

## Who are CSAG?

Since 1992 CSAG has been evolving a unique strategy for research in Africa. Blending core disciplinary depth in atmospheric science, climate modelling, and applied climate analysis with multidisciplinary elements of vulnerability, impacts and adaptation science,

CSAG offers a unique integration of research relevant to developing nation needs. These resources are coupled with proactive capacity building activities across the continent, and with strategic efforts to bridge the challenges of science-society communication. From these foundations CSAG seeks to apply the core research to meet the knowledge needs of responding to climate variability and change.

## 1. Targeting critical knowledge

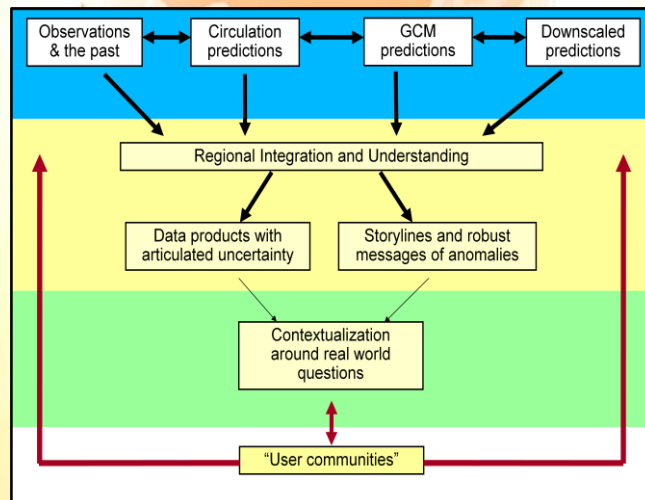
As a leading climate research group in Africa, CSAG is uniquely positioned to target these critical knowledge needs. CSAG focuses on the generation of robust, relevant, regional climate change information, while advancing our understanding of the coupled climate system. In collaboration with users, CSAG develops products to better address needs and support the research activities of other disciplines.

**The common denominator to all climate change activities is the need to understand the regional climate system and its response to human and natural forcing.**

## 2. Blending science and service

CSAG is rapidly expanding its engagement with society. This recognizes that science can only be useful if translated, communicated and understood in ways that are applicable. To this end, CSAG has created a dedicated engagement team who have a unique blend of experience in both climate science and with communicating with the policy, adaptation, and decision maker communities.

Working with stakeholders goes deeper than mere dissemination of a data product. CSAG believe that active communication is two directional within a knowledge network of climate and non-climatic information - that climate services are more than a one-way delivery of data. Engaging with stakeholders in the co-production of knowledge leads to climate related products that are user-focussed and decision-relevant, while engendering a sustainable relationship between science and society.



**Robust messages of regional climate change are about drawing on multiple lines of evidence.**

The stakeholder communities of focus are diverse, and include other academic fields of study, the national and

regional governance structures, industry and business sectors, local government, resource managers, and civil society.

A central theme to complement climate services is one of capacity building through training. CSAG is active in hosting training workshops, mentoring junior scientists, and supporting climate change projects across Africa. These capacity building activities include mid-career professional training on climate change, such as in the 2-week Winter School focused on using climate information for adaptation and policy development, as well as the hosting of visiting scientists and students, and interns.



## 3. Communication

An important area that frames CSAG's activities is building dialog between communities, and by so doing enabling effective communication. CSAG recognizes the complexity of climate and non-climate factors in society. The Global Framework for Climate Services established at the 2009 WCC-3, sets a challenge that requires

**The mix of climate and non-climate factors require nuanced approaches to communication**

communication of a range of scales, services, and tailored information products. These include operational seasonal forecasts, historical climate analyses, regional climate change products, and multi-decadal projections. Critically this information needs to be supported by assessments of likelihood and uncertainty. CSAG's knowledge products address this challenge through direct engagement with users and a dynamic online portal.

#### 4. International collaboration

CSAG has excellent links to a number of leading regional and international research institutions and programmes. CSAG is the START Africa regional node of excellence in climate modelling and has representation on key international activities (e.g. 3 IPCC authors in WG1 and WG2, co-chair of the IPCC TGICA, WCRP Task Force on Regional Climate Downscaling).

Examples of CSAG's broad range of research projects and external capacity building include:

- Africa's lead for the WCRP CORDEX global project, including the Africa analysis program, with dual focus on capacity building and society.
- Operational seasonal forecasting, contributing to the South African national forecast products
- CSAG/UNITAR Climate Information Portal (CIP) (<http://cip.csag.uct.ac.za/>) serving climate change information across Africa.
- CSIR/SAWS/CSAG Wind Atlas for South Africa, using modelling to map the wind energy potential for wind turbines
- SA Risk and vulnerability atlas, contributing tailored climate change scenarios.
- Building knowledge broker capacity in Africa through linking across institutional capacities
- Research projects on developing methodologies for downscaling extreme event analysis, attribution forecasts, understanding limits to predictability.



#### 5. Collaboration: talk to us!

CSAG are keen to build new partnerships with other scientists (especially those in Africa), engage with stakeholders (especially in developing nations), and talk with funding agencies seeking to build a robust and sustainable legacy of knowledge production in Africa.

##### Climate System Analysis Group

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**For students:** we welcome applications for BSc (Honours), MSc, and PhD. Please see the University EGS department web site at <http://www.egs.uct.ac.za>, or contact CSAG for more details.

**For training:** CSAG are available to assist in workshops and seminars, and we also run a 2-week Winter School professional development course on using climate information. For more details about training, contact CSAG directly. For Winter School, see the website at: <http://winterschool.csag.uct.ac.za/>

**For climate information:** CSAG is redeveloping our information portal to serve regional climate change data and information. See the website <http://cip.csag.uct.ac.za>



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## Climate research for society



Climate System  
Analysis Group

In Africa  
By Africa  
For Africa

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