

Invasive alien species are a serious threat to the planet: Four key messages for Africa

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Climate change has negatively—and irreversibly, in some cases—affected ecosystems around the globe. Sadly, though, it is not the only phenomenon that's altering our natural world.

In 2019, the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services (IPBES) Global Assessment Report [confirmed invasive alien species](#) as one of the five most important direct drivers of biodiversity loss. The others were [climate change](#), land and sea use, direct exploitation of [species](#), and pollution.

[IPBES](#), an independent intergovernmental body, was established in 2012. It now has 144 [member countries](#); Somalia, the newest member, joined in mid-September. Its major objective is to strengthen the interface between science and policy to conserve and sustainably use biodiversity.

The 2019 assessment found that more than 37,000 alien species had been introduced by many human activities to regions and biomes around the world, most in the past 100 years. A [new report](#) by the organization, focused on alien invasive species, suggests this number is rising fast, with new alien species being recorded at an unprecedented rate of approximately 200 annually. It also reveals that the global economic cost of invasive alien species exceeded US\$423 billion annually. Costs have at least quadrupled every decade since 1970.

But the new report doesn't just concentrate on problems. It also offers solutions. It outlines key responses and policy options that governments may take for prevention, early detection and effective control of invasive alien species. Doing so will help to safeguard nature and its contributions to people. This will ensure a better quality of life for all.

I am an invasion biologist whose [research](#) focuses on the ecology and management of invasive aquatic plants. Here, I elaborate on the four key messages highlighted by the report that African countries should heed if the continent is to successfully tackle the threats posed by invasive species.

Key messages

1: Invasive alien species are a major threat to nature, its contributions to people, and good quality of life.

In Africa, invasive species threaten food security by negatively affecting fish production, agricultural productivity, grazing and water supplies.

The introduction of the Nile perch, *Lates niloticus*, into East Africa's Lake Victoria in 1954 is one of the most extreme examples. Predation by this species caused the extinction of approximately 200 species of cichlids from the lake. It [is considered](#) to represent the largest extinction event among vertebrates during the 20th century.

The invasion also resulted in the shallow lake becoming enriched with nutrients as people came to fish for Nile perch. This resulted in the widespread invasion of the lake by water hyacinth. The plant restricted access to the lake, which prevented transport and fishing.

2: Globally, invasive alien species and their impacts are increasing rapidly and are predicted to continue rising in the future. Accurate data is crucial.

A [2021 research study](#) highlighted that the reported economic costs of invasive aquatic species were unevenly distributed across geographic regions. Africa, the Oceania-Pacific Islands and the Antarctic-Subantarctic, combined, accounted for only 0.6% of the US\$345 billion global estimate. That's not because the costs are really that low. The data simply isn't being recorded, so we're not getting the full picture.

African countries need to [partner with their neighbors](#) in better quantifying the situation.

3: Invasive alien species and their negative impact can

only be prevented and mitigated through effective management.

In 2011 the Convention on Biological Diversity released its [Aichi Biodiversity Targets](#). The 20 targets were designed to address and mitigate biodiversity loss across the globe. Target 9 stated that, by 2020, invasive [alien species](#) and pathways should be identified and prioritized. Priority species should be controlled or eradicated, and measures taken to block new pathways.

But none of those targets were met. And there has been little or no progress recorded in some African countries. Today, invasive species [are reported](#) to be adversely affecting livelihoods in more than 70% of African countries.

Constrained financial resources and the lack of legal frameworks and related operational systems are largely to blame for the lack of progress. For example, there is a [huge lack of capacity](#), mainly at ports of entry—which are the most crucial step in preventing invasions.

Many regions still have to enhance their management plans for effective control of invasive species, starting with identification of common [invasive species](#).

4: There are success stories on the continent—lessons should be shared across borders.

In South Africa, the management of alien plant invasions has been actively supported by the government's [Working for Water](#) program since 1995.

A study in 2022 [estimated](#) that an average of R310 million (adjusted to

2020 values) had been spent every year on work that covered 2.7 million hectares across more than 76,000 sites. This doesn't mean plant invasions are totally under control. But it is clear that, without this kind of program, the situation would be far worse.

The study recommended that the program's future efforts must focus on clearly defined priority sites, improving planning and monitoring, and increasing operational efficiency. These are all valuable lessons for other African countries.

An African lens

Its new report did not focus on any one part of the world, but IPBES has previously been clear about the importance of biodiversity to African nations. In a 2018 [regional assessment](#) on Biodiversity and Ecosystem Services For Africa, the organization wrote that "biodiversity and nature's contributions in Africa are economically, socially and culturally important, essential in providing the continent's food, water, energy, health and secure livelihood, and represent a strategic asset for sustainable development and achievement of the Sustainable Development Goals."

Most of the data in the newest report comes from the [northern hemisphere](#), as this is where most of the research is conducted, and where the majority of funding comes from.

Different countries and regions will have different needs. That's where the value of regional coordination and knowledge-sharing becomes clear.

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