



## PRIORITIES FOR AFRICA'S AGRICULTURE

### From the African Ministerial Conference on the Environment (AMCEN) the 2021 United Nations Climate Change Conference COP 26

*Commentary Published by Care International, the Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN) and the Global Alliance for Climate Smart Agriculture (GACSA)*

#### INTRODUCTION

Agriculture underpins the livelihoods of over 2.5 billion people worldwide<sup>1</sup>. Climate change is expected to make agricultural development in Africa more challenging. Weather patterns are becoming less favorable in many instances, increasing the volatility of crop and livestock yields<sup>2</sup>. Climate change especially presents a significant threat to the Southern Africa Development Community (SADC) region as it is expected to increase the frequency and intensity of climatic events. Predicted higher temperatures, altered rainfall patterns, and an overall decrease in rainfall will have serious consequences for the region<sup>3</sup>.

The recent extreme climate variations associated with the Tropical Cyclone Eloise which made landfall in northern Madagascar as a moderate tropical storm, bringing with it heavy rainfall and flooding caused widespread damage and heavy flooding in central Mozambique<sup>4</sup> is one of many consequences of climate change. The storm displaced more than 16,000 people, damaged around 17,000 houses, and killed more than a dozen people across a few countries in southeast Africa. Cyclone Eloise comes as communities in Mozambique, Zimbabwe, and Malawi are still recovering from the devastating effects of the El Niño event, Cyclone Idai in March and Cyclone Kenneth in April 2019 two of the top five worst storms to ever hit the region.

In addition, the Region like all other countries in the world is grappling with addressing the fall out resulting from the novel coronavirus (COVID-19) Pandemic. SADC recorded its first case of COVID-19 in early March, and since then, the numbers have been increasing. The socio and economic impacts of COVID-19 in SADC may be unprecedented due to resource limitations, and inadequacies in health systems in many of the Member States. Given the sector's innate interactions with the environment,

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<sup>1</sup> FAO. 2021. The impact of disasters and crises on agriculture and food security: 2021. Rome.

<https://doi.org/10.4060/cb3673en>

<sup>2</sup> McKinsey Global Institute (MGI). How will African farmers adjust to changing patterns of precipitation? Case study. May 2020. Available at <https://www.mckinsey.com/business-functions/sustainability/our-insights/how-will-african-farmers-adjust-to-changing-patterns-of-precipitation#>

<sup>3</sup> <https://www.sadc.int/themes/meteorology-climate/>

<sup>4</sup> <https://public.wmo.int/en/media/news/tropical-cyclone-eloise-hits-mozambique>

its direct reliance on natural resources for production, and its significance for national socio-economic development, urgent and ambitious action is needed to build more resilient agricultural systems.

In November 2021 the twenty-sixth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP 26) in Glasgow, United Kingdom will face the monumental task of bridging the gap between countries' current climate commitments and the significant transformation needed to tackle the climate emergency. CARE Southern Africa, the Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN) and the Global Alliance for Climate Smart Agriculture (GACSA) are publishing this commentary to reflect on the outcomes of the Eighth Special Session of the African Ministerial Conference on the Environment (AMCEN) was held virtually on 4 December 2020 under the theme: '[Enhancing environmental action for effective post-COVID recovery in Africa](#)' with a view to highlight concerns about the impact of climate change on agriculture in the Southern Africa region given the central role played by agriculture in the economies of the Southern Africa Development Community (SADC) Member States (MS) and to position not only SADC MS but African Member States as a whole in preparation for the UNFCCC COP 26.

### **THE CHALLENGE: CLIMATE CHANGE TRENDS AND VULNERABILITIES**

Africa is facing increasing hunger and malnutrition due to the impact of climate change. These challenges are not only threatening future food production prospects, but they are also rolling back achievements in Africa's food systems<sup>5</sup>. The year 2019 was among the three warmest years on record for the continent and that trend is expected to continue<sup>6</sup>. African temperatures in recent decades have been warming at a rate comparable to that of most other continents, and thus somewhat faster than global mean surface temperature. The latest decadal predictions, covering the five-year period from 2020 to 2024, shows continued warming and decreasing rainfall especially over North and Southern Africa, and increased rainfall over the Sahel.

Extensive areas of Africa will exceed 2°C of warming above pre-industrial levels by the last two decades of this century under medium scenarios as reported in the Intergovernmental Panel on Climate Change Fifth Assessment Report. Much of Africa has already warmed by more than 1 °C since 1901, with an increase in heatwaves and hot days. A reduction in precipitation is likely over North Africa and the south-western parts of South Africa by the end of the century, according to the Intergovernmental Panel on Climate Change (IPCC)<sup>7</sup>.

Evidence is that the southern African region is experiencing an increasing frequency of hot days and a decreasing frequency of extremely cold days. According to the International Panel on Climate Change, temperatures in Southern Africa are rising at twice the global average, so climatic shocks are likely to continue increasing in both frequency and severity. Rainfall trends are variable, but evidence points to an increased interannual variability, with extremely wet periods and more intense droughts in different countries.

Projections show that changes will not be uniform over the region; the central, southern land mass extending over Botswana, parts of north-western South Africa, Namibia and Zimbabwe is likely to experience the greatest warming of 0.2 - 0.5°C per decade. Frequency of extremely dry winters and springs will increase by roughly 20%, while the frequency of extremely wet summers will double.

<sup>5</sup> M.K., Dodo. 2020. Understanding Africa's Food Security Challenges. DOI: 10.5772/intechopen.91777.

<sup>6</sup> Blunden, J. and D. S. Arndt, Eds., 2020: State of the Climate in 2019. Bull. Amer. Meteor. Soc., 101 (8), Si-S429 <https://doi.org/10.1175/2020BAMSStateoftheClimate.1>

<sup>7</sup> IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.

Warming is also predicted to increase the frequency and intensity of tropical storms in the Indian Ocean. These shocks are costly, the World Bank finds that the cost of delayed response to drought could be as much as 3.9% of GDP per capita in low-income countries<sup>8</sup>.

### IMPACTS OF COVID 19 ON FOOD SECURITY

According to the World Food Program (WFP)<sup>9</sup> a record 45 million people - mostly women and children - in the 16-nation Southern African Development Community are gravely food insecure following repeated drought, widespread flooding and economic disarray and the worst affected country is Zimbabwe. The WFP estimates that in Zimbabwe alone the number of people facing food insecurity will reach 8.6 million by the end of this year. The organization also estimates that the current level of food insecurity has not been seen for many years. The problem has been aggravated by the lockdowns stemming from the COVID-19 pandemic which has resulted in a rise in unemployment. Farmers and women are amongst the groups that have been particularly affected by COVID-19 which has obviously had a negative impact on food security.

Sub-Saharan Africa (SSA) is one of the most vulnerable regions to the social and economic impacts of COVID-19. The region's vulnerability is a result of several factors which include; poor health facilities in many SSA countries and low capacity for testing, timely detection and response to COVID-19 cases<sup>10</sup>. More specifically, the initial movement restrictions (complete and partial lockdown) enacted by countries coincided with the planting periods (important in the agricultural calendar) for most of the staple crops in the region. SSA accounts for nearly 13% of the population globally, with the proportion of the population living in poverty and undernourished remains high among the rural communities<sup>11</sup>.

Rainfed agriculture is the mainstay of most of Africa's rural population<sup>12</sup>. In particular, the months of March and April are the planting periods for some of the important staple crops in SSA and very significant in the cropping calendar, though there is temporal and spatial variability in planting time<sup>13</sup>. In March 2020, South Africa declared two back-to-back States of Disaster in an 11-day period, first for drought and then for the pandemic. Neighbouring countries followed suit soon after<sup>14</sup>. Currently, the extent of the impacts of COVID-19 crisis on agriculture in SSA is unclear, including potential impacts on the agricultural value chain. What is obvious at present is that COVID-19 is disrupting activities of farming communities, with potential negative impacts on agricultural production. The COVID 19 pandemic has revealed the challenges and wide-ranging consequences of managing major crises.

While the COVID-19 pandemic has put additional challenges to the social and economic systems in Africa, it presents an opportunity to reset the global economy on a pathway towards a more environmentally sustainable and low-carbon developmental trajectory. It is thus critical at this stage of the pandemic to re-energize implementation of PARIS, AMCEN and African Union commitments,

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<sup>8</sup> The Chronology of a Disaster. Available at <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/796341557483493173/the-chronology-of-a-disaster-a-review-and-assessment-of-the-value-of-acting-early-on-household-welfare>

<sup>9</sup> UN sounds alarm over unprecedented levels of hunger in southern Africa. January 2020. Available at <https://www.theguardian.com/global-development/2020/jan/16/un-sounds-alarm-over-unprecedented-levels-of-hunger-in-southern-africa>

<sup>10</sup> Ayanlade, A., Radeny, M. COVID-19 and food security in Sub-Saharan Africa: implications of lockdown during agricultural planting seasons. *npj Sci Food* 4, 13 (2020). <https://doi.org/10.1038/s41538-020-00073-0>

<sup>11</sup> United Nations, P. D. World Population Prospects 2019 (United Nations, 2019).

<sup>12</sup> Shimeles, A., Verdier-Chouchane, A. & Boly, A. Building a Resilient and Sustainable Agriculture in Sub-Saharan Africa 1–12 (Springer, 2018).

<sup>13</sup> Nyagumbo, I., Mkuhlani, S., Mupangwa, W. & Rodriguez, D. Planting date and yield benefits from conservation agriculture practices across Southern Africa. *Agric. Syst.* 150, 21–33 (2017).

<sup>14</sup> <https://blogs.worldbank.org/african/southern-africa-why-risk-financing-critically-important-during-covid-19-recovery>

with a focus on investing in innovative solutions, including financing and policy interventions towards Africa's recovery from the pandemic. This will set a foundation for long-term contribution to the post-COVID-19 recovery plan for Africa, premised on leveraging the environment to rebuild better.

### **AMCEN Key policy messages in preparation for the twenty-sixth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change**

The Eighth Special Session of the African Ministerial Conference on the Environment (AMCEN) which was held virtually on 4 December 2020 under the theme: '[Enhancing environmental action for effective post-COVID recovery in Africa](#)' was attended by representatives of AMCEN member States, other States, African regional and subregional organizations, United Nations entities and the secretariats of various environmental conventions, partners, and intergovernmental and non-governmental organizations. The ministerial segment was chaired by Ms. Barbara Creecy, Minister for the Environment, Forestry and Fisheries, South Africa, and President of AMCEN. The Ministers recognized that the coronavirus disease (COVID-19) pandemic has placed additional pressure on Africa's socioeconomic development and the continent's efforts to achieve sustainable development and eradicate poverty, as Africa depends heavily on its environmental and natural resources. They reaffirmed their commitment to continuing the efforts to conserve, protect and enhance the resilience of our environment and natural resources as part of our determined efforts in the fight against the COVID-19 pandemic. They committed to increase efforts to build a more sustainable and inclusive recovery so as to conserve, protect and restore the environment and enhance our resilience in the face of future crises, as an integral part of Africa's socioeconomic recovery from the COVID-19 pandemic.

The special session also provided an opportunity for the continent to find common grounds for the twenty-sixth session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, to be held in Glasgow, United Kingdom, in November 2021. The African ministers for the environment meeting under the banner of AMCEN received a brief from the African Group of Negotiators on Climate Change on the readiness of the group for the UNFCCC-COP26.

The Ministers acknowledged the findings of the international scientific community, including the reports of the Intergovernmental Panel on Climate Change, on the call for urgent and ambitious action on climate change, and emphasized the findings that recognize the special needs and circumstances of Africa that contribute to the vulnerability of all African countries to the impact and consequences of climate change. They reaffirmed their commitment to ensuring an effective multilateral approach to addressing climate change through the United Nations Framework Convention on Climate Change and the Kyoto Protocol thereto and the Paris Agreement adopted thereunder and reiterate our commitment to their implementation in line with the principles and provisions of the Framework Convention on Climate Change, while emphasizing equitable access to sustainable development and the eradication of poverty and recognizing the specific needs and special circumstances of African countries.

They also reaffirmed the commitment of African countries to the implementation of the Paris Agreement in line with articles 2 and 3 thereof, by communicating and implementing ambitious nationally determined contributions that include mitigation, adaptation and means of implementation, reflecting equity and the common but differentiated responsibilities and capabilities of parties, while acknowledging the special circumstances of Africa, in relation to which we stress the importance of respecting country ownership and policy space in all aspects related to climate change. They stressed the importance of the equitable, accurate and timely implementation of the Framework Convention on Climate Change and the Paris Agreement, and the link between the actions of developing countries and the support provided to them by developed countries.

They also stressed that those developed countries must take the lead in climate action and in the provision of predictable, sustainable and adequate support, both financial and technological, to developing countries and that they should honour their commitments in accordance with article 4 of the Framework Convention on Climate Change and article 9 of the Paris Agreement by providing new, additional, adequate and predictable financial sources from both public and private entities to the climate-related funds, in particular, the Adaptation Fund, the Global Environment Facility and the Green Climate Fund, to reflect the level of ambition and climate action of African countries.

### What Needs to Happen?

Adaptation is a key priority of the African continent in that regard there is need for further elaboration of adaptation planning and implementation under the Framework Convention on Climate Change and the Paris Agreement to address extreme weather events and slow-onset events. All parties need to reach an agreement in a timely manner on the implementation of article 7 of the Paris Agreement, including on the global goal of adaptation, adaptation needs and associated costs, and the recognition of the contributions made by African countries from their own budgets, and African countries need to report on their adaptation needs, gaps, planning, efforts and action.

CARE Southern Africa, FANRPAN and GACSA want to underscore the need to capture the views of developing country parties, taking into consideration that agriculture is the backbone of developing countries and their economic systems. In this context, there is an urgent need to increase the adaptive capacity of agriculture to deal with the adverse effects of climate change. This continues to be the key priority for developing countries for SBSTA work, in light of the particular vulnerabilities of the agricultural sector and its relationship with the livelihood of millions, food security and poverty eradication. This is in line with the Paris Agreement, which recognizes the fundamental priority of safeguarding food security and ending hunger, and the particular vulnerabilities of food production systems to the adverse effects of climate change. As well, it is important to recall that the Agreement states in its objective that food production is not to be threatened.

Agriculture will in the foreseeable future remain the economic mainstay of most African countries, contributing directly for food security, employment and supply of industrial raw materials. Currently over 65% of the continent's population derives its livelihoods directly from smallholder rain-fed farming of crops, livestock and freshwater fisheries. Available empirical evidence on impacts of climate change on agriculture and livelihoods in Africa reveal critical shortcomings of current agricultural production systems: including supporting policies, institutions, technologies, knowledge bases, infrastructure and levels of financing. Furthermore, scientific evidence shows that Africa's diverse agro-ecologies and their associated agricultural production systems are invariably vulnerable on climate change and climate variability, but yet they require different adaptation responses.

The increasing frequency and severity of droughts, seasonal dry spells, high and low temperature stresses as well as floods are threats, not only to agricultural production, but also to industry, commerce, trade and viability of traditional institutions, all of which have been anchored on agriculture. Recognizing the magnitude of responses required at different scales in the different agro-sectors, there are calls across Africa for adaptation measures that support transformation of agricultural systems. Such adaptation measures will require large financial investments at different levels of policy planning, technical and knowledge support, and local/community levels.

More specifically, the following need to happen:

- 1. Prioritize improving smallholder farmer productivity and income in the context of the effects of climate change.**
  - Boost funding for demand-driven research and development, to conquer such challenges as droughts and floods.
  - Improve distribution of seeds and protection of genetic crop diversity.
  - Improve digital technology, weather information, technical farmers' assistance, and education.
  
- 2. Manage risks from increased variability and climate shocks.**
  - Help diversify income, including off-farming activities if feasible.
  - Strengthen social security systems, helping to guarantee food security.
  - Stimulate development of weather-based agricultural insurance.
  - Improve access to finance for small-scale food producers, linking them to available funding by private investors.
  
- 3. Address the challenges of the most climate-affected and vulnerable.**
  - Improve the rights and resources of women farmers (40% of global farmers workforce) and young people.
  - Secure transition funds for alternative farming systems (different crops, methods, technologies).
  - Assist pastoralists (especially in Africa), 268 million of whom already suffer from high rates of food insecurity.
  
- 4. Make agriculture interventions climate resilient.**
  - Redirect public funds to facilitate climate-smart decisions.
  - Support synergies and avoid tension between mitigation and adaptation: the same food systems that emit too much carbon should also produce more food in the future: Focus on reducing food loss and waste.
  - Conserve land and water resources: Galvanise agro-ecological approaches.

## CONCLUSION

Climate change is a decisive global challenge, which, if not urgently addressed, will put at risk not only the environment and the ecosystems on which we all depend but also world economic prosperity, development, food security and, more broadly, stability and security. The predicted impact of climate change on precipitation, temperature and the increased frequency and intensity of droughts and floods are likely to negatively affect water resources and the agricultural sector in the SADC region.

CARE Southern Africa, the Food, Agriculture and Natural Resources Policy Analysis Network (FANRPAN) and the Global Alliance for Climate Smart Agriculture (GACSA) working with national, regional and international partners confirm their commitment towards supporting SADC member states to make agriculture and food production in sub-Saharan Africa more productive, sustainable

and resilient to climate change. We will continue to support countries to reduce poverty, hunger, and malnutrition whilst addressing the broader aims of the Sustainable Development Goals and key targets of the Malabo Declaration on Accelerated Agricultural Growth and Transformation for Shared Prosperity and Improved Livelihoods in Africa.

This commentary has been developed to make recommendations on key priority actions related to climate resilient sustainable agriculture, nutrition and agriculture investment. It is clear that prioritized investment in and improvement of the agricultural sector, not only bolsters food security and nutrition but, offers the greatest potential for increasing broad-based inclusive growth that would reduce poverty and inequality and increase resilience to economic shocks in Sub-Saharan Africa.