## Climate Research for Development in Africa

Programme strategy (2019–2023)















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#### Message from the oversight board

Science-informed and evidence-based policy, planning and practices are essential to ensuring African development is sustainable and more resilient to the negative impacts of climate change. Hence, there is an increasing need for tailored weather and climate services, adaptation strategies, sustained policy support that will reduce Africa's vulnerability to the vagaries of severe weather and extreme climate events. However, the major challenges facing the African climate research include lack of a critical mass of trained scientists with requisite expertise in understanding and predicting the climate driving mechanisms across time, space scales and inadequacy of observational networks for meteorological, hydrological and related environmental data. Further compounding the problems is a weak communication and computational capacity, as well as inadequate climate database management system. In this regard, the Climate Research for Development (CR4D) in Africa initiative promotes and nurtures a long-term collaborative African climate research agenda and related activities. The research should be driven by user information needs for decision support and strengthened through interdisciplinary co-design that enables the mainstreaming of climate information into policy for contingence planning of climate sensitive socio-economic activities and decision-making processes. The CR4D initiative is envisaged to support the up scaling of existing and new initiatives, fostering international collaboration and joint planning between projects and other initiatives. However, this ambitious research initiative requires close collaboration within the Africa climate research community, across existing projects, and forging linkages with new regional and international partners. The CR4D Oversight Board believes that the CR4D 5-years strategy will contribute to socio-economic development and poverty eradication efforts of Africa by conducting user-inspired climate science research that translates into appropriate and actionable information for policy and sustainable development planning.

### Message from the Scientific Advisory Committee

Climate scientists predicted that future climate variability and change would significantly affect the livelihoods of both rural and urban communities in Africa. There is therefore an urgent need for African leaders to obtain accurate climate information to develop a large range of policy tools and services that would allow them to tackle this climatic injustice more effectively and efficiently. Since 2015, the Climate Research for Development in Africa initiative has benefited from the advice and expertise of African climate scientists provided to help other African scholars, policymakers, investors and other decision makers to generate quality climate information and apply these services in various socioeconomic initiatives to adapt to climatic extremes and their mitigation, as well as to reduce the risk of natural disasters.

With the support of its Scientific Advisory Committee, the Climate Research for Development in Africa secretariat has developed a strategic framework, providing a road map to improve the provision of climate services in Africa in the coming five years (2019–2023). Key features of this strategic framework include a strategic plan for climate research development in each subregion of Africa, a grant management framework for funding the implementation of Climate Research for Development in Africa and recommendations for identifying, mapping and bringing together key Climate Research for Development in Africa stakeholders to ensure the full implementation of the strategy for a better development of climate policies and investment. It is in this context, that the Committee provides guidance to the Climate Research for Development in Africa secretariat on climate research, policy, investment and other decision-making processes targeting climate variability and change. In addition, it has helped the secretariat to assess the climate information needs in each subregion of Africa. It has also assisted in identifying and mapping the members of an Institutional Collaborative Platform on climate research for development.

It is the sincere hope of the Climate Research for Development in Africa initiative that the full implementation of the its strategic framework will ensure an uninterrupted delivery of critical climate information services and technologies for adaptation to and the mitigation of climate change in Africa.

### Message from the Institutional Collaboration Platform

The Institutional Collaboration Platform was operationalized in December 2017 as one of the Climate Research for Development in Africa governance structures to provide a space that promotes an interactive and collaborative research approach by bringing climate science, services and policymaking under a coordinated multidisciplinary network of expertise and institutions to collectively tackle user-driven research challenges, while maximizing the opportunities presented by climate change and variability to socioeconomic development in Africa. Collaboration on user-driven research and capacity-building are therefore important components emphasized by the Platform. The quality of products and services that meet the needs of users and society relies on a synergy being built among institutions. In addition, collaboration among the various institutions needs to be harnessed to avoid unnecessary duplication, conflict and the danger of leaving gaps in the process. Increasingly, development partners look favourably on collaborative projects that are implemented at regional and multidisciplinary scales.

The platform meets biannually to review progress and provide further guidance regarding users' climate information needs and priorities. The Platform has a chair and a vice-chair elected by its members, who serve for a period of two years. The members have been running various projects, programmes and activities that could provide great opportunities for the implementation of the Climate Research for Development in Africa agenda.

Accordingly, the Climate Research for Development in Africa initiative acknowledges the need for the Platform and places emphasis on greater user involvement so that its efforts become completely responsive to the societal needs, as emphasized in this five-year strategic plan of the initiative.

#### **Executive summary**

The Climate Research for Development in Africa strategic plan for the period 2019–2023 is aimed at maximizing the opportunities presented by climate variability and change and tackling the challenges posed to the socioeconomic development efforts of Africa. It specifically sets out directions and priorities to catalyse pan-African multidisciplinary climate research that is responsive to specific users and the development planning needs at the local, national and regional levels. In addition, it is intended to create a platform through an interactive and collaborative approach uniting climate science, services and policymaking under a coordinated network of expertise and institutions.

Furthermore, the strategic plan is aimed at improving knowledge, access, quality, usability and the mainstreaming of climate information into development planning and programmes to attain Africa's development objectives, as framed by the 2030 Agenda for Sustainable Development Goals, the Paris Agreement and Agenda 2063: The Africa We Want. Accordingly, the strategic plan 2019–2023 sets out the following four structural goals to sustainable development and to improve research capacity on the continent:

The CR4D five -year (2019-2023)
Strategic Plan sets out research priorities in pursuance of four structural goals facilitating the establishment of multidisciplinary demand-driven research activities and three knowledge frontiers that frame the research foci relevant to the continent."

- (a) Co-design multidisciplinary research for improving climate forecast skill and reliability across temporal and spatial scales;
- (b) Improve information service delivery, including information from observing systems;
- (c) Develop scientific and institutional capacity;
- (d) Provide climate services and user interface platforms.

Based on the 2013 African Climate Conference recommendations and emerging issues in the climate science area, the strategic plan has been created to advance African climate knowledge frontiers and provide a road map for mainstreaming climate information into the policy, practices and decision-making process. The Climate Research for Development in Africa knowledge frontiers are grouped broadly into three major thematic areas:

- (a) Foundational climate science;
- (b) Impact, information, translation and communication;
- (c) Engagement with policy, development and decision-making communities.

The implementation of these knowledge frontiers will contribute to the realization of the structural goals of the Climate Research for Development in Africa initiative. Each thematic area is overseen by a working group that develops research activities. The operation of the working group is monitored by the Climate Research for Development in Africa secretariat and is accountable to the Scientific Advisory Committee and the secretariat for the implementation of the research. Overall, carrying out the strategic plan requires input from diverse experts in climate science research, applications and policy in its effort to guide climate research for the period 2019–2023 and to bring the greatest benefit to the end user communities.

#### I. Introduction

The outcomes of the Intergovernmental Panel on Climate Change Assessment Reports provide evidence of considerably increased warming throughout Africa, which is consistent with human-induced climate change. The future effects of climate change are also believed to cause wide fluctuations in temperature and precipitation. Adapting to this changing climate requires not only understanding future climate projections and risks, but also factoring in climate research findings into development policy, plans and practices in climate-sensitive socioeconomic sectors such as agriculture and food security, health, disaster risk reduction, energy and natural resources management (e.g., water, forests and others), gender, migration, urbanization, infrastructure and marine and coastal zones.

The climate knowledge gaps in Africa, however, remain large and need targeted but sustained capacity development interventions to resolve them, especially in the areas of climate science research, applications and policy in

order to enhance scientific understanding of past, present and future climate. It is therefore critical that climate research in Africa provide accurate, timely, reliable and spatially relevant information to guide appropriate climate change adaptation and mitigation action identified by member States in their nationally determined contributions documents. Furthermore, such climate research should be demanddriven, responsive to user needs and be situated in the contexts of the 2030

Agenda for Sustainable Development, Agenda 2063: The Africa We Want and the Paris Agreement.



The Climate Research for Development in Africa initiative represents a paradigm shift in dealing with climate change and development on the continent by providing a mechanism for combining Africa-wide climate research initiatives, given that it brings together scientists, practitioners, institutions and development actors to deliver on priority end-user needs. It also plays a critical role in mobilizing African climate researchers around a unified climate research agenda to tackle the priority needs of policymakers and vulnerable communities in

Africa and build the capacity of African climate scientists through cross-regional exchanges, fellowship and secondments.

The Climate Research for Development in Africa strategic plan sets out the priorities for the coming five-year period (2019–2023) in pursuance of the four structural goals facilitating the establishment of multidisciplinary demand-driven research activities on the continent and the three knowledge frontiers that frame the research focus areas. The strategic plan is aimed at advancing African climate research frontiers, while providing a road map for mainstreaming climate information into the policy, practice and decision-making process. It provides a road map for young African scientists and key institutions to nurture research ideas and further develop these ideas into pan-African research activities. In addition, it will create a multidisciplinary and multi-stakeholder collaborative platform that mobilizes expertise and resources to conduct user-inspired research that informs climate change policy and plans in Africa.

## II. Climate research for development framework for implementation

Climate Research for Development in Africa is founded through the partnership between the African Climate Policy Centre of the Economic Commission for Africa (ECA), the African Ministerial Conference on Meteorology, the World Meteorological Organization, the World Climate Research Programme and the Global Framework for Climate Services.

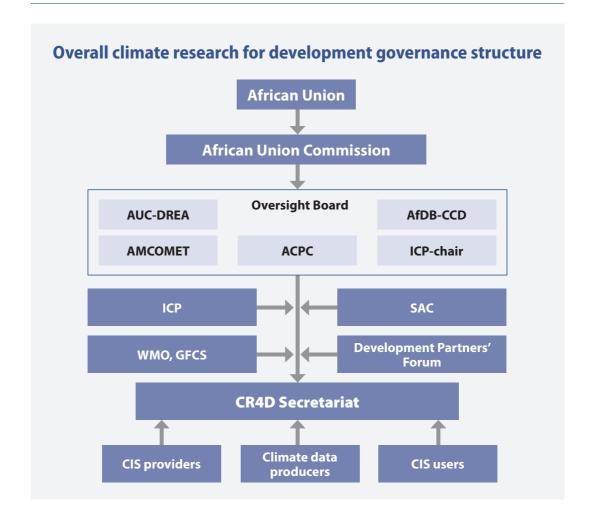
The Climate Research for Development in Africa initiative's governance structure includes an Oversight Board, the Scientific Advisory Committee and the Institutional Collaboration Platform. These entities are supported by the Climate Research for Development in Africa secretariat, hosted by the African Climate Policy Centre. The Climate Research for Development in Africa initiative will continue to look for optimal ways to ensure an effective and efficient mechanism for implementation. The Platform and Committee will establish subcommittees that are responsible for specific and time-bound tasks, as the agreed actions require. Furthermore, a grant management framework will be established for management of extrabudgetary funds and resources and will operate transparent, high-quality, independent and objective research commissioning, grant administration and management systems. A grant review subcommittee will come under the framework,1 to be constituted on ad hoc basis. The purpose of the subcommittee is to review Climate Research for Development in Africa grant and project proposals, with the secretariat and Committee co-chairs leading the process (see figure below, which illustrates the overall structure of the Climate Research for Development in Africa implementation mechanism).

- The Climate Research for Development in Africa Oversight Board is composed of the representative of the African Climate Policy Centre, the Director of the African Ministerial Conference on Meteorology secretariat, its Bureau Chair, the Directorate of Rural Economy and Agriculture of the African Union Commission, the Climate Change Directorate of the African Development Bank and the chair of the Institutional Collaboration Platform. Its role includes the provision of strategic direction on the Climate Research for Development in Africa agenda, reviews and endorsement of the budgets of the initiative and provision of oversight in the operation of the Scientific Advisory Committee (including its membership) and the Platform. The terms of reference for the Oversight Board are found in annex I to the present report.
- Scientific Advisory Committee: a volunteer committee whose principal role is to provide guidance for Climate Research for Development in Africa research priorities

<sup>1</sup> Resources will be made available for the subcommittee to facilitate the review process.

- and scientific assessment. Members of the Committee are appointed by the Oversight Board. It is the core of the Climate Research for Development in Africa structure in terms of providing coordinated and converged advice and guidance for issues concerning African climate research in the overall implementation of the initiative (see annex II).
- Institutional Collaboration Platform: a continent-wide platform of participating and collaborating climate research institutions, academia, regional climate centres, regional economic communities and civil society organizations, including user sectors and other related institutions. Continuous consultation with users and partners is a key essence of the Climate Research for Development in Africa, as is providing guidance to the overall CR4D implementation mechanism to ensure that research is relevant to the climate knowledge users in Africa (see annex III).
- Climate Research for Development in Africa secretariat: hosted at the African Climate Policy Centre and expected to coordinate and facilitate the implementation of the Climate Research for Development in Africa agenda on a day-to-day basis. It has been central in establishing the Scientific Advisory Committee and the Institutional Collaboration Platform, and in the initial phase of launching the Climate Research for Development in Africa action identified in Marrakech 2014.<sup>2</sup> In the coming five-year period, the principal role of the secretariat is to facilitate the work of the Oversight Board, the Committee and the Platform to implement the agreed plans efficiently and effectively. The secretariat reports to the Oversight Board (see annex IV).
- Development Partner Forum: the Climate Research for Development in Africa initiative shall continuously seek opportunities to interact with various donors. A donor forum shall be the main platform through which interested partners can convene in support of a unified climate research agenda in Africa.
- The Journal Editorial Subcommittee: the *Scientific* Advisory Committee is also tasked with coordinating the editorial and peer review process of papers submitted for publication in the Climate Research for Development in Africa proposed journal. The Committee co-chairs, in consultation with the Climate Research for Development in Africa secretariat and broader representation of the African climate community, will constitute the Subcommittee.

<sup>2</sup> Climate Research for Development strategy meeting. Available at https://www.wmo.int/amcomet/sites/default/files/field/doc/events/africa\_collaboration\_platform\_concept\_note\_01102014r.pdf.



### III. Vision, mission, principles and core values

#### A. Vision

The Climate Research for Development in Africa vision is to catalyse multi-institutional, multidisciplinary, integrated and demand-driven climate research that is responsive to specific user and development planning needs.

#### **B.** Mission

The overarching mission of the Climate Research for Development in Africa initiative is to improve knowledge, access, quality, usability and the mainstreaming of climate information into development planning and programmes in Africa, emphasizing co-exploring, co-designing, co-producing and co-communicating.

#### C. Principles

Climate Research for Development in Africa is intended to enhance a continental and international community of researchers engaged on African climate issues and able to respond to its user-informed strategic research goals. Resources will be mobilized to conduct research and explore key knowledge frontiers relevant to African policy and adaptation and mitigation communities, with special emphasis on developing human and infrastructural capacity to lead such research. Accordingly, the cross-cutting principles of Climate Research for Development in Africa include the following:

- Pan-Africanism advancing research frontiers that focus on user information needs in Africa
- Cross-regional sharing, learning and capacity exchange
- Provision of timely, quality and relevant climate information for users

#### D. Core values

The core values of Climate Research for Development in Africa are:

- Accountability
- Partnership
- Teamwork
- Inclusiveness
- Quality research

# IV. Gaps, challenges and political, economic, sociocultural, technological, legal and environmental (ecological) analysis

#### A. Gaps and challenges

The following list of gaps and challenges need to be tackled for the effective implementation of the Climate Research for Development in Africa agenda:

- Weak collaborative research partnerships for co-designing, co-resourcing and coproducing demand-driven research
- Poorly coordinated pan-African strategic capacity-building and development
- Inadequate characterization of extremes and their impact (e.g., risk profile and mapping) to strengthen resilience and adaptive capacity to climate-related hazards and natural disasters
- Ineffective integration of climate change measures into national policies, strategies and planning
- Poor understanding of climate impact in five priority Global Framework for Climate Services areas (i.e., agriculture, water, health, disaster risk reduction, health, water and energy) in Africa
- Inability to provide robust scenario projections aligned with specific goals or milestones of Agenda 2063
- Lack of capacity to provide comprehensive continent-wide scenario projections for key socioeconomic sectors in Africa, based on 1.5–2°C temperature thresholds for the implementation of the Paris Agreement



- Limited climate research informed by national and regional climate change mitigation and adaptation strategies that would also support the implementation, review and monitoring of nationally determined contributions
- Inadequate promotion of climate science research (in response to extreme events and resilience), leading to application and decision-making tools that can enhance productivity in key socioeconomic sectors
- Lack of effective frameworks for enhancing disaster preparedness, reduction and response
- Lack of adequate research for enhanced early warning
- Lack of enhanced production and delivery of weather and climate information services for sustainable development (social, economic and environmental governance)
- Limited and uncoordinated climate research (atmosphere-land-ocean-cryosphere coupling) that supports the resilience of vulnerable communities, ecosystems and livelihoods owing to sea level rise and ocean acidification, especially in coastal and low-lying coastal countries, including in the small island developing States
- Lack of research on the impact of rapid urbanization and mega cities on climate change and vice versa
- Inadequate research on the impact of climate change on human-wildlife conflict, social strive, human displacement and migration, among others.

### B. Political, economical, sociocultural, technological, legal and environmental (ecological) analysis

PESTLE stands for political, economic, sociocultural, technological, legal and environmental (ecological) factors.

PESTLE analysis			
Political factors	Economic factors		
<ul> <li>Government stability and likely changes</li> <li>Bureaucracy</li> <li>Corruption level</li> <li>Tax policy (rates and incentives)</li> <li>Import restrictions (quality and quality)</li> <li>Competition regulation</li> <li>Government involvement in trades unions and agreements</li> <li>Environmental law</li> <li>Education law</li> <li>Anti-trust law</li> <li>Discrimination law</li> <li>Copyright, patents / intellectual property law</li> <li>Consumer protection and e-commerce</li> <li>Employment law</li> <li>Health and safety law</li> <li>Data protection law</li> <li>Laws regulating environment pollution</li> </ul>	<ul> <li>Growth rates</li> <li>Inflation rates</li> <li>Interest rates</li> <li>Exchange rates</li> <li>Unemployment trends</li> <li>Labour costs</li> <li>State of business cycle</li> <li>Credit availability</li> <li>Trade flows and patterns</li> <li>Level of consumer's disposable income</li> <li>Monetary policies</li> <li>Fiscal policies</li> <li>Price fluctuations</li> <li>Stock market trends</li> <li>Weather</li> <li>Climate change</li> <li>Natural disasters</li> </ul>		

Sociocultural factors	Technological factors
<ul> <li>Health consciousness</li> <li>Education level</li> <li>Poverty level</li> <li>Attitude towards health and safety</li> <li>Attitude towards product quality and consumer service</li> <li>Attitude towards "green" or ecological products</li> <li>Attitude towards and support for renewable energy</li> <li>Population growth rate</li> <li>Housing quality</li> <li>Squatting</li> <li>Sustainable Development Goals</li> </ul>	<ul> <li>Basic infrastructure level</li> <li>Rate of technological change</li> <li>Spending on research and development</li> <li>Technology incentives</li> <li>Legislation regarding technology</li> <li>Technology level in organization</li> <li>Communication infrastructure</li> <li>Access to newest technology</li> <li>Internet infrastructure and penetration</li> </ul>
Legal factors	Environmental (ecological) factors
<ul> <li>Anti-trust law</li> <li>Discrimination law</li> <li>Copyright, patents / intellectual property law</li> <li>Consumer protection and e-commerce</li> <li>Employment law</li> <li>Health and safety law</li> <li>Data protection</li> </ul>	<ul> <li>Weather</li> <li>Climate change</li> <li>Disaster management</li> <li>Laws regulating environment pollution</li> <li>Air and water pollution</li> <li>Recyling</li> <li>Waste management</li> <li>Attitude towards "green" or ecological products</li> </ul>

## V. Climate Research for Development in Africa strategy (2019–2023)

The goal of Climate Research for Development in Africa is to mobilize and coordinate collaborative climate initiatives, including targeted applied climate research and analysis among national, regional and Pan-Africa institutions through a common platform. This will contribute to enhanced co-production of quality and user-desired climate information and services, which are necessary for supporting effective policymaking and sustainable development planning.

#### A. Climate research for development structural goals

The four structural goals outlined below, consistent with the gaps and challenges, are to enable research and improve services and capacity-building.

#### 1. Co-designed multidisciplinary research

- Sustainable structures, environment and forums to engage in mutual learning and dialogue between stakeholders and scientists for developing transdisciplinary approaches
- Incorporation of indigenous knowledge systems into research

#### 2. Improved information service delivery

- Improved information service delivery, including information from observing systems
- Continent-wide data availability for research, including knowledge-sharing frameworks among various institutions, users and stakeholders at the regional, subregional and national levels. Initial target disciplines are agriculture, water, marine, health and energy, and dealing with the various needs of stakeholders at all levels
- Enhanced capacity to translate data into information and services

#### 3. Scientific and institutional capacity development

- Motivation of African scientists through providing incentives for engaging in global science programmes (e.g., Intergovernmental Panel on Climate Change, the World Climate Research Programme and the Global Framework for Climate Services) to promote African climate research
- Research partnerships in Africa should:



- > Increase inter-institutional exchanges to better leverage and develop complementary capacity
- > Enhance the alignment of research with societal needs
- > Integrate regional scientists into global networks
- > Develop early career researchers.
- Develop partnership with the private sector
- Start-up climate-related innovations
- Contribution to the Intergovernmental Panel on Climate Change Assessment Report and associated special report

#### 4. Climate services and user interface platforms

- Promote platforms for strategic guidance on climate science policy linkage
- Improve techniques and methods for communication with stakeholders
- Contribute to the development and annual publication of "The State of the Climate in Africa" working with relevant institutions

#### B. Climate research for development knowledge frontiers

Based on the 2013 African Climate Conference recommendations and taking into account the status, gaps and emerging issues described in the previous sections, Climate Research for Development in Africa has identified the major knowledge frontiers. The implementation of these knowledge frontiers in the coming five-year period will contribute to the implementation of Climate Research for Development in Africa structural goal 5.1. The Climate Research for Development in Africa knowledge frontiers are grouped in three thematic areas, each of which will be overseen by a working group under the leadership of senior researchers in Africa. The working groups are mandated by the Scientific Advisory Committee to develop research activities and are accountable to it and the Climate Research for Development in Africa secretariat for the implementation of the research, but operationally monitored by the latter.

#### 1. Foundational climate science

The Climate Research for Development in Africa foundational climate science thematic area improves understanding of the underpinning drivers and dynamics of climate variability and changes, while improving forecast and climate prediction skills, and climate change projections.

- (a) Improving awareness of the underpinning drivers and dynamics of climate variability and change in Africa:
  - Observation, data and monitoring
  - Multi-scale climate processes
  - Feedbacks and systems thresholds
  - Simulation of African climate dynamics at multiple scales
- (b) Improving forecast and climate prediction skills:
  - Innovation in techniques and tools to enhance decision-making and policyrelevant information
  - Assess limits to skill in relation to spatial scales and future time horizons
  - Understand and characterize the scale dependencies of uncertainty
- (c) Developing robust climate change projections for Africa at multiple scale:
  - Understanding what constitutes climate information in the context of application
  - Establishing new approaches to climate information distillation from multiple streams of conflicting data
  - Understanding time-dependent critical systemic thresholds
- (d) Enhancing the prediction and attribution of extremes of climate and impact:
  - Exploration of the nature of extremes (e.g., singular, compound, slow onset, long and short duration)
  - Attribution of extremes of climate and impacts relative to natural climate variability and change

#### 2. Impact, information, translation and communication

This thematic area improves the understanding and communication of climate services and climate impacts in Global Framework for Climate Services priority areas (i.e., disaster risk reduction, health, water, energy, and agriculture), together with migration, gender, urbanization and infrastructure, marine and coastal zones, among others.

- (a) Enhanced added-value in subseasonal through to seasonal prediction:
  - Methods and approaches to understanding and characterizing added value
  - Co-exploration frameworks between climate scientists and stakeholders
- (b) Enhanced understanding and communication of climate impact:
  - Development of regional impact assessments

- Articulation of key impact statements targeting regional and national policymakers, responsive to their decision needs
- (c) Improved metrics and analytics for evaluation and validation of skill and uncertainty in forecasting and projecting future climate and impact.
- (d) Understanding communication theory, barriers and opportunities.

#### 3. Engagement with policy, development and decision-making communities

This thematic area helps to attain Africa's development objectives as framed through the Sustainable Development Goals and Agenda 2063. It integrates climate change into the development policy, planning and programmes of member States and regional economic communities. Accordingly, Climate Research for Development in Africa will undertake research and analysis to support, among others, the implementation of the Paris Agreement and the goal of limiting global warming below 2°C.

- (a) Improved assessment of the uptake, application and user value of climate and impact information by stakeholders.
- (b) Enhanced capacity for co-production and transdisciplinary research:
  - Nurturing an African intellectual leadership (i.e., strengthening young people's initiatives, graduate and post-doctoral scholarships and early career research fellowships).
  - Technology innovations for effective climate services.

# VI. Risks associated with the implementation of the climate research for development strategic plan

The primary risks to achieving substantive progress on both the structural support for the research community and new knowledge development, are reflected in the following leading issues:

- (a) Changes in the African research institutional landscape in which the activities of Climate Research for Development in Africa become superseded or eclipsed by other regional, continental or global initiatives by other organizations.
- (b) Inadequate resources to achieve effective activation of a critical mass of activity and researcher participation under the Climate Research for Development in Africa identity.
- (c) Outcomes and deliverables are not seen as providing significant benefit to science and society, compared with what emerged from the research community independent of Climate Research for Development in Africa.
- (d) Lack of consistent and inclusivity among climate research operations and applications communities throughout Africa.



## VII.Additional documents for the implementation plan

As part of the overall Climate Research for Development in Africa strategic plan, the implementation plan will include the areas outlined below.

#### A. Communication and knowledge management

The Climate Research for Development in Africa communication and knowledge management supports generation, packaging and dissemination of knowledge products to key constituencies for climate-smart development. This focus area will generate and deliver knowledge on climate solutions in ways that advance the integration of climate change into development policies, strategies, plans and applications. Under this focus area, Climate Research for Development in Africa will:

- Establish a resource platform for data-, information- and knowledge-sharing on climate information systems
- Manage knowledge and facilitate peer learning, sharing and outreach programmes among producers and users of climate information systems
- Provide advisory and technical services for effective strategies to communicate climate solutions

#### B. Resource mobilization

The main drivers critical to the long-term success of Climate Research for Development in Africa resource mobilization include the following:

- High involvement of the Climate Research for Development in Africa governance bodies with the wider stakeholders and development partners
- Strong commitment from the founding partners
- Activities to be in accordance with the research thematic area and priority research areas defined by the Scientific Advisory Committee
- Strengthened relationships. For donors to continue to provide assistance they need to be actively engaged
- Consistency with the Climate Research for Development in Africa strategy

#### C. Monitoring, evaluation and reporting

The implementation of the Climate Research for Development in Africa strategy will be done through an implementation plan guided by a performance operational model designed to ensure value for money from efficient programming and synergy with other programmes. It

deals with the gathering of information on baselines, indicators and milestones, and provides a way of recording the effects of the assumptions and risks identified.

**Monitoring**: Monitoring activities will be undertaken following the standard guidelines adopted by partner institutions and will include measurement against the indicators in the results-based matrix; annual financial reports; annual progress reports, including on the use of funds; and "traffic light" reports, highlighting risks to goal implementation.

**Evaluation:** In addition to annual internal self-evaluations, two main evaluations will be undertaken in the coming five years: a mid-term external evaluation at the end of year three and an end-of-plan external evaluation after year five, with a focus on outcomes in line with the logframe.

## Annex I: Terms of reference for the climate research for development Oversight Board

The Oversight Board is composed of representatives of the Climate for Development in Africa partnership (one from each of the following institutions: the African Development Bank, the African Union Commission and the African Climate Policy Centre), the African Ministerial Conference on Meteorology and the Chair of the Institutional Collaboration Platform. The representative shall nominate a Chair on a biannual basis. The Oversight Board will meet once a year and shall invite the Scientific Advisory Committee co-Chairs and the Climate Research for Development in Africa secretariat as representatives, alongside other partners and key representatives as needed.

The Oversight Board shall undertake the following:

- (a) Provide high-level guidance to set the Climate Research for Development in Africa agenda;
- (b) Deliberate on and confirm the strategic direction of the agenda;
- (c) Review and endorse the budget of the Climate Research for Development in Africa initiative;
- (d) Endorse Scientific Advisory Committee membership ensuring, among other things, geographic and regional balance, academic and professional merit, dedication to duty and gender equality;
- (e) Endorse Institutional Collaboration Platform membership on the basis of recommendations made by the Climate Research for Development in Africa secretariat and the Committee.

## Annex II: Terms of reference for the Climate Research for Development in Africa Scientific Advisory Committee

The mandate of the Scientific Advisory Committee is to provide guidance for Climate Research for Development in Africa research priorities and scientific assessment of its climate-related research activities as established, supported and implemented by the initiative. Specifically, Committee is tasked with the following:

- (a) Advise the Oversight Board and the Institutional Collaboration Platform on matters of climate-related science in relation to the Climate Research for Development in Africa core mission;
- (b) Formulate scientific recommendations on research priorities and knowledge gaps for consideration by the Platform, with specific attention given to climate information needs in Africa:
- (c) Evaluate the scientific implications of the Platform's decisions;
- (d) Review and revise the Climate Research for Development in Africa five-year strategic plan as required;
- (e) Provide guidance to ongoing external climate-related research in Africa and relevant international research;
- (f) Review and contribute to the secretariat's institutional mapping of African institutions and organizations involved in climate research in Africa;
- (g) Advise on and contribute to capacity-building activities in climate-related research;
- (h) Review the scientific content and selection criteria of Climate Research for Development in Africa calls for proposals;
- (i) Identify thematic areas of research, centres of excellence, working groups for specific themes, and development partners for resource mobilization, and advise the Oversight Board;
- (j) Support the secretariat in the review of proposals to the calls for proposals to ensure a coherent portfolio of projects under the Climate Research for Development in Africa initiative that are aligned with scientific priorities and support the mentoring of scientists in developing proposals to it.

### A. Membership and organization of the Scientific Advisory Committee

It is a volunteer committee appointed by the Oversight Board and is accountable to it. The nomination of new members or renewal of the term of appointment of members will be

overseen by the secretariat before the end of the final year of a membership cycle. Active membership shall begin on 1 January of the coming year.

The Oversight Board, with input from the Climate Research for Development in Africa secretariat, will appoint members on merit from the nominated candidates, with balanced representation of the regions, the physical climate science and social science disciplines communities and gender. Members are appointed to serve a three-year term, renewable for one second term. There will be a maximum of 19 members.

The Committee will be led by two co-Chairs, (re-)elected by the membership on every membership refresh cycle. The duties of the (co-)Chair(s) shall be the following:

- (a) To develop the meeting agendas, in consultation with the secretariat;
- (b) To preside over the sessions of the Committee and ensure that its activities, decisions and recommendations are in harmony with the overall aims and interests of the Climate Research for Development in Africa imitative;
- (c) To act on behalf of the Committee between meetings;
- (d) To conduct, either directly or through the secretariat or appropriate sponsoring organizations, correspondence on all matters relating to the planning, scientific steering and implementation of the Climate Research for Development in Africa initiative:
- (e) To review the minutes and supporting documents of Committee meetings and ensure that the minutes are circulated in a timely manner;
- (f) To sustain regular communication with the members;
- (g) To request the Oversight Board and the Climate Research for Development in Africa secretariat to provide the relevant information necessary to carry out and follow-up on the recommendations made by the Committee to ensure the progress of the Climate Research for Development in Africa agenda;
- (h) To mandate subcommittees and task groups on an as-needed basis.

#### **B.** Meetings

Committee meetings will be organized using the following criteria:

- (a) The Committee will meet at least once annually on a rotation basis throughout the regional economic communities, at a venue determined by the co-Chairs in conjunction with the secretariat;
- (b) Secretarial support for the meetings, including the taking of minutes, will be supplied by the secretariat;
- (c) Representatives of the Oversight Board and the Institutional Collaboration Platform should be invited, as needed. Observers from national agencies or individual experts or international scientific institutions may be invited to attend sessions on an asneeded basis;

- (d) The Committee should, at its meetings, endeavour to engage with representatives of the local scientific, development and user communities to gain input on local issues and increase the visibility of the Climate Research for Development in Africa initiative, through invitation to participate in an appropriate meeting;
- (e) The minutes of each Committee meeting shall be circulated to the members and Oversight Board within one month, along with the supporting documents considered by the Committee.

# Annex III: Terms of reference for the Climate Research for Development in Africa Institutional Collaboration Platform

The Institutional Collaboration Platform is composed of a maximum 50 members, each of whom is to serve a two-year term that is renewable for an additional term. Each member represents a participating and collaborating climate research institution, academia, African member States, user sectors and other related institutions. The Climate Research for Development in Africa secretariat is responsible for making recommendations to the Oversight Board for Platform membership and for a mapping process to ensure balanced representations and the legitimacy of represented entities. The Platform will meet biannually (one meeting held remotely and one conducted in-person, in conjunction with the Climate Change and Development in Africa Conference) and review user climate information needs and priorities.

The Platform shall undertake the following:

- (a) Provide policy guidance to the Oversight Board and the Climate Research for Development in Africa initiative;
- (b) Provide advice to Oversight Board on the Climate Research for Development in Africa budget from the viewpoint of climate knowledge users and advise on sustained funding schemes;
- (c) Review research priorities and capacity development needs identified by the Scientific Advisory Committee and provide recommendations;
- (d) Receive, monitor, review and approve reports of various organs (i.e., the Committee, the Oversight Board and the Climate Research for Development in Africa secretariat) of the initiative and adopt resolutions at annual meetings of the Platform for implementation;
- (e) Approve research collaboration framework and partnerships among identified research programmes and develop collaborative initiatives and workplans to be recommended to the Committee;
- (f) Provide guidance for the establishment of optimal mechanisms to promote Climate Research for Development in Africa (e.g., dedicated journal, award or recognition of outstanding work by young scientists and scholarships);
- (g) Provide guidance to the Climate Research for Development in Africa project on dissemination to enhance the uptake of research findings;
- (h) Propose periodic Africa Climate Conferences and make recommendations to the Oversight Board and the Committee, as appropriate;

(i) Explore links with similar platforms with lessons to strengthen the Climate Research for Development in Africa project.

#### A. Chair duties

The Platform has a Chair and vice-Chair, elected by the members for two years. In the Chair's absence, the vice-Chair will assume responsibility for the Chair's duties. These duties include the following:

- (a) Represent the Platform in Oversight Board meetings and decisions;
- (b) Develop meeting agendas, in consultation with the secretariat and lead Platform meetings;
- (c) Preside over Platform meetings and ensure that Platform activities, decisions and recommendations are in harmony with the overall aims and interests of the Climate Research for Development in Africa initiative on behalf of the Platform, between meetings;
- (d) Conduct, either directly or through the secretariat or appropriate sponsoring organizations, correspondence on all matters relating to the planning, scientific steering and implementation of the initiative;
- (e) Review the Platform meeting minutes and supporting documents and ensure that the minutes are circulated in a timely manner, and sustain regular communication with the members:
- (f) Mandate subcommittees and task groups on an as-needed basis.

## Annex IV: Terms of reference for the Climate Research for Development in Africa secretariat

The Climate Research for Development in Africa secretariat is hosted by the African Climate Policy Centre in order to facilitate the overall implementation of the initiative through its Oversight Board, the Institutional Collaboration Platform and the Scientific Advisory Committee. The Climate Research for Development in Africa secretariat reports to the Oversight Board and shall undertake the following:

- (a) Prepare the annual budget for the Climate Research for Development in Africa implementation, to be reviewed and approved by the Oversight Board;
- (b) Prepare the agenda for and assist in the proceedings and finalize summary reports of the Oversight Board and support the implementation of decided action in coordination and communication with the Platform, the Committee and partners as identified;
- (c) Prepare the agenda for and assist in the proceeding and finalize summary reports of the regular meetings of the Platform and facilitate the implementation of the agreed actions during the intersessional period;
- (d) Carry out the mapping and assessment necessary of potential members of the Platform, to be reviewed and approved by the Oversight Board;
- (e) Facilitate the nomination process for Committee members and report to the Oversight Board, based on consultations with African research communities (e.g., African climate science research network);
- (f) Assist in supporting the work of the Committee and the Platform, including the preparation and finalization of the final reports of their regular meetings and intersessional work for research priorities;
- (g) Serve as a conduit for the effective flow of communication between the various organs of the initiative and carry through information without delay or input (i.e., a timely circulation of information) through the following action:
  - (i) Ensure that recommendations of meetings are communicated in a timely manner to the Oversight Board, the Committee and the Platform;
  - (ii) Ensure that feedback from the Oversight Board is communicated to the Committee and the Platform as soon as possible;
  - (iii) Ensure that Platform decisions, which guide the strategic direction of Climate Research for Development in Africa, are documented and submitted to the Oversight Board, the Platform and the Committee in a timely manner;
- (h) Provide quarterly reports to the Oversight Board in key issues in implementation;

(i) Develop and make recommendations to the Committee, the Platform and the Oversight Board for their approval and implementation frameworks at regional and subregional levels.

### Founding partners of the Climate Research for Development in Africa:













#### **Contacts**

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