



# SECURING A WILDLIFE CORRIDOR IN AFRICA'S RUVUMA LANDSCAPE

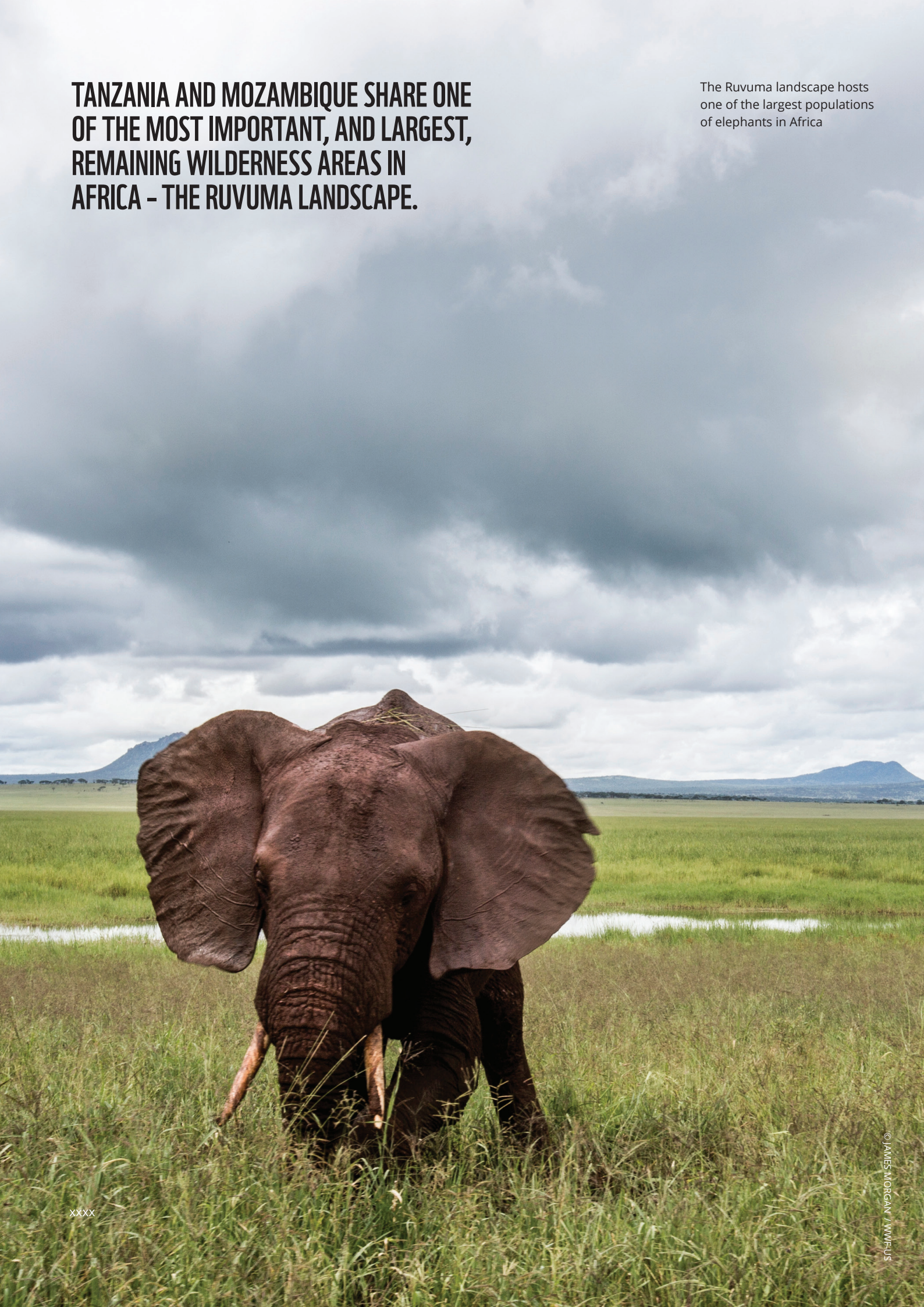
CONSERVATION FOR PEOPLE AND WILDLIFE





**TANZANIA AND MOZAMBIQUE SHARE ONE OF THE MOST IMPORTANT, AND LARGEST, REMAINING WILDERNESS AREAS IN AFRICA - THE RUVUMA LANDSCAPE.**

The Ruvuma landscape hosts one of the largest populations of elephants in Africa





## WWF'S VISION

The Ruvuma transboundary landscape spans across northern Mozambique and southern Tanzania. It contains three globally significant state-managed protected areas: Tanzania's Selous Game Reserve and Nyerere National Park (50,000 sq km), a UNESCO World Heritage Site; and Niassa Special Reserve (42,000 sq km), the largest conservation area in Mozambique.

Between and around these vast protected areas lie important wildlife dispersal areas, corridors and numerous community-managed Wildlife Management Areas, Village Land Forest Reserves and state-managed Forest Reserves. In total, the entire Ruvuma landscape is estimated to cover 370,000 sq km – an area 50% larger than the UK.

Ruvuma has exceptionally diverse terrestrial habitats, including globally significant Miombo woodlands, open grasslands, riverine forests, marshes and three main rivers (the Rufiji, Ruvuma and Lugenda). These host one of the largest populations of elephants in Africa, along with important populations of African wild dogs, lions, leopards, buffaloes, hippos and crocodiles as well as a huge range of other wildlife species.

The landscape is also home to around eight million people, who largely depend on its natural resources. Tanzania has led the way within east Africa on championing community-based natural resource management. Maximising this approach for wildlife dispersal and corridor areas between and surrounding Selous and Niassa will be key to this programme.

Ruvuma has significant potential to boost both national and local revenue through increasing tourism and improving the sustainable, but profitable, use of natural resources in community managed areas. However, there are a number of significant threats to this wilderness, posed by a combination of population growth, increased agriculture, illegal logging, collection of firewood and charcoal making, poaching for bushmeat and the illegal wildlife trade and major infrastructure projects alongside limited capacity and resources for management of protected areas,.

WWF's vision for the Ruvuma landscape is that through appropriate, strategic and sustainable development its rich wildlife and habitats can be maximised to bring increased benefits to both wildlife and people.

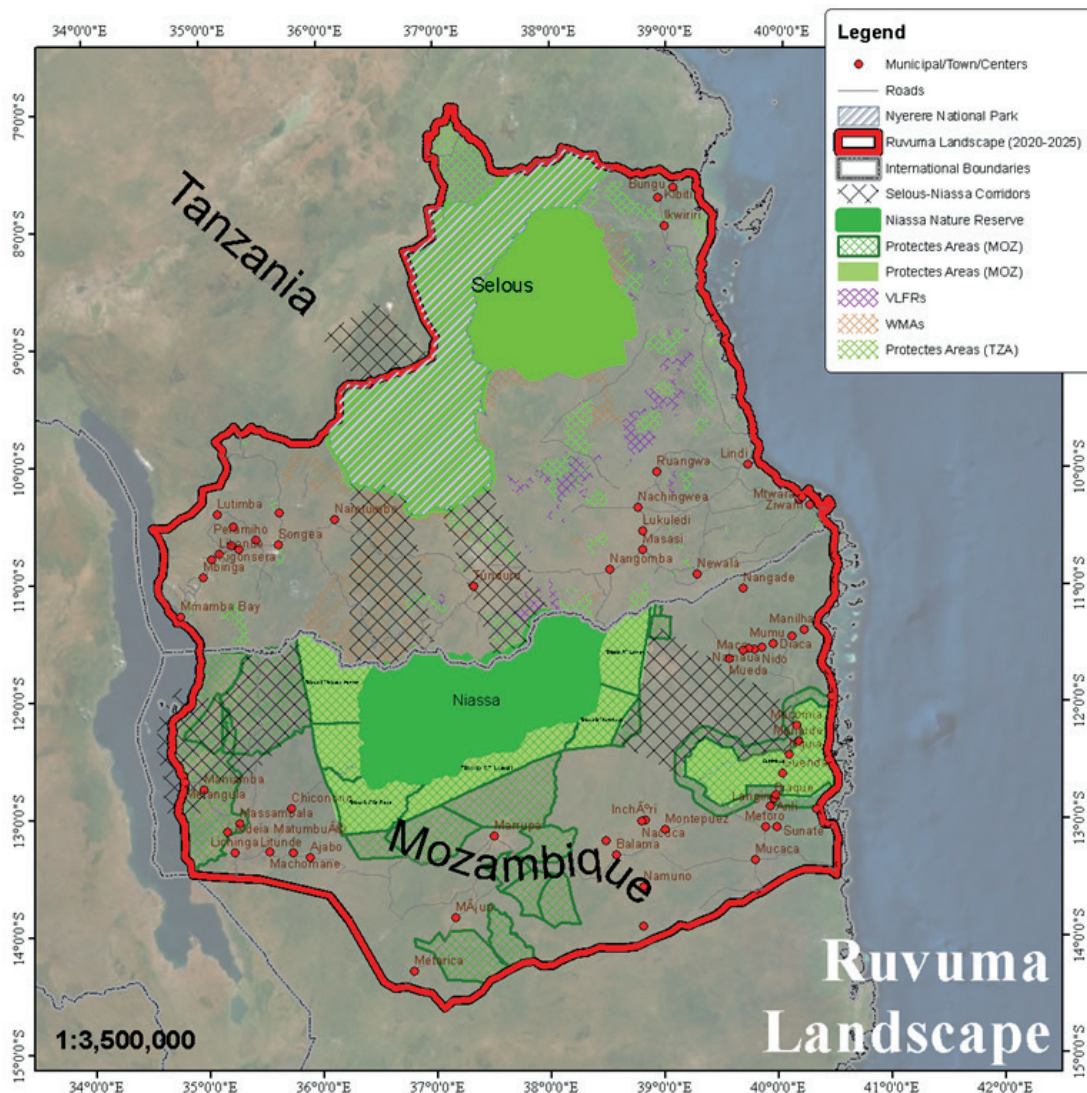


Figure 1: The Ruvuma Landscape



## THE OPPORTUNITY

Over many years, WWF has worked in Mozambique and Tanzania in several landscapes, on key wildlife species and ecosystems. As a result, we have developed strong partnerships with the governments of both countries. With a strong presence in each country through central and field offices, our reputation and capacity has grown. The spectrum of work covered includes nature-based development initiatives and policy influencing, along with conservation of species, forests, freshwater and marine areas.

Through this, we've been able to drive local conservation and sustainable development by working with local communities, district authorities and civil society actors. We've also been able to influence national policy with government and other national actors. Our local reach has informed our global work, which has also had a bearing on the national and local practice in Mozambique and Tanzania. This local to global reach remains an important advantage that WWF will bring in leading the implementation of this programme.

Across Ruvuma, we've been working with our partners in Tanzania since 1990 and in Mozambique since 2001, supporting a range of projects. In 2019, together with other stakeholders, we completed a scenario planning process that enabled participants from both countries to develop future scenarios and visions for Ruvuma. A vision for a 'Green Ruvuma' was formulated which includes accountable governance systems, sustainable land use, harmonised policies and laws, green infrastructure, proper strategic environmental principles being implemented, sustainable private investments, and improved incomes for communities. The proposed work in this programme document is built upon these elements.

WWF has led forest conservation in southern Tanzania. As a result, more than 44,351ha of Miombo woodland and coastal forest have been brought under sustainable management. This work also includes strengthening local livelihoods by enhancing the value of local timber through FSC certification, improved processing and storage and enhancing supply chains linked to locally controlled forests.

We currently support elephant conservation efforts in Wildlife Management Areas (WMAs) particularly strategies to reduce human-elephant conflict. We're also supporting capacity building for the development and implementation of management plans, equipping community rangers, as well as supporting research into elephant movements. We're also supporting assessments in Selous Game Reserve for the potential future reintroduction of black rhinos.

There are several projects within the landscape that the proposed programme can align with and build on. These include projects funded by the UK government's Darwin Initiative, The Swedish International Development Cooperation Authority (SIDA), KfW Development Bank and the United Nations Environment Programme. These projects focus on several areas including sustainable livelihoods, human-wildlife conflict reduction, improving natural resource governance, mapping wildlife areas, strengthening civil society and community based management of natural resources.

**THE SELOUS WORLD HERITAGE SITE IS CURRENTLY LISTED BY UNESCO AS "IN DANGER", UNDERLYING THE NEED FOR URGENT ACTION TO BETTER PROTECT IT.**

Tanzanian legislation on wildlife corridors, passed in early 2018, recognises the need for and strengthens the case for implementing this kind of work in Ruvuma.





## THE SOLUTIONS

We need to take a holistic, transboundary landscape approach if we're to secure key terrestrial habitats and their associated wildlife populations and increase benefits for local people and the national economies of Tanzania and Mozambique. Such an approach means multiple stakeholders and partners can collaborate in a well-coordinated and strategic manner to tackle many challenges across several sectors.

- Building on previous and existing work, partnerships and memorandums of understanding, the programme will focus on these main areas:
- Improving management and protection of state-managed areas.
- Improving management and protection, and increasing benefits for local people, in and around existing community-managed Wildlife Management Areas and Village Land Forest Reserves.
- Increasing habitat connectivity by securing additional areas under community-managed Wildlife Management Areas and/or Village Level Forest Reserves.
- Improving business plans and corresponding nature-based enterprises within community-managed areas.
- Supporting local communities to better adapt to the impacts of climate change, including freshwater management.
- Building capacity within the judiciary, to ensure more prosecutions and appropriate sentencing for wildlife and forest crime.
- Capacity building within local civil society to better enable them to hold governments to account.
- Supporting communications efforts, to raise the profile of the Ruvuma landscape as a destination for tourists, particularly in community-managed areas.
- Advocating for improvements in national policies and legislation as necessary, and improving alignment between different relevant agencies. Advocating for the application of Environmental Impact Assessments (EIAs) and/or Strategic Environmental Assessments (SEAs) for all major development projects, and for international best practices to be adopted.
- Improving information flow and collaborative working on transboundary issues.
- Developing spatially explicit land-use plans jointly, in a consultative manner, with multiple stakeholders and including the valuation and mapping of natural capital.
- Mitigating human-wildlife conflict.
- Supporting additional research as needed.

**TO ACHIEVE THIS ACROSS SUCH A LARGE TRANSBOUNDARY LANDSCAPE WILL TAKE TIME. TO BE ABLE TO ACHIEVE MEANINGFUL IMPACT, WE ENVISAGE IMPLEMENTING THE WWF RUVUMA LANDSCAPE PROGRAMME BETWEEN NOW AND 2030.**



Under the programme we will empower local people to lead on conservation efforts and receive increased benefits from living alongside wildlife



## THE PROBLEMS

Despite its importance for local livelihoods and wildlife (including one of the largest populations of African elephants) and despite the Selous Game Reserve being a UNESCO World Heritage Site, key habitats have been degraded. Associated wildlife populations across the Ruvuma landscape have also declined, and continue to face a range of threats.

The landscape has been a major wildlife crime hotspot in Africa (Wasser *et al.*, 2015; CITES, 2016). The elephant population in the Selous-Mikumi ecosystem declined from around 50,000 elephants in 2006 to around 13,000 in 2013 (Kyando, 2014). In 1981, Selous Game Reserve harboured a population of around 3,000 black rhinos (Borner, 1981), but only around 27 remained by 2014 (TAWIRI, 2014). However, no black rhinos have been sighted in recent years.

In Mozambique, the Niassa National Reserve saw a decline from around 20,000 elephants in 2009 to around 12,000 in 2011 (Booth & Dunham, 2014). The main reason for these population declines is illegal killing of elephants for their ivory (Wasser *et al.*, 2015). Over recent decades the trade in illegal lion parts and poisoning of lions has had a significant impact on lion populations.

Effective protection and management of wildlife generally, and state protected areas in particular, have been weak. More recently, however, the Tanzanian government in partnership with WWF and others has increased its efforts on managing its protected areas effectively, and there are signs that this is beginning to reduce the rate of poaching.

Recent discoveries of significant deposits of oil, gas and other minerals within the landscape (and neighbouring offshore areas) is driving rapid development focused around two major development corridors – the Mtwara Development Corridor in Tanzania, and the Pemba-Lichinga corridor in Mozambique. Both of these run from their respective coast westwards across the landscape.

It is believed that most of the poaching outlined above happened during this period of exploration and increased human traffic. Construction of infrastructure associated with extractives is well under way, as well as road construction, including linking these corridors north to south. A bridge that was recently constructed over the Ruvuma river now connects the two countries by road. This is driving an increased influx of people, and increasing access into the landscape and its natural resources.

Large scale commercial agriculture is also proposed in those parts of Ruvuma that fall within the Tanzanian government's Southern Agricultural Growth Corridor. As well as converting wilderness areas into agriculture, this will place significant pressure on freshwater supplies and is likely to increase human-wildlife conflict.

Other threats – to both wildlife and people – include the impacts of climate change, with the area's weather becoming increasingly unpredictable and variable, with an increasing intensity and/or duration of drought and floods.

Finally, an increasing population has been driving land-use change, particularly for small-scale agriculture, illegal logging and demand for fuelwood and/or charcoal as well as bush meat. This is having a detrimental impact on wildlife and forest resources.

Between 2001 and 2014, Niassa National Reserve lost 108 sq km of its forest (Allan *et al.*, 2017). The majority of the local population lack the provision of basic services and livelihood options, with most people dependent on subsistence farming. The area has the highest poverty rates nationally in both countries.

People are therefore particularly dependent on natural resources for their wellbeing. But if local people are integrated in natural resource management, they can become vital stewards of the landscape's forests, wildlife and rivers.

**IF CHANGE WITHIN RUVUMA IS UNMANAGED IT WILL ULTIMATELY PREVENT THE MOVEMENT OF WILDLIFE BETWEEN SELOUS AND NIASSA ENDANGERING THE LONG-TERM VIABILITY OF THE SOME SPECIES.**

The Ruvuma landscape contains several Important Bird Areas, including the Selous Game Reserve





## THE CASE FOR SUPPORT

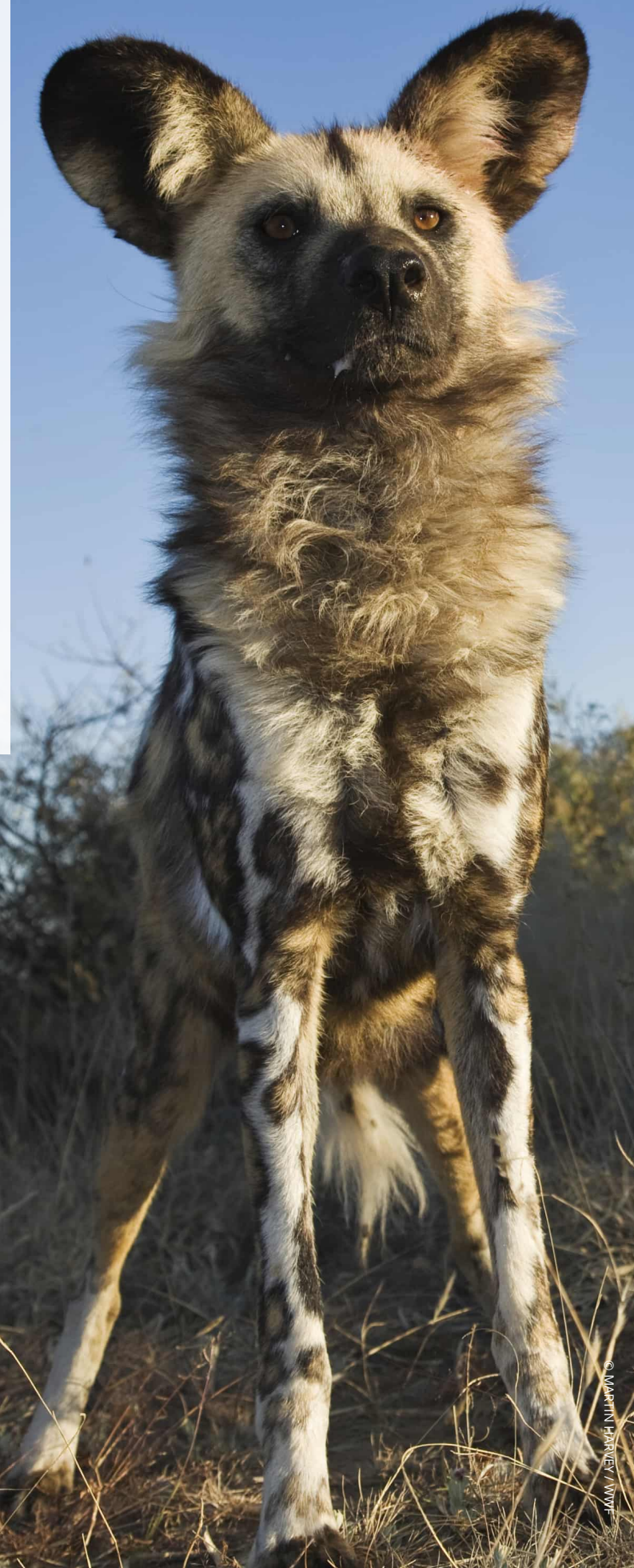
WWF has offices in both Tanzania and Mozambique and sub-offices in the towns of Masasi in Tanzania's Mtwara region and Metangula on Lake Niassa in Mozambique.

As well as WWF's long-standing and well-developed partnerships, outlined earlier, with the two governments and with NGOs, CSOs and (to some extent) the private sector, we are working more widely in ways that will support the programme. Examples include advocacy on national level policies and legislation; engagement on Tanzania's Southern Agricultural Growth Corridor, Mtwara development corridor; engagement on the 'in danger' status of the Selous World Heritage site; engagement on national elephant and rhino strategies for Tanzania; engagement on natural capital mapping work in Mozambique; and a regional WWF programme in east Africa that aims specifically to address the illegal wildlife trade.

### **SIGNIFICANT RESOURCES ARE URGENTLY NEEDED TO FULLY DEVELOP AND IMPLEMENT A HOLISTIC RUVUMA LANDSCAPE PROGRAMME.**

Elsewhere in Africa, WWF is leading work on wildlife dispersal areas and corridors in Kenya, Namibia, Zimbabwe and Zambia. These provide many examples of successful approaches, as well as lessons learned, on the implementation of landscape level corridor work at scale.

The Ruvuma landscape contains huge swathes of Miombo woodland that hosts many iconic species including African Wild Dogs





## RUVUMA VISION

The vision of the programme is that 'secured ecosystems in the Ruvuma Transboundary Landscape deliver optimal benefits for both wildlife and people through appropriate, strategic and sustainable development'.

In line with this vision, we expect the following impacts and outcomes.

## PROGRAMME IMPACTS

'By 2030, key wildlife populations (of elephants, wild dogs, lions and rhinos) and habitats (Miombo woodlands and coastal forests) are recovering. Key threats including poaching, the illegal wildlife trade, charcoal production and poorly-planned infrastructure are significantly reduced, to secure ecosystem services and increased benefits for nature and people.'

This will be achieved through enhanced transboundary landscape collaboration, habitat connectivity, improved protected area management and alternative livelihood options including tourism.

### KEY OBJECTIVES

#### OBJECTIVE 1: INCLUSIVE CONSERVATION OF SPECIES AND HABITATS

By 2030, poaching and illegal wildlife trade (IWT) of key wildlife species (elephant, rhino, lion, wild dogs) is reduced by 2% in the Ruvuma transboundary landscape and benefiting over 50% of target local communities.

Key interventions: Expansion of WMAs and community forest management areas with improved governance; wildlife and forest management and diversification of income and employment opportunities; mitigation of human-wildlife-conflicts; deploy technology e.g. drones, collaring, transmitters, etc; joint wildlife surveys and monitoring; law enforcement through joint anti-poaching initiatives and countering illegal bushmeat trade; capacity development of communities and government; education and awareness creation among key stakeholders; policy and legislation review and development; biological management of species including translocations.

#### OBJECTIVE 2: RESTORATION AND CONSERVATION OF HABITATS

By 2030, the destruction of wildlife habitat is reduced by 60%, ensuring free wildlife dispersal, desired environmental flow, improved biodiversity and benefiting at least 30% of participating communities.

Key interventions: Land use planning; establishment of WMAs; forest landscape restoration and community-based forest management; certification of forest products and value chains; reducing emissions from deforestation and forest degradation plus the sustainable management of forests, the conservation and enhancement of forest carbon stocks (REDD+) and carbon financing, integrated water management and allocation plans; wetland conservation; restoration of water catchment areas; sustainable rangeland management, improved livestock husbandry including market access; promotion of sustainable farming systems; support strategic environmental assessments (SEAs) and environmental impact assessments (EIAs) for large-scale infrastructure and industrial developments.

### KEY OBJECTIVES

#### OBJECTIVE 3: IMPROVED COMMUNITY LIVELIHOODS

By 2030, at least 50 % of the target communities perceive increased benefits and incentives from sustainable natural resource management and production systems.


Key interventions: Capacity building of communities; developing value chains and markets of key natural resource products including sustainable fisheries; supporting a conducive policy and legal environment; enhancing tourism and other livelihood practices like agriculture so that they are climate resilient and deliver improved benefits; establishment and monitoring of social safeguards and grievance mechanisms.

#### OBJECTIVE 4: IMPROVED TRANSBOUNDARY COLLABORATION.

By 2030, collaboration between Mozambique and Tanzania is improved for sustainable conservation and management of transboundary natural resources and people's livelihoods.

Key interventions: Policy and legislation development and harmonisation for improved transboundary management; establishment and sustainable financing of transboundary management and steering structures; joint wildlife security operations; joint wildlife monitoring; Community Based Natural Resource Management (CBRNM); capacity development of adjacent communities and government officials.



An aerial photograph showing a vast mangrove forest. A prominent river winds through the landscape, starting from the top left and moving towards the bottom right. The river is surrounded by dense, green mangrove trees. The water in the river is a deep blue-green color. The surrounding land is a mix of green and brown, indicating different types of vegetation and possibly some exposed mudflats or sandbars. The overall scene is a lush, natural environment.

The Great Ruaha, Kilombero and Luwegu rivers which cross the Ruvuma landscape each flow into the Rufiji River which forms an enormous delta at the Tanzanian coast and hosts a unique assemblage of marine and terrestrial wildlife and is also vital for local fisheries



## LANDSCAPE PRIORITIES

The immediate priorities for the ambitious Ruvuma transboundary landscape programme are:

### PRIORITY 1

An urgent focus on wildlife conservation issues in the landscape including improving the knowledge of elephant groups inhabiting community areas and their movement patterns; a critical inventory of wild dogs in the landscape to understand ranges and connectivity; working more with partners in both Tanzania and Mozambique on monitoring species that cross great distances across the border such as vultures; and stepping up efforts to reduce human-wildlife conflict and its impact on people.

### PRIORITY 2

Scaling up successful models such as Village Land Forest Reserves which have enhanced sustainable community benefits; tackling growing issues such as the impact of mining, deforestation and rapidly expanding agri-business on watershed ecology and human health; responding to the impact of charcoal production and creating sustainable solutions that avoid forest loss; and developing community-based approaches to address collapsing fish stocks in Lake Niassa.

### PRIORITY 3

Addressing rural poverty and lack of market access by promoting new wildlife-friendly enterprises; supporting adaptation to climate change and climate variability by diversifying income streams and introducing conservation agriculture; finding sustainable solutions to the problem of conflict between farmers and pastoralists which impact the success of conservation areas; and engaging rural youth in environmental awareness through the successful miombo club network.

### PRIORITY 4

Pushing forward with plans to develop the Niassa-Selous Transfrontier Conservation Area, the second largest area of its kind in Africa; strengthening relationships with transboundary partners to create ownership and impact across the international border; and fostering unique partnerships with organisations working on carbon finance, local governance and agro-ecology to create holistic solutions.



For a future where people and nature thrive | [wwf.org.uk](http://wwf.org.uk)

© 1986 panda symbol and © "WWF" Registered Trademark of WWF. WWF-UK registered charity (1081247) and in Scotland (SC039593). A company limited by guarantee (4016725)