



Eighth Conference on
Climate Change and Development in Africa
Stepping up climate action for a resilient Africa
a race we can and must win



Scaling-up climate action

Background paper for the fifth session of the African
regional forum on **sustainable development**



**Economic Commission for Africa****Africa Regional Forum on Sustainable Development**

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Item 6 (d) of the provisional agenda*

Parallel panel meetings for in-depth review, peer learning**and dialogue on the sub-themes of the Africa Regional****Forum on Sustainable Development: Scaling-up climate action****Background paper on the sub-theme “Scaling-up climate action”****Key messages**

- Climate change is a cross-cutting issue that can seriously impede the achievement of all Sustainable Development Goals. Furthermore, as a “threat multiplier”, climate change aggravates existing vulnerabilities and structural inequalities. Urgent and ambitious global action on climate change, well beyond current pledges under the Paris Agreement, must therefore be taken in order to safeguard development agenda for Africa, as articulated in national development plans, the 2030 Agenda for Sustainable Development and Agenda 2063 of the African Union.
- All African countries have signed the Paris Agreement and, as of March 2019, 48 African States have ratified that instrument and submitted their nationally determined contributions to the global response to climate change. To uphold their nationally determined contributions commitments, African States will require some \$3 trillion in conditional and unconditional financing. By submitting ambitious nationally determined contributions, African countries are sending a strong signal that, despite the fact that the continent has contributed the least to climate change, it is ready to stand with the rest of the world in addressing its impacts. In return, Africa calls on developed countries to fulfil their commitments to provide critical financial, technological and capacity-building support to the continent, including the provision of \$100 billion annually in climate finance, as well as their pre-2020 commitments under the Kyoto Protocol to the United Nations Framework Convention on Climate Change.
- The approval of the Paris Agreement rulebook at the twenty-fourth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Poland in December 2018, was a welcome development. However, Africa calls for a demonstrable shift from commitments of intent to fulfilments in spurring concrete actions on climate change for a just transition for Africa, and the reinstatement in the United Nations Framework Convention on Climate Change and the Paris Agreement by the twenty-sixth session of the Conference of the Parties of the special needs and circumstances of

* ECA/RFSD/2019/1.

Africa, in line with the principle of common but differentiated responsibilities and respective capacities.

- The African Group of Negotiators has striven diligently to ensure that Africa speaks with one voice in the global negotiations on climate change. It is now urgent that African Governments provide the necessary political and financial support to the Group to ensure its sustainability in advancing the African common negotiating position on climate change.
- There is urgent need – prior to the entry into force of the Paris Agreement in 2020 and the first global stocktake in 2023 – for African countries to review and align their nationally determined contributions with national development priorities, the 2030 Agenda and Agenda 2063. In this process, it is essential to ensure synergy and coherence among national adaptation plans, disaster risk reduction policies and strategies, and national frameworks for the implementation of the 2030 Agenda and Agenda 2063.
- For African countries to uphold their nationally determined contributions, very significant investment, well beyond those that can be mobilized from their limited public resources, will need to come from the private sector. Countries need to review, reformulate and package their nationally determined contribution actions as investment portfolios with a view to establishing mechanisms for mobilizing private sector financial resources.
- The cross-cutting, transboundary and multidimensional nature of climate change provides a unique opportunity for integrated approaches to facilitate the achievement of the Sustainable Development Goals. Climate resilience must be integrated into investment plans for climate-sensitive sectors. In that regard, a dedicated climate change commissioner to coordinate regional responses to climate change should be appointed at the level of the African Union Commission. Similarly, African Governments could consider appointing a chief climate officer to lead comprehensive responses to climate change challenges across the economy, in liaison with the regional climate change commissioner.
- There is a severe lack of data on the indicators for tracking progress towards the achievement of Sustainable Development Goal 13. There is urgent need for countries and development partners to coordinate efforts with a view to strengthening the capacities of national statistical offices in the area of data collection, analysis and reporting in order to provide tailored support to groups at risk of being left behind due to climate change impacts.
- With large scale carbon removal, which is classified as a form of geo-engineering, being identified as a potential solution pathway if emissions do not start to decline well before 2030, it is important for African countries to support a global approach, conversation and understanding of the risks and opportunities of geo-engineering. It is also important to establish a governance framework for the development and deployment of such technologies.
- To address issues of vulnerable groups (such as women, young people and farmer groups) having access to climate information, there is a need to promote appropriate legislation and policies.
- Governments should prioritize uptake and use of climate information to climate proof infrastructure and other investment, and to take contingency measures to protect human life and property in advance and after climate-induced disasters.

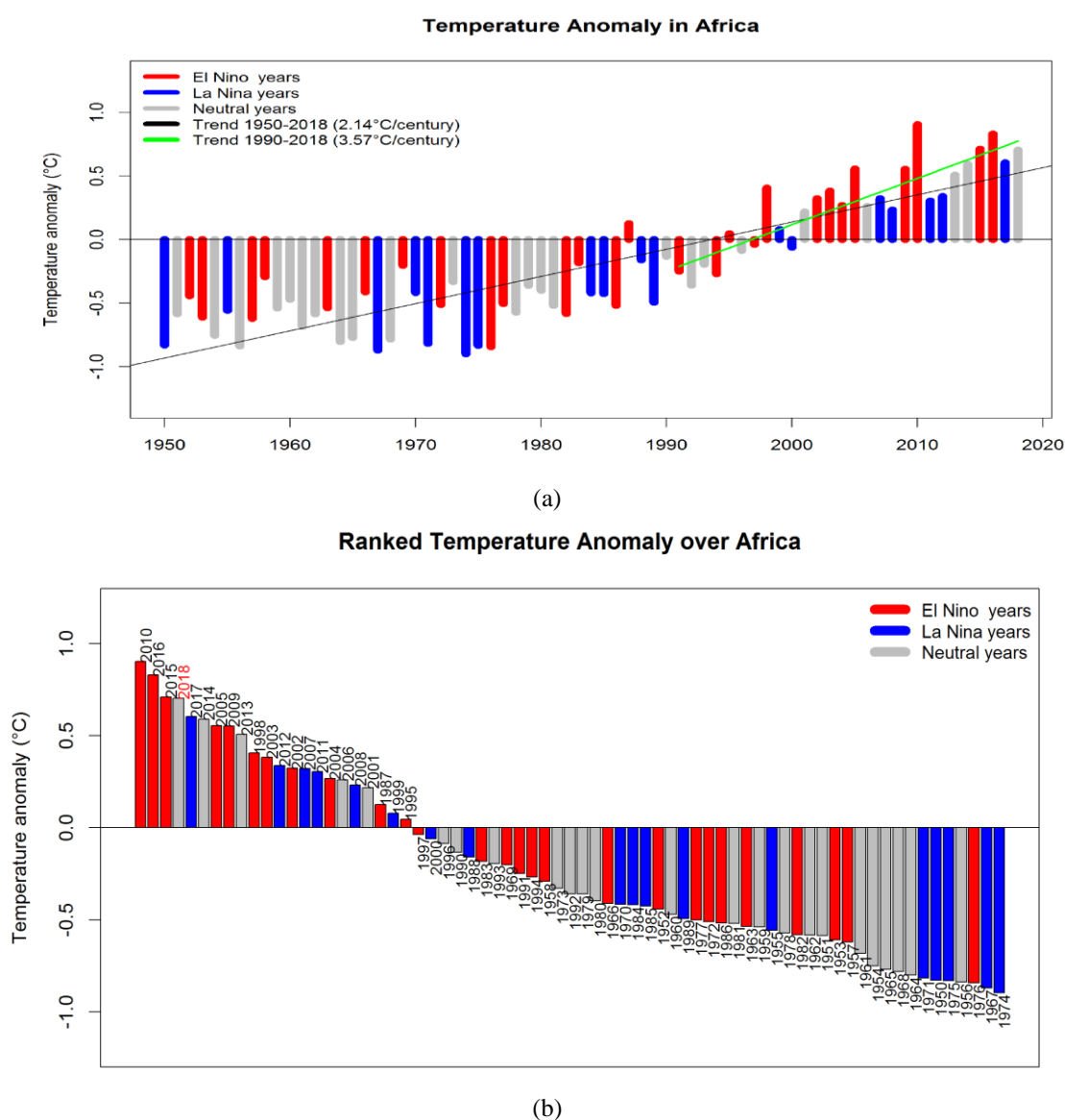
I. Introduction

1. The present background paper was prepared by the Economic Commission for Africa with contributions from the United Nations Environment Programme, the United Nations Office for Disaster Risk Reduction, the United Nations Industrial Development Organization and the International Organization for Migration.

2. Climate change and development are inseparable. Climate change is the consequence of current global production and consumption patterns and the resulting increase in greenhouse gas emissions. The average global temperature increased by 0.85 degrees Celsius between 1880 and 2012. However, Africa has been experiencing significantly higher and continuous warming (see figure I).

Figure I

Average temperature anomalies across Africa, 1950 to 2018



3. Goal 13 calls for urgent action to be taken to combat climate change and its impacts. The adverse impacts of climate change include irregular seasons, increasingly frequent and intense droughts, floods and heat waves, and the loss or shifting of habitats and agro-ecological zones. Those impacts can, in turn, result in reduced agricultural productivity, landslides, infrastructure damage, human insecurity and displacement, armed conflict and the spread of vector

borne diseases. While extreme events are natural, climate change is worsening their occurrence and impacts, as demonstrated by the severe human and economic losses that occurred in Malawi, Mozambique and Zimbabwe in March 2019 from the devastation caused by Tropical Cyclone Idai, which affected more than 2.6 million people and caused more than 700 deaths.

4. Since climate change is a consequence of the current configuration of the global economy, future efforts to address climate change will depend on the plans and strategies that countries adopt to promote economic growth. In that connection it is critical to understand that climate change has no borders and can seriously impede the attainment of all other Sustainable Development Goals. Thus, the attainment of countries' development objectives will depend on a global response to climate change. In Africa, the development objectives are framed in national development plans, the 17 Goals and the African Union's wider development blueprint, namely Agenda 2063: The Africa We Want. Agenda 2063 sets out development aspirations for Africa and establishes priority areas that should be addressed to help Africa to establish environmentally sound communities and sustainable and climate-resilient economies. Those priority areas include: sustainable natural resource management; biodiversity conservation; genetic resources and ecosystems; water security; climate resilience and natural disaster preparedness and prevention; renewable energy; and sustainable consumption and production patterns.

5. Without urgent and ambitious global action on climate change, well beyond current pledges under the Paris Agreement, development agenda for Africa is at serious risk of failure.

Status and trends

6. The 2018 Africa Sustainable Development Goal Dashboard, which was published by the Sustainable Development Goals Centre for Africa in June 2018, shows that African countries are making very slow progress towards the achievement of the Goals. However, many African countries have underscored their strong commitment to implement climate action and there have been increasing investment in renewable energy technologies on the continent in recent years, thus providing some progress towards the attainment of Goal 13.

1. Continent of low emissions but which experiences the most significant adverse climate change impacts

7. African countries are responsible for less than 6 per cent of global greenhouse gas emissions, with Egypt and South Africa alone accounting for close to half of Africa's emissions. Average per capita emissions in Africa are currently 0.8 tCO₂e/yr (tons of carbon dioxide equivalent per person per year), with most of those emissions generated by Agriculture, Forestry and Other Land Uses. That figure is significantly below the global mean of 5 tCO₂e/yr, and 5 tCO₂e/yr for Asia, 10 tCO₂e/yr for Europe, and 20 tCO₂e/yr for North America. Indeed, even though total emissions for Africa increased twelve-fold between 1950 and 2008 to reach 311 million metric tons of carbon, this is still far less than the national emissions of certain States, including China, India, Japan, Russia and the United States of America.

8. For developed countries, the challenge is how to maintain present high levels of gross domestic product (GDP) per capita while also addressing inequality, adopting climate mitigation measures and reducing emissions. For Africa, the challenge is how to increase economic productivity to achieve high GDP per capita while leaving no one behind without increasing emissions. African economies, societies and ecosystems are more vulnerable to the impact of climate change because of their low adaptive capacity, and this could have catastrophic consequences for the continent. For example:

- Up to 86 million people in sub-Saharan Africa could be internally displaced by 2050 owing to slow onset climate change effects (4 per cent of the total population of Africa);
- Following the 1973 droughts in the Sahel region, the GDP of Senegal was estimated to have decreased by about 19 per cent and that of Burkina Faso by 9 per cent;
- Agriculture contributes over 28 per cent of GDP and over 70 per cent of total employment in Africa;
- Droughts, floods, heat stress and other extreme weather events are projected to cause a 20 to 30 per cent fall in crop yields by 2050;
- The financial costs of flooding are very high. For example, the 2012 flood in Nigeria affected about 7 million people and caused at least half a billion dollars in direct losses;
- The annual cost of climate change induced hunger is estimated at 9.5 per cent of GDP in Chad, 1.9 per cent of GDP in Egypt and 6 per cent of GDP in Ethiopia;
- Burkina Faso, the Gambia, Mali, Mauritania and the Niger could face a decline in GDP per capita of more than 15 per cent by 2050;
- The unusual behaviour of the 2015/2016 El Niño Southern Oscillation, which was attributed to climate change, caused severe droughts and floods, including severe droughts in the Horn of Africa area and Southern Africa (resulting in hydropower production from the Kariba Dam almost ceasing, with serious economic consequences for both Zambia and Zimbabwe);
- By 2100, the rise in sea levels along Africa's coastlines is projected to be approximately 10 per cent higher than the global mean. If temperatures increase to 4°C above pre-industrial levels, and assuming no climate adaptation measures are taken, Egypt, Mozambique and Nigeria will be most affected by rising sea levels in terms of the number of people at risk of flooding annually. In the Gambia, Guinea-Bissau and Mozambique, up to 10 per cent of the population may be affected by floods every year;
- Although a number of river basins, including the Orange River basin and the Congo River basin, could perform well under certain climate change scenarios, the hydropower potential of the Zambezi River basin is likely to decrease by between 5 and 6 per cent under most scenarios, resulting in huge increases in energy costs.

2. Africa, the Paris Agreement and nationally determined contributions

9. The Paris Agreement commits all countries to limit the increase in the global average temperature this century to “well below 2°C above pre-industrial levels” and to pursue efforts to “limit the temperature increase to 1.5°C above pre-industrial levels”. All African countries have signed the Paris Agreement and, as of March 2019, 48 African States have ratified that instrument and have submitted their nationally determined contributions. To uphold their contributions commitments, African States will require some \$3 trillion in conditional and unconditional financing. For example, Benin will require some \$25 billion in assistance for conditional actions (\$10 billion for mitigation and \$15 billion for adaptation measures) and \$5 billion for unconditional actions; Namibia will require \$35 billion to uphold its nationally determined contributions, while Egypt, Morocco, Nigeria, Sao Tome and Principe, Senegal and Zimbabwe estimate that their financing requirements will be \$72 billion, \$50 billion, \$142 billion, \$59 billion, \$22 billion and \$90 billion, respectively.

10. The Paris Agreement provides Africa, which is not yet locked into unsustainable production trajectories, with the opportunity to adopt low-carbon development pathways, capitalizing on its abundant renewable energy resources to power socioeconomic transformation. This has the potential to catalyse green industrialization, provide opportunities for green jobs, energy and food security, enhance resource efficiency, promote the development of climate-resilient infrastructure and boost global competitiveness, particularly under regional integration and trade accords and especially in view of the imminent establishment of the African Continental Free Trade Area. However, this will require very significant investment and it will be difficult for African Governments to mobilize the financial resources needed from national budgets alone, especially in view of competing demands on those budgets from other sectors, such as health, education and defence. Hence, African Governments will need to create investment opportunities for the private sector and widen fiscal space to finance compliance with their nationally determined contributions.

3. National adaptation plans

11. The process for developing and implementing national adaptation plans in response to climate change impacts was established at the sixteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Cancun, Mexico, in 2016, through the Cancun Adaptation Framework. The national adaptation plan process enables countries to identify medium- and long-term adaptation needs and develop and implement strategies and programmes to address those needs. As of September 2018, only five African countries, namely Burkina Faso, Cameroon, Kenya, the Sudan and Togo, had developed and submitted their national adaptation plans to the secretariat of the United Nations Framework Convention on Climate Change.

4. Means of implementation

12. By submitting ambitious nationally determined contributions, African countries have sent a strong signal that, despite the fact that the continent has contributed the least to climate change, they are ready to stand with the rest of the world in addressing its impacts. In return, Africa calls upon developed countries to fulfil their commitments to provide critical financial, technological and capacity-building support to the continent to facilitate efforts by African States to comply with their nationally determined contributions. Furthermore, it is important to note that many existing pre-2020 commitments under the Kyoto Protocol, which ends in 2020, have not been honoured. To date, few States have ratified the Doha Amendment to the Kyoto Protocol, which sets forth changes that were made to the Protocol in 2012 (at the end of the first commitment period of the Protocol) and adds new emission targets for 2020 (the end of the second commitment period).

13. Current climate-related finance flows to Africa remain alarmingly small and far short of the \$100 billion per year that was promised at the fifteenth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, held in Copenhagen. According to data provided by the Organization for Economic Cooperation and Development, climate-related finance flows to Africa only increased, cumulatively, from \$615 million in 2000 to \$408 billion in 2017 (see figures II, III and IV).

Figure II
Cumulative climate-related finance flows to Africa, 2000–2017
(Millions of United States dollars)

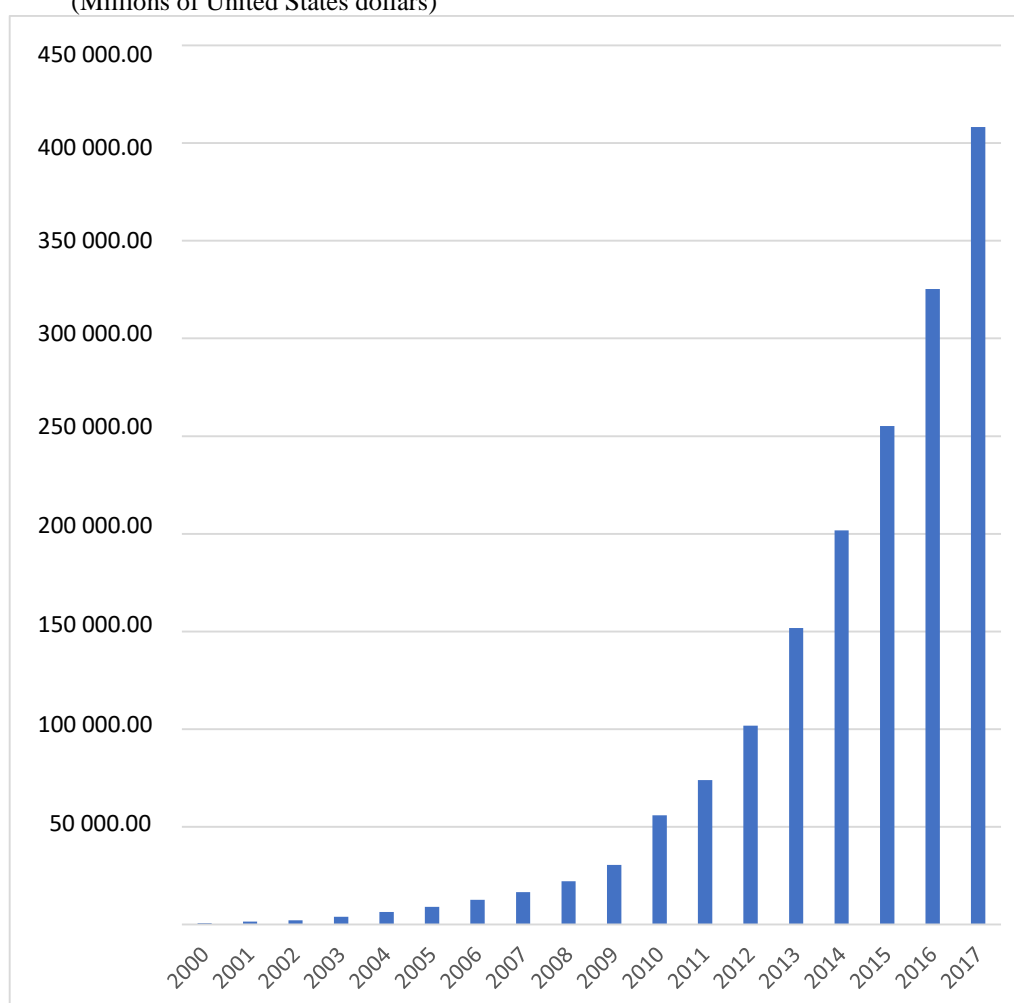


Figure III
Cumulative climate-related finance flows by country, 2000–2017 (percentage)
 (Millions of United States dollars)

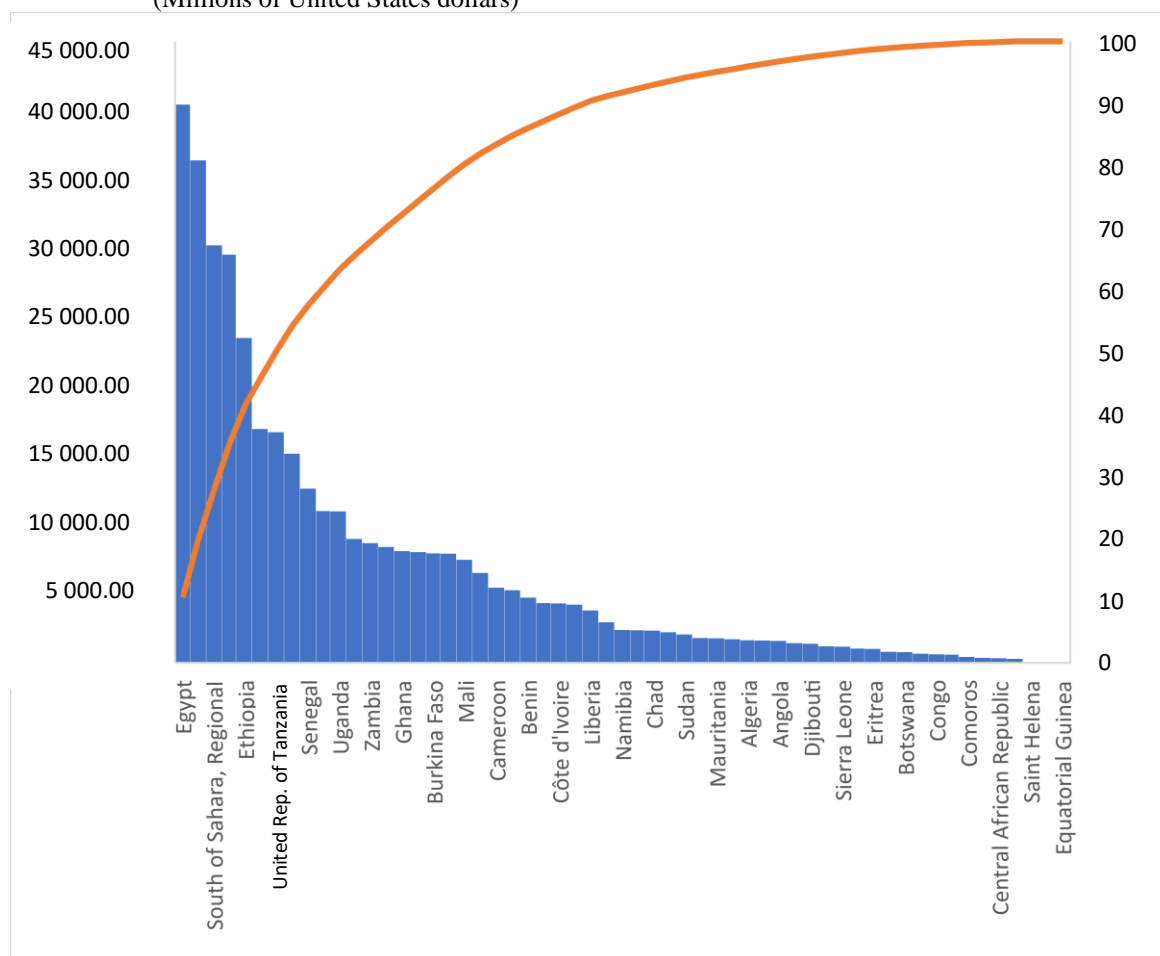
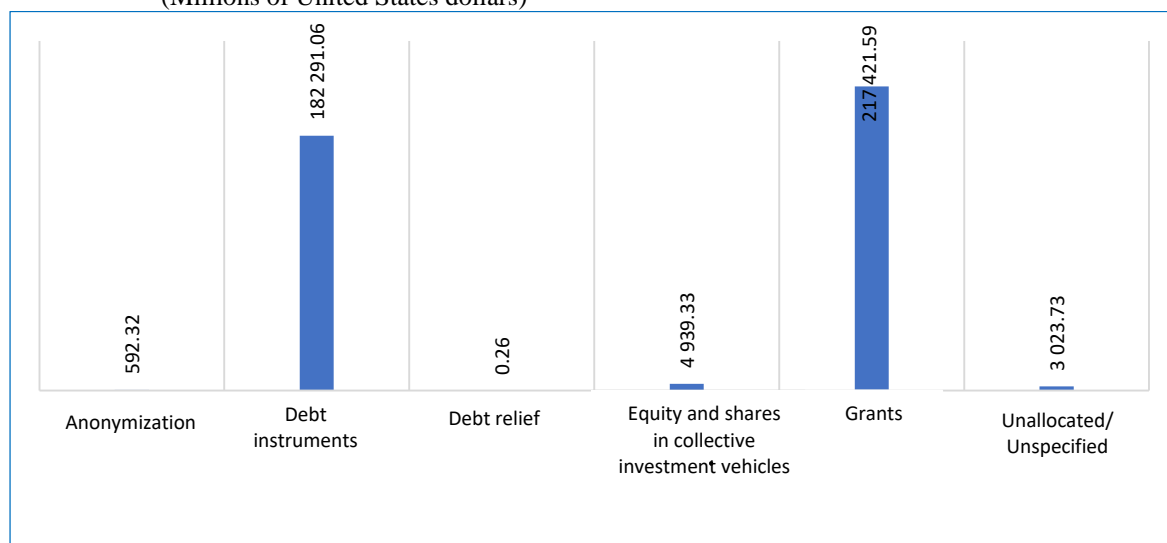


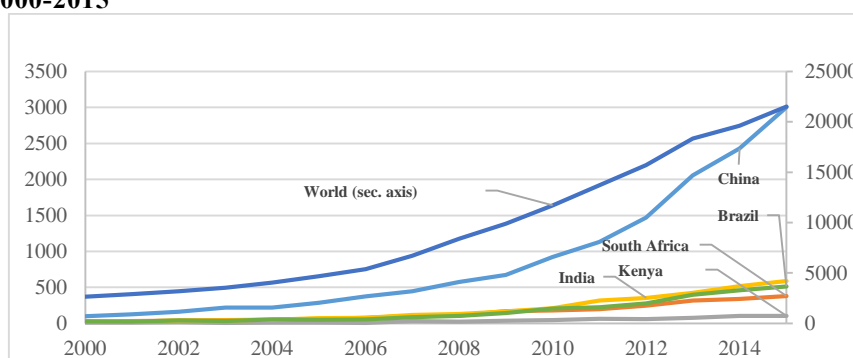
Figure IV
Cumulative climate-related finance flow in Africa by instrument type
 (Millions of United States dollars)



14. In terms of capacity-building, urgent action is needed to put in place coordinated mechanisms to strengthen the capacities of member States to design, implement and sustain climate change mitigation and adaptation actions in Africa, including their capacities to produce and make use of climate information and services in development planning. Whereas many developed and developing countries are seizing the opportunity to turn climate change challenges into development opportunities by investing in capacities to produce usable climate information and science, African countries continue to lag far behind in that regard. With the notable exceptions of Kenya and South Africa, most African countries carry out very little international research in the area of climate change. South Africa accounts for a modest but encouraging share of global research, which is comparable to the share of global research conducted by Brazil and India. Figure V illustrates this limitation in the production of climate change adaptation and mitigation articles by African countries and selected non-African countries between 2000 and 2015.

Figure V

Published scientific and technical articles in the area of climate change produced in Kenya, South Africa and selected non-African countries, 2000-2015



Source: ECA analysis based on Thomson Reuters Web of Science data.

15. With regard to technology transfer, the Climate Technology Centre and Network operationalizes the United Nations Framework Convention on Climate Change technology mechanism and promotes the development and transfer of climate technologies at the request of developing countries with a view to promoting energy efficient, low-carbon and climate-resilient development. The Centre provides three core services, namely technical assistance, capacity-building and knowledge-sharing, and collaboration and networking. African countries should collaborate with the Centre to facilitate the transfer and adoption of climate technologies.

5. Urgent need to keep global warming to below 1.5 degrees Celsius

16. In 2018, pursuant to a decision made at Twenty-first session of the Conference of the Parties, the Intergovernmental Panel on Climate Change published the Special Report on the implications of 1.5 °C global warming. The report makes a compelling case for urgent and concerted global efforts to keep global warming below 1.5 °C instead of 2 °C. For example, the report underscores that at 1.5 degrees warming above preindustrial levels, projected reductions in food availability (including maize, rice, wheat, and potentially other cereal crops) are much lower than at 2 °C warming. It further highlights that under 2 degrees warming, a greater proportion of people in Africa will be exposed to multiple and compound climate-related risks, with resulting economic and environmental impacts. Potential impacts under the 2 degrees warming scenario compared with the 1.5 degrees warming scenario include increases in average drought periods from 4 months to 6 months, an increase in long heatwaves in Southern Africa from 20 days to 40 days, and the exposure of approximately 5 million more people to water scarcity.

17. The report concludes that development pathways, as reflected by current nationally determined contributions, will fail to limit global warming to 1.5°C, even if supplemented by very challenging increases in the scale and ambition of emissions reductions after 2030. If emissions do not start to decline well before 2030, then establishing climate-resilient pathways may require the large-scale deployment of carbon dioxide removal technologies – a form of geo-engineering. However, geo-engineering technologies are not well tested and proven and their risks are not well understood. It is therefore important for African countries to deepen their understanding of these issues, promote the adoption of a global dialogue on the risks and opportunities of geo-engineering, and advocate for the establishment of a governance framework for the development and deployment of relevant geo-engineering technologies.

6. Progress towards targets

18. There is a severe lack of data on the indicators for tracking progress towards the achievement of Sustainable Development Goal 13 in Africa. Table 1 provides a summary of indicators and targets and the indicative progress achieved on the continent.

Table 1

Summary of indicators and targets

<i>Target</i>	<i>Indicators</i>	<i>Comment</i>
13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	13.1.1: Number of deaths, missing persons and persons affected by disaster per 100,000 people	<ul style="list-style-type: none"> According to data provided by SDG Tracker, more than 18 million internal displacements occurred in Africa between 2009 and 2017, with more than 8 million displacements in 2012 alone That data reveals that few deaths occurred in Africa excluding North Africa between 1990 and 2016 (typically less than 0.1 deaths per 100,000 people), although deaths peaked at as many as 0.56 deaths per 100,000 people in 1997 Tropical Cyclone Idai affected more than 2.6 million people and caused more than 700 confirmed deaths across Malawi, Mozambique and Zimbabwe in March 2019
	13.1.2: Number of countries with national and local disaster risk reduction strategies	SDG Tracker data shows that 35 countries in Africa had adopted national disaster risk management strategies as of 2015
	13.1.3: Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies	Data for this indicator is not readily available
13.2: Integrate climate change measures into national policies, strategies and plans	13.2.1: Number of countries that have communicated the establishment or operationalization of an integrated policy/strategy/plan	<ul style="list-style-type: none"> All African countries have signed the Paris Agreement As of March 2019, 48 African countries have ratified the Paris Agreement Of the 126 Parties that have ratified the Doha Amendment to the Kyoto Protocol as of February 2019, only 31 are from Africa As of September 2018, five African countries, namely Burkina Faso, Cameroon, Kenya, the Sudan and Togo, have submitted national adaptation plans to the United Nations Framework Convention on Climate Change secretariat
13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning measures	13.3.1: Number of countries that have integrated mitigation, adaptation, impact reduction and early warning into primary, secondary and tertiary curricula	<p>Although little data are currently available on these indicators, a number of initiatives across Africa are underway to improve data availability. These include:</p> <ul style="list-style-type: none"> The Global Action Plan on Education for Sustainable Development, developed by the United Nations Educational, Scientific and Cultural Organization, to generate and scale up action at all levels of education with a view to promoting sustainable development The United Nations Alliance on Climate Change Education, Training and Public Awareness, which brings together a number of agencies of the United Nations systems, including the Food and Agriculture Organization of the United Nations, the International Labour Organization, United Nations Framework Convention on Climate Change, United Nations Educational, Scientific and Cultural Organization, United Nations Institute for Training and Research, UN-Women and the World Health Organization Participants at the sixteenth and seventeenth sessions of the African Ministerial Conference on Environment, held respectively, in 2017 and 2018, called for the creation of a platform for the integration of education and capacity-building for young
	13.3.2: Number of countries that have communicated strategies and plans to strengthen institutional, systemic and individual capacity-building with a view to promoting climate adaptation, mitigation and technology transfer	

		people and women with a view to supporting African countries in their efforts to combat climate change
13.A: Implement the commitment made by developed-country Parties to United Nations Framework Convention on Climate Change to mobilize \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency in implementation, and provide adequate financial resources to ensure the full operationalization of the Green Climate Fund at the earliest opportunity	13.A.1: Resources mobilized with a view to upholding develop countries' \$100 billion commitment	<ul style="list-style-type: none"> • African countries have submitted nationally determined contributions that will require some \$3 trillion in conditional and unconditional financial resources • Of the \$10.2 billion pledged to fund the Green Climate Fund, only approximately \$7 billion has been received by the Fund, which began its first replenishment in 2018. African countries have received \$2.3 billion (50 per cent of the Fund's funding) as of January 2019, which is being used to implement 36 projects • Only a small proportion of the pledged \$100 billion a year to 2020 has been provided by developed countries. Cumulative climate-related financial flows to Africa have only increased from \$615 million in 2000 to approximately \$408 billion in 2017
13.B: Strengthen mechanisms for building capacity for effective climate change-related planning and management in least developed countries and small island developing States, while ensuring that the concerns and needs of women, young people and local and marginalized communities are addressed	13.B.1: Number of least developed countries and small island developing States receiving specialized support to promote climate change-related planning and management and the amount of financial, technological and capacity-building support received	Many African least developed countries and small island developing States are receiving support from various entities but this support has not yet been quantified or reported on

II. Interlinkages with other Sustainable Development Goals

19. The impact of climate change can take many forms and can impede the achievement of all of the Sustainable Development Goals. In particular, it can have a negative impact on the energy, water, health, land and agriculture, health, peace and security and infrastructure sectors. Goal 13, therefore, provides a unique entry point for integrated approaches to implementation of the other Goals. Some of the interlinkages are illustrated below.

Goal 7 (Affordable and clean energy) and Goal 9 (Industry, innovation and infrastructure)

20. While industrialization has been associated with economic transformation and rapid growth, improved standards of living, the accumulation of capital, employment creation, improved food production, improved infrastructure, the advancement of technology, and poverty reduction, it has also given rise to serious challenges, including the generation of greenhouse gas emissions and industrial waste, and can have other negative effects on the environment, including noise, air, water and land pollution. History shows that industrial revolutions are closely linked to the availability of natural resources. Although industrial revolutions have spurred economic growth during the past 250 years, they have also accelerated climate change.

21. Climate change also has huge implications for the performance of critical infrastructure, which can be affected by increasingly frequent and more intense droughts, floods and heatwaves. Increased droughts result in loss of hydropower production potential, floods cause damage to road and urban infrastructure, and heatwaves shorten the useful life of infrastructure materials, particularly those used in road construction.

22. Promoting and accelerating inclusive and sustainable industrial development complements and amplifies the impact of urgent climate actions by encouraging the development of low-emission climate-resilient industrial development pathways that enhance resilience and adaptive capacity to climate-related hazards and natural disasters. Inclusive and sustainable industrial development also facilitates the integration of climate change measures into national industrial policies, strategies and plans, thereby promoting a virtuous cycle of industrialization and climate action.

Goal 12 (Responsible production and consumption)

23. Mineral extraction has adverse climate impacts, with associated emissions and land degradation. Yet, tackling climate change requires low-carbon technologies, which themselves require significant quantities of minerals. Wind power infrastructure, which is rapidly advancing to meet growing energy demands, is made of copper, steel, concrete, rare earth elements, aluminium, zinc and molybdenum. According to a 2019 report by the World Bank, demand for wind power is expected to rise by 63 per cent between 2018 and 2023 and there will therefore be increasing demand for those materials and rare earth elements. As mineral-intensive technologies are increasingly being adopted to mitigate climate change, demand for elements and materials available in mineral-rich African countries is expected to rise. To take full advantage of that growing demand in a sustainable manner, African countries should adopt practices that minimize the carbon and material footprints of their mineral extraction operations. They will need to adopt sound policies, good governance principles, broaden their knowledge and deepen their technical capacity with a view to designing effective and coherent mineral extraction strategies. There is, therefore, a need to deepen awareness of the challenges posed by the sustainable development of mineral and other resources, and the need for an innovative climate approach that decouples the

development of low-carbon technologies from the adverse impacts of natural resource extraction.

Goal 3 (Good health and well-being)

24. Climate change can have a significant impact on health. A working paper on climate change and health in Africa issued by the African Climate Policy Centre concluded that most of the health impacts of climate change are indirect, with the most significant manifestations being malnutrition, neglected tropical diseases, diarrhoea, malaria and meningitis. Climate change will worsen existing food production and consumption stresses for countries that are already food insecure, thereby amplifying malnutrition. Furthermore, climate change is also exacerbating the spread of transboundary pests, including ticks, tsetse flies and locusts, and many of those pests can have a devastating impact on food production. Furthermore, most pathogens that induce diarrhoea are water borne, and climate change, which will affect water availability, quality and temperature, could exacerbate the prevalence of diarrhoea across the continent. In the case of malaria, climate change will lead to increased rainfall in typically dry regions and increased temperatures at high altitudes, resulting in changes in the distribution and mutation of mosquitos. This will put more people at risk of contracting malaria and necessitate investments in research to develop innovative treatments for the disease. It is, moreover, possible that this will reduce the funding available for traditional treatment projects.

Key challenges

25. In responding to climate change in Africa, countries face a number of challenges. These include:

- A sectoral focus and limited coherence among nationally determined contributions in many countries. There is often limited institutional coordination in the elaboration and implementation of nationally determined contributions;
- Inadequate financial, technical and human resources to ensure effective implementation of climate-related projects;
- Limited investment in the production and uptake of climate information and services;
- A lack of data to inform Goal 13 indicators, which impedes the effective monitoring, follow up and review of progress achieved;
- An inadequate policy and regulatory environment, which impedes the mobilization of private-sector resources.

Priority actions

26. The following priority actions are needed to enhance progress towards the attainment of Goal 13 in Africa:

- Given the multidimensional nature of climate change, there is a need to promote the adoption of integrated approaches in support of climate change actions;
- Countries need to urgently review, reformulate and package their NDCs into coherent and cross-cutting investment products to attract private-sector financing in support of climate change and development actions;
- Countries should put in place coherent and stable policies and establish a conducive regulatory environment that is attractive to investors;

- Countries should invest in the production and uptake of climate information services;
- Countries should promote and nurture innovation and entrepreneurship with a view to identifying solutions to climate change challenges;
- Countries should prioritize actions in support of the most vulnerable sectors of society;
- Countries should invest in data collection to inform Goal 13 indicators and strengthen the capacity of national statistical bodies to collect and disseminate data relevant to monitoring, evaluating and reporting on progress towards the achievement of that Goal. That data should be disaggregated by age, gender, income and geographical location so that action can be taken to support groups that are particularly vulnerable to the impact of climate change;
- Action should be taken to strengthen the capacity of countries to promote climate resilience when they design and implement development projects in key climate-sensitive sectors, such as water, energy, agriculture, transport and ecosystem protection.

III. Conclusion

27. The development aspirations of Africa, as articulated in national development plans, the 2030 Agenda and Agenda 2063, cannot be achieved without concerted global action to tackle climate change, including support for means of implementation of countries' nationally determined contributions, and without comprehensive national reviews to ensure the coherence of what must be cross-cutting policies and actions that can help to mobilize private-sector resources.

28. Climate change offers significant opportunities for public and private investment, including in clean technologies that can help to generate clean jobs for the increasingly youthful population in Africa. Furthermore, the establishment of the African Continental Free Trade Area could facilitate the achievement of Goal 13 in Africa by bolstering positive synergies among trade policies, climate change adaptation and mitigation measures, energy generation, agriculture, industrialization, infrastructure development and urbanization.

