

Celebrating biodiversity in the times of Covid-19

By [Bonani Madikizela](#)

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The global havoc brought by Covid-19 is not only exposing the triple challenge (inequality, poverty and unemployment) in South Africa that we have always known about, but how slow we have acted on fixing them.



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As painful and rapid as it is, Covid-19, undoubtedly, has taught us several lessons, one most prominent is that united we can conquer! Many countries, including South Africa, reacted immediately by shutting down (lockdown) virtually all services, except essentials. The immediate actions by a united people of South Africa and political leadership managed to flatten the curve, compared to countries that took longer to implement lockdown. Were it not for the measures taken, the situation we find ourselves in now could have been far worse.

Centre of attraction to tourists

South Africa's economy is strongly based on the utilisation of natural resources, such as land, water, biodiversity, etc. In fact, SA is number three in the world biodiversity rankings! It's this extraordinary, beautiful landscape that is the centre of attraction to tourists. SA is ranked 48th out of 141 countries on the United Nations World Economic Forum International Tourism Competitive Index (National Department of Tourism, 2017). We are ranked the top tourist destination in Sub-Saharan Africa, and the second most popular destination in Africa, after Morocco, based on international tourist numbers.

The tourism sector relies on both the domestic and international tourism markets and generates significant socio-economic benefits to South Africa. The tourism sector contributed R375bn in 2015 and is projected to contribute R941bn by 2026 to SA's GDP and 1.56-million to 2.2-million jobs, respectively.



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Adwoa Coleman 4 Jun 2020



Covid-19 impact on tourism

In 2019, the country predicted 21-million tourists by 2030, but will this stay the same post Covid-19 lockdown? The sector is based on a complex value chain with significant contributions by SMMEs, which explains why almost 10% of the SA workforce can be linked to tourism. Its success and future are subject to numerous local and international factors and trends that influence how tourists make decisions, such as socio-economic disasters like Covid-19, the health status of our natural resources (water quality and biodiversity) and other factors. Covid-19 is already seriously impacting the tourism sector. This disaster is only adding to long-term biodiversity threats already posed by the escalating rate of natural ecosystems degradation, especially due to climate change, spread of alien and invasive species, and pollution of limited water resources. Opposing projections are very real job losses!

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World Environment Day

Celebrated on the 5th of June every year since 1974 by close to 143 nations around the world, World Environment Day will again be observed in 2020, this time under Covid-19 lockdown conditions. Thanks to technology, millions will still access the event based in Colombia through virtual means. The theme for 2020 is Celebrate Biodiversity. This day is marked annually to bring to the attention of world citizens the impacts of environmental degradation and drivers of biodiversity loss (species threats and extinctions). This is a global call for action and sustainable use of the natural resources.

Natural medicinal resources

While the global experts are working tirelessly searching for the Covid-19 vaccine, it is critical to point out that biodiversity is playing a central role as it has done millennia before today. A case in point is the medicinal potential by a plant called *Artemisia afra* currently under investigation for global validation. This is a standard medical procedure before it can be recommended for use by global citizens in need. The plant is common in Africa and has been used mainly as a traditional medicine for many years. WHO is working with research institutions to select traditional medicine products which can be investigated for clinical efficacy and safety for Covid-19 treatment.

WHO also continues to support countries as they explore the role of traditional health practitioners in prevention, control, and early detection of the virus, as well as case referral to health facilities. *A. afra* is currently not listed or threatened.



The rise of conservation tech in Africa

20 Apr 2020



Water resource quality

The national biodiversity assessment reported that wetlands and estuarine ecosystem types are the worst threatened. Amongst the worst impacted species is freshwater fish, which is very worrying as this is a source of protein to many rural fishing communities. In fact, even the ecosystems within the national parks are not as safe because of the dependence on rivers originating in polluted catchments.

The Kruger National Park (KNP), a biodiversity icon, can easily lose 30% of revenue if its river water quality is allowed to deteriorate further. More than 180 crocodiles suddenly died in the Olifants Gorge, KNP in 2008/9 from water pollution originating mainly from outside the park. Another case reported recently by the Water Research Commission is the projected (towards 2030) worsening of the uMngeni-Dusi river water quality and quantity due to escalating pollution levels downstream, including the estuary. This is supported by the declining number of Dusi-Canoe marathon participants. Dusi-Canoe Marathon is annually worth an estimated R30m in equipment and accommodation, R100m in marketing costs. This must have a huge impact on economy and livelihood.

Managing resources through tech

To manage natural resources well requires data and information generated through investing in monitoring, particularly through use of technology, such as remote sensing, fish-biotelemetry, drones, mobile phone apps, etc. The paucity of environmental ground data in Africa, and many developing countries, is a major constraint for proper management of natural resources. Fortunately, drivers of natural ecosystems degradation are anthropogenic and preventative, which is

currently not happening. The delay in the engagement of technology in monitoring has been clearly demonstrated during the Covid-19 lockdown where field work has been brought to a stand-still.

Even before the Covid-19 pandemic, monitoring was hardly hit by the crisis of our own making. The field work, as part of research, will never be the same again post Covid-19 lockdown, completely new procedures incorporating safety protocols will have to be developed and strictly adhered to. It is extremely important that field work is limited mainly to verification, while technological approaches critical in real-time data collection are embraced for the sake of our better natural resource management in support of socio-economic developments.

So, let us celebrate and save our biodiversity for now and future generations!

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