Wildlife-Based Enterprise in SADC's Ramsar Sites

An AWEI Policy Brief

July 2025

In support of the
Ramsar Convention on Wetlands
Strategic Plan 2025-2034
and the
Southern African Development Community
Wildlife-based Economy Strategy Framework

Prepared for the
15th Ramsar Conference of the Parties
23–31 July 2025
Victoria Falls, Zimbabwe

By
Tariro Kamuti, Wiseman Ndlovu, and Francis Vorhies
African Wildlife Economy Institute
Stellenbosch University

Stellenbosch UNIVERSITY IYUNIVESITHI UNIVERSITEIT

AWEI African Wildlife Economy Institute

Table of Contents

1. Wildlife-based enterprise and Ramsar COP15 3
2. SADC Ramsar sites 4
3. Types of wildlife-based enterprises 5
4. Enabling policy frameworks 6
4.1 Strategic Plan of the Convention on Wetlands 2025-2034 6
4.2 Kunming-Montreal Global Biodiversity Framework 7
4.3 CITES Strategic Vision: 2021-2030 8
4.4 SADC's Wildlife-Based Economy Strategy Framework 9
5. Profiles of Wildlife-Based Enterprises 10
5.1 Angola – Wise use in Saco dos Flamingos 11
5.2 Botswana – International tourism in the Okavango Delta System 12
5.3 Comoros – Hiking tourism in Le Karthala 13
5.4 DR Congo – Shellfishing in Parc national des Mangroves 14
5.5 Eswatini – Recreation at Hawane Dam and Nature Reserve 15
5.6 Lesotho – Medicinal plant harvesting in Lets'eng-la-Letsie 16
5.7 Madagascar – Seasonal fishing in Zone Humide de Mandrozo 17
5.8 Malawi – Artisanal fisheries in Lake Chilwa 18
5.9 Mauritius – Glass bottom boats in the Blue Bay Marine Park 19
5.10 Mozambique – Mangrove carbon in the Zambezi Delta 20
5.11 Namibia – Community-based enterprise at Bwabwata-Okavango 21
5.12 Seychelles – Exclusive tourism at Aldabra Atoll 22
5.13 South Africa – Recreational fishing in Kosi Bay 23
5.14 Tanzania – Hunting in Malagarasi-Muyovozi Wetlands 24
5.15 Zambia – Artisanal and commercial fishing in the Bangweulu Swamps 25
5.16 Zimbabwe – Adventure tourism in Victoria Falls National Park 26
6. Scaling up enterprise opportunities in SADC's Wetlands 27
7. About the authors and AWEI 28
8. Endnotes 29

Acknowledgements: Many thanks to Emily Taylor for her editing and to Kudzai Shaun Mpakairi for producing the map of the 16 profile sites at the start of section 5.

1. Wildlife-based enterprise and Ramsar COP15

With **Ramsar COP15**[1] taking place in July 2025 in Victoria Falls, Zimbabwe, there is an opportunity to align COP15 deliberations with the region's aim to develop its wildlife economy as set out in **SADC's Wildlife Based Economy Strategy Framework**.[2] This policy brief profiles and explores the potential for wildlife-based enterprise in SADC Ramsar sites.

As highlighted in Doc 23.3[3] on the **Draft resolution on the Strategic Plan of the Convention on Wetlands 2025-2034**, "the wise use of all wetlands is a fundamental concept underpinning the work of the Convention on Wetlands." This is reflected in the draft text for Goal 2 of the Strategy:

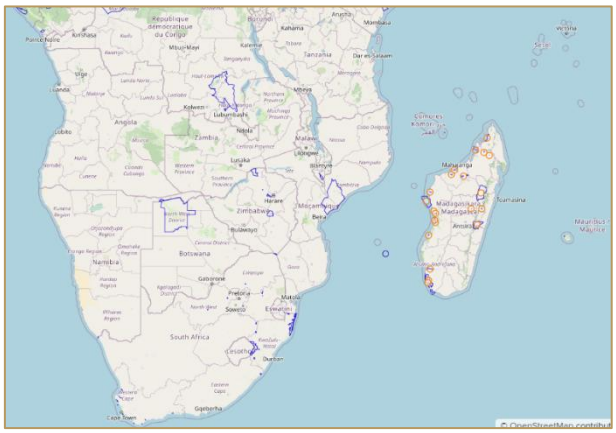
> Wetland wise use is [achieved][promoted], where the multiple values, functions and services of wetlands are understood and recognised in policy and planning, the [inclusive] participation of all is enabled in decision-making, and action is taken for wetlands for the benefit of present and future generations [as appropriate].

At COP15, the Parties will also be considering in Doc 23.20[4] a **Draft resolution on promoting sustainable lifestyles for the wise use of wetlands**. It includes a commitment to "create enabling conditions… to enhance the wise use of wetlands," and invites "the private sector and other stakeholders to promote and enhance cooperation… that enable the adoption of more sustainable lifestyles, including sustainable living within wetland conservation and wise use interventions."

In this brief, we highlight examples from across the SADC member states on how wildlife-based enterprises are enabling sustainable lifestyles through the wise use of wetlands.

Victoria Falls: Zambia and Zimbabwe[5]

2. SADC Ramsar sites



Designated Ramsar wetland sites can be found across the 16 Member States of the **Southern Africa Development Community (SADC)**. For more information, see the Ramsar Sites Information Service.[6]

Ranging from one site each in Angola and Botswana to 21 in Madagascar and 31 in South Africa, there are over 100 sites in the SADC region.

The size of the sites varies considerably, from Pointe d'Esny Wetland in Mauritius, which spans 22 hectares, to Ngiri-Tumba-Maindombe in the DRC, covering over 6.5 million hectares. Together, the SADC Ramsar sites comprise 28,6 million hectares. This is roughly half the size of Madagascar or about 3% of SADC's total land area.

There is a wide diversity of wetland types across SADC, including several types of marine/coastal wetland and inland wetlands, including coral reefs, intertidal forested wetlands (mangroves), permanent rivers/streams/creeks, and permanent freshwater marshes/pools. There are also several human-made wetlands.

The number, size and diversity of SADC Ramsar sites provide opportunities for mainstreaming Ramsar's core commitment to wise use through wildlife-based enterprise development as envisioned by SADC's strategic framework for the wildlife-based economy. There are many examples ranging from sustainable ecotourism in the Okavango Delta System to sustainable fisheries in the Zambezi Delta to harvesting reeds and grasses in the Kilombero Valley Floodplain.

In this brief, we highlight some of the enterprise opportunities in Ramsar sites, demonstrating how they can play a leading role in ensuring the wise use of wetlands and other ecosystems across southern Africa.

Zimbabwe Ramsar Sites[7]

3. Types of wildlife-based enterprises

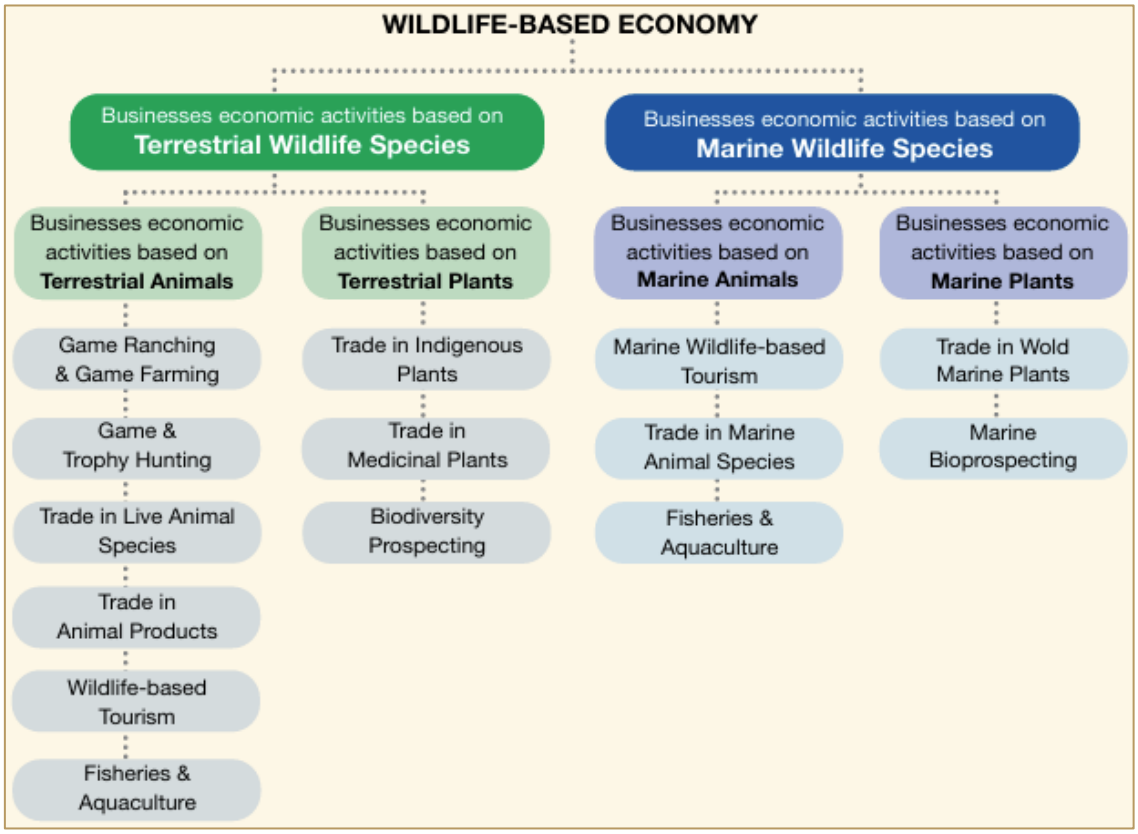
SADC's strategic framework for the wildlife-based economy sets out value chains for wild terrestrial and marine species. As SADC Ramsar sites can be found in both terrestrial and marine environments, both are relevant for enterprises in wetlands. The framework further groups the species into wild animals and wild plants as follows:

The two main value chains or the sectors that make up the wildlife-based economy include:

- the **terrestrial and marine wildlife animal value chain** that includes value chains related to the sustainable use of wildlife animal species, such as game ranching and farming, game and hunting, inland fisheries and aquaculture and wildlife-based tourism; and

- the **terrestrial and marine wildlife plant value chain** that includes value chains related to the sustainable use of plant biodiversity such as timber and timber products from natural forests; bioprospecting of natural plants and wildlife-based tourism.

SADC's vision of a wildlife-based economy, as depicted in the following graphic, is particularly appropriate for wetlands, as they can encompass both terrestrial and marine species.



Examples of wildlife enterprises and enterprise opportunities from SADC Member States are presented in section 5 of this brief.

4. Enabling policy frameworks

This section highlights four key policy frameworks for enabling and supporting wildlife-based enterprises in SADC's Ramsar sites.

4.1 Strategic Plan of the Convention on Wetlands 2025-2034

At COP15, the Parties are expected to approve Ramsar's new strategic plan. Wise use is central to the plan as indicated in the following draft extracts:

- A world living in harmony with nature where wetlands are valued, conserved, restored, and **wisely used**, supporting a healthy planet **and delivering benefits for all people**
- The **wise use** of wetlands and the maintenance of their ecological character are at the heart of the Convention's desire to stem the progressive encroachment on and loss of wetlands now and in the future
- Wetlands provide a wide range of **regulating, provisioning, and cultural ecosystem services**, including those relevant for **food**, **medicine**, **energy**, **clean air and water**, **climate**, **security from natural disasters,** as well as for **recreation**, spiritual needs, and culture, and other contributions beyond conservation of biodiversity
- To achieve **wise use**, and for wetlands to contribute fully to sustainable development, policy makers and practitioners (such as site managers) should recognize the **multiple values** of wetlands
- Humans and nature live in harmony, including by incorporating] [by promoting the incorporation of] **wise use**

Wildlife-based enterprises have the potential to deliver and enable wise, sustainable, and legal wetland use that benefits people in SADC Ramsar sites.

From the draft theory of transformative change of the strategic plan

4.2 Kunming-Montreal Global Biodiversity Framework

Wise/sustainable use is embedded in the **vision** of the Kunming-Montreal Global Biodiversity Framework (GBF)[8] – "a world of living in harmony with nature where, by 2050, biodiversity is valued, conserved, restored and **wisely used**…." It is also one of the four GBF goals:

Kunming - Montreal
GLOBAL BIODIVERSITY FRAMEWORK

> **GOAL B Prosper with Nature**
> Biodiversity is **sustainably used** and managed and **nature's contributions to people**, including ecosystem functions and services, are valued, maintained, and enhanced…

Targets 5 and 9 closely align with Ramar's commitment to wise use and outline the place for wildlife-based enterprise as an area-based conservation measure.

> **Target 5**
> **Ensure that the use, harvesting and trade of wild species is sustainable, safe, and legal**… while respecting and protecting customary sustainable use by indigenous peoples and local communities…

> **Target 9**
> **Ensure that the management and use of wild species are sustainable, thereby providing social, economic, and environmental benefits for people… including through sustainable biodiversity-based activities, products and services** that enhance biodiversity, and protecting and encouraging customary sustainable use by indigenous peoples and local communities…

Furthermore, the well-known Target 3, which aims to conserve "at least 30 per cent of terrestrial, inland water, and of coastal and marine areas," calls for "ensuring that any sustainable use, where appropriate in such areas, is fully consistent with conservation outcomes." This aligns with Ramsar's approach to linking the wise use of a wetland with the maintenance of its ecological character.

GBF Goal B, Targets 5 and 9 together aim to ensure that the management, use, harvesting, and trade of wild species through the provision of biodiversity-based activities, products and services is sustainable, safe, legal, and beneficial to people. This call for responsible wildlife-based enterprise in wetlands and other ecosystems reflects the Ramsar principle of wise use.

4.3 CITES Strategic Vision: 2021-2030

Wildlife-based enterprises produce and sell goods and services derived from wild species and their habitats to local, regional, and international markets. If the species is threatened, international trade may require a permit as set up by the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).** This is the case for wild animal and plant species listed on one of the CITES Appendices. Consistent with CITES provisions, it is important to ensure that wetland species are not only wisely used but, if threatened, align with CITES Strategic Vision.[9]

The CITES **Vision Statement** clearly supports the wise/sustainable use of wild species:

> By 2030, **all international trade in wild fauna and flora is legal and sustainable**, consistent with the long-term conservation of species, and thereby contributing to halting biodiversity loss, to **ensuring its sustainable use**, and to achieving the 2030 Agenda for Sustainable Development.

Importantly, **Goal 1** of this Vision is to ensure that the "trade in CITES-listed species is conducted in full compliance with the Convention in order to achieve their conservation and sustainable use." It aims to "develop provisions for trade that are proportionate and that can be implemented without undue complexity." For wildlife-based enterprises in wetlands, CITES plays a key role in ensuring that the use and trade of any listed species is sustainable and legal.

Goal 4 highlights CITES' contribution to the 2030 Agenda for Sustainable Development and its **Sustainable Development Goals** (SDGs), notably "including supporting legal, sustainable wildlife trade, and tackling both illegal and unsustainable wildlife trade." In a mapping[10] of the CITES vision, clear linkages to other goals are noted, including SDG 8 on inclusive and sustainable economic growth and SDG 12 on sustainable consumption and production.

The mapping also looks at the CITES Vision vis-à-vis the **GBF Goals and Targets,** where it is clear that the CITES Goal 1 contributes directly to ensuring sustainable and legal trade as called for in GBF Target 5. This alignment further supports the importance of wise use and wildlife-based enterprise in Ramsar's new Strategic Plan.

4.4 SADC's Wildlife-Based Economy Strategy Framework

With Ramsar COP15 taking place within the Southern African Development Community[11], it is most useful to also explore a path-breaking regional policy framework supporting wildlife-based enterprises in the region's Ramsar-listed wetlands. The vision of SADC's **Wildlife-based Economy Strategy Framework** is:

> An abundant SADC wildlife-based economy is actively contributing to transformative economic growth, employment creation and generating equitable opportunities, which enhances the sustainable quality of life for all within the region.

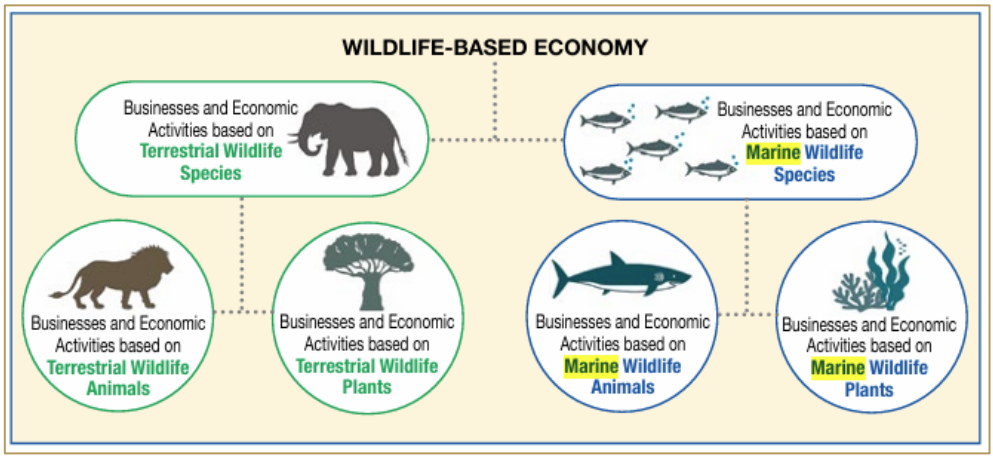
This vision is based on a core principle of "**ensuring sustainable utilisation of wildlife resources.**" The Framework's Strategic Objectives include:

> Strategic Objective 1: **Globally competitive utilisation of wildlife resources** drives the development of innovative, transformative, and sustainable wildlife-based value chains that contribute to employment and economic development…
>
> Strategic Objective 2: The SADC Wildlife-based economy drives **inclusive socio-economic development and poverty alleviation** in its member states…

Developing wildlife-based enterprise is a key element of the framework:

- Member State wildlife-based economy policymakers, in close collaboration with **wildlife-based industrialists and entrepreneurs**, should identify the stage or stages of the value chain where enterprises are most competitive.
- Member States should substantially develop their capacities for the **upgrading and diversification of wildlife-based economy value chains with the close involvement of firms and enterprises** as set out in the SADC's Industrial Upgrading and Modernization Programme (IUMP).

Ramsar-listed sites provide a unique portfolio of wetlands managed for conservation and wise use that can support sustainable and inclusive wildlife-based enterprises.



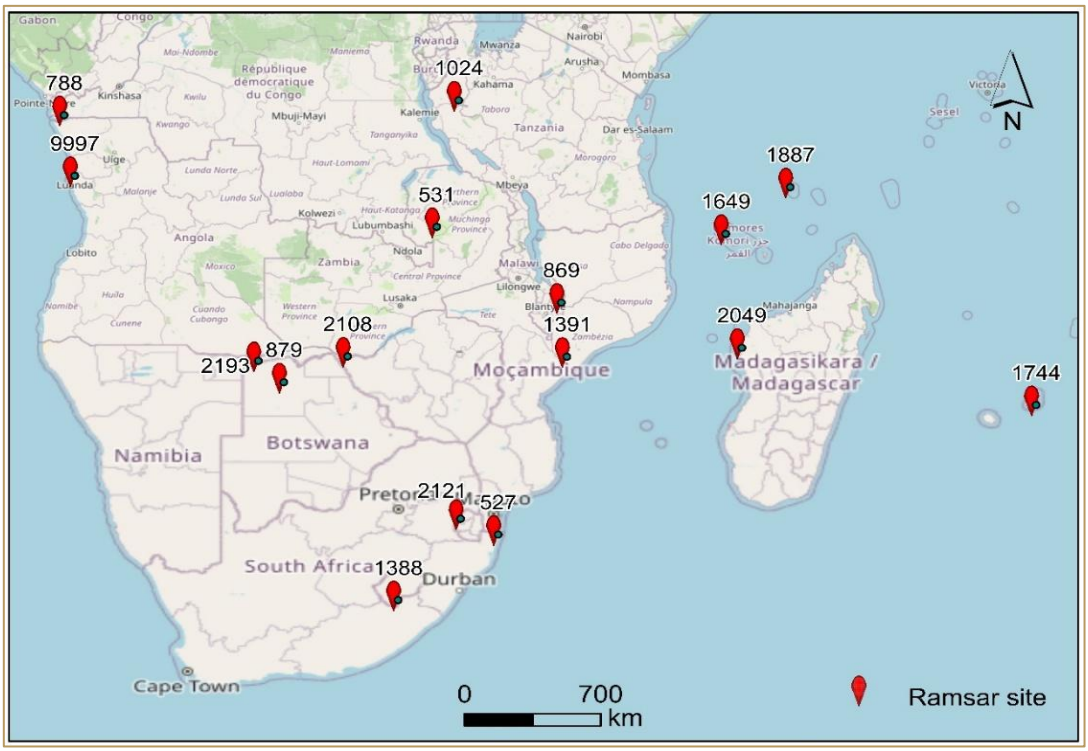
5. Profiles of Wildlife-Based Enterprises

Country-level profiles for SADC countries indicate how the region is harnessing Ramsar wetlands for tourism, fisheries, carbon markets, and other economic values. They demonstrate the role of the wetland enterprise in driving inclusive regional growth based on the wise use of wetland resources.

For illustrative purposes, we present one profile for each of the 16 Member States. There are many more examples from across the 100-plus Ramsar sites in the region covering a diverse range of sustainable economic activities. Country-level reviews could provide a baseline for scaling up wildlife-based enterprise opportunities.

Further, the wise use of wild resources in Ramsar sites anchors global value chains that connect a complex array of upstream and downstream businesses, generating employment opportunities and enhancing livelihoods. For example, a single tourist's decision to visit a Ramsar site like the Okavango Delta System triggers a cascade of economic activity. Their payment for a safari package supports not only the lodge and its staff but also the farmer who grew their food, the mechanic who serviced the safari vehicle, the artisan who made the crafts in the gift shop, and the pilot who flew them in.

Conserving SADC's wetlands is not only an environmental objective, but also a fundamental strategy for sustainable economic development across the region.



527 Kosi Bay	1024 Malagarasi-Muyovozi Wetlands	2049 Zone Humide de Mandrozo
531 Bangweulu Swamps	1388 Lets'eng-la-Letsi	2108 Victoria Falls National Park
788 Parc national des Mangroves	1391 Zambezi Delta	2121 Hawane Dam and Nature Reserve
869 Lake Chilwa	1649 Le Karthala	2193 Bwabwata-Okavango
879 Okavango Delta System	1744 Blue Bay Marine Park	9997 Saco dos Flamingos
	1887 Aldabra Atoll	

Map of 16 Ramsar profile sites. Prepared by Kudzai Shaun Mpakairi.

5.1 Angola – Wise use in Saco dos Flamingos

Saco dos Flamingos

- Ramsar site: 9997 (accession site)
- Area: 1,616 ha
- Designation date: 12-11-2006
- Coordinates: 08°49'S 013°14'E

Angola ratified the Ramsar Convention in 2021 and is now preparing 11 wetlands for listing as Ramsar sites, including Saco dos Flamingos.[12] This site is located in the District of Mussulo near Luanda.

The site provides essential habitat for species of migratory birds such as flamingos, pelicans, grus, storks, herons, and eagles.[13]

The area is also an important source of revenue for many families who practice artisanal fishing nearby.

Wise use opportunities

Restoring and protecting this coastal wetland site has the potential to enable a number of wildlife-based enterprises. In turn, if these enterprises are managed sustainably and equitably, they can enhance the resilience of the site and its conservation status. Enterprise opportunities include:

- Ecotourism, notably because of its proximity to the capital city
- Artisanal fishing, which is well-established along Angola's coast
- Fuelwood, for cooking and heating
- Carbon sequestration, earning carbon credits through the restoration and preservation of mangrove habitat
- Disaster risk reduction, protecting local communities from storms at sea

Alerta Mangais[14] – a mangrove conservation project by OCTCHICA

Sponsored by TotalEnergies, the 'Mangrove Alert' project aims to ensure that local livelihoods are enhanced through the conservation and wise use of the wetland.

It is focusing on empowering the local community about the importance of mangroves and the need for their preservation and protection for sustainable and responsible use.

"What would the world be like without mangroves? It would be a world without fish which feeds us."[15]

5.2 Botswana – International tourism in the Okavango Delta System

Okavango Delta System[16]

- Ramsar site: 879
- Area: 5,537,400 ha
- Designation date: 9-12-1996
- Coordinates: 19°17'24"S 22°54'58"E

The plant life includes over 1,060 species, with most vegetation communities consisting of sedges, grasses, and aquatic plants. The animal life is diverse and includes 32 large mammal species, over 650 species of birds, 68 species of fish, and a highly diverse insect population.

The Site is used for recreation, tourism, subsistence farming and fishing.

Tourism and other socio-economic activities

Though the Okavango Delta is an international tourist destination, it is also used for various other socio-economic activities as highlighted in the Management Plan of 2008,[17] including livestock farming, arable agriculture, fishing, gathering of veld products, crafts, and provision of various other services.

Wildlife-based tourism includes game viewing, bird watching, recreational fishing, hunting safaris, mokoro (canoe) trails, and mobile safaris. Regarding hunting, there is both safari and citizen hunting. There are three categories of fishing: subsistence, commercial, and sport-recreational. Wild plants harvesting includes palm shoots for basket weaving, grass, reeds, water lilies, assorted wild fruits, veld products, trees for woodcarving, trees for building and fencing, trees for firewood and edible papyrus shoots.

A premier safari destination

The Okavango Delta has about 100,000 visitors annually. Safari enterprises include:

- **Wilderness**[18] – A major safari company with a significant presence in the Delta.
- **&Beyond**[19] – Offers a premium experience combining multiple camps in a safari; high-end hospitality is combined with low-density tourism.
- **Great Plains Conservation**[20] – Operates several high-end safari camps in the Okavango. Their model is explicitly designed to fund conservation projects through low-volume tourism.

5.3 Comoros – Hiking tourism in Le Karthala

Le Karthala[21]

- Ramsar site: 1649
- Area: 13,000 ha
- Designation date: 12-11-2006
- Coordinates: 11°46'S 43°21'E

Certain species are used for medicinal purposes and some areas are considered sacred sites.

The forests also play an essential role in preventing erosion…

There are plans to create a national park, which can further increase the tourism potential of the area.

Hiking tourism opportunities

Guided treks to Mount Karthala's summit are a popular activity, [22] offering unparalleled views of the caldera and the surrounding Indian Ocean.

The challenging hike takes visitors through a variety of ecological zones, from lush tropical forests to alpine heathlands, providing opportunities to spot rare birds and plants.

Birdwatching tours are particularly rewarding, as the park is a recognized Important Bird Area (IBA) of global significance.

Adore Comores[23] – a wildlife-based enterprise at Le Karthala

"At Adore Comores, we are committed to providing you with an authentic and sustainable traveling experience in terms of the environment, culture, and society. Our desire is to preserve and protect the natural and cultural heritage of Comoros so that the Comorian people, and the world, can continue to enjoy it."

Offerings include several hiking expeditions to Le Karthala

- Iron Man – one-day Mvouni Trailhead (30 km; 2,000m)
- Sport – one-day Convalescence Trailhead (12 km; 700m)
- Discovery – two-day Mvouni Trail, Camp (30 km; 2,000m)
- Grand Tour – two-day Bahani Trail, Camp (38 km; 1900m)

5.4 DR Congo – Shellfishing in Parc national des Mangroves

Parc national des Mangroves[24]

- Ramsar Site: 788
- Area: 66,000 ha
- Designation date: 18-01-1996
- Coordinates: 05°45'S 12°45'E

The site supports important fish and crustacean reserves for local fisheries.

Human activities include fishing, the gathering of medicinal plants, and subsistence cropping.

Shrimp and oyster opportunities

The economic value of both products was estimated at 1,280,030 USD. Shrimp accounted for 31%, while oysters accounted for 69%.

The exploitation of shrimp and oysters plays a significant role in the socio-economic life of the populations living in and around the PMM. It is a major source of income for the households of fishermen.

Most fishermen declared that fishing contributes between 70% and 90% to their household income. Profits from fishing mainly enable them to meet their food requirements, access medical care and send their children to school.

Monitoring fish stocks, the number of fishermen, and pollution in the waters of the MMP is essential to achieving sustainable conservation.[25]

Shrimp and oyster fishers – a sustainable wildlife-based local industry

"What brings us joy is to live in the middle of this beautiful environment on the water. This is where we get our food from, our protein, and the trees provide us with firewood to cook."[26]

5.5 Eswatini – Recreation at Hawane Dam and Nature Reserve

Hawane Dam and Nature Reserve[27]

- Ramsar Site: 2121
- Area: 232 ha
- Designation date: 12-06-2013
- Coordinates: 26°12'48"S 31°05'12"E

The reservoir is host to a variety of waterbirds. In contrast, the swamp supports a small but critical population of the endemic and regionally critically endangered plant – the Eswati poker (*Kniphofia umbrina*).

The reserve's main attraction is its wealth of birdlife, and a trail is provided for birdwatching.

Recreation opportunities

As the Reserve is close to Mbabane, the capital city, it is easily accessible by residents for day trips. Families, couples, and friends can participate in a diverse range of recreational activities including:

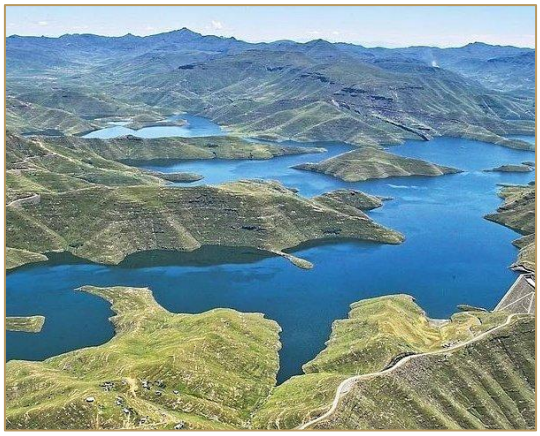
- Hiking on well-marked trails
- Fishing for species like yellowfish, bream, and barbel
- Boating including power boats, yachts, dinghies, and canoes
- Picnicking at the Reserve's picnic spots

The Farm[28] – a place to unwind overlooking the Hawane Dam

The enterprise provides a range of self-catering options, including single units, group units, and glamping. Offers recreational activities like quad biking, horseback riding, boating, and hiking.

5.6 Lesotho – Medicinal plant harvesting in Lets'eng-la-Letsie

Lets'eng-la-Letsi[29]



- Ramsar Site: 1388
- Area: 434 ha
- Designation date: 1-07-2004
- Coordinates: 30°19'59"S 28°12'E

A highland wetland about 200 km southeast of the capital city, Maseru, which was designated in 2001 as a component of the Conserving Mountain Biodiversity in Southern Lesotho (CMBSL) project. It consists of a human-made lake with a mean depth of about 1 m and its associated catchment area.

Medicinal plants and other uses

The Ramsar information sheet for the site[30] notes that the local communities identified the following current uses/benefits:

- water for livestock and domestic use
- grass for thatching and livestock grazing
- source of medicinal plants and source of wood
- habitat for wildlife (animals and birds)
- passage to cattle posts
- fishing

Over-exploitation/over-harvesting of medicinal plants is a concern, which could be addressed by establishing a sustainable harvesting enterprise.

Certified wild plant harvesting opportunities

With over 60 wild plant species, some with medicinal uses, a wise use of Lets'eng-la-Letsie could be the certified wild plant harvesting. For example, *Pelargonium sidoides* (African geranium), found in the grassy and rocky areas, is certified by FairWild.[31] Other opportunities include:

- Artemisia afra (African wormwood) – for respiratory ailments
- Dicerothamnus rhinocerotis (Rhinoceros Bush) – for stomach ailments
- Helichrysum spp. (Everlasting/Imphepho) – for respiratory issues
- Aloe ferox (Bitter aloe) – for skin conditions
- Hypoxis hemerocallidea (African potato) – for immune support

5.7 Madagascar – Seasonal fishing in Zone Humide de Mandrozo

Zone Humide de Mandrozo[32]

- Ramsar Site: 2049
- Area: 15,145 ha
- Designation date: 05-06-2012
- Coordinates: 17°32'27"S 44°05'46"E

The Ramsar Site provides ecosystem services of great importance for the area and the riverside communities.

It is an important spawning ground and source of food for fish, and also important for irrigation, and so serves as a source of livelihoods for hundreds of dependent families.

The Site has cultural value, as local communities promote the sustainable management of resources by traditional agriculture and fishing.

The lake also offers potential as an ecotourism destination for the Melaky Region.

Seasonal fishing opportunities

Lake Mandrozo attracts many fishermen, 75% of whom stay in the area during the fishing season only (7 months/year).

Fishing contributes to generate an important household income.

Since the implementation of rational management and the strengthening of Teabony, the annual production of fishing has doubled and can reach 400 tons of fresh fish per year.[33]

Community-managed fisheries – community-based wildlife-based enterprise

In 2006, there was little hope for Lake Mandrozo due to overfishing and degradation of the surrounding vegetation. Fortunately, the local population has taken part in the implementation of fishing regulations and patrol and control activities. [34]

5.8 Malawi – Artisanal fisheries in Lake Chilwa

Lake Chilwa[35]

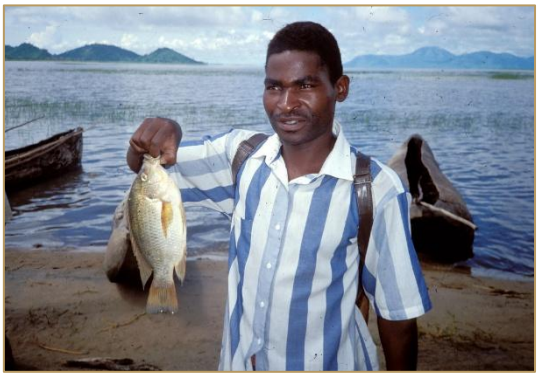
- Ramsar Site: 869
- Area: 224,800 ha
- Designation date: 14-11-1996
- Coordinates: 15°15'S 35°45'E

The lake supports internationally important numbers of 153 species of resident and 30 species of palearctic (migratory) waterbirds.

Apart from human settlements, activities include fishing, agriculture (rice and dimba cultivation), and livestock grazing. The fishery annually contributes 25-30% of the total fish production in Malawi.

Lake Chilwa is shared with Mozambique (Ramsar site 869).

Wild fish harvesting opportunities



Artisanal fishers[36] at Lake Chilwa target a few species that are well adapted to the lake's shallow, often saline conditions. These include:

- Tilapia (*Oreochromis shiranus chilwae*)
- Kambuzi (*Haplochromis species*)
- Utaka (*Copadichromis species*)
- Kampango (*Bagrus meridionalis*)
- Mlamba (*Clarias gariepinus*)

Artisanal fisheries are labour-intensive and small-scale, using hand nets, traps, and canoes. The fishing is seasonal because the lake is shallow and subject to drying.

Local Fisheries Management Authorities (LFMAs) – community-based wildlife-based enterprise associations

The fishing industry is managed and regulated by zones of local LFMAs. They promote sustainable fishing methods and manage the fishing seasons. In so doing, the site can support over 6,000 fisheries and stabilise populations of key species.

The LFMAs also include processors, like the Kachulu Women Fish Processors, who are engaged in cleaning and gutting, drying, smoking, packaging[37], and marketing.

5.9 Mauritius – Glass bottom boats in the Blue Bay Marine Park

Blue Bay Marine Park[38]

- Ramsar Site: 1744
- Area: 353 ha
- Designation date: 31-01-2008
- Coordinates: 20°27'S 57°42'E

This site adjoins the popular Blue Bay Beach, 5 metres away, which is widely used by the local community for recreational purposes, and tourism is also significant.

There is a steering committee for the management of the park drawn from most of the environment-related ministries (Agro-industry, Environment, Tourism, Housing and Lands, etc.), and daily patrols are conducted to enforce the regulations.

A popular tourist destination

More than one hundred thousand visitors, including Mauritian and foreign nationals, visit the park every year.[39] Recreational activities include

- Scuba diving and snorkelling
- Non-motorised surface water sports – windsurfing, sailing, water skiing, paddle boats, and kayaks
- Swimming
- Boating activities – glass bottom boats, boats transporting divers and snorkellers, boats transporting visitors into and outside the park
- Recreational fishing with pole and line along part of the coast
- Fishing using poles, lines, and basket traps beyond the fringing reef

Totof Tours – a well-established local wildlife-based enterprise[40]

Glass-bottom boat and snorkelling excursions:

- Two-hour snorkelling excursion, Blue Bay Marine Park – €36
- Half-day excursion with snorkelling and picnic Creole – €45
- Four-hour snorkelling excursion inside the lagoon – €55
- Private snorkelling excursion Blue Bay Marine Park – €80

5.10 Mozambique – Mangrove carbon in the Zambezi Delta

Zambezi Delta[41]

- Ramsar Site: 1391
- Area: 3,171,172 ha
- Designation date: 03-08-2004
- Coordinates: 17°59'32"S 36°00'10"E

The Zambezi Delta is a unique wetland and one of the most diverse and productive river delta systems in the world.[42]

The Site provides a wealth of ecosystem services which are vital to food security and socio-economic development in Mozambique. It also provides hydrological functions, including coastal protection, flood control and carbon sequestration.

Mangrove carbon credit opportunities

Mangrove carbon credit opportunities in the Zambezi Delta are most promising because of its large mangrove ecosystem and its carbon sequestration potential. The Delta is one of Africa's largest mangrove ecosystems, covering approximately 37,000 ha. Mangrove forests hold up to three times more carbon than terrestrial tropical forests.

There are opportunities for securing credits from either carbon sequestration through the restoration of degraded mangrove sites or from carbon protection through REDD+ (Reducing Emissions from Deforestation and Degradation) programmes.

Sumitomo's mangrove project[43]

Sumitomo Corporation, a large Japanese trading and investment company, is implementing a large-scale mangrove restoration in the Zambezi Delta.

The project aims to restore degraded mangrove areas and, in so doing, generate carbon credits that can be sold internationally. The co-benefits of the project are expected to include wildlife conservation, coastal protection, and community development.

5.11 Namibia – Community-based enterprise at Bwabwata-Okavango

Bwabwata-Okavango Ramsar Site[44]

- Ramsar Site: 2193
- Area: 46,964 ha
- Designation date: 13-12-2013
- Coordinates: 18°12'S 21°43'E

The site consists of the lower Okavango River, part of the Okavango Delta Panhandle and permanently or temporarily flooded marshes and floodplains bordered by riparian forest and open woodland.

The site provides a variety of ecosystem services, including provisioning, regulating, supporting and cultural services. Current land use includes tourism, crop cultivation and livestock farming.

CBNRM resource use

The Kwando Conservancy and the Mayuni Conservancy undertake community-based natural resource management (CBNRM) in and around the Bwabwata National Park, which includes the Ramsar site.

Wild plant harvesting encompasses materials used for housing, medicine, and food, such as devil's claw (Harpagophytum procumbens), which is used to alleviate joint pain. Wild animal harvesting for food includes tilapia (*Oreochromis spp.*), guinea fowl (*Numida meleagris*), and duiker (*Sylvicapra grimmia*). Harvesting is organised by community groups under permit systems.

The conservancies also manage hunting (e.g., buffalo, kudu, and impala), fishing, and viewing tourism. Both generate significant revenues and employment opportunities.

Nambwa Tented Lodge[45]

The lodge, managed by African Monarch Lodges, is situated in the 300,000-hectare Mayuni Conservancy and is the only one in the park. Clients can go on game drives, bush walks, and boat cruises. The Conservancy has a share in the income generated by the lodge.

The lodge is also part of the Sijwa Project,[46] which supports wildlife-friendly activities in the Conservancy, including the maintenance of an organic permaculture nursery utilising elephant dung.

5.12 Seychelles – Exclusive tourism at Aldabra Atoll

Aldabra Atoll[47]

- Ramsar Site: 1887
- Area: 43,900 ha
- Designation date: 02-02-2010
- Coordinates: 09°24'S 46°19'59"E

A large, raised coral atoll with several wetland types, including permanent shallow marine waters, coastal saline lagoon area, marine subtidal aquatic seagrass bed, and mangrove swamps.

Land use on Aldabra is extremely low, with the only uses being research, an education outreach programme, and minimal tourism, as tourists are not allowed to stay overnight.

Restricted access for high-end tourists

All visitors to the atoll must receive prior authorisation from the Seychelles Islands Foundation (SIF).[48]

For anyone wishing to visit Aldabra, it is important to realise that the atoll has no airstrip, no harbour or jetty and no helipad. There is no hotel or guesthouse, and Aldabra is not set up to accommodate general visitors. All visitors arrive on live-aboard vessels, but the activities of such vessels in this region have been severely compromised by piracy in recent years.

All visitors are required to pay daily impact fees for visiting Aldabra. The current impact fee is USD 250/day per passenger and crew.

Aldabra Expeditions – an exclusive wildlife-based adventure[49]

Organised by Silhouette Cruises, these expeditions include snorkelling and diving, birdwatching, and whale and dolphin viewing.

The cost per person of an upcoming 14-day expedition is USD15,500 plus USD950 for landing fees and USD84 for the government's environment levy. Special diving trips can also be arranged.

"Divers in need of adrenaline will find it drifting in the main channel of Aldabra. Once in the tidal current, you realize how alive the lagoon is."

5.13 South Africa – Recreational fishing in Kosi Bay

Kosi Bay[50]

- Ramsar Site: 527
- Area: 10,982 ha
- Designation date: 28-06-1991
- Coordinates: 27°01'04"S 32°49'38"E

The site is composed of four interconnected lakes subject to tidal influence, an estuarine channel, and three extensive swamps. It is one of four Ramsar sites within the iSimangaliso Wetland Park. Located on the north-eastern coast of KwaZulu-Natal, its 332,000 ha is also the country's first World Heritage site.

The main uses in and around the wetland system are subsistence farming and fishing. A series of traditional fish kraals is maintained across the mouth of the estuary, but this is thought to be causing increasing sand deposition and narrowing of the estuary mouth.

Recreational opportunities, including fishing

Kosi Bay offers a range of recreation activities, including snorkelling, kayaking boat trips, turtle tours, bird walks, and a traditional fishing tour.

Several types of regulated recreational fishing[51] are allowed:

- Estuarine fishing – permitted only by boat
- Shore-based fishing – allowed along most shores
- Rock and Surf Fishing – especially near the Kosi Mouth during spring tides and around high tide.

Fishing techniques include fly fishing, drop shot, spooning, and using live bait. Permits are required for both shore-based and boat-based fishing.

Kosi On Fly[52] – a local wildlife-based fishing tourism enterprise

"Kosi Bay has got to be both the hardest flyfishing destinations on our South African coastline to fish, but also by far the most rewarding when things go right."
Target species include Spotted Grunter (*Pomadasys commersonnii*), Kingfish (*Caranx spp.*), and Pickhandle Barracuda (*Sphyraena jello*)

5.14 Tanzania – Hunting in Malagarasi-Muyovozi Wetlands

Malagarasi-Muyovozi Wetlands[53]

- Ramsar Site: 1024
- Area: 3,250,000 ha
- Designation date: 13-04-2000
- Coordinates: 05°00'S 31°00'E

The site is extremely important for providing significant livelihood support to local communities.

A majority of the site is gazetted as a game reserve where the main land use is nature conservation, together with fishing, beekeeping, tourist/subsistence hunting and seasonal grazing. Forest reserves are allocated for the harvesting of timber and non-timber forest products, and the land under the control of districts is divided between forests and lakes, with the extraction of forest products and fishing as the main land uses.[54]

Hunting tourism

Tourist trophy hunting is a main tourist activity in the wetland site, primarily in the Moyowosi Game Reserve. The hunting season lasts for six months from July to December each year.

The hunting operators are obliged to ensure that their clients conform to the hunting regulations and adhere to the hunting quota set by the Wildlife Division, which is reviewed annually. It is mandatory for game scouts, provided by the Wildlife Department Project Managers, to accompany any hunting excursions.

Accommodation is provided by hunting companies in the form of permanent luxury camps. Tourist hunting is a significant source of revenue to the Wildlife Division and the Districts and provides the bulk of current revenue from natural resources management on the Districts concerned.

Ganam – a luxury Tanzanian hunting company[55]

The company offers hunting and fishing packages in Moyowosi South. A 10-day all-inclusive package, including in-country transportation, the services of a complete crew and fine dining with a focus on game meat costs €8,900 plus trophy fees.

"Our territories are managed in line with our philosophy to which we firmly adhere: the practice of responsible hunting and delivering exceptional safaris entirely based on wildlife conservation."

5.15 Zambia – Artisanal and commercial fishing in the Bangweulu Swamps

Bangweulu Swamps[56]

- Ramsar Site: 531
- Area: 1,100,000 ha
- Designation date: 28-08-1991
- Coordinates: 11°25'S 29°58'E

In addition to providing a breeding ground for birds, fish and wildlife, the site is known to support large numbers of the endemic, semi-aquatic Black Lechwe (vulnerable Kobus lechwe) and the threatened Wattled Crane (Grus carunculatus) and the threatened Shoebill (*Balaeniceps rex*).

The Zambian Wildlife Authority, in collaboration with the WWF-Zambia office, are collaborating on improving sustainable livelihoods and ecotourism possibilities. Today, the area is co-managed by African Parks.[57]

Artisanal and commercial fishing

Fishing is an important economic activity, supporting the livelihoods of an estimated 50,000 to 90,000 people. The fishery is a critical source of protein and income.

The fishing enterprises are mostly artisanal, but the collective catch is significant enough to be sold commercially, reaching markets in the Copperbelt, Lusaka, and even the DRC.

Commercially significant ones include bream, tilapia, catfish, and tigerfish,

Community Resource Boards (CRBs)[58] – collective management of wildlife-based enterprise

The focus of a CRB is to use wildlife resources sustainably to generate benefits for the communities living with wildlife. They are often established in Game Management Areas (GMAs).

The Bangweulu wetland is designated as a GMA. It has six CRBs who partner with African Parks to oversee fishing rights, enforce seasonal fishing, and promote sustainable practices. They also oversee commercial sales to traders in cooperation with government authorities.

5.16 Zimbabwe – Adventure tourism in Victoria Falls National Park

Victoria Falls National Park[59]

- Ramsar Site: 2108
- Area: 1,750 ha
- Designation date: 03-05-2013
- Coordinates: 17°58'S 25°51'E

The Victoria Falls National Park is a natural wonder and a biodiversity hotspot. Also designated as a World Heritage site, the Park is known for the largest and most spectacular waterfalls in the world, the Mosi-oa-Tunya ("The smoke that thunders").

Thousands of tourists travel to the park each year for sightseeing, rafting, boating, and game viewing.[60]

Adventure tourism opportunities

There are numerous options for adventurous tourists in and around the Victoria Falls National Park, including:

- White-water rafting on the Zambezi River – exhilarating rafting below the falls with Class 4, 5, and 6 rapids
- Bungee jumping – a heart-pounding 111-metre jump from the Victoria Falls Bridge
- Gorge swing – a thrilling 80-metre free fall plus opportunities for zip-lining
- Helicopter flights – known as the 'Flight of Angels,' offering breathtaking views of the falls, the gorge, and the river
- Devil's Pool swim – a natural rock pool on the Zambian side of the falls

Shockwave Adventures[61] – A wilderness-based adventure tourism enterprise

A locally owned and managed company that specialises in Extreme Heart Palpitating Adrenaline Rush Adventures, Tours, Experiences, Explorations and Tailor-made Excursions.

- Whitewater Rafting – USD 140
- Private Rafting Boat – USD 970
- Private Rafting Tour – USD 1,400

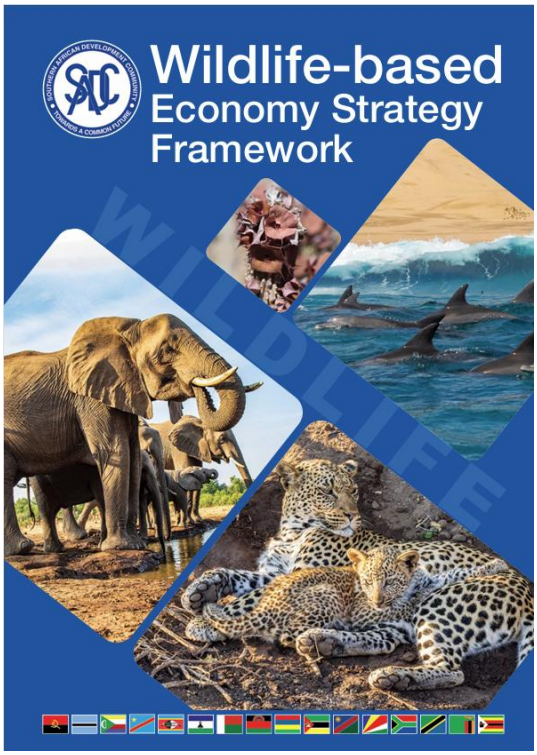
"Our business practices secure ecologically, sustainable development use of natural resources."

6. Scaling up enterprise opportunities in SADC's Wetlands

As presented in section 4, Ramsar's commitment to wise use is supported by outcomes of other international agreements, notably the CBD's Global Biodiversity Framework and the Strategic Vision of CITES. International commitment, however, needs to be implemented at the national and local levels. In some cases, such as in southern Africa, a regional approach can also provide a framework for action.

As wildlife-based enterprise in SADC wetlands entails not only sustainable harvesting and use, but also trade, including regional and international trade, a regional framework can help to identify common pathways for Member States. Some of the strategic objectives, actions, and mechanisms set out in the SADC framework are particularly appropriate to scaling up wetland-based wildlife enterprise, including the following:

- Identify, resource, and enable tangible, innovative, transformative, and sustainable value chains
- Define and adopt principles and safeguards, including best practices, standards, and certification for wildlife-based economy value chains
- Support capacity-building programmes on sustainable extraction and processing of biodiversity products
- Pursue support (skills, knowledge, finance) to local communities, SMMEs, and entrepreneurs to participate in the wildlife-based economy
- Develop and implement a wildlife-based economy marketing campaign targeting regional and international markets



- Protect and regulate the use of wildlife resources, whilst creating an enabling environment and building capacity for the sustainable utilisation of these resources in the wildlife-based economy
- Work with relevant cooperation partners, including the local communities, the private sector and civil society, to implement the strategy

As presented in this brief, the diversified portfolio of Ramsar-designated wetlands across the 16 SADC Member States provides unique socio-ecological opportunities to deliver Ramsar's commitment to wise use through SADC's strategic framework for the wildlife-based economy. Scaling up wildlife-based enterprises in SADC Ramsar sites is a strategic way forward from Ramsar COP15.

7. About the authors and AWEI

Dr Tariro Kamuti is an AWEI Research Fellow. His research interests are broadly centred around climate change, land, and environmental policy, with a particular focus on governance issues surrounding the sustainable use of natural resources and the social dimensions of nature conservation. He holds a joint PhD in Geography from the Vrije Universiteit Amsterdam, the Netherlands, and the University of the Free State,

Dr Wiseman Ndlovu is the A WEI Programmes Manager and a Postdoctoral Fellow. He has extensive local and international experience and skills, including support for organic and conventional agriculture, sustainability, business support, entrepreneurship coaching, and institutional effectiveness analysis. At AWEI, he is applying this expertise to wildlife value chains, particularly in the context of wild meats and other wild foods. He holds a PhD in Rural Development from the University of Venda.

Prof. Francis Vorhies is a co-founder and Director of AWEI, as well as an Extraordinary Professor in the Faculty of AgriSciences at Stellenbosch University. His work focuses on policies to unlock Africa's wildlife economy and on developing best practices to ensure the sustainable and legal trade of wildlife products. He has a PhD in economics from the University of Colorado.

The **African Wildlife Economy Institute** (**AWEI**) is a 'think-do tank' established in 2018 within the Faculty of AgriSciences of Stellenbosch University. As the study of wildlife economies is inherently multidisciplinary and transdisciplinary, it includes the application of animal sciences, business management, conservation ecology, economics, law, philosophy, and political science. Hence, the academic mandate of AWEI is to work across the disciplinary units of Stellenbosch University and to collaborate with other universities, research institutes, and conservation organisations.

Stellenbosch UNIVERSITY IYUNIVESITHI UNIVERSITEIT

AWEI African Wildlife Economy Institute

AWEI envisions transformed and enhanced African landscapes managed as complex socio-ecological systems to deliver wildlife conservation, climate resilience, inclusive economic opportunities, and community well-being. It contributes to this vision by promoting a responsible, diversified, and flourishing wildlife economy across the African continent.

awei@sun.ac.za
wildlifeeconomy.info

x.com/wildlifeeconomy
linkedin.com/company/africanwildlifeeconomy

8. Endnotes

Online references viewed on 04 July 2025:

[1] See: https://www.ramsar.org/meeting/15th-meeting-conference-contracting-parties

[2] See: https://wildlifeeconomy.info/resources/wildlife-based-economy-strategy-framework

[3] See: https://www.ramsar.org/sites/default/files/2025-04/COP15_23_3_DR_SP5_e.pdf

[4] See: https://www.ramsar.org/sites/default/files/2025-04/COP15_23_20_DR_promoting_sustainable_lifestyles_e.pdf

[5] See: https://www.kabiraugandasafaris.com/wp-content/uploads/2022/09/Victoria-Falls-One-of-Natural-Wonders-of-the-World..jpg

[6] See: https://rsis.ramsar.org/

[7] See: https://izwivoices.org/zimbabwes-7-ramsar-sites-discover-our-wetland-treasures/

[8] See: https://www.cbd.int/gbf

[9] See: https://cites.org/sites/default/files/reports/Implementation/E-SV-indicators.pdf

[10] See: https://cites.org/sites/defQault/files/documents/SC/78/agenda/E-SC78-14.pdf

[11] See: https://www.sadc.int/

[12] See: https://www.ramsar.org/sites/default/files/2025-03/COP15NR_Angola_e.pdf

[13] See: http://www.embaixadadeangola.pt/saco-dos-flamingos-identificada-como-primeiro-sitio-ramsar-pais/

[14] See: https://www.otchiva.ao/projecto-alerta-mangais/

[15] See: https://vimeo.com/832672700?msockid=1253e69a10656d133888f36d11ac6ca5

[16] See: https://rsis.ramsar.org/ris/879

[17] See: https://rsis.ramsar.org/RISapp/files/25633062/documents/BW879mgt.pdf

[18] See: https://www.wildernessdestinations.com/africa/botswana

[19] See: https://www.andbeyond.com/destinations/africa/botswana/okavango-delta/

[20] See: https://greatplainsconservation.com/

[21] See: https://rsis.ramsar.org/ris/1649

[22] See: https://nationalparksassociation.org/comoros-national-parks/karthala-national-park/

[23] See: https://adorecomores.com/

[24] See: https://rsis.ramsar.org/ris/788

[25] See; https://fabm.org.my/fabm-02-2024-86-92/

[26] See: https://www.france24.com/en/tv-shows/focus/20220202-dr-congo-s-mangroves-national-park-preserving-a-wetland-of-international-importance

[27] See: https://rsis.ramsar.org/ris/2121

[28] See: https://thefarmhawane.com/

[29] See: https://rsis.ramsar.org/ris/1388

[30] See: https://rsis.ramsar.org/RISapp/files/RISrep/LS1388RIS.pdf

[31] See: https://www.fairwild.org/news/afrigetics

[32] See: https://rsis.ramsar.org/ris/2049

[33] See: https://www.fapbm.org/en/aire_protegee/the-harmonious-landscape-of-mandrozo/

[34] See: https://association-fanamby.org/journee-mondiale-de-la-vie-sauvage-collaborer-pour-le-changement-a-travers-la-coalition-pour-les-aires-protegees-a-madagascar/

[35] See: https://rsis.ramsar.org/ris/869

[36] See: https://www.flickr.com/photos/theworldfishcenter/6333957792/

[37] See: https://flickr.com/photos/theworldfishcenter/6374255701/

[38] See: https://rsis.ramsar.org/ris/1744

[39] See: https://www.cbd.int/doc/meetings/mar/ebsa-sio-01/other/ebsa-sio-01-mauritius-en.pdf

[40] See: https://www.totof-mauritius.com/

[41] See: https://rsis.ramsar.org/ris/1391

[42] See: https://www.flickr.com/photos/europeanspaceagency/41555952974

[43] See: https://www.sumitomocorp.com/en/jp/news/topics/2025/group/20250401_2

[44] See: https://rsis.ramsar.org/ris/2193

[45] See: https://www.africanmonarchlodges.com/stay/nambwa-tented-lodge/

[46] See: https://uncoverkavangozambezi.com/the-sijwa-project-a-transformative-journey-of-sustainability-and-community-empowerment/

[47] See: https://rsis.ramsar.org/ris/1887

[48] See: https://sif.sc/aldabra#info

[49] See: https://www.aldabraexpeditions.com/

[50] See: https://rsis.ramsar.org/ris/527

[51] See: https://showme.co.za/lifestyle/fishing-kosi-bay-kwazulu-natal-a-fishermans-paradise/

[52] See: https://kosionfly.co.za/

[53] See: https://rsis.ramsar.org/ris/1024

[54] See: https://rsis.ramsar.org/RISapp/files/RISrep/TZ1024RIS.pdf

[55] See: https://www.ganam.com/moyowosi-south-game-reserve/

[56] See: https://rsis.ramsar.org/ris/531

[57] See: https://www.africanparks.org/the-parks/bangweulu

[58] See: https://tenuresecurity.org/wp-content/uploads/2023/08/CRB-Roles-and-responsibilities_508.pdf

[59] See: https://rsis.ramsar.org/ris/2108

[60] See: https://national-parks.org/zimbabwe/victoria-falls

[61] See: https://www.shockwavevictoriafalls.com/