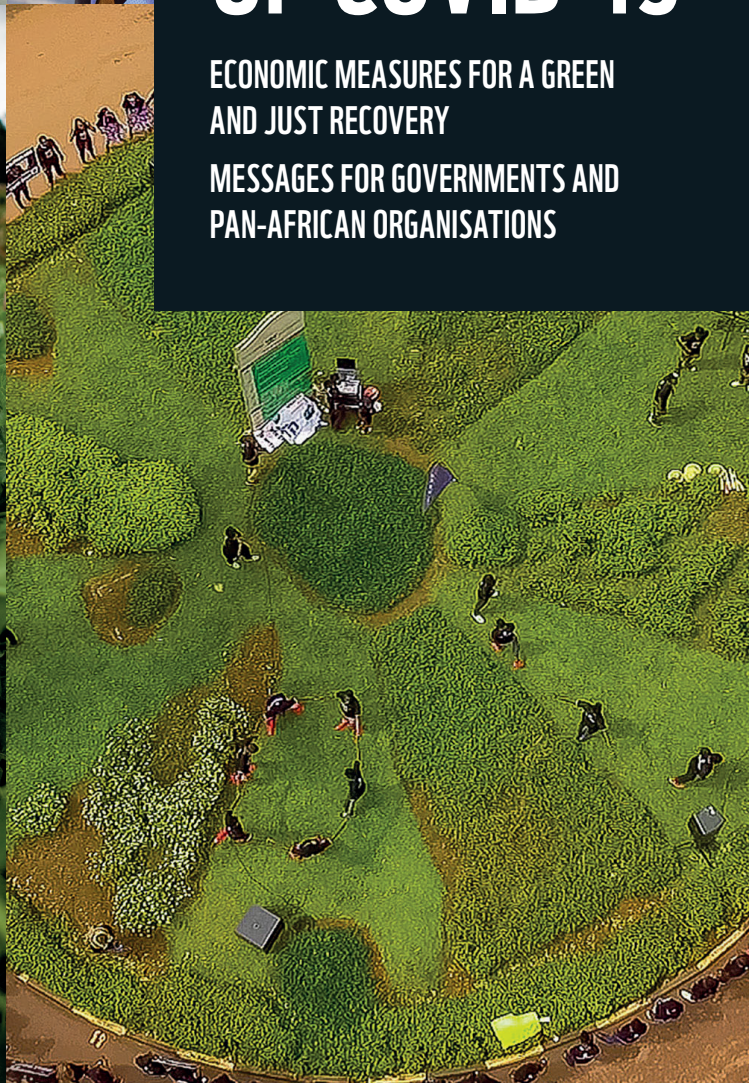


AFRICA IN THE CONTEXT OF COVID-19

ECONOMIC MEASURES FOR A GREEN
AND JUST RECOVERY

MESSAGES FOR GOVERNMENTS AND
PAN-AFRICAN ORGANISATIONS



FOREWORD: WHY A GREEN AND JUST RECOVERY FOR AFRICA?

During the past several months, people across the globe have been united in tackling the hugely challenging and distressing experience of the COVID-19 pandemic. Although the pandemic undoubtedly presents one of the most significant challenges to humanity since the Second World War, our anticipated recovery has opened a unique window of opportunity.

This opportunity – if we have the willingness and courage to seize it – may serve as a launch-pad to building a future that is green and equitable, that drives resilience and health in the face of future pandemic threats, and is both nature-positive and climate-neutral.

The good news is that we don't have to start from scratch to build forward, as the plans already exist in the shape of the **Sustainable Development Goals**, the **Paris Climate Change Agreement** and the emerging structure of the **Post-2020 Global Biodiversity Framework**.

However, we are at a crossroads of development with two distinct choices before us. Either a “business as usual” course, where the global rise in temperature is predicted to pass the 1.5 degree threshold as early as 2030 and where we are destroying nature at an unprecedented rate, or a “build forward” path, with policies that promote a green economy, protect biodiversity and embrace a just transition for all.

Building forward means raising ambitious national targets and enhancing climate pledges, while at the same time securing strategic finance, investing in resilient infrastructure, and divesting from fossil fuels. Building forward means building resilient and sustainable food systems for both future generations and the present 73 million people in Africa facing acute food insecurity by the end of 2020. Building forward means protecting existing jobs, supporting workforce expansion in transition-related fields, coordinating with industries and developing education and training to minimise skills gaps.

However, it is important to recognise that the scale of the challenge – or opportunity – is huge and therefore demands ambitious multi-sectoral interventions. The COVID-19 crisis has shown that the interests of government, business and society can be aligned. All have an interest in building a resilient economy, where people, businesses and nature thrive for the benefit of all.

We cannot afford to press the snooze button on a Green and Just recovery. Action must start now!



Alice Ruhweza

Africa Region Director
WWF International

EXECUTIVE SUMMARY

The COVID-19 pandemic has devastated the globe, causing rising loss of human lives and widespread economic impacts. Africa is particularly vulnerable to its consequences, as structural challenges in medical systems create a precarious situation for the health of Africans, while the pandemic takes hold in parts of the continent. With widespread lockdowns, a high percentage of people employed in the informal economy, combined with already high poverty levels, creates a crisis for poverty and livelihoods. Food security is threatened due to high dependence on food imports and the unstable global trade situation, with many countries banning exports. Finally, the need for government spending on relief and recovery packages highlights the lack of fiscal space in most African economies to be resilient to economic shocks of the scale we are seeing.

As well as this economic and health crisis, the pandemic has also demonstrated the heavy costs of humanity's business as usual approach to nature. In recent decades, people have increasingly encroached upon the natural world, resulting in escalating levels of contact between wildlife, humans and livestock. As a result, the frequency and number of new zoonotic diseases being transmitted between animals and people, has risen dramatically over the last century, and will continue to rise unless we fundamentally change our relationship with nature. At the same time, global warming is on track to breach 1.5 degrees as soon as 2030. We have seen biodiversity quantity levels plummet by up to 60% over the last 40 years, and extreme weather events and other impacts of climate change are being felt with far more regularity, with severe economic and health impacts. Human health and planetary health are inescapably intertwined, and this tight linkage shows the imperative to build back better with nature as the foundation of sustainable growth.

Governments across Africa face a choice whether to pursue a recovery programme built around business as usual, or whether to embrace a recovery that has a more ambitious vision for Africa's future. So far, government plans - in Africa and beyond - have not been green enough. Rhetoric at the international level has not been matched by strong action on the ground. **This paper presents an argument that a Green and Just recovery is the only truly resilient option for Africa that directly addresses the key challenges surfaced by the pandemic and offers an opportunity for sustainable growth.**

Africa has a wealth of natural resources, which are under threat from human activity and climate change. The imperative to protect these resources creates an urgency for a recovery that protects nature. But the presence of

this vast natural wealth also presents the opportunity to use these resources as the foundation for a green economic recovery.

We must drive a **New Deal for Nature and People** that protects and restores natural habitats, safeguards this diversity of life, halves the footprint of production and consumption and ensures the world is nature-positive by the end of this decade. This will directly build resilience to future pandemics, underpin sustainable future growth and address the key challenges exposed by the current situation:

- **Health:** Addressing the key drivers of pandemics by reducing land-use change and protecting natural habitats would reduce the likelihood of future pandemic threats by contributing to a **One Health approach**¹. Many green policies also improve the health and wellbeing of the population as an additional co-benefit.
- **Poverty and livelihoods:** Green recovery packages provide good prospects for short- and medium-term job creation, in higher numbers than brown measures - for example there are **3x as many jobs** created per USD\$1 million investment in renewable energy versus fossil fuels. Investments in natural capital through nature-based tourism and other sustainable conservation models will also support livelihoods in the longer-term.
- **Food security:** Sustainable, climate-smart methods to drive higher productivity from existing agricultural land will enable the continent to move away from food imports and towards self-sufficiency, reducing exposure to future global trade shocks, as well as the impacts of climate change.
- **Fiscal space:** Green recovery policies yield high multipliers of economic benefits. USD\$1 spent on nature restoration yields USD\$9 in economic benefit, and similarly USD\$1 spent on more sustainable infrastructure yields USD\$4 in benefits. Spending now on green and resilient measures rather than a business as usual recovery will also reduce additional costs from damage resulting from climate change impacts in the future. A targeted green recovery will go further to reducing Africa's debt burdens than business as usual equivalents.
- **Equality and equity:** The recovery can be just and beneficial for all, as well as green. Government intervention can ensure benefits will be shared equitably to ensure all Africans realise the opportunities provided by the recovery. It must emphasise rights of Indigenous Peoples and Local Communities (IPLCs) over resource

access and land use, ensuring the benefits from natural resources are shared equitably, and providing women and young people in Africa with sustainable, dignified livelihoods.

A Green and Just recovery must span all sectors of Africa's economy, but particularly those that are vital to its future, including agriculture and forestry, tourism and conservation, energy, oil and gas, water and sanitation and infrastructure. **This paper lays out key recommendations and opportunities per sector in more detail, covering key features of a Green and Just recovery including:**

- 1. Investing in Nature-based Solutions (NbS)** including widespread conservation of natural resources through employment schemes, to safeguard the future of Africa's valuable natural capital, protect biodiversity, invest in nature-based tourism and other sustainable conservation models including community-run tourism facilities, encourage resilience to the effects of climate change and drive clean water and sanitation
- 2. Focusing on driving self-sufficiency, sustainability and increased productivity** from agriculture and aquaculture, especially through technologies like micro-irrigation, NbS like agroforestry, and investment in climate-smart production techniques
- 3. Investing in large-scale renewable energy projects** with low impact on the natural environment, for centralised and decentralised solutions, including a focus on both developing production and distribution networks, and also driving localisation of up-stream value chains to increase job creation benefits
- 4. Investing in climate resilient infrastructure** that takes into account land rights and management of the resource, and applies natural capital accounting and assessment tools to ensure trade-offs take full account of value of nature to people and the economy
- 5. Removing and redirecting fossil fuel subsidies** to fund green recovery measures that drive job creation
- 6. Resisting pressure to roll back existing environmental legislation** away from best practice, under the guise of swift economic recovery
- 7. Empowering IPLCs with land and water-use rights**, and ensuring that no existing protections are revoked

Funding for recovery packages can come from a range of sources, including treasury funds, multilateral institutions, private sector, innovative blended finance mechanisms and diaspora capital. When working with other partners to deliver Green and Just recovery packages, **WWF recommends:**

- a. Designing sustainability and resilience into interventions and investment plans** even if funding offers do not come with these guardrails, to ensure recovery packages are on the front foot to yield medium- and long-term jobs and economic benefits
- b. Measuring the benefits of green interventions fully** and communicating these benefits in funding discussions, including avoided costs of climate change and increased climate change resilience, to which Africa is particularly vulnerable. Health benefits and investments into assets that won't rapidly become obsolete in the future also need to be valued
- c. Embedding transparent communication into the process**, to ensure a clear understanding of what economic stimulus is available and what actions African governments are taking to support their citizens, drive economic recovery and provide employment and livelihoods
- d. Fully valuing natural capital and resources**, using natural capital accounting and assessment, in order to avoid unsustainable extraction and exploitation of those resources, and to unlock the enormous economic benefits and jobs and livelihoods created through ecosystem services, Nature-based Solutions and natural climate solutions.

The stakes could not be higher. A business as usual recovery built on unsustainable production and consumption of nature will in the medium to longer term be no recovery at all. The looming triple threat of climate change, the destruction of nature and biodiversity and the impact of continued unsustainable use of our natural resources, as well as the increasing probability of future pandemics demands action. The moment we are living in demonstrates as never before how vital it is that policy joins the dots between planetary and human health and recognises the crucial role that nature plays in providing vital ecosystem services upon which citizens across the world depend. A Green and Just recovery that places nature at its core is the only option to set nature on a path to recovery and build in resilience – to climate change and biodiversity collapse, to global economic shocks and to future pandemics.

CONTENTS

1. INTRODUCTION: CHALLENGES FOR AFRICA EXACERBATED BY THE COVID-19 PANDEMIC	6
2. OPPORTUNITY OF A GREEN AND JUST RECOVERY FOR AFRICA	8
3. FUNDING RECOVERY PACKAGES	11
4. APPENDIX: RECOMMENDATIONS FOR RECOVERY AND STIMULUS PLANS – KEY SECTORS	13
5. KEY SOURCES	16

Women harvesting potatoes near Boukima village, Virunga National park, Democratic Republic of Congo, Africa

INTRODUCTION: CHALLENGES FOR AFRICA EXACERBATED BY THE PANDEMIC

*Africa is experiencing a **triple health, economic and environmental challenge**.*

While the COVID-19 pandemic is currently following a less virulent transmission path than in the Americas or in some European countries, the continent has seen around 1 million confirmed cases and 20,000 deaths², with numbers rising rapidly. However, actual figures are likely to be higher than this owing to limited testing capacity in most countries, among other factors. The situation is precarious, and aggravated by structural difficulties, meaning that health systems will struggle to cope with a more virulent spread.

In line with the rest of the world, the continent has experienced some form of lockdown since April, with serious economic consequences. While the exact situation varies country-by-country and sector-by-sector, in general, the crisis has happened in a context of steadily increasing debt burdens and poverty levels that are still among the highest in the world. In this context, COVID-19 has had huge impacts on GDP levels across the continent and its

nature dependent economies, as it has across the rest of the world. The IMF has recently updated its worst case estimates for the crisis, predicting that GDP in Africa will drop by between 1.7 and 3.4% overall, although there are regional variations³. This drop is driven by several factors:

- the decrease in economic activity by major trading partners, most notably China,
- the general global price drop in commodities (especially oil and metal ores), the reduction in tourism inflows,
- the greater risk aversion by investors (Foreign Direct Investment flows are predicted to drop by between 25% and 40% over 2020⁴),
- and an estimated drop in overseas migrant remittances by as much as 23%⁵

WORST-HIT ECONOMIES ARE PREDICTED TO BE OIL PRODUCING, TOURISM-DEPENDENT ECONOMIES⁶.

COVID-19 has also been exacerbated on the continent by impacts of climate change. Much of southern Africa is still dealing with the devastation caused by Cyclone Idai in 2019, and the Horn of Africa has faced a locust swarm (dubbed LOCUST-19) which has worsened food scarcity issues. The continent generally is acutely vulnerable to the impacts of climate change over the next 30 years. By 2050, climate change could drive GDP reductions of between 5% and 15%, with west and east Africa being the worst affected⁷. In Sub-Saharan Africa, as many as 86 million people could be displaced by the effects of climate change, a situation that would create a massive refugee crisis and trigger regional conflict⁸.



Bageni family in the gorilla sector of Virunga National Park, Bukima, Democratic Republic of Congo

Despite the differences between economies and national situations during the pandemic, the crisis has brought additional emphasis to some pan-African themes, that it is imperative that a recovery addresses:

- **Health:** The immediate health challenges exposed by the pandemic have been apparent. Africa struggles with hospital bed capacity (1.8 per 1,000 people on average on the continent - compared to, for example, 6 in France - although there is massive regional variation in Africa, and this figure can be as low as 0.1 in some countries⁹), provision of Personal Protective Equipment (PPE) and testing, as well as provision of essential supplies like electricity to rural healthcare centres. Further, the pandemic raises issues about the longer term health of populations, and how to ensure a healthier population is better set up to be resilient to future pandemic outbreaks.
- **Poverty and livelihood:** Even before COVID-19, Africa had the highest number of extremely poor in the world. The global lockdown has severely affected some of the critical economic sectors across the continent, including the reduced demand and trade in agricultural products and the virtual stand-still of the tourism sector. Estimates by the Trade Law Center (tralac) suggest that the economic impact of COVID-19 on the African tourism and travel sector alone may be as much as USD\$50 bn (nearly 7 times greater than the 2008 economic crisis), with more than 2 million job losses and the looming threat of food insecurity¹⁰. The impacts of lockdown, and the high proportion of those in informal employment (estimated to be over 70%¹¹, with a large proportion of them being women) have exacerbated this problem. GDP per capita drops in Sub-Saharan Africa have wiped out ten years of gains¹², and the worst case scenario would see more than 49 million additional Africans pushed into poverty¹³ with millions more livelihoods under threat.
- **Food security:** The issue of food security has been brought into sharp focus through the crisis. Africa's

existing low agricultural productivity drives reliance on huge (and growing) net food imports, which have become exposed as a liability as the COVID-19 crisis caused disruption to global trading and rising food prices. This is despite Africa having more than 50% of the uncultivated, available arable land in the world¹⁴. Furthermore, lockdown yielded lower agricultural productivity as farmers and labourers were subject to restrictions. This situation could tip more than 50 million people in Africa into a food crisis situation.¹⁵

- **Fiscal space:** The COVID-19 pandemic and resulting global economic crisis has demonstrated the crippling effects of long-term debt and high interest payments on the fiscal space available in African economies. This fundamentally impacts countries' ability to address the shock caused by COVID-19. Pre-crisis debt to GDP ratios had been creeping up, with the average now above 61%, and more than half of African countries had a fiscal deficit¹⁶ of above 3% in 2019, considered high. These are set to rise even further. Crucially, interest burdens on this debt are extremely high compared to European debt burdens - interest repayment is the fastest growing public expenditure in Sub-Saharan budgets. African governments have less ability to independently deploy stimulus and recovery packages than counterparts in Europe, Asia or the Americas. **Global averages for stimulus packages are around 15% of GDP, whereas so far, few African countries have been able to deploy more than 2%.**

All this points to the acute and pressing need for Africa to develop greater resilience - to future pandemics, to the effects of climate change and the depletion of nature and natural resources, and to future economic shocks.

The COVID-19 pandemic has made it clearer than ever before that human health and planetary health are closely connected. The emergence of zoonotic diseases like COVID-19 is made increasingly likely by human activity that drives land use change such as the

intensification of agriculture, and the trade and consumption of wildlife, which are aggravated by poor governance practices, and climate change¹⁷. If we continue to destroy the natural world, these pandemic events will likely become more frequent and severe - already over 60% of new diseases over the past 30 years have come from zoonotic origins¹⁸, and increased interactions between humans and wildlife will only increase likelihood of transmission as we continue on a business as usual path of habitat destruction.

Current human activity is not only driving future pandemic risks, it is also preventing adequate progress on climate and nature targets. We are predicted to reach 1.5 degrees global warming as early as 2030¹⁹ and temperature levels are predicted to continue rising²⁰, while biodiversity has declined more than 60% in the last 40 years²¹ and one million species are at risk of extinction²².

To meet this unprecedented set of challenges, government intervention will need to be equally unprecedented. The moment we are living in demonstrates as never before how vital it is that policy joins the dots between planetary and human health and recognises the crucial role that nature plays in providing vital ecosystem services upon which citizens across the world depend.

Africa is facing a reckoning as we emerge from this pandemic. The way we farm and consume products, produce and use energy, protect coastal ecosystems, forests and other critical habitats will either condemn us or help us make our way towards a sustainable and resilient future, be healthier and protect people's lives and food security. The decision time is now, and we must act to drive recovery packages that steer towards this future.

OPPORTUNITY OF A GREEN AND JUST RECOVERY FOR AFRICA

Responses so far from African nations have varied in their scope and focus, but most have mirrored responses from other countries: instigating lockdowns of some sort, providing employment subsidies for workers, and working to keep medical supplies and other emergency relief flowing.



Dehusking and separating various grains such as millet, maize and sorghum along the road to Niassa Game Reserve from Marrupa, Mozambique

© Green Renaissance / WWF-US

While this immediate-term crisis management is vitally important and must continue, the window is opening up where governments must consider what kind of recovery they will establish beyond this immediate crisis, and where investment flows will land.

This paper argues that if and when recovery-focused investments are made

in African economies, this investment must be in a resilient, green and just future for the continent, rather than investments in business as usual approaches that deplete and destroy natural resources and thereby resilience. This approach will unlock enormous potential for long-term economic prosperity, poverty reduction and ecosystem resilience.

Current recovery plans and pledges have not been green enough - the majority of countries have used funding to prop up existing brown and business as usual activities, rather than seizing the opportunity to build back better and more resilient²³.

NATURE AS A LAUNCHPAD FOR RECOVERY

Nature must be at the core of any recovery for Africa. The continent's incredibly rich source of natural capital - be it minerals, oil, forests, land, water or wildlife - means it has a natural wealth which is much more diverse than other resource-rich regions (such as the Gulf)²⁴. As well as the often-cited 30% of world's mineral reserves, 12% of oil, and 40% of gold, Africa also has more than 50% of world's remaining arable land²⁵, 10% of its internal renewable fresh water²⁶, 15% of its forests and 25% of the world's biodiversity²⁷. Between 30 and 50% of total wealth in most African countries comes from its natural capital²⁸. Successful fulfilment of the SDGs depends upon these natural resources, both through ecosystem services provided such as crop pollination, water supply and flood protection, but also providing food and healthy diets, incomes and livelihoods as well as numerous other health benefits. Nature is also fundamental to the global economy, with more than half the world's GDP highly dependent on nature²⁹ - WWF's Global Futures Report 2020 demonstrates that failing to change course will result in a 0.67% GDP fall every year by 2050 - a net-present value* delta of USD\$10 trillion.

This wealth of natural resources can drive Africa's COVID-19 recovery. A recovery that positions this natural capital as a strategic natural resource and emphasises sustainably managing it for the future will provide Africa with the potential for truly sustainable economic growth, and - equally importantly - will actively drive resilience to future pandemics. Hence Africa's recovery from COVID-19 is inextricably linked to its sustainable management of nature, and it is vital this recovery process secures a **New Deal for Nature and People** to:

- **Protect and restore natural habitats**
- **Safeguard diversity of life**
- **Halve the footprint of production and consumption**
- **Make the benefits of biodiversity available to all**



A local fisherman casting his net - Luangwa River, Zambia

A recovery with nature as a launchpad would empower positive action against the key pan-African themes identified and exacerbated by the pandemic crisis.

- **Health:** Investing in a Green and Just recovery promotes and contributes to a One Health approach: a healthy planet and animals are crucial to protecting the health and wellbeing of people. Protecting natural ecosystems and choosing to invest in a low-carbon pathway would have huge positive impacts for health and wellbeing. Addressing the key drivers of pandemics by reducing land-use change and protecting natural habitats would reduce the likelihood of future pandemic threats³⁰. Many impacts of a green recovery would have long term health benefits for populations, whether through lower air pollution or the multiple other benefits biodiversity and nature provide to human health.
- **Food security:** Investments in sustainable practices that work with natural ecosystems rather than destroying them, for example in agriculture and forestry, but also in water management, can drive higher productivity and greater yields from Africa's food production, enabling the continent to feed a growing population more effectively and reduce dependency on food imports.
- **Fiscal space:** Considering that all recovery will require some expansionary spending from governments, and the majority of African countries will have to increase their debt burdens in the short term, the ability of Green and Just recovery to drive long-term multipliers on investment becomes of crucial importance. Green infrastructure and technology drives growth and long-term benefits, for renewable energy sectors yield higher job creation than fossil fuel equivalents, and resilient infrastructure drives 3x more benefits per USD\$1 investment than non-resilient equivalents. In addition, it delivers longer-term co-benefits including reduced exposure to future impacts of climate change. These factors mean a green recovery will have a greater impact on Africa's ability to pay down its debt burdens than other types of recovery.
- **Poverty and livelihoods:** Green and Just recovery packages provide good prospects for short- and medium-term job creation benefits, generally in higher numbers than brown equivalents. Renewable energy sees far higher job creation than fossil fuel investments, and investments into Nature-based Solutions typically have high labour requirements. Green investments also have multiple other co-benefits that impact livelihoods and poverty levels: for example, bringing renewable energy to a rural community can increase the economic productivity of other activities. Investments in nature-based tourism and other forms of sustainable conservation build on Africa's natural

*assuming 3% discount rate

JUST AND EQUITABLE RECOVERY

It is important to note that a recovery being ‘green’ does not automatically mean it will be ‘just’. African governments must enact recovery policies with a direct focus on just and equitable benefit sharing.

Recovery measures must ensure and guarantee Indigenous Peoples and Local Communities have advocacy for rights to land and waters, and that this is included in government decision-making about land use. With generations of experience in how to make that land productive and sustainable, IPLCs should have the right to decide how to manage their territories. Any recovery package should ensure these land and water rights are protected, as the pathway for success in:

- Sustainable agriculture and aquaculture
- Ensuring equity in the benefits reaped from tourism
- Incentivizing sustainable livelihoods more generally

Recovery packages can and must drive opportunities that create jobs for young people. With more than 50% of 15-24 year-olds currently unemployed or underutilised³², this resource represents a huge amount of untapped potential to drive Africa’s growth trajectory.

Women are often excluded from access to resources, for example in agriculture where they made up 15% of agricultural holders but often are unable to access resources due to cultural and structural barriers in-country. Empowering women with the tools to operate effectively in the green economy, be it in sustainable agriculture, fisheries or other roles, is not just a moral imperative of a Green and Just recovery, it is also an opportunity to drive greater productivity and more economic value for the continent.

Authoritarian governments will use the opportunity provided by the pandemic to push legislation and policy that infringes on the rights of their citizens and damage conservation goals. It is vital that recovery packages do not open up protected areas and indigenous lands to plantations, logging, mining or ranching, or use these activities to evict indigenous and traditional local communities from their lands and territories.

The call for recovery, even for a “green” one, can so easily become twisted without ensuring that social justice is also served. The COVID-19 pandemic had exposed all kinds of inequalities and we must ensure that Africa’s recovery is delivering benefits to all Africans, and setting a course for social equality long into the future.

BASED AROUND THESE PRINCIPLES OF A GREEN AND JUST RECOVERY, BOTH DECISION- AND POLICY-MAKERS CAN DESIGN AND SEEK A RECOVERY FOR AFRICA THAT SETS THE CONDITIONS TO:

1. Align financial flows towards sustainable, resilient and profitable investment opportunities that serve all stratas of society, from household to local community, to national and regional levels
2. Advance towards environmental and socially sustainable economies that are more resilient to future shocks, be they new pandemics, the effects of climate change or the depletion of natural resources
3. Generate new and diverse sources of employment, equity, social inclusion and poverty eradication, through the green and blue economy, especially for Africa’s youth
4. Invest in transformation of traditional sectors and technology innovations that facilitate both adaptation and mitigation of climate change, while protecting nature and natural resources
5. Prevent land degradation and deforestation, and protect richness of existing ecosystems in Africa for existing and future generations
6. Create new opportunities through alternative conservation models and sustainable use of biodiversity, plus Nature-based Solutions to address key social and environmental challenges



Namakau Mwakamui watering vegetables on the banks of the Zambezi River in Sioma, Zambia

FUNDING RECOVERY PACKAGES

So far, responses from African nations have varied in their scope and focus, but most have mirrored responses from other countries: instigating lockdowns of some sort, providing employment subsidies for workers, and working to keep medical supplies and other emergency relief flowing.

While the fiscal situation is different on a country-by-country basis, the overall picture is one of large and increasing debt burdens, and limited fiscal space to fund big economic packages of the type seen in some European and Asian countries. On average, many packages across the world have been around 10-15% of GDP³³. With the exception of South Africa, Niger and Togo, no African country has been able to come close to that, with most packages between 0.05% and 2% of GDP.

Countries in Africa cannot drive recovery alone. Sovereign governments have **three main (interlinked) options** for how to drive a recovery package and must be flexible in their approach to combining all three.

1. Deploy treasury funding: Using treasury funding to drive parts of Green and Just recovery means governments will reap the full rewards of investment multipliers and contribute to long term debt reduction and economic stabilisation. One example of a country in Africa with a well-established response plan under this option include Nigeria with the Nigeria Economic Sustainability Plan (ESC-Plan) with a stimulus package of USD\$5.9 billion, which is forecasted to lead to a 0.59% decline in GDP, rather than the forecasted 4.4% decline without stimulus. This plan focuses on agriculture and it entails increasing the acreage under cultivation to create employment opportunities for young Nigerians.

2. Work with multilateral organisations: African governments can work with multilateral institutions to drive the ambitious packages needed to set a course of action that builds resilience and sustainability.

Key sources of funding related to the COVID-19 pandemic include:

a. The IMF, which globally is deploying USD\$1 trillion, focused on both emergency relief but also longer-term recovery

Emergency relief:

1. USD\$100 billion through Rapid Credit Facility and Rapid Financing Instrument – so far 33 countries in Africa have received over USD\$14 billion³⁴
2. Debt relief through Catastrophe Containment Relief Trust to 22 African states (currently for 6 months, plans to expand this to two years)

Longer-term recovery

1. IMF lending programmes, such as the Stand-By Arrangement agreed for Egypt of USD\$5.2 billion in June to ‘advance a key set of structural reforms to put Egypt on a strong footing for sustained recovery’³⁵

b. The World Bank Group has several relevant funding instruments

- i. Around USD\$50 billion deliberately apportioned to Africa as part of normal lending, focused on agriculture, trade and transport, energy, education, health, water and sanitation³⁶
- ii. WBG’s International Development Association launched a new IDA-19 fund of USD\$82 billion fund focusing partially on job-creation agenda in the hardest hit countries
- iii. WBG’s Multilateral Investment Guarantee Agency (MIGA) issued USD\$415 million loan guarantee for 22 Eastern and Southern African countries to facilitate provide trade and project finance³⁷

c. The African Development Bank (AfDB), which has announced a USD\$10 billion fund, targeted more closely at emergency relief, but with some focus on job creation³⁸

d. US Development Finance Initiative’s Rapid Response Liquidity fund aims to provide up to USD\$4 billion to existing projects that may be affected by COVID-19³⁹

e. EU Emergency Trust Fund for Africa offered USD\$120 million assistance package for mitigating impacts of COVID-19 in North Africa (primarily Tunisia and Libya) - primarily aimed at emergency response, but some focus to ‘mitigate socioeconomic impacts of crisis’ which could expand to include recovery activities⁴⁰

3. Utilise other sources of funding, including innovative financing mechanisms like blended finance: This is especially relevant when thinking about major infrastructure projects, for example in transport, renewables or electricity grids.

a. Bilateral funding from sovereign governments and institutions through Overseas Development Aid⁴¹

b. Private sector funding, which has been growing as a proportion of government financing, for example in Kenya in the last decade it has grown by 650% to be 30% of public debt - this has significant impacts on the cost of debt servicing⁴²

c. Innovative finance mechanisms are emerging as a key method for funding African development⁴³

- i. Blended finance to bring together multiple funding partners to share project risk, through a combination of concessionary loans or grants from the public sector, with private investment, for example the Danish Climate Investment Fund that provides blended finance to climate-related projects in the developing world, including Africa⁴⁴
- ii. Trust funds for risk reduction, such as the UNDRR, which relies on voluntary funding from governments, private sector and foundations that is not tied to a specific project or country, and distributes tactically based on need
- iii. Peer-to-peer lending models
- iv. Diaspora capital represents a largely untapped potential funding source. In 2019, Africa registered an estimated USD\$49 billion in remittance capital flows from African diaspora and this was equal to ODA (USD\$52 billion and more than FDI in 2018 (USD\$46 billion)⁴⁵. What African governments may need to do is to tap into this huge potential funding is to provide incentives for African diaspora led development initiatives. Diaspora funding platforms – still in the early stages – could provide an effective mechanism to channel this capital
- v. Impact bonds have traditionally been used in employment and health related areas, but increasingly are being applied to climate change – in impact bond funded projects, investors underwrite social projects provided by tax money and philanthropy, agreeing to cover losses if the project fails.

Many African countries will draw on funding sources from the latter two options. In this case, there are **four key considerations** that WWF recommends incorporating into investment decisions:

1. Take the initiative to design sustainable investment plans and interventions to attract investors:

Do not wait for funding partners to take the lead about embedding sustainability and long-term resilience guardrails into plans. Design interventions carefully to fully realise sustainability and resilience potential, even when many funding discussions do not explicitly have these guardrails in place. This in turn will attract investors who value these metrics and may prove valuable partners in the long run, as well as payment for ecosystem services schemes that provide additional benefits for nature-based investments⁴⁶. Embedding long-term sustainability and resilience into projects drives long-term job creation potential.

2. Measure the benefits of green interventions fully and communicate these in funding discussions:

Green investments are distinct from brown investments in that they have multiple kinds of benefits, both for society but also for investors. Governments should encourage a consideration of the cost-benefit of investments in a wider way. Building resilience is a long-term plan, with many associated benefits: jobs creation, economic multipliers and also co-benefits from interlinked aspects. There are two key co-benefits: First is driving the One Health approach and improving the health of African citizens. This linked benefit could enable governments to make the case for additional recovery funding that is designated towards the health aspects of the pandemic. Secondly, the value associated with climate change resilience, as well as avoided costs of climate change are of key importance, as the African continent is particularly vulnerable to climate change. Investors will be attracted by understanding these avoided costs

as well as the benefits of not building brown infrastructure that becomes obsolete in the near future, leading to stranded assets.

3. Embed transparent communication as funding is agreed and deployed:

Set a strong course for transparent communication, which will enable Africans to understand what economic stimulus is available and what actions governments are taking to support their citizens. This creates a direct link between government action and signs of economic recovery, employment and improved livelihoods.

Transparency will also give investors understanding and peace of mind about reporting processes throughout the initiative lifecycle and tracking progress (including these associated benefits). This will build success both for the initiatives themselves, but also is likely to encourage more long term interest from other investors. Encouraging and maintaining transparency to the local communities and people that initiatives will impact is a way to ensure greater buy in, as well as accountability that initiatives deliver the benefits that have been promised.

4. Fully value natural capital and resources:

Natural resources have enormous value, through ecosystem services, Nature-based Solutions and natural climate solutions. More than half the world's GDP is directly dependent on nature and failing to protect it could cost the global economy 0.67% each year in GDP decline to 2050. Africa's natural resources must be thought of and valued as a strategic resource, to be protected and sustainably managed to fully realise their value. Tools related to natural capital accounting and assessment should therefore be deployed in decision making processes in order to ensure that the right trade-offs are made in investments and in funding partnerships.

APPENDIX: RECOMMENDATIONS FOR RECOVERY AND STIMULUS PLANS – KEY SECTORS

TOURISM – LANDSCAPES & SEASCAPES

Context: Around 10% of Africa's GDP is dependent on tourism, a sector that has been particularly affected by the global impacts of the pandemic, with flights suspended and significant declines in numbers of travellers. It is also expected that it will take the sector longer to recover than others, as global traveller numbers are not expected to rapidly rebound. Current estimates of the impact on the travel and tourism sector are around USD\$50bn⁴⁷. The tourism sector is tightly bound with natural ecosystems and the conservation sector, and a loss of tourism income threatens hard-won conservation gains.

Actions:

- Secure funding to keep community rangers and scouts on the ground to retain jobs and provide security to people and wildlife and sustain good management of natural resources
- Protect existing natural resources by securing funding to support local communities and prevent a rush to unsustainable harvesting
- Drive short-term employment for those engaged in tourism industry: consider low-skilled employment schemes in NbS (e.g. afforestation schemes)
- In the longer-term, continue to find financing to conserve and protect ecosystems to safeguard the future of the industry to supplement tourism income as it returns, for example through the establishment of trust funds, and through diversification of the wildlife economy from tourism alone into other uses.
- Invest in local community-run facilities for the future of the tourism industry, to ensure benefits of tourism are equitably felt in communities and that communities themselves act as the custodians of nature

Opportunities:

- **Poverty and livelihoods:** Drive sustainable livelihoods for those whose incomes depend currently on the tourism sector
- **Health:** One Health approach - working locally, nationally and globally to attain optimal health for people, animals and our environment, and to prevent future pandemics

ENERGY – ELECTRICITY

Context: Almost 50% of the continent's population (600 million people) do not have "access" to electricity, especially in rural areas, which has wide scale implications for health, productivity and resilience. The energy mix itself is skewed towards carbon-intensive sources of energy, with only 10% share for renewables in Sub-Saharan Africa. However the potential of renewable energy is enormous: Sub-Saharan Africa is currently only tapping into 1% of its renewable energy potential⁴⁸.

Actions:

- Investment in large-scale modern, renewable energy infrastructure, both centralized (solar, wind and power storage) and decentralized

(micro-grids and solar home systems) systems⁴⁹, focusing on projects that are low carbon, low cost and – crucially – low impact

- Invest in localising the associated upstream value chain with large-scale renewable energy projects, to develop greater energy security (for example component manufacturing or assembly such as wires, turbines and panels)
- Invest to bring power supply to peri-rural areas, for example investing in dispersed micro-grids, retrofitting of existing diesel-powered mini grids to use renewables, or standalone solar power or micro-hydro infrastructure⁵⁰, and consider incentives to encourage consumer uptake
- Invest in establishing production and distribution networks, as well as accompanying financial (loan solutions for low-cost renewable energy and energy-efficient appliances (e.g. for home cooking and lighting) to supply the over 70% of African's that are currently off-grid
- Advocate for governments to recommit to renewable investments that were planned pre-COVID (e.g. more than 4000 mini-grids were planned in the region, according to the Energy Sector



Volunteers planting mangrove seedlings for a reforestation project, Ambilobe, Madagascar

Management Assistance Program of the World Bank Group⁵¹)

Opportunities:

- **Poverty and livelihoods:** A pathway relying on increased renewables ambition across the continent could create 1.6m net jobs in Sub-Saharan Africa by 2050⁵², including many opportunities for African youth⁵³. In Africa, each USD\$1 million invested in large-scale solar projects creates 80 jobs.⁵⁴ Every 1,000 people connected to a decentralized energy solution supports 25 jobs.⁵⁵ Women benefit from renewable energy investment – rural electrification provides an increase in employment by almost 10%, and access to electricity leads to a boost in wages.⁵⁶
- **Health:** Clean, energy-efficient cooking devices create an opportunity to improve clean cooking and reduce health impacts from burning biomass in indoor spaces. Also reliable energy supply is crucial to front line health services.
- **Fiscal space:** Every USD\$1 invested in renewable energy transition results in an additional USD\$0.93 growth expected above business as usual.⁵⁷ A clean energy transition could yield 0.7% increase in GDP per year in Sub-Saharan Africa⁵⁸. Investing in clean energy now will also reduce the likelihood of stranded assets in the future.

AGRICULTURE & AQUACULTURE

Context: Africa is a huge net food importer, at a cost of USD\$47 billion in 2017⁵⁹ and this is set to rise dramatically to USD\$110 billion by 2030. This projected population increase puts enormous pressure on already stressed food systems. A focus on sustainability and self-sufficiency for supply is crucial. More than half the population depend on farms for livelihood and income, yet African farms see some of the lowest productivity levels in the world estimated at around 30%⁶⁰, and this productivity is further threatened by climate change. Currently, gains in food production happen at the expense of land use change. Sustainable agriculture practices are needed to break this cycle and increase yield from the land that exists. Fisheries

and aquaculture contribute USD\$24 billion to the African economy (1.3% of GDP in 2011), with employment to over 12 million people, and up to 45 million people depend on fisheries for livelihoods.⁶¹ However overfishing, pollution, and coastal land degradation threatens the industry's future.

Actions:

- Invest in technologies and training programmes to bring sustainable agriculture practices to smallholder farmers (e.g. improved technology to increase productivity, reduce food waste, micro-irrigation)
- Invest in Nature-based Solutions focused on increasing productivity from existing agricultural land (for example through crop diversification and rotation, soil management, agroforestry)
- Invest in and adopt climate-smart production techniques that offer greater resilience to extreme weather events (for example, crop varieties more resilient to droughts and flooding⁶²)
- Implement and enforce circular economy initiatives to ensure that agricultural waste water is properly recycled: crucial for increasing productivity
- Deploy Nature-based Solutions to protect and manage coastal and water based ecosystems, such as mangroves and seagrass to protect and preserve the vital ecosystem services they provide
- Invest in circular economy initiatives to ensure waste is recycled and processed properly, rather than ending up in oceans and waterways
- Work to break down cultural barriers that prevent women having full land ownership rights, to ensure they have equal access to sustainable agriculture opportunities as men do

Opportunities:

- **Poverty and livelihoods:** New sustainable agriculture opportunities can create up to 21 million jobs in Africa by 2030⁶³, and be a vital way to provide jobs to both women and currently unemployed youth⁶⁴
- **Food security:** Increase in sustainability and productivity would generate higher yields, and also make agriculture more resilient to future shocks
- **Fiscal space:** Reducing dependency

on imports in the long-term would have positive implications for debt structures

FORESTRY

Context: Forests span almost a quarter of Africa's landmass, provide employment (both formal and informal) to millions of people - Sub-Saharan Africa's charcoal sector alone employs more than 7 million people⁶⁵. They are also important sources of biodiversity and provide fuel and food for more vulnerable communities. Additionally, forests and mangroves provide vital protection against the impacts of climate change⁶⁶. However forests are victims of agricultural expansion and land grabs from large companies. Africa's rate of net forest loss is the highest in the world, with 3.9 million hectares – or an area almost the size of Tanzania - lost between 2010 and 2020⁶⁷. Protecting and safeguarding this ecosystem is vital to Africa's future.

Actions:

- Invest in sustainable forest management as a Nature-based Solution for climate change resilience, ensuring soil health and fertility, water retention and avoiding land degradation
- Invest in cleaner energy solutions such as high efficiency cookstoves and charcoal production, to reduce pressure on firewood⁶⁸
- Create mass employment schemes in areas like afforestation and mangrove restoration
- Commit to protecting additional areas of forest, to contribute to global 30% protected area targets
- Maintain existing environmental regulations governing logging
- Invest in initiatives that provide longer-term financial benefits from forests through global payment for ecosystem services' schemes that provide carbon credits for forest restoration and reduced degradation

Opportunities:

- **Poverty and livelihoods:** Proper management of forests could reduce poverty through employment opportunities, offer opportunities for rural economic development, and protect a resource that many depend on for subsistence

- **Food security:** Forest management helps support agricultural productivity and food security
- **Fiscal space:** Potential to generate income for national governments to increase financial flows and decrease debt burdens

WATER AND SANITATION

Context: Almost one quarter of the continent's population (320 million) currently exist without access to safe drinking water, and more than 50% exist without access to sanitation. In addition, water scarcity is a key limiting factor to the expansion of efficient irrigated agriculture, and one of the causes of the current low agricultural production yields across the continent, with strong correlation with food insecurity. This has impacts for human health and wellbeing, as well as on agricultural productivity and other economic activities.

Actions:

- Where possible, deploy Nature-based Solutions to restore, regenerate and sustain watersheds, for examples by restoring wetland and water provisioning areas (water towers), or by utilising existing aquifers for additional water storage
- Where infrastructure is required, ensure plans are for climate resilient projects and developers are properly incentivised to ensure maximum resilience
- Introduce and enforce circular economy practices to protect existing water supplies⁶⁹
- Deploy effective waste management practices to ensure waste does not end up in water sources, and reduce water pollution

Opportunities:

- **Poverty and livelihoods:** programmes around NbS are labour intensive. Proper access to clean water will free up population (particularly women and girls) to engage in more economically productive activities
- **Health:** Huge health benefits to improving water supply and sanitation
- **Food security:** Improvement of water flows and management would benefit agricultural sector and lead to increased yields and productivity

OIL AND GAS

Context: Oil rents represent 4.5% of GDP for the continent as a whole⁷⁰ and 40% of its exports⁷¹. Nigeria and Angola are largest producers, where oil represents more than 90% of export revenues and 70% of national budget.⁷² The global crash in oil prices has had immense impact in the sector, and global lows in oil prices provide a unique opportunity to create some structural change in the sector.

Actions:

- Use low oil prices as an opportunity to redirect fossil fuel subsidies without significant financial impact to the consumer
- Ensure that any government or multilateral support to oil and gas sector includes green strings demanding that companies meet agreed environmental or sustainability targets
- In the longer run, encourage diversification of economies towards renewable and clean energy investments, services, and clean industry to reduce exposure to future oil shocks

Opportunities:

- **Fiscal space:** Additional revenue from ending fossil fuel subsidies could be freed up to be spent on other aspects of Green and Just recovery, e.g. job creation, renewable energy solutions

INFRASTRUCTURE

Context: Africa's rapidly expanding population is driving large infrastructure needs. The overall infrastructure gap, across all types of urban and rural infrastructure is estimated at USD\$100bn/year for the next decade across the continent⁷³. In addition, rapid urbanization is occurring, increasing urban landscapes which have unique infrastructure needs, and also severe problems with congestion and pollution that are only set to increase.

Actions:

- Where infrastructure is being planned and developed, invest in building resilient infrastructure rather than grey infrastructure; use financial

incentives to encourage developers to reach beyond minimal regulatory requirements to build in maximum resilience

- Identify investment opportunities for sustainable transportation infrastructure investment, such as buses, high speed rail, and cycle lanes
- Mitigate impacts of climate change and pollution in the urban environment by using Nature-based Solutions: trees and plants and other green infrastructure can help with temperature regulation, air filtration, carbon sequestration and other services
- Ensure any approach to planning infrastructure interventions includes local communities as stewards of the land and resulting infrastructure, and also emphasises a low impact approach to prioritise relevant investments
- Apply natural capital accounting and assessment tools to ensure that trade-offs between grey and natural infrastructure take into account the true value of nature to people and the economy

Opportunities:

- **Poverty and livelihoods:** Infrastructure investments are labour intensive, yielding employment. Additionally, more useable infrastructure will have other economic benefits as it creates more easy movement of people, and protects existing property and livelihoods (for example flood protection)
- **Health:** Health benefits flow from green infrastructure, especially in urban environments. Sustainable transport options reduce air pollution, creating healthier populations
- **Long-term debt:** Economic benefits from resilient infrastructure are far higher than for non-resilient (every USD\$1 invested yields USD\$4 in benefits, compared to USD\$1.50 for non-resilient ⁷⁴) making sustainable and resilient infrastructure a good long term option for attracting investment, and generating revenue to combat longer term debt burdens

KEY SOURCES

- **African Development Bank** – African Economic Outlook Supplement (July 2020)
- **Global Center on Adaptation and Africa Adaptation Initiative** – Integrated Responses to Building Climate and Pandemic Resilience in Africa (May 2020)
- **International Renewable Energy Agency** – Global Renewables Outlook (2020)
- **International Renewable Energy Agency** – The Post-COVID Recovery: An agenda for resilience, development and equality (2020)
- **IMF** – Regional Economic Outlook – Sub-Saharan Africa (June 2020)
- **OECD** – COVID-19 and Africa: Socio-economic impacts and policy responses (April 2020)
- **Sustainable Energy For All** – The Recover Better with Sustainable Energy Guide For African Countries (2020)
- **UN Economic Commission for Africa** – COVID-19 in Africa – Protecting Lives and Economies (April 2020)
- **UN Economic Commission for Africa** – African Climate Policy Centre, Ideas for a prosperous Africa – Climate Change and Development in Africa post-COVID-19: some critical reflections (2020)
- **UNEP GEO-6 For Youth** – Africa – A Wealth of Green Opportunities (2019)
- **UN Secretary-General** – Policy Brief: Impact of COVID-19 in Africa (2020)
- **WWF** – COVID-19 – urgent call to protect people and nature (2020)
- **WWF** – Global Futures (2020)
- **WWF** – Living Planet Report (2020)

END NOTES

- 1 For more information on the One Health approach, see [this information](#) from the WHO
- 2 As of 4th August 2020
- 3 African Development Bank Africa Economic Outlook Supplement (July 2020)
- 4 UNCTAD World Investment Report (2020)
- 5 European Commission Joint Research Centre COVID-19 and Remittances in Africa (2020)
- 6 IMF Regional Economic Outlook - Sub-Saharan Africa (June 2020)
- 7 UN Economic Commission for Africa - COVID-19 in Africa: Protecting Lives and Economies (April 2020)
- 8 World Bank Group - Groundswell: Preparing for Internal Climate Change Migration (2018)
- 9 UN Economic Commission for Africa - COVID-19 in Africa: Protecting Lives and Economies (April 2020)
- 10 African Union – [Impact of the coronavirus \(Covid-19\) on the African Economy](#)
- 11 UN Economic Commission for Africa - COVID-19 in Africa: Protecting Lives and Economies (April 2020)
- 12 World Bank (2020)
- 13 African Development Bank Africa Economic Outlook Supplement (July 2020)
- 14 Klaus Deininger, Challenges posed by the new wave of farmland investment (2011)
- 15 OECD COVID-19 and Africa: Socio-economic impacts and policy responses (April 2020)
- 16 When the government spends more than it brings in
- 17 WWF COVID-19: Urgent Call to Protect People and Nature (2020)
- 18 Jones et al. Global trends in emerging infectious diseases (2008)
- 19 IPCC Special Report on global warming of 1.5 degrees (2018)
- 20 UNEP Emissions Gap Report (2019)
- 21 WWF Living Planet Report (2018)
- 22 IPBES Global Assessment Report on Biodiversity and Ecosystem Services (2019)
- 23 See Vivid Economics Green Stimulus Index for more information
- 24 <https://www.brookings.edu/blog/future-development/2018/08/01/7-surprising-findings-about-re-source-rich-sub-saharan-africa/>
- 25 Klaus Deininger, Challenges posed by the new wave of farmland investment (2011)
- 26 <https://www.unenvironment.org/regions/africa/our-work-africa>
- 27 UNEP GEO-6 For Youth - Africa - A Wealth of Green Opportunities (2019)
- 28 <https://www.unenvironment.org/regions/africa/our-work-africa>
- 29 WEF (2020)
- 30 WWF COVID-19: Urgent Call to Protect People and Nature (2020)
- 31 UNEP GEO-6 For Youth - Africa - A Wealth of Green Opportunities (2019)
- 32 ILO Monitor: COVID-19 and the world of work
- 33 See more detail at <https://www.bruegel.org/publications/datasets/covid-national-dataset/>
- 34 <https://www.imf.org/en/Topics/imf-and-covid19/COVID-Lending-Tracker>
- 35 <https://www.imf.org/en/NewsArticles/2020/06/26/pr20248-egypt-imf-executive-board-approves-12-month-us-5-2billion-stand-by-arrangement>
- 36 <https://www.chronicle.co.zw/world-bank-to-lend-us50bn-to-sub-saharan-africa-realigns-the-continent/>
- 37 <https://www.miga.org/press-release/against-backdrop-rising-pandemic-risk-miga-tdb-increase-financing-trade-eastern>
- 38 African Development Bank press release, 8th April 2020, and more detail on conditions of the funding
- 39 <https://www.engineeringnews.co.za/article/new-us-development-finance-institution-doubles-down-on-investments-in-africa-2020-07-15>
- 40 <https://donortracker.org/policy-updates/eu-emergency-trust-fund-africa-adopts-us120-million-assistance-package-north-africa>
- 41 More information on donors and recipients can be found in OECD documentation
- 42 Presentation on the debt and borrowing policy from Kenya's National Treasury website, July 23rd 2020
- 43 See Innovative Finance classes and documentation from Bertha Centre for Social Innovation and Entrepreneurship for more details on mechanisms
- 44 For more information on blended finance frameworks for public funders see the World Bank's How To Guide to Blended Finance (2015)
- 45 Sudarkasa, Michael (25 May 2020), Tapping diaspora capital for the post-COVID-19 economy available <https://www.africaportal.org/features/tapping-diaspora-capital-post-covid-19-economy/>
- 46 E.g. carbon credit schemes such as the Reducing Emissions from Deforestation and Forest Degradation (REDD) scheme (e.g. <https://www.wri.org/blog/2019/02/indonesia-reduces-deforestation-norway-pay>)
- 47 African Union The Impact of Coronavirus on the African Economy (April 2020)
- 48 IRENA - Global Renewables Outlook (2020)
- 49 See WWF and TNC's Connected and Flowing (2018) report for more detail on hydropower versus wind and solar
- 50 IEA estimates these to be the most cost-effective solution to provide more than half the needed energy connections to fulfill SDG 7 by 2030
- 51 ESMAP - Mini Grids for Half a Billion People : Market Outlook and Handbook for Decision Makers – 2019
- 52 IRENA - Global Renewables Outlook Sub-Saharan Africa (Transformative Energy Pathway) – 2020
- 53 UNEP GEO-6 For Youth – Africa – A Wealth of Green Opportunities (2019)
- 54 IRENA Solar PV in Africa (2016)
- 55 Power for all Powering jobs census (2019)
- 56 Sustainable Energy For All The Recover Better with Sustainable Energy Guide For African Countries (2020)
- 57 IRENA Global Energy Transformation (2019)
- 58 IRENA - Global Renewables Outlook (2020)
- 59 FAO - Food Outlook (2019)
- 60 Global Commission on Adaptation and Africa Adaptation Initiative – Integrated Responses to Building Climate Resilience and Pandemic Resilience in Africa (May 2020)
- 61 WWF Africa's Ecological Future – Agriculture Report (2014)
- 62 For example, see the work in Mozambique to develop heat-tolerant bean seeds, or in Ethiopia to develop rust-resistant wheat varieties.
- 63 Nature4Climate - Nature Positive Recovery (2020)
- 64 UNEP GEO-6 For Youth – Africa – A Wealth of Green Opportunities (2019)
- 65 United Nations Forum on Forests – Forests, Inclusive and Sustainable Economic Growth and Employment (2019)
- 66 African Development Bank Africa's Economic Outlook Supplement (July 2020)
- 67 FAO Global Forest Resources Assessment (2020)
- 68 <https://www.worldwildlife.org/stories/in-nepal-cook-stoves-improve-lives-and-help-the-environment>
- 69 For example see the Upper Tana-Nairobi Water Fund, paid for by downstream water consumers, to train 20,000 farmers in more sustainable water practices
- 70 OECD – COVID-19 and Africa: Socio-economic implications and policy responses (May 2020)
- 71 UN Economic Commission for Africa – COVID-19 in Africa: Protecting Lives and Economies (April 2020)
- 72 OECD – COVID-19 and Africa: Socio-economic implications and policy responses (May 2020)
- 73 World Bank – Lifelines: The Resilient Infrastructure Opportunity (2019)
- 74 EU estimates, cited in Global Commission on Adaptation and Africa Adaptation Initiative – Integrated

**A GREEN AND JUST
RECOVERY IS THE ONLY TRULY
RESILIENT OPTION FOR AFRICA,
THAT DIRECTLY ADDRESSES
THE KEY CHALLENGES SURFACED BY
THE COVID-19 PANDEMIC AND
OFFERS AN OPPORTUNITY FOR
SUSTAINABLE GROWTH.**



Working to sustain the natural
world for people and wildlife

together possible™

panda.org

© 2020

Paper 100% recycled

© 1986 Panda symbol WWF – World Wide Fund for Nature (Formerly World Wildlife Fund) ® “WWF” is a WWF Registered Trademark. WWF, Avenue du Mont-Bland, 1196 Gland, Switzerland. Tel +41 22 364 9111. Fax +41 22 364 0332.

For contact details and further information, please visit our international website at www.panda.org