

THE CONSERVATION CONTINENT

Positioning Africa for a Post-Covid Lifestyle Shift



Hailemariam Desalegn, Mike du Toit and Greg Mills



About the Authors

Hailemariam Desalegn was the second executive prime minister of Ethiopia, who served from August 2012 following the death of Prime Minister Meles Zenawi until his resignation and handover to his successor Prime Minister Abiy Ahmed in April 2018. Previously, he served as deputy prime minister and minister of foreign affairs, social affairs and government chief-whip minister under Prime Minister Meles Zenawi. He also served as governor of the Southern Regional State for six years. Born in 1965, he holds a civil engineering degree from Addis Ababa University. In 1990 he won a scholarship to Tampere University of Technology in Finland, earning a Master's degree in water and environmental engineering. He also earned a second Master's degree from Azusa Pacific University in California in 2006. Upon his return to Ethiopia, he served in various academic and administrative capacities, including as the dean of the Water Technology Institute. He is the first leader in modern Ethiopian history to step down voluntarily, setting the stage for sweeping reform. With annual economic growth rates averaging over 10% during his tenure as prime minister, he viewed his resignation as vital in the bid to conduct reforms that would lead to sustainable peace and democracy. He sits on the board of The Brenthurst Foundation. He is co-author of *The Asian Aspiration* with Olusegun Obasanjo, Greg Mills and Emily van der Merwe.

Born in 1962, **Mike du Toit** farms apples and blueberries in the Elgin-Grabouw Valley. A lifetime commitment to nature and the

need for productive co-existence between conservation and commercial farming, has led to his involvement in the Kogelberg Biosphere Reserve Company since 2016. He is also a founding director of the Grabouw Development Agency (GDA), established in the region in 2020 to promote sustainable economic diversification.

Dr Greg Mills heads the Brenthurst Foundation. He holds degrees from the Universities of Cape Town and Lancaster, and was the National Director of the SA Institute of International Affairs from 1996 to 2005. He has directed numerous reform projects in African presidencies, sat on the Danish Africa Commission and on the African Development Bank's high-level panel on fragile states, and has served four deployments to Afghanistan with the British Army as the adviser to the commander.

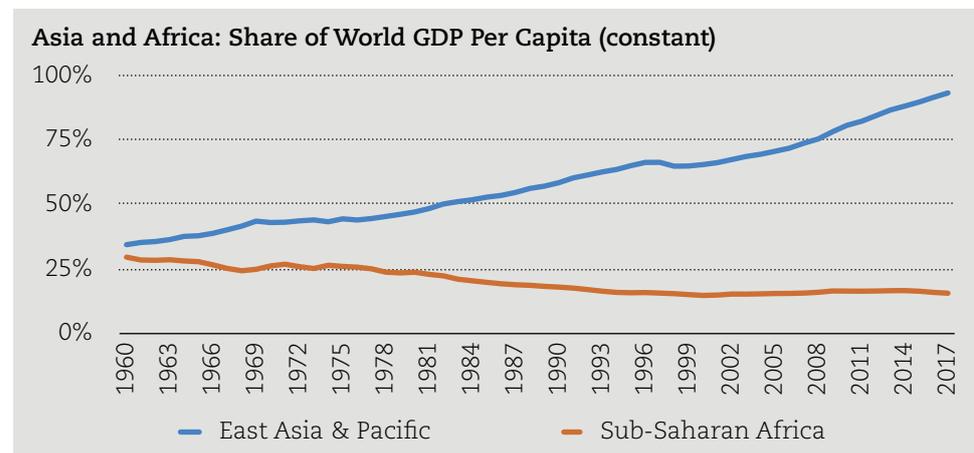
A member of the advisory board of the Royal United Services Institute, he is the author of the best-selling books *Why Africa Is Poor* and *Africa's Third Liberation*, and most recently, together with President Olusegun Obasanjo, *Making Africa Work: A Handbook for Economic Success*. In 2018 he completed a second stint as a visiting fellow at Cambridge University, writing this time a book on the state of African democracy, which was published as *Democracy Works* in 2019. *The Asian Aspiration: Why and How Africa Should Emulate Asia* has followed in 2020, which identifies the relevant lessons from Asia's development and growth story.

Stretching inland from the mouth of the Palmiet River, the Kogelberg Nature Reserve is at the heart of the Western Cape’s fynbos floral kingdom. The Reserve’s 3 000 hectares is one of the core conservation areas within the biosphere of the same name, nestling within the southern stretch of the Hottentots Holland mountain range. The Nature Reserve, presciently set aside as a fynbos reserve in the 1950s, is surrounded within the biosphere by buffer zones of natural vegetation and recreational areas, along with ‘transitional zones’ of environmentally sensitive wineries and fruit farms. Off the fabulously scenic R44 road skirting the rocky coast, the Kogelberg Nature Reserve’s isolation has helped to guarantee its unspoilt nature. Its rugged trails and gushing streams attract low-footprint hikers and mountain bikers, while eco cabins offer accommodation sensitive to the remote feel, less luxury than lifestyle. With some 1 600 plant species, the area contains a floral diversity reputedly greater area-for-area than anywhere else worldwide.

The Kogelberg’s pristine nature may well be a metaphor for what we seek after Covid-19. The world of globalisation – of untrammelled travel, trade and technology – will almost inevitably change as a consequence, not becoming less powerful or influential, but almost certainly different.

Those forces connecting the world through communications, will continue to prevail given the extent of consumer pressure facilitating these flows.¹ But there will be winners and losers in this process. The extent to which African economies might progress or fall behind will largely depend on how leadership responds. Covid-19 is likely to amplify Africa’s development challenges – essentially one of high population growth and too low economic growth – and accelerate the pace at which government will have to act and deliver to citizens.

The scale of this development challenge is illustrated by the chart below, highlighting just how far Africa has fallen behind once-comparator nations in Asia.²



Source: World Bank Databank, 2019. Own Calculations.

As a consequence of its economic growth, as Asia shrunk its rate of extreme poverty markedly (from 84% to just 10% in 33 years from 1980 in China alone,

1 See <https://www.ft.com/content/5126a5c6-5e97-11e8-9334-2218e7146b04>.

2 This is sourced from Greg Mills, Olusegun Obasanjo, Hailemariam Desalegn and Emily van der Merwe, *The Asian Aspiration: Why and How Africa Should Emulate Asia*. Johannesburg: Picador, 2020.

Covid-19 is likely to amplify Africa's development challenges

lifting some 680 million out of poverty), over half of the world's poorest are now in sub-Saharan Africa.³ Something has to change in Africa.

There is much to be learned from Asia, good and bad. The need for decisive leadership, the establishment of clear priorities, a ruthless focus on implementation, and the importance of not being a hostage to history, are among

the positive lessons. On the negative side of the ledger, environmental damage and climate change are among the effects of rampant, unchecked growth, even though poverty remains the worst polluter of all. The origins of

Covid-19 itself from the wet markets of Wuhan also should remind us of the need to realise both the rapidity and extent of the spread of globalisation, of goods, technology and money, as much as people.

The immediate challenge for African leaders is to mitigate the worst effects of the crisis and to reposition the continent beyond Covid-19. For the local-over-global reflex to the pandemic poses risks to African growth, such as those implicit in it a deep-seated political call for businesses to come 'home', reducing the reliance on outsiders. And as African leadership thinks about the longer-term imperative of diversification and transformation, they might have opportunities few of their counterparts elsewhere possess in allocating a greater share of land to conservancies, providing a new avenue for tourist development. A big policy bet on the environment today could pay unimaginable dividends, and quickly.

Global Post-Covid Trends

Certain sectors – such as manufacturing, agriculture, mining and trade – may recover relatively quickly once the Covid-19 crisis blows over, presuming there is a re-establishment of demand and supply in global value chains. Tourism is likely quite different, however, because it may never return to a pre-Covid-19 'normal'.

Until the crisis, global tourism seemed an unstoppable force for positive change. Tourism generated income of US\$562 billion in 2000. By 2019, revenue was estimated at just under US\$3 trillion,⁴ while the World Travel and Tourism Council (WTTC) estimated the overall contribution of travel and hospitality to be US\$8.9 trillion, accounting for 10.3% of global GDP.⁵ Passengers, too, increased from 90 million to 1.5 billion over this time,⁶ while global employment (direct and indirect) stood at 330 million, or one in ten jobs worldwide, with nearly US\$948 billion invested, or 4.3% of the global total.

In June 2020, the UN Conference on Trade and Development (UNCTAD) forecast that the global tourism industry would lose at least US\$1.2 trillion during the year due to the travel restrictions and consumer wariness caused by the Coronavirus pandemic. These losses, some 1.5% of the world economy, were projected to double

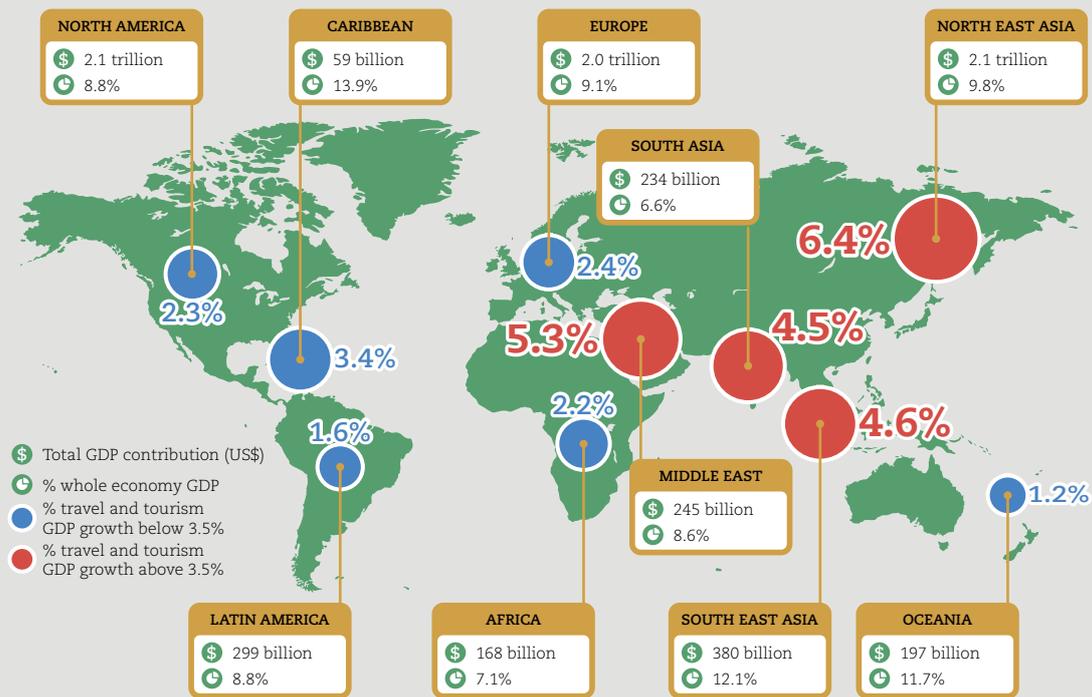
3 'The end of poverty', at <http://www.economist.com/news/leaders/21578665-nearly-1-billion-people-have-been-taken-out-extreme-poverty-20-years-world-should-aim>.

4 At <https://www.statista.com/topics/962/global-tourism/>.

5 At <https://wttc.org/Research/Economic-Impact>.

6 <https://data.worldbank.org/indicator/ST.INT.ARVL?locations=1W>.

Travel and Tourism Regional Performance, 2019



if travel did not recover by March 2021, with the harshest effects on developing and island nations according to UNCTAD.⁷ Yet some major airlines, including Emirates, did not at the same time expect recovery until 2022.

International Tourism, Number of Arrivals

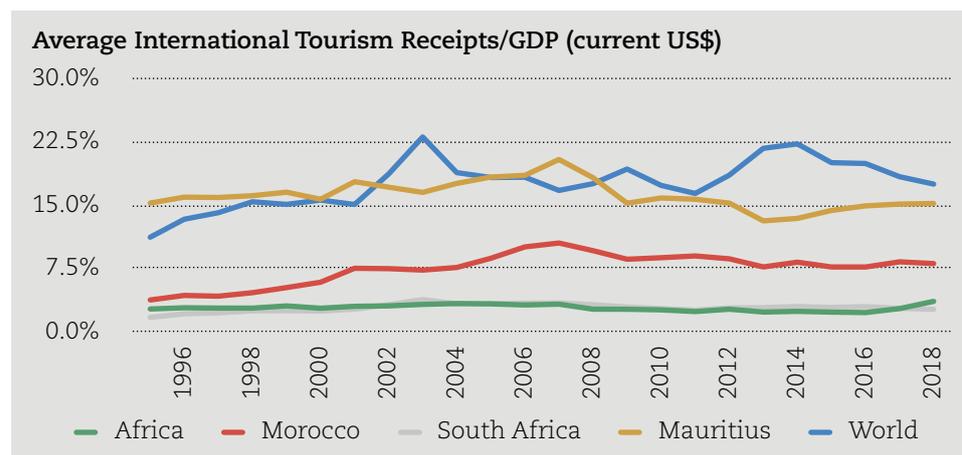


Africa has been a relatively slow mover by comparison to other regions in the attraction of international tourists. Sub-Saharan Africa, for example, received just 47 million international tourists in 2017, of which little over ten million went to South Africa. It was a similar story in 2018; Africa received around 5% of the estimated 1.4 billion international tourist arrivals.⁸

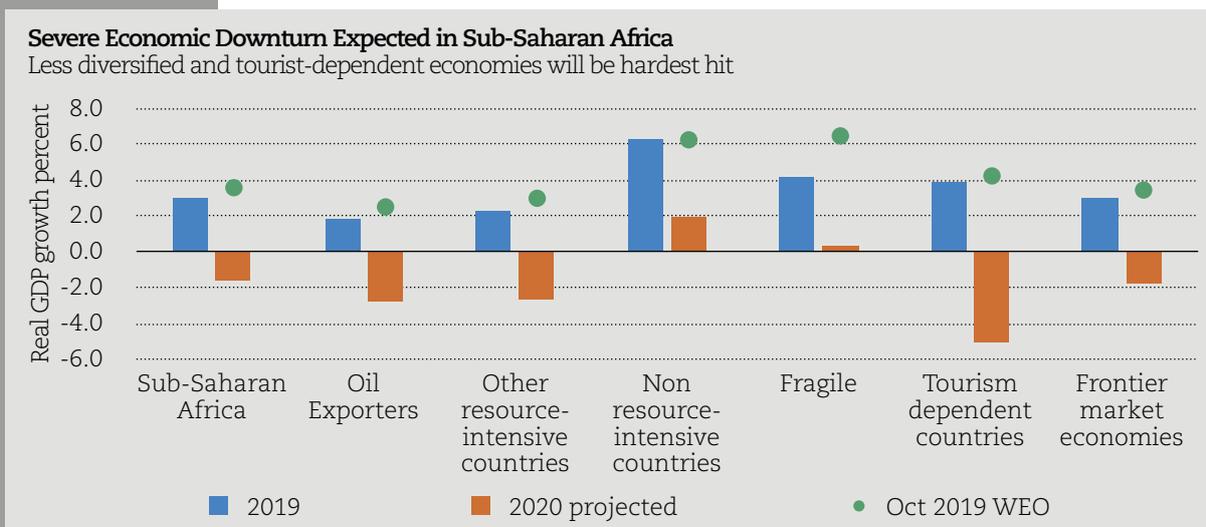
⁷ See <https://www.bloomberg.com/news/articles/2020-07-01/the-global-tourism-industry-s-losses-may-exceed-1-2-trillion>.

⁸ See <https://www.e-unwto.org/doi/pdf/10.18111/9789284421152>.

This should not undersell the importance of this lifestyle sector to the continent. To the contrary, the environment and its related tourism offerings remain a key comparative African advantage. The sectoral GDP contribution of tourism to Africa has slowly picked up over the five years before Covid to reach around 3% of GDP. This reflects natural assets of weather, wildlife and an appealing service culture. African tourism even pre-Covid was, however, vulnerable to the burden of long flights and dodgy airports, perceptions and realities of safety, onerous visa regimes, health risks, and the arbitrariness of a sometimes obstructive and poorly paid bureaucracy.



With Covid-19, air access has been threatened by closed borders, not just for Africa, but also in its primary markets, and the fear of international travel as a virus vector. Barring rapid recovery from the pandemic, with no cash flow, few airlines will survive long. The lack of certainty around international aviation is a major source of worry for tourism and the thousands of jobs that depend on it. As the chart below illustrates, the less diversified and tourist dependent economies are likely to be hardest hit in this environment.



Source: IMF, World Economic Outlook database.

It is certain that, at least in tourism, there will be a ‘new normal’. Africa’s challenge is to find a way to reposition itself to attract international travellers.

For starters, mass-tourism may be at its end, with the old model of ‘more tourists equal more money’ being replaced by more price-segmented holidays, with a focus on the high-end of the spectrum. Bums-in-seat tourism is unlikely to work as it once did in a post-Covid-19 world.

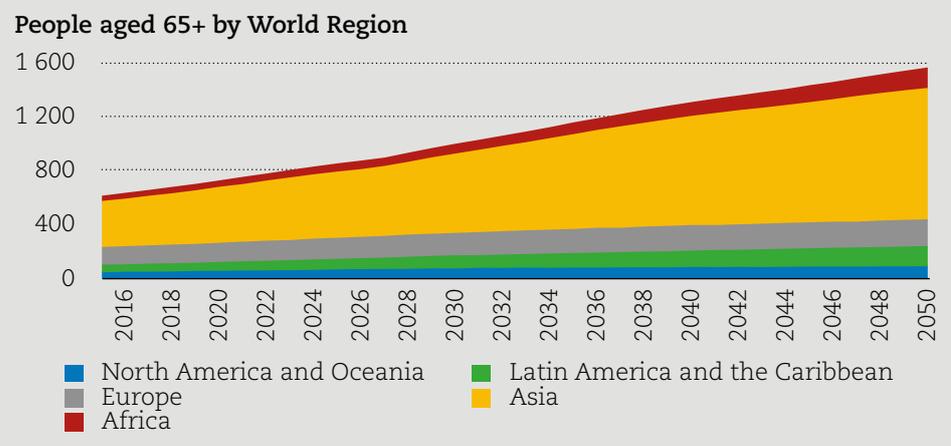
Perhaps the most unpredictable change ahead is in human behaviour. Few would have been able to predict how people would react globally to state-imposed lockdowns. Surveys suggest that people will wait as long as six months before travelling again, in the absence of a vaccine. And it may take longer for the fast-growing – until Covid-19, that is – business conferencing travel segment to return to normal.

The impact to tourism will, to an extent, be balanced by other trends, notably the extent to which health, including carbon emission control, becomes the new

wealth for people and government. Increasingly it seems that people will come to appreciate health (and the environment) less as a nice-to-have optional extra and more as an economic resource, as it is now clearly vital to an economy’s ability to

withstand shocks such as Covid-19. While an estimated 12% of government expenditure around the world goes to health, this may rise in the current environment – Switzerland and New Zealand spend above 20% of their budgets on health, Brazil and India some 5%. South Africa is at 4.3%.⁹

Africa’s challenge is to find a way to reposition itself to attract international travellers



Part of this change may also see a greater focus on preventive rather than curative medicine as quality of life becomes more important, especially in those societies with an aging population.

⁹ At https://www.unicef.org/esaro/UNICEF_South_Africa_--_2017_--_Health_Budget_Brief.pdf.

This creates certain opportunities, as does the move to telemedicine, the stress on recreation and sports as a lifestyle choice, and the development of retirement facilities, ranging from communities to care-centres.¹⁰

And the economic growth of the nature sector, primarily driven by growth in nature-based tourism, offers some new possibilities. After recovery from the pandemic, the nature sector is projected to grow 4–6% per year compared to less than 1% for agriculture, timber and fisheries.¹¹

As the world shifts focus to quality of life issues, there is a link with the environment, where Africa could, with the right focus and prescient policy, enjoy comparative advantage.

The Link with the Environment

In July 2020, the Waldron Report¹² was released, promoting and assessing the economic costs and benefits of setting aside 30% of the world's land and sea mass for protection.¹³ This benchmark is one of the proposals for the 15th meeting of the Conference of Parties to the Convention on Biodiversity (CBD),¹⁴ and a target of the draft post-2020 Global Biodiversity Framework. Currently, some 16% of the land and 7.4% of the ocean is in areas designated or proposed for protection, although only 2.5% of the ocean is in highly/fully protected areas. This level of protection, the Waldron Report notes, 'is widely acknowledged as being inadequate to achieve biodiversity protection goals.' The 30% goal is a step up from the 17% aimed for under the Aichi biodiversity targets for 2020, in addition to 10% of coastal and marine areas.¹⁵

10 People aged 65+ worldwide are projected to more than double by 2050. Around 17% of the global population – 1.6 billion people – will be in the 65+ age bracket by 2050 (from 8.5% today). Those 80+ are expected to more than triple by 2050 to 450 million. This might present an opportunity in providing care facilities, particularly in those places with reliable international travel access (for family and friends), cheaper labour, good security, and sound healthcare facilities. Western Europe is currently the largest region in the US\$220 billion global retirement communities' market, accounting for 41.6% of the overall market in 2019, followed by North America and the Asia-Pacific. The global retirement and nursing care services sector reached over US\$1 trillion in value in 2019, having grown at 4.2% since 2015. It was projected to touch US\$1.3 trillion by 2023. See <https://www.globenewswire.com/news-release/2020/02/14/1985149/0/en/Global-Retirement-Communities-Market-Insights-2015-2023-Expand-in-Countries-with-a-Large-Geriatric-Population-Collaborate-with-IT-High-End-Medical-Devices-Companies.html>. To provide an indicator of one market, the UK care home market, for example, comprises 12 250 homes, and 477 000 beds, and turns over £8 billion annually. See <https://content.knightfrank.com/research/336/documents/en/healthcare-development-opportunities-2019-6452.pdf>.

11 At <https://static1.squarespace.com/static/5c77fa240b77bd5a7ff401e5/t/5f05c366f5edb16b875b3964/1594213260537/Waldron+Report-Highlights.pdf>.

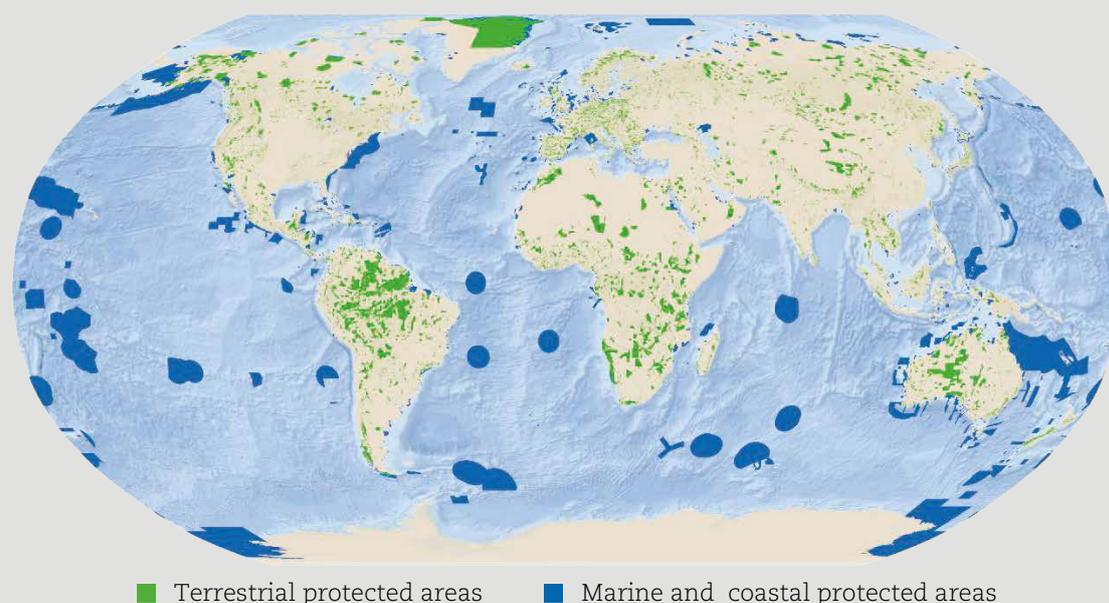
12 See https://www.conservation.cam.ac.uk/files/waldron_report_30_by_30_publish.pdf.

13 A 'protected area' is a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values. See <https://www.iucn.org/theme/protected-areas/about>.

14 Signed by 150 government leaders at the 1992 Rio Earth Summit, the CBD is dedicated to promoting sustainable development. water, shelter, and a clean and healthy environment.

15 Go to <https://www.cbd.int/sp/targets/>.

Protected Areas of the World



Source: UNEP-WCMC and IUCN, 2018a.¹⁶

Currently 17.7% of sub-Saharan Africa's land mass is protected, with large variances within, from the Republic of Congo (40.7%) and Namibia (37.9%) through Ethiopia (18.5%), Kenya (12.4%) and South Africa (8%) to Somalia (0.8%) and Lesotho (0.3%).¹⁷ In southern Africa, Tanzania (38.1%), Zambia (37.9%) and Zimbabwe (27.2%) are all around the 30% mark.

The Waldron Report comes on the back of the loss of an estimated two-thirds of the earth's wetlands and half of the world's rainforests over the past four decades.¹⁸ To date, an estimated 60% of the earth's wildlife population has been eliminated, with some 26 000 wildlife and plant species now deemed at risk.¹⁹ In West Africa, for example, up to 85% of wildlife had been lost during this period; in East Africa, nearly half of all wildlife has disappeared.²⁰ These experiences mimic that of Brazil, where 45 million hectares of the 350 million hectares of Amazonian jungle has been cleared (mostly by fire) and converted into grazing areas since the 1960s.²¹

Pressures on the natural world pose threats to clean quality and safe drinking water sources, the survival of wildlife, the prosperity of remote communities, nature's ability to protect us from future natural disasters, including pandemics, and the intensifying impacts of a changing climate.

¹⁶ UNEP-WCMC, IUCN and NGS (2018). *Protected Planet Report 2018*. UNEP-WCMC, IUCN and NGS: Cambridge UK; Gland, Switzerland; and Washington, D.C., USA.

¹⁷ At <https://data.worldbank.org/indicator/ER.LND.PTLD.ZS?end=2018&locations=ZG-ZF&start=2016>.

¹⁸ At <https://www.theguardian.com/global-development-professionals-network/2017/jan/23/destroying-rainforests-quickly-gone-100-years-deforestation>.

¹⁹ At https://wwf.panda.org/knowledge_hub/all_publications/living_planet_report_2018/.

²⁰ At https://www.researchgate.net/publication/222119932_Large_mammal_population_declines_in_Africa's_protected_areas.

²¹ At <https://globalforestatlas.yale.edu/amazon/land-use>.

Yet in every crisis there is, as is suggested above, an opportunity.

Africa can continue down the path which industrialised nations have relentlessly pursued, or it can heed the warning signs and take seriously the very real economic benefits of investing in nature in carving out a different path to prosperity. Put differently, this is a choice between inclusive and extractive investing.

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services' (IPBES) Global Assessment has identified investment in and expansion of protected areas – defined as a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values²² – as such a tool for change. For example, investing in and expanding

protected areas to 30% of the world's land and sea could significantly reduce economic risks from climate change and biodiversity loss,²³ a loss that the World Economic Forum has, for one, suggested could be of a greater magnitude than any pandemic to date.²⁴

In the era of Covid-19, this radical step towards conservation over consumerism might not seem quite

as pie in the sky as it might have appeared at the start of 2020. Moreover, such a step could be one of the keys to providing sustainable jobs for Africa's rapidly expanding population. Conservation may not preclude commercial opportunity. To the contrary.

Africa can continue down the path which industrialised nations have relentlessly pursued, or it can heed the warning signs and take seriously the very real economic benefits of investing in nature in carving out a different path to prosperity

Employing Africa's 2.5 Billion

With Africa's population projected to double to 2.5 billion by 2050, job creation is the greatest challenge today faced by the continent.

To meet this challenge, there is a need to ensure the policy and regulatory conditions that enable businesses to invest and to create jobs. Without employment, it will prove impossible to sustainably provide food, housing and a decent standard of living for this burgeoning population.

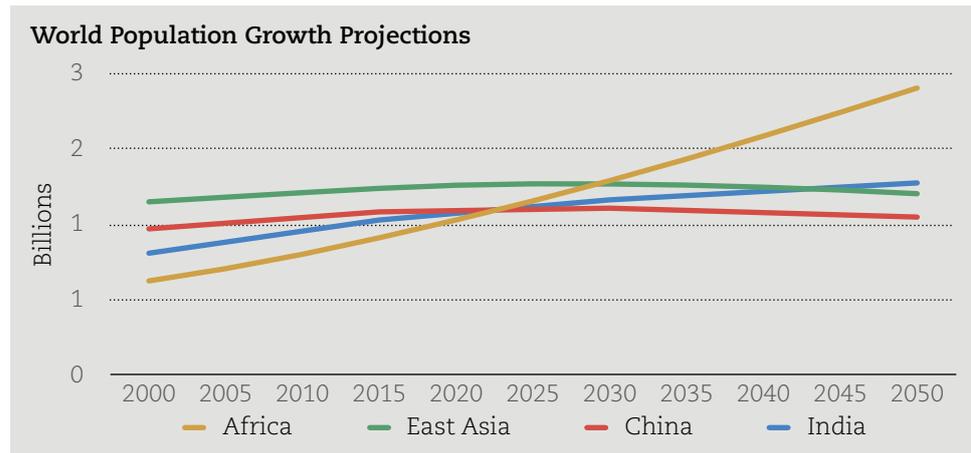
How might we be able to create a path to this employment?

There is not one answer. Development is complex, involving doing a number of things correctly simultaneously by a large number of actors, inside and outside government.

22 See <https://www.iucn.org/theme/protected-areas/about>.

23 Go to https://www.iucn.org/sites/dev/files/a_review_of_evidence_for_area-based_conservation_targets_for_the_post-2020_global_biodiversity_framework_-_final.pdf

24 See https://static1.squarespace.com/static/5c77fa240b77bd5a7ff401e5/t/5ee7f56d2b688176ffb9ebf9/1592259976939/White+PaperFinal_sml.pdf; and http://www3.weforum.org/docs/WEF_Global_Risk_Report_2020.pdf



But there are exciting pathways. Studies show, for example, that the expansion in protected areas could generate twice as many jobs as more traditional sectors such as oil and gas.²⁵ They could also boost tourism and economic revenue, generating high returns on investment.²⁶ Nature-based climate investments offer some of the best long-term value for money of any climate mitigation investments found today. From lowering operational costs, to unlocking new revenue streams to increasing customer engagement to delivering public environmental good, conservation and nature-based solutions represent a massive opportunity.²⁷

Prior to the Coronavirus pandemic, nature-based tourism was one of the world's fastest growing tourism subsectors. The reasons for this are obvious. Nature preserves attract tourist spending in rural and remote areas, provide hospitality sector opportunities, direct and indirect employment and livelihoods in all the supply chain services involved. Protected areas around the world are estimated to receive approximately eight billion visits per year, generating an estimated US\$600 billion each year in direct expenditure to regional economies.²⁸

In emerging markets, the economic and social importance of protected areas goes much deeper. Multiple parks can make direct cash transfers to the local community, or support them by providing clinics, schools and skills, infrastructure and livelihood opportunities. For example, revenues from gorilla tourism in Rwanda are shared with local communities, the income from tourists covering the cost of health clinics, schools and infrastructure for the local communities.

Similarly, Kenya has developed a community conservancy model. In the Maasai Mara, for example, 15 conservancies protect over 450 000 acres of a critical habitat for the great Serengeti-Mara wildebeest migration. This has seen the lion population double over the last decade. Now 3 000 households share earnings of more than US\$4 million annually from tourism.²⁹

25 See <https://static1.squarespace.com/static/5c77fa240b77bd5a7ff401e5/t/5f05c366f5edb16b875b3964/1594213260537/Waldron+Report-Highlights.pdf>.

26 At <https://www.adventure-journal.com/2020/06/conservation-could-create-jobs-boost-in-a-post-pandemic-world-that-needs-them/>.

27 European Investment Bank. 'Investing in Nature: Financing Conservation and Nature-Based Solutions'. 2020

28 At <https://journals.plos.org/plosbiology/article?id=10.1371/journal.pbio.1002074>.

29 Go to <https://kwakenya.com/conservancies/>.

World Bank data shows that the rate of growth of tourism export earnings in lower income countries and sub-Saharan Africa was 5–6% per year, twice the global average.³⁰ Eco-tourism to protected areas in particular continues to be the leading source of least developed nations.³¹ The Waldron Report calculates that expanding protected areas to 30% would generate higher overall revenues amounting to an extra US\$64 billion–US\$454 billion per year by 2050. The 30% target also has an avoided-loss value of US\$170–US\$534 billion per year by 2050, largely reflecting the benefit of avoiding the flooding, and other damage that occurs when natural vegetation is removed.

The challenge is, as ever, to find the right modality to enable this to happen, to enable man and nature to live prosperously side-by-side.

South Africa's Biosphere Example

It is a myth that political leaders must weigh up the importance of protecting our planet against the immediate short-term needs of our citizens. These two needs are not mutually exclusive. It is not only possible to achieve the short-term needs of a country's citizens without sacrificing long-term environmental protection measures. By tackling environmental challenges, it is possible to increase living standards both now and in the future.

South Africa's area under public and private conservation includes 19 national parks,³² six (sometimes overlapping) trans-frontier conservation areas,³³ 42 marine

protected areas, 16 botanical gardens, and ten biospheres. At its core is the South African National Parks (SANParks), formed in 1926, and tasked with managing the 19 national parks consisting of 3 751 113 hectares (37 511.13 km²), or 3% of South Africa's total landmass. There are additionally

some 9 000 privately owned game farms in South Africa which cover between 17 and 20 million hectares (14–16% of the country's landmass).³⁴

South Africa is home to 10 biosphere reserves, which are affiliated to UNESCO. These biospheres act as locations where innovative ideas for sustainable development are tested and implemented.³⁵ In doing so, they aim to reduce damage to biodiversity, improve livelihoods for local people, and enhance social, economic and culture conditions for environmental sustainability.³⁶ Prospective biospheres first need to be nominated by their respective National governments,

Multiple parks can make direct cash transfers to the local community, or support them by providing clinics, schools and skills, infrastructure and livelihood opportunities

30 See <https://data.worldbank.org/indicator/ST.INT.RCPT.XP.ZS>.

31 Go to http://hrmars.com/hrmars_papers/Managing_Tourism_as_a_source_of_Revenue_and_Foreign_direct_investment_inflow_in_a_developing_Country_The_Jordanian_Experience.pdf.

32 For a list of national parks in South Africa, see <https://www.sanparks.org/parks/>

33 Dept. of Environment, Forestry & Fisheries. *Transfrontier Conservation Areas*. https://www.environment.gov.za/projectsprogrammes/transfrontier_conservation_areas

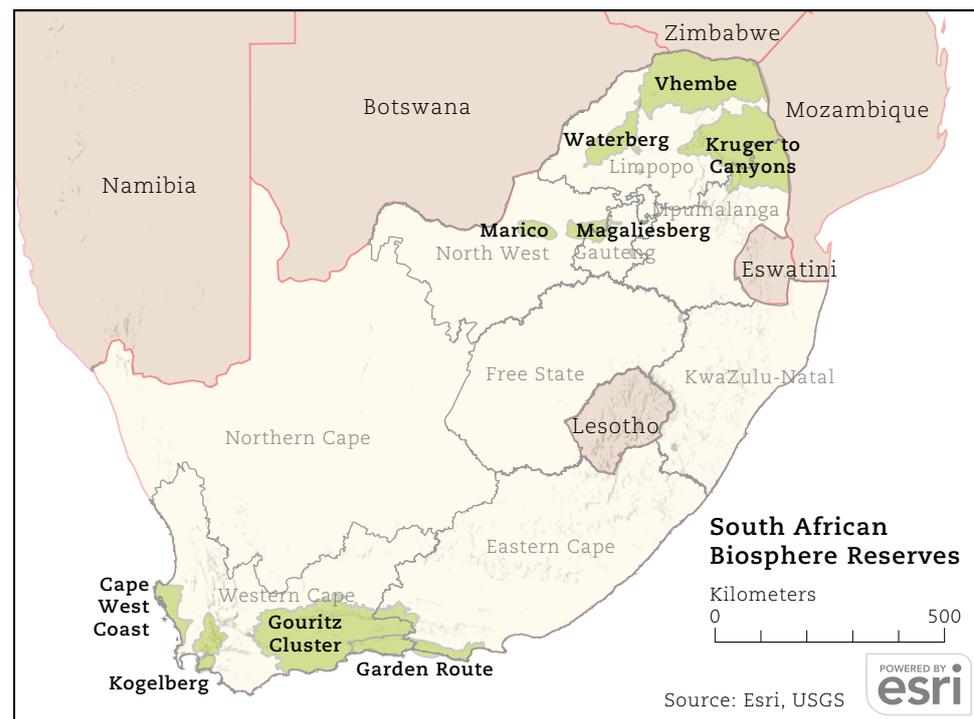
34 WWF. 'Connecting South Africa's Wildlife, Landscapes and People'. June 2019.

35 UNESCO. 'World Network of Biosphere Reserves, 2019–2020'. 2019.

36 *Ibid.*

after which they are then vetted by the MAB International Co-ordinating Council against the criterion outlined in Article 4 of the 1995 Statutory Framework of the World Network of Biosphere Reserves. Biospheres also overlap with the national parks, notably in the case of the Kruger Park.

As outlined above, the oldest of these Biosphere Reserves is the Kogelberg Biosphere Reserve, just 40kms from Cape Town, first designated by UNESCO in 1998. The majority of its 103 629 hectares is comprised of mountainous landscapes including high peaks and deep valleys, but also includes coastal plains and 25 000 hectares of marine area, of which 1 629 hectares is in a Marine Protected Area. The fynbos is unique due to the composition of the soil, climate and the coastal proximity.



The Biospheres offer a model for practical land use, and co-operation between the public and private sectors, though they are not without their complexities. Despite being recognised as special landscapes where socio-ecological land management is practiced, South African Biosphere Reserves have no legal basis, giving rise to numerous challenges. Perhaps most pressing is the negative effect municipalities can have on biospheres due to their application of one-size-fits-all practices and their failure to accommodate for the unique socio-ecological makeup of biospheres. This is evident in the urban areas of Overstrand, where municipal policies are suitable for a town such as Hermanus (outside of the Bioreserve) but totally out of line in an area such as the towns of Betty's Bay, Pringle Bay and Rooiels.

The two primary economic drivers for Biosphere Reserves are tourism and agriculture which are both entirely dependent upon the natural environment and functioning ecosystems. If the natural environment within these domains were to collapse, it would result in a locally collapsed economy and complete poverty.

To this end, poor service delivery in municipalities, such as waste and sewerage management, can pose a direct threat to the livelihood of biospheres.

An additional challenge facing South African Biospheres is that of overheads. Sustainable solutions are expensive, and so securing the voluntary participation of the local community, landowners and statutory authorities can be difficult. Biospheres also need to submit ten-year reviews to UNESCO, a process which remains a costly and time-consuming experience for the Biospheres, as are the costs of transitioning to sustainable solutions in the move from chemical controls to composting for example.

From a South African vantage point, Biospheres can play an integral role in a country's ecosystem as well as the advancement of environmental development. However, they face numerous challenges, the most pressing being a threat to their ecological livelihood. Greater effort therefore needs to be made in preventing such harm; granting legal rights to Biospheres as well as ensuring adequate service delivery in the relevant municipalities are key steps towards achieving this goal.

Ethiopia's Diversity: A Hidden Gem?

The *Fragile States Index* of The Fund for Peace,³⁷ denotes several states in the Horn of Africa as among some of the most vulnerable worldwide: Somalia, Ethiopia, Eritrea, Kenya, Sudan and South Sudan. The region also exhibits some of the clearest indications of a connection between climate change and conflict – namely, conflicts between agricultural and pastoral communities precipitated by climate-exacerbated droughts and water variability.

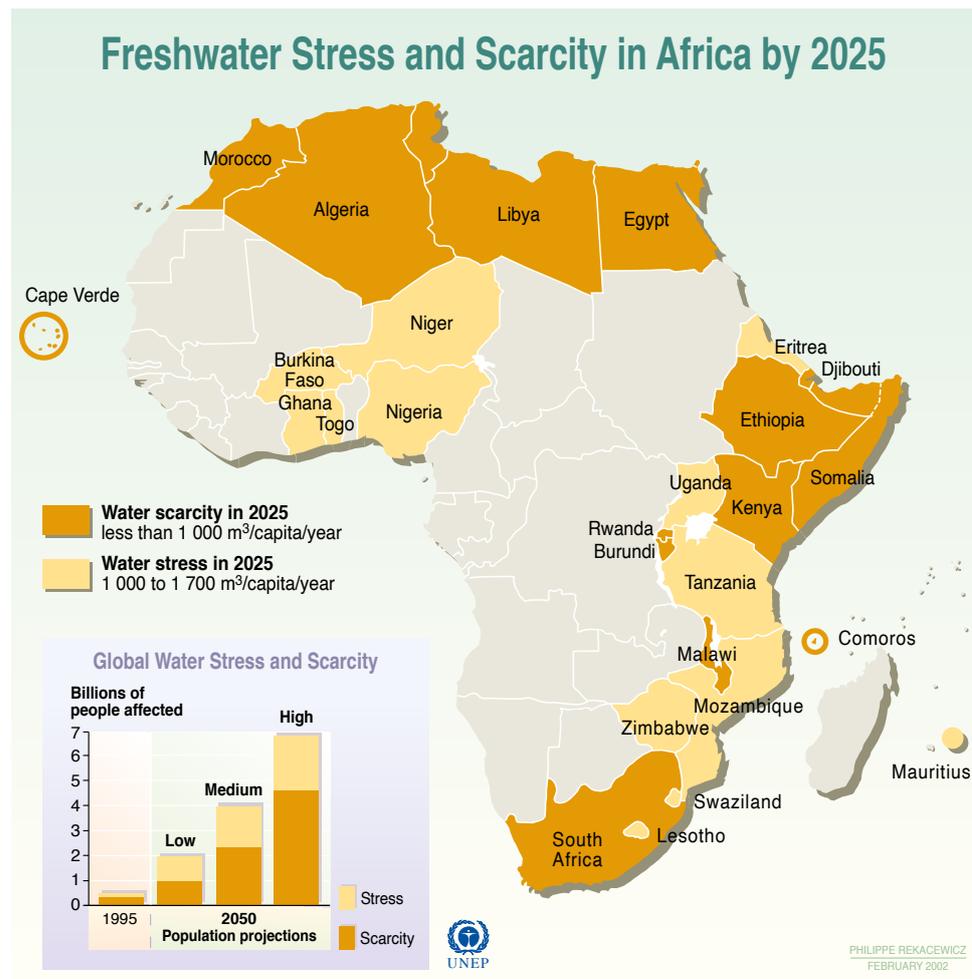
For Ethiopia, which aims to reach middle income status by 2025 and relies heavily on its agricultural outputs and budding tourism industry, these numbers served as a stark warning for the government. The rapid loss of species threatens the balance of eco-systems in unprecedented ways.³⁸ Although many Ethiopians might erroneously believe that this does not affect them, the current high level of bio-diversity loss will affect food, water and medical supplies in a dramatic way, and directly impact employment and wealth creation.

The late Prime Minister Meles Zenawi saw these figures for what they were: evidence of the impact of climate change and substantial habitat loss. He also saw them for what they could be: an opportunity to choose a new, sustainable development model offering Ethiopia a different and novel path to middle income status. Such a path could avoid the pitfalls and negative side effects of conventional growth model, as seen in Asia on the manufacturing sector. Thus, the country needed a different solution that fits in to its internal realities.

As a result, before his untimely death in August 2012, Meles oversaw the formulation of Ethiopia's Climate-Resilient Green Economy Initiative (CRGE). As a leading nation in the Horn of Africa he wanted to set an example, to show that it was possible to leapfrog to modern energy efficient technologies and incorporate sustainable community-led initiatives that protect the country's natural resources, rather than draining them, in order to progress economically and socially.

³⁷ At <https://fragilestatesindex.org/>.

³⁸ Go to <https://www.nationalgeographic.com/news/2014/5/140529-conservation-science-animals-species-endangered-extinction/>.



Source: United Nations Economic Commission for Africa (UNECA), Addis Ababa; Global Environment Outlook 2000 (GEO), UNEP, Earthscan, London, 1999; Population Action International.

From an Ethiopian perspective, the protection of the country’s natural heritage is inextricably linked to the wellbeing of its citizens. Without the forests, mountains, deserts and the flora and fauna the country risks losing the foundations of its society, its food sources and water supplies. The protection and sustainable management of its natural resources and biodiversity should be a top priority through the sustainable and community-led expansion of tourism economy.

Since coming to office, Prime Minister Abiy Ahmed has given new energy to nature conservation by introducing the Green Legacy initiative in 2019. The initiative aims to mobilise nationwide planting of 20 billion seedlings within a four-year period. In its first year, the Green Legacy initiative saw the planting of over 4 billion seedlings nationally. Ethiopia also marked a historic day in which 354 million seedlings were planted in a 12-hour period, mobilising up to 23 million citizens across the country. Such a mobilisation in the course of one day as well as within the duration of the 2019 planting season has created an opportunity to inculcate a culture of natural conservation among the public.

Follow up measures were taken through 2019/2020 to maximise the survival rate after planting, with the support of an information management system

indicating distribution and location of seedlings. As a result, a national 84% survival rate was achieved.

On the back of a successful first year attempt, Ethiopia announced the goal of planting five billion seedlings in the 2020 period. During the 2019/2020 period, various private and governmental stakeholders were engaged in developing the required number of seedlings within nurseries, throughout the country.

Broad-based in the approach, the Ethiopian experience of the Green Legacy initiative indicates the potential to replenish biodiversity loss and various other environmental challenges through targeted planting programs which use diverse crop and seedling types for forestry and agro-forestry purposes.

In the case of Namibia or Botswana, for example, it is evident that by investing in national parks, natural reserves and world heritage sites, Africa can not only contribute to the protection of biodiversity for future generations, but also generate substantial income and create much needed jobs for its growing number of youth population. For example, in 2018 more than 13% of Botswana's GDP originated from tourism.³⁹ Namibia was, pre-Covid, on track to reach 21.6% from the tourism sector by 2025.⁴⁰

Both nations have committed to set aside 30% or more of their land as a protected area while Namibia was the first country to designate its entire coastline a national park.

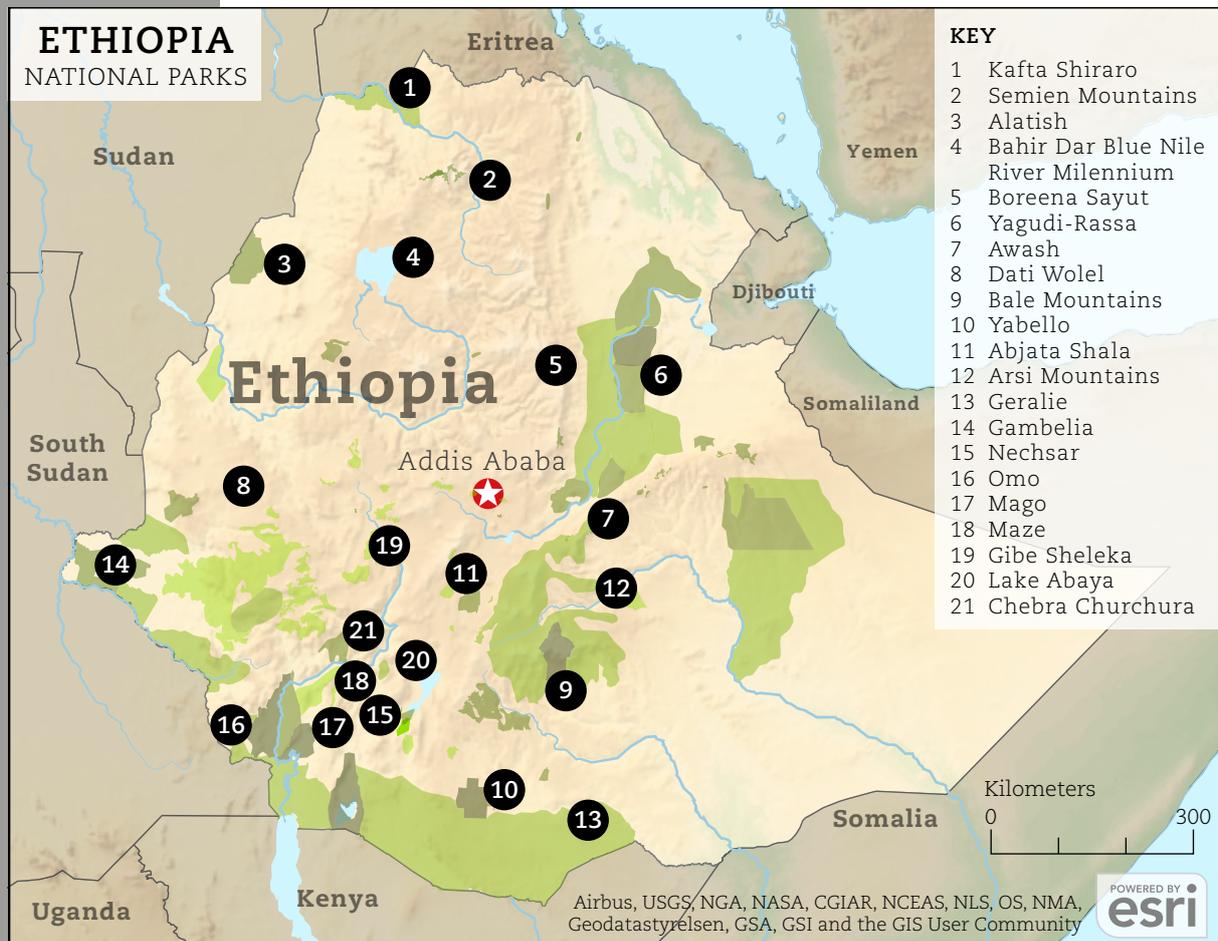
With 58 protected forest priority areas, more than 20 national parks, two wildlife sanctuaries, three wildlife reserve areas, six community conservation areas, two wildlife rescue centres, 20 controlled hunting areas, two botanical gardens and herbariums and four biosphere reserves that cover over 213 464 km² and 15% of the total land mass, Ethiopia is one of the top 25 biodiversity-rich countries in the world.

Ethiopia is endowed with varieties of wildlife species, many of which are endemic. Around 320 species of mammals out of which 39 are endemic, 918 birds (19 are endemic), 240 reptiles (16 endemic), 71 amphibians (30 endemic), and 172 freshwater fishes (with 38 endemic species) have been recorded in Ethiopia. It has one of the most diverse mammalian faunas in Africa and the great attractions of its wildlife heritage, traditionally, dubbed as 'Home of the Unique Seven' which refers to seven distinctive endemic mammals namely: the Ethiopian wolf, Mountain nyala, Walia ibex, Menelik's bush buck, Swayne's hartebeest, Gelada baboon and Bale monkey. The large mammals or the so-called Big Five (African elephant, African buffalo, hippopotamus, lion and tiger) are mainly concentrated in the south and southwest borders of the country. Some of the national parks present a scintillating opportunity for tourism where cross boundary movement of elephants between the Omo National Park of Ethiopia and the Boma National Park of South Sudan defies a human designated boundary. More remarkably, the seasonal migration of white eared-kobes between Gambella National Park of Ethiopia and the Boma National Park of South Sudan, being the largest mass migration in Africa, hooks the wits of craving tourists in the winter season where about 800 000 to one million kobes move across the wide stretch of the national border. Ethiopia is also home to eight UNESCO World Heritage Sites, including the

39 See <https://knoema.com/atlas/Botswana/topics/Tourism/Travel-and-Tourism-Total-Contribution-to-GDP/Contribution-of-travel-and-tourism-to-GDP-percent-of-GDP>.

40 At <http://www.namibiaembassy.be/news.pl>.

Simien Mountains National Park (SMNP) and the Bale Mountains National Park (BMNP) which provide water for 12 million people across Ethiopia, Kenya and Somalia, besides being a source of 40% of medicinal plant species.



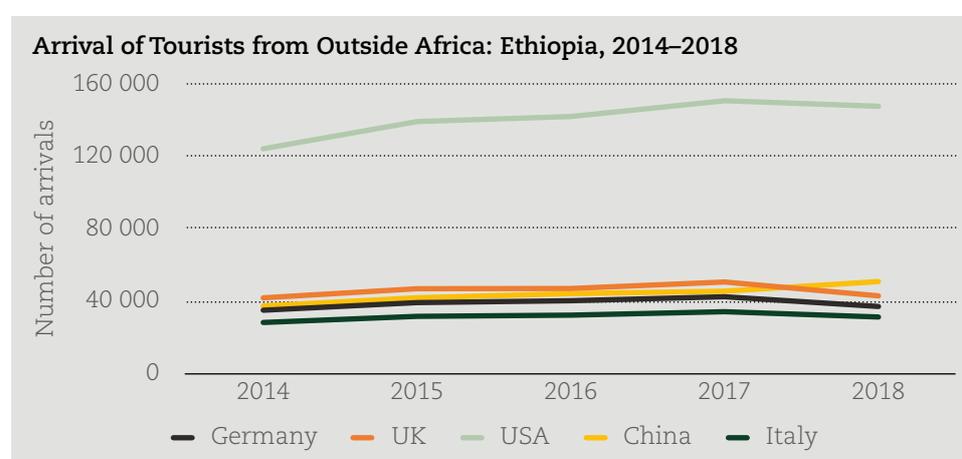
Nevertheless, the country has not safeguarded these floral and faunal treasures and in many instances drastic damage has occurred, especially in natural high forests where substantial loss of wildlife habitat has been taking place. Ethiopia is addressing this situation under the CRGE, primarily through intensive reforestation. It could still go one step further by committing to protecting more land through community-led conservation areas and sustainable tourism.

In order to get the most out of these resources, both in terms of healthy ecosystem functioning and economic generation from the burgeoning tourism industry, the country should be able to protect them from the ongoing degradation caused by climatic stresses, on the one hand, and human interventions such as settlement, habitat conversion to agricultural land, overgrazing, and deforestation, on the other hand. Doing so could also assist in lifting Ethiopia's relative underperformance in international tourism.

Apart from the biological riches, Ethiopia is endowed with enormous cultural, historical and religious heritages. To Addis Ababa's north-east, Lalibela's 11 medieval rock-hewn churches hint at Ethiopia's religious tapestry, made up of comparable Orthodox Christians and Muslims, the bulk of the remainder being Protestant Christians and followers of other traditional beliefs. Lalibela's World

Heritage site is a labyrinth of passageways, tunnels, and confines, carved over 800 years ago by the Zagwe dynasty – the architectural intricacies a metaphor not only for Jerusalem, as intended, but for the delicate and complex management of Ethiopia’s contemporary religious and ethnic fault-lines. Similarly, the Alnagashi Mosque and its history, known by billions of Muslims across the world, is a hidden treasure of Ethiopia. Needless to mention about Ethiopian Jews, the only black Jews, which completes making Ethiopia as the merging place of the three Abrahamic religions. This makes Ethiopia a unique new destination that should be given a focus in Post-Covid-19.

Ethiopia has grown to become a major travel destination for many, while Addis Ababa has solidified its position as a key thoroughfare in the commercial aviation industry. Since 2010, Ethiopia witnessed a steady increase in the number of international tourists – reaching just shy of one million in 2018.⁴¹



Source: World Tourism Organisation (UNWTO), 2020.

But, evidence indicates that international tourism had plateaued even before Covid-19. In 2018, for example, there was a sharp decline in the number of African tourists visiting Ethiopia that same year. The only increase in international arrivals came from China and Nigeria.

Lalibela receives 60 000 foreign tourists annually, a small number given its unique setting and offering. The constraints remain visa uncertainty, infrastructure in peripheral areas, and the promotion of private sector investment in, for example, the national parks. The numbers have not, so far, matched the extraordinary Ethiopian offer, from the Afar Depression to Lucy and the rich historical and cultural heritage. In Ethiopian Airlines, the country has a tremendous asset – but it has to be matched with the software allowing access and a comparable international product.

Yet, tourism has great potential to be harnessed for sustainable development and job creation for Ethiopia’s alarmingly growing youth. The rationale for further protection of nature, habitats and biodiversity is clear. If Ethiopia moves forward with investments in its Climate-Resilient Green Economy Initiative, and deliver in its promises of Green Legacy Programme, commits to the expansion and improved

⁴¹ World Bank, 2020, *International tourism, number of arrivals – Ethiopia*, <https://data.worldbank.org/indicator/ST.INT.ARVL?locations=ET>.

management of its national parks and increases community-led conservation as seen in Namibia and Botswana, its diverse natural habitats will be able to provide its population with not just food and water supplies, but greater employment opportunities through ecotourism, which is crucial from both commercial and conservation perspectives.

Furthermore, post-Covid responses towards resilience of the tourism sector in Ethiopia should involve thinking out of the box. Since the global tourist influx is severely affected and would continue to be affected by the travel ban due to

Covid-19, Ethiopia should take the opportunity to promote domestic tourism which has been at its infantile stage. Ethiopia has a growing number of working middle class with a concomitant lifestyle change, education, and environmental awareness. Thus, both private and

public sectors can play an important role by arranging paid leaves and annual retreats as part of national in-land tourism promotion strategy while contributing to the advancement of a strong national sense of patriotism which results from discovering the country's cultural, historical, biological and spiritual heritages.

Tourism has great potential to be harnessed for sustainable development and job creation for Ethiopia's alarmingly growing youth

Future Proofing Our Economies

Although Africa has contributed the least to climate change, it is already experiencing devastating climate impacts and will bear the brunt of future global warming directly in terms of agricultural losses. Africa is projected to experience a reduction of 10% in crop production and as much as an 80% reduction in cropping areas by 2050.⁴²

Water shortages are expected to become *de rigueur* in a continent where 40% of the nearly 800 million people worldwide who lack access to clean water, live.⁴³ More than one-quarter of Africans spend more than half an hour per trip to collect water, amounting to an estimated 40 billion hours annually, the same as a whole year's work by the French labour-force.⁴⁴ This water burden tends to fall on women and girls, interfering with school attendance. Nearly two-thirds of Africans in urban areas find it hard to access basic water services. An estimated 70% to 80% of the sub-continent's diseases are attributable to poor water quality. Dysentery and cholera, for example, remain among the leading causes of infant mortality, while

42 See <https://www.brinknews.com/africa-will-bear-the-brunt-of-climate-change-will-economic-growth-reverse-the-trend/#:~:text=of%20Climate%20Change-,Although%20Africa%20has%20contributed%20the%20least%20to%20climate%20change%2C%20it,brunt%20of%20future%20global%20warming.&text=Even%20if%20it%20doesn't,in%20cropping%20areas%20by%202050>. Also <https://www.ipcc.ch/sr15/>.

43 At <https://www.globalcitizen.org/en/content/water-and-sanitation-crisis-sub-saharan-africa/>.

44 At <https://thewaterproject.org/why-water/poverty>.

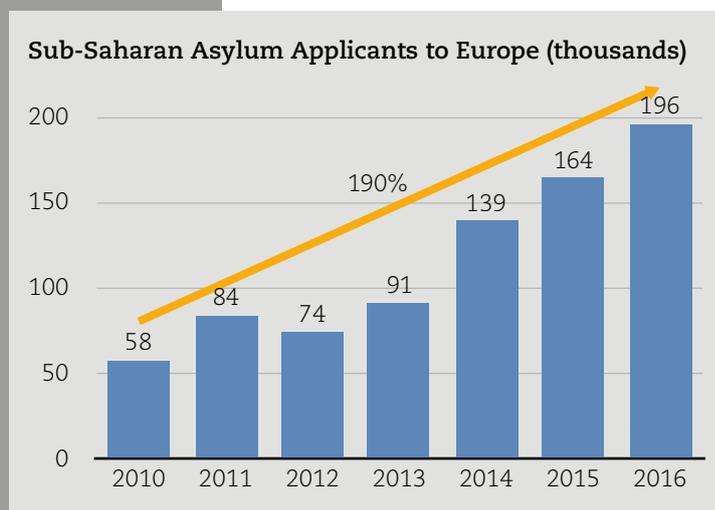
diarrhea accounted for more than 650 000 of the 2.8 million Africans who died of communicable diseases in 2016.⁴⁵

Whilst the injustice of this might encourage African leadership to point the finger at the West and wash their hands of the impending climate crisis, that is an unaffordable luxury. The impacts of land and ecosystem degradation on biodiversity, land productivity, and human well-being in Africa has affected over 485 million people, costing already an estimated US\$9.3 billion annually.⁴⁶

Africa's political and business leaders should rise to the occasion. With financial support from others, investing in nature-based solutions protecting the health and incomes of our populations. The upfront cost of acting now is far less than the price to be paid for sitting idle. It is in our enlightened self-interest to ensure Africa is the protected continent, differentiated from other fast-growing regions by a brand of ecological farsightedness and inclusive generational policy interests. It's the sort of decision that, in 50 years, as with the Kogelberg and other reserves in southern Africa, citizens will praise leaders for their extraordinary foresight.

Absent this long-term thinking, food and political insecurity could push more Africans to migrate, internally and from the region. This would have political impacts, viz. the difficulties experienced in European states in accepting a million African and other refugees in 2015.

Investing in and expanding protected areas will contribute to healthier populations and reduced healthcare costs. Living adjacent to such areas has been shown to improve child health and survival rates given cleaner water and enhanced economic opportunities.⁴⁷



Robust intact ecosystems are associated with better outcomes for immune health, cardiovascular disease, improved mental health and hypertension – a prophylaxis in many ways preventing spending on communicable, preventable diseases.

There is likely to be an added positive climate change bonus. There are huge potential carbon mitigation opportunities and long-term avoided economic damages through investing in nature. Deforestation alone accounts for 8% of carbon emissions and expanding the currently inadequate protected area system

45 At <https://blogs.worldbank.org/nasikiliza/covid-19-solving-africas-water-crisis-more-urgent-ever>. The other leading causes of death were lower respiratory tract infections (916k), HIV-Aids (719k), malaria (408k) and TB (405k). See *Africa Check* at <https://africacheck.org/factsheets/factsheet-africas-leading-causes-death/>.

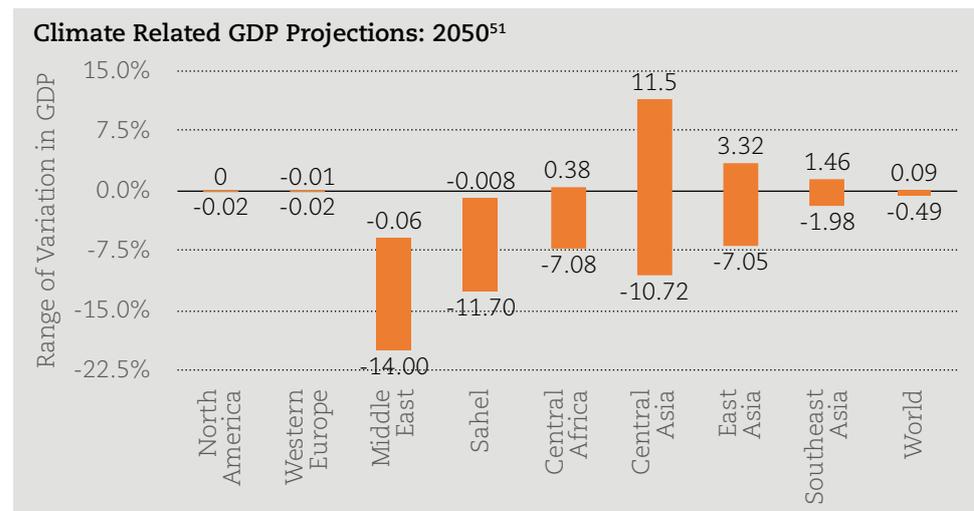
46 <https://www.newvision.co.ug/news/1514941/silence-guns-restore-nature>.

47 Go to <https://advances.sciencemag.org/content/5/4/eaav3006>.

could greatly slow unregulated logging and clearing.⁴⁸ Protecting and encouraging regrowth of secondary forests could also be a powerful mechanism for promoting carbon sequestration – that is, the long-term storage of carbon dioxide or other forms of carbon to either mitigate or defer global warming and avoid dangerous climate change.

Putting an exact dollar value on the economic savings from avoiding future climate damages to our economy generated by investing in nature today is fraught with methodological challenges. The ‘central estimate’ of the social cost of carbon (the cost that carbon imposes on society in the form of damage to our economies’ used by the UK Treasury, spans from £13.84/tCO₂e in 2020 to £80.83/tCO₂e in 2030.⁴⁹ Many of the world’s wilderness areas and great stores of carbon and biodiversity are vulnerable and under-invested, paradoxically permitting a major long-term investment opportunity.⁵⁰

Moreover, investing and expanding protected areas will reduce security risks associated with reduced food and water supplies. The stresses on natural resources undermine the capacity of nations to govern themselves and increase the chances of conflicts. The threat to output legitimacy can contribute to state fragility, internal conflict, and even state collapse. Seen through this lens, climate change may present a serious challenge to state stability and legitimacy in the Horn of Africa – a region already grappling with numerous challenges before climate change became a factor.



Protected areas, particularly so-called Marine Protected Areas (MPAs) can limit the extent of climate change-driven insecurity by providing more reliable food sources. Ocean acidification and warming are contributing to the migration and depletion of fish stocks around the world, including along the coast of the Horn of Africa, this coupled with overfishing of stocks still present as a result of population increase

48 At <https://news.mongabay.com/2018/10/tropical-deforestation-now-emits-more-co2-than-the-eu/>.

49 See <https://www.journals.uchicago.edu/doi/abs/10.1086/701890?mobileUi=0&>.

50 See <https://www.pnas.org/content/116/46/23209>.

51 World Bank, ‘The forgotten factor of climate change – water’, at <https://core.ac.uk/download/pdf/53186238.pdf>. 2015.

and limited marine protected areas is a recipe for disaster. Far from reducing access to food supplies, the evidence points to a rapid increase in protected areas.⁵²

Conclusion: Act now and benefit now, or pay later

What are the strategic choices made today that will ensure a better future tomorrow?

There are many tough decisions to be made in Africa in the aftermath of Covid-19. By viewing this as less of a crisis and more of an opportunity, it may be possible to use this unprecedented pandemic to pivot Africa from its current development course and ensure growth in an economically and environmentally sustainable way.

The 30% target offers one of those strategic moments to redefine Africa's passage towards a more sustainable solution.

Simply setting out a target does not, of course, provide the answer. That demands detail: building the governance systems, policies, investment and expertise that can translate conservation into growth and jobs. It also necessitates a different relationship between local populations in these areas, as has been managed with great success in promoting eco-tourism in the Eje Cafetero or coffee region in Colombia, and the same in Costa Rica. The South African biosphere model offers one model where nature can co-exist with commercial and social interests.

Before Covid-19, few might have believed the scale of the threat posed by tampering with nature. The message is today clearer: act now to protect nature, and our future, and in so doing offer Africa a unique development opportunity.

⁵² Due to spill-over of adult fish from the MPA. See <https://www.nature.com/articles/ncomms3347>.