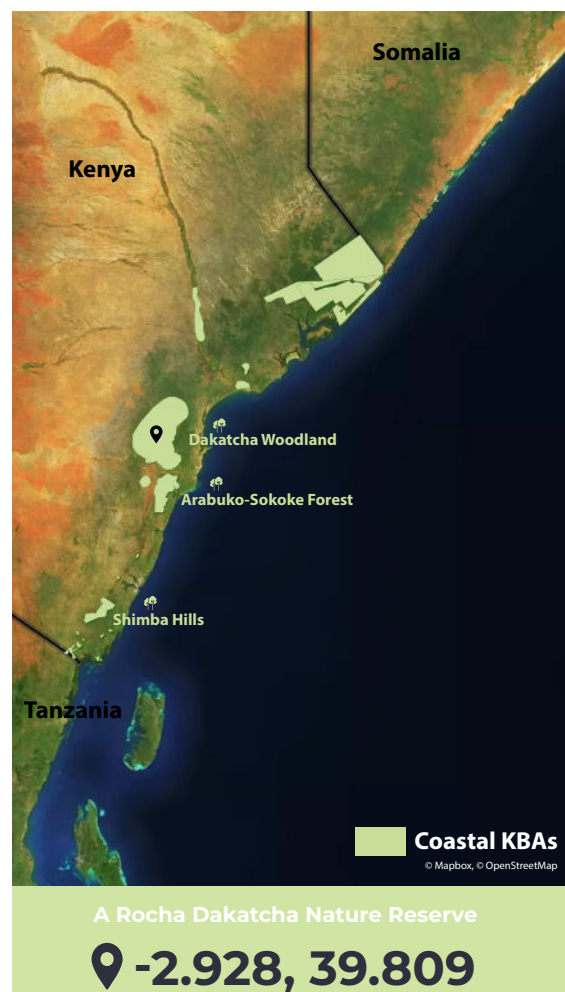
Wider landscape

Dakatcha Woodland (DW) is located about 150 km north of Mombasa and 25-50 km inland from the coast. It covers an area of 465 070 acres, of which 32% is forest, 17% is woodland, and 50% has been converted to farming or open grazing land². DW lies within the **Northern Zanzibar-Inhambane Coastal Forest Mosaic ecoregion and East African Coastal Forest Hotspot**, characterized by a complex mix of moist and drier forest with coastal thicket, savanna woodlands and swamps³. DW itself is a diverse mosaic of different forest types, savannah and seasonal wetlands.

Of the remaining 617 765 acres of coastal forest in this ecoregion, ASF protects 91 430 acres and Shimba Hills protects 47 445 acres, though the latter lacks most of the key threatened species. DW is therefore of **critical importance to the conservation of a number of coastal endemic species** but it is largely unprotected having only two small private reserves: ARK's 9570 acres, and Nature Kenya's (NK) 800 acres reserve for the Clarke's Weaver breeding habitat; and eight Community Conserved Areas (CCAs) covering 64247 acres, though with very limited protection.

Project area: ARDNR

ARK has focussed on an area of DW that contains the only significant remaining areas of *Cynometra webberi* forest remaining, which is the preferred habitat of the Endangered Sokoke Scops Owl. In addition, stands of *Brachystegia spiciformis* and small seasonal rivers and wetlands provide the correct breeding habitat for Clarke's Weaver (EN). The area also includes forest dominated by *Diospyros cornii* and *Newtonia hildebrandtii* on gently undulating land, interspersed with grassland and meadows, and abandoned farms. Some areas have already been heavily impacted by charcoal burning.



Biodiversity value

East African Coastal Forests have some of the **highest densities of endemic species in the world**⁴. DW meets **Important Bird Area (IBA)** and **Key Biodiversity Area (KBA)** criteria and is part of the Coastal Forests Global Hotspot. ARK surveys in the existing ARDNR have recorded:



Mammals

28 species of mammals, including the globally Endangered and endemic **Gold-en-rumped Elephant-Shrew**, whose existence north of Sabaki River was confirmed only recently by our camera trapping work.



Birds

the globally Endangered **Sokoke Scops Owl** (found only in DW, ASF and the East Usambaras) and **Sokoke Pipit** *Anthus sokokensis*, both endemic to coastal forest; the Near-Threatened **Southern-Banded Snake Eagle** *Circaetus fasciolatus*, and Endangered **Martial Eagle**.



Insects

several butterfly species which are represented by only two or three specimens in the National Museum of Kenya collection of over 30 million specimens, and a specimen in the *Embiopteron* family (Insecta), which was the first for Kenya.



Flora

two globally Vulnerable tree species: **Warbugia stuhlmannii** and **Cynometra eebberi**

Main threats

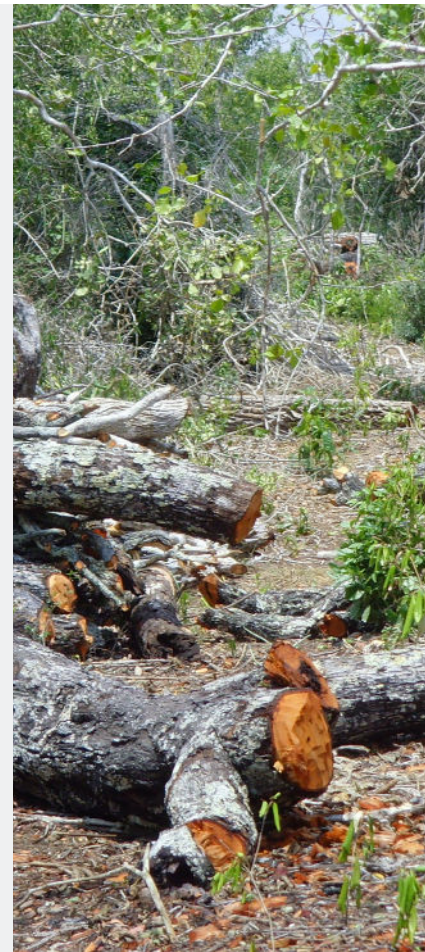
The fragmented Coastal Forests of Eastern Africa are **among the ten most threatened forest hot-spots in the world**⁵, and the Dakatcha IBA is listed as an **IBA in Danger**, with a **very high threat score** and a **low action score**⁶. At a regional level, the **pressure on land is expected to intensify** as population increases, small holders and industrial agricultural expand, and coastal urban developments multiply.

The growing local population depends on the forest resources for their energy (wood), construction needs (wood), food (mammals) and livelihoods (sale of charcoal, timber, meat). As a result, **deforestation and poaching of wildlife, including the Golden-rumped Elephant-Shrew, are rife**. *Brachylaena huillensis* trees have almost disappeared due to selective harvesting for the wood carving industry, and the timber from large hardwood trees (e.g. *Newtonia hildebrandtii*) has been sold in coastal towns.

Agriculture is the main economic activity for local communities, making land their most valuable asset. Pineapples have become an important source of income for local farmers because they grow particularly well on the red soils. Local regulations give little consideration to the immense pressure placed on the forest, and poor farming methods (slash and burn) leave the soil exposed for erosion.

The **pressure on the land was compounded by the start of land adjudication** in the area in September 2020. This has set off an unprecedented rush of people land purchasing for farms closely linked to charcoal burning that is **decimating the forest and destroying the home of the rare and endangered wildlife**. The easy availability of power saws to cut trees for charcoal and motorbikes to transport charcoal to Malindi has exasperated the situation further.

At site level, **agricultural expansion**, unregulated logging, charcoal burning and the expansion of commercial pineapple plantations are rapidly destroying and degrading what is left of the unique forest habitat around ARDNR.



Sokoke Scops Owl *Otus ireneae*

Why land purchase?

The competition to acquire land in DW is intensifying: **commercial interest is high**, both from large companies and charcoal burners. If we do not acquire land soon this internationally important forest will disappear in the coming years.

Our approach is defined by 20 years of experience in this landscape and comes as a realistic response to the threats faced. As the forest is increasingly fragmented, there is an **urgent need to secure a core reserve** in the landscape that is under unambiguous conservation management.

While we saw clear benefits with NK's Conservation Community Areas; we also recognised the difficulties of this approach in maintaining 'conservation agreements' amongst a multi-stakeholder group. Local land ownership is complex with many family members involved so it has proven difficult to secure a positive conservation consensus.

It may be possible that the government will pursue formal gazettement of the forest in the future, but we know this strategy to have failed adjacent to ASF in the recent past.

There is simply **too much urgency for us to wait**. We therefore concluded that it was most effective to buy land and create our own conservation area while working alongside our neighbours on sustainable development and education activities. This approach is working: our current existing reserve is well-respected and intact. The standing forest offers a sharp contrast to the surrounding areas. In 2019, NK followed our lead and started to acquire land in DW too.

Area to acquire

With the rapid rate of forest destruction, we urgently need to acquire more land in order to maintain viable populations of Sokoke Scops Owl and Golden-rumped Elephant-shrew. We are therefore focussing on securing land parcels that our field surveys have confirmed hold populations of at least one of the **three Endangered species**: Sokoke Scops Owl, Golden-rumped Elephant-shrew and Sokoke Pipit. Our strategy is to **connect all the land parcels we currently own to create a single continuous reserve**, facilitating both connectivity for dispersal and reserve management.

The land is community-owned, with ownership identified with families or individual farmers. Several **families have already been approached by ARK and are willing to sell land parcels**. Others will be approached as we secure funding to acquire more land. When compensated appropriately, most farmers are willing to sell some of their land. We always ensure they retain sufficient land to sustain their subsistence farming.

Land

To date, ARK has acquired land following local customary purchase procedures. This involves the Public Administration Office, Chief, Sub-chief, and village Elders together with the land owner, their relatives, and the owners of the neighbouring land to reach full agreement on the position of boundary lines. The government has started to adjudicate the land in the area and ARK will soon be issued with a letter of allotment. The acquired land has been divided into five sections, and ARK is now in the final stages of securing the title deeds and formally registering the land under a Trust to ensure its long-term protection and conservation.

Restoration activities

We have a **Land Management Plan** for activities in the reserve and to restore degraded habitats. This will include an assessment of habitat damage and natural regeneration, as well as the creation of permanent plots to measure habitat change and monitor biodiversity. We plan to **restore destroyed areas** through managed natural regeneration and the removal of invasive species. Through all these activities, we will **actively involve local communities** in the protection of the forest.

ARK is already helping to preserve this landscape through **scientific research and environmental education** in local schools and churches, and by engaging community members in sustainable farming practices. We will also implement **sustainable income-generating activities**, encouraging local communities to do butterfly farming, bee-keeping and tree planting in the reserve.

Partners

STAKEHOLDERS

Local communities. Farmers, Churches, Charcoal producers, Wood carvers, Private sector, the Dakatcha Woodland Conservation Group

Authorities. Kenya Forest Service, Kenya Wildlife Service, Kilifi County

NGOs. Action Aid, Anglican Development Services, Ministry of Education, Nature Kenya, World Vision

Bob Scott Foundation, A.G. Leventis Foundation, Eden Wildlife Trust, Lordship Africa, Cassinia Environmental, Franklinia Foundation, African Bird Club, Mohammed Bin Zayed Species Conservation Fund, Centre for Ecosystem Restoration Kenya, Rainforest Trust, Wilderlands, ReWild, Private donors.

DONORS

Sustainable Development Goals

The purchase of land and restoration activities in Dakatcha contribute to 12 of the 17 Sustainable Development Goals:



References

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