



POLICY BRIEF

ADDRESSING ETHICAL CHALLENGES IN CLIMATE SERVICES IN SOUTH AFRICA THROUGH COLLABORATIVE ENGAGEMENT

KEY MESSAGES

The development and delivery of climate services is beset with ethical challenges, some of which are unique to the South African context.

Greater collaboration is required to better understand and address these ethical challenges.

The National Framework for Climate Services provides the framework through which enhanced collaboration can be achieved through a collaborative engagement platform.



One of several cartoons produced by professional cartoon artists during the workshops. Cartoon artists were tasked with capturing some of the key ethical issues that emerged through the discussions. This cartoon captures the need to develop South African solutions for South African problems.

Background

Climate services is the rapidly growing field of applied climate science that seeks to work in collaboration with decision-makers to design and communicate scientific climate knowledge in a way that is decision relevant. Climate services have the potential to offer significant value to society through better informed planning and decision making. However, unlike some other public-facing activities (doctors, lawyers etc) there is no code of practice governing the climate services field to ensure that climate services are delivered ethically. This results in an assumption that climate services providers are following ethical practice, yet there has been little consideration or discussion about whether this assumption is true.

Climate services raise a range of ethical concerns in the conceptualisation, construction, tailoring, and delivery of information. For instance, there is potential for recipients of climate services to misinterpret complex information and make decisions based on this interpretation, which can lead to significantly harmful consequences. What obligations do climate services providers have to ensure that recipients understand and do not misinterpret information? Furthermore, for decision makers to make well informed decisions they need to be made aware of the uncertainties and assumptions in the science so that they can take these into account when making decisions. How should scientific uncertainty be represented and unpacked, firstly so that it is an honest representation of scientists' confidence, and secondly, so that recipients are able to understand and interpret information correctly?

There are also further questions regarding the equitable distribution of climate services, particularly within the context of the increasing commercialisation of climate services. How can we ensure that everyone who could benefit from climate services is receiving them? How do we manage competing divergent incentives across science and decision making? How do we guarantee that climate services are not focused on one sector or socio-economic grouping within society?



Preliminary process

Acutely aware of the need to consider the ethics of climate services, the University of Cape Town (UCT), the Department of Environment, Fisheries and Forestry (DEFF), the South African Weather Service (SAWS) and the University of the Witwatersrand (Wits) embarked on a collaborative process facilitated by the Red Cross Red Crescent Climate Centre (RCCC). The process was aimed at starting a discussion amongst the South African climate services community with a view to raising awareness of some of the unintended consequences of climate services and facilitating dialogue around ways of managing these.

A series of six engagements were undertaken with the climate services community between October 2020 and March 2021. The climate services community in this instance involved mostly the providers (government departments e.g. South African Weather Service, public scientific entities, organized civil society, academia) and to a lesser extent, the users of climate services. The aims of these engagements were to 1) gain a better understanding of some of the ethical and closely related challenges of climate services in a South African context, 2) collaboratively propose principles or practical actions that may address some of these challenges and 3) foster a community of practice that would enable the community to collectively tackle some of the complex challenges resulting from climate services going forward.

Several concerns were raised in these engagements, which were grouped into the following themes and related questions:

- Delivery of transparent and honest information: How do we make transparent the limitations, value judgements, assumptions and uncertainty of climate information while delivering an accessible, usable climate product?
- The roles and responsibilities of climate services providers, users, women and data custodians: Where do we draw the line of responsibility between e.g. climate modellers, intermediary services providers and users? And what do these responsibilities entail?
- Structural issues: How do we address structural issues, such as sound observational infrastructure, data availability, commercial interests and standardisation of data?
- Communication and strengthening the value chain of climate services: How do we strengthen the science-society interface to narrow the social inequality gap, address the challenge of misinterpretation of climate information, maintain credibility and build trust relationships?

These questions were workshopped together, through the engagement process, to draw out potential recommended answers and solutions. Common across those recommendations was the urgent need for better collaboration within the climate services community. Better collaboration through a community of practice will have multiple benefits in addition to providing a forum for addressing the pressing ethical questions identified.

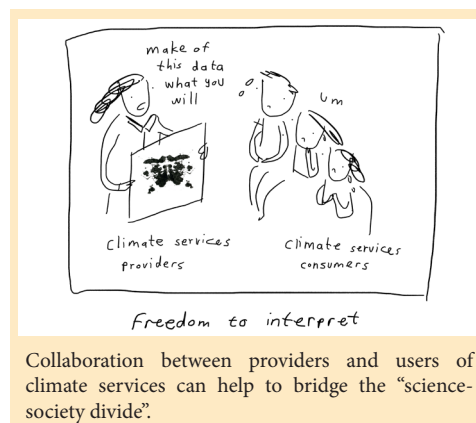
KEY CHALLENGES AND BARRIERS THAT COULD BE ADDRESSED THROUGH COLLABORATION

1. Dismantling disciplinary boundaries and institutional barriers.
2. Formalising the role of intermediaries and building capacity within this space.
3. Including all forms of knowledge within the climate services landscape (e.g. indigenous, local, tacit/scientific knowledge).
4. Improving the structure and transparency of the climate services value chain.
5. Standardising the delivery and communication of climate information.
6. Enabling funding partnerships, including public-private enterprise.
7. Interrogating the deeper assumptions and uncertainties in the climate modelling process.
8. Working towards a formal code of practice for climate services actors.

Why a collaborative engagement platform?

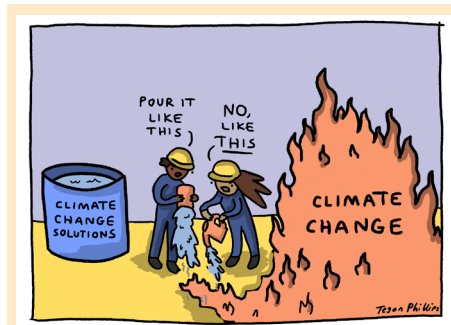
Collaboration is needed if we are to benefit from the available knowledge and expertise in the country, so we can improve our products and services. In recognition of the need for better collaboration within the community, a proposal emerging from the project process was to develop an engagement platform aimed at better coordinating the climate services community in South Africa. This engagement platform will act as a mechanism to bring the climate services community together in a community of practice as a first step towards better collaboration and addressing some of the critical ethical challenges facing climate services.

South Africa is currently implementing the South African National Framework for Climate Services (NFCS) which seeks to enable the development and delivery of climate services at the national level. The development of an engagement platform strongly aligns with the objectives of the NFCS and would substantially complement its successful implementation. Aligning the engagement platform to the NFCS provides the added benefit of leadership from DEFF and SAWS, who can act as champions for the implementation of the engagement platform and coordination of the community of practice going forward.



Next steps

Communities of practice are a common mechanism for collaboration and so it is important to understand what makes them successful, as well as which principles should be followed to ensure their sustainability.



The climate change challenge is complex, requiring collaboration to address it.

Key principles for a successful community of practice

Build trust

Trust is central to relationship building and is not built quickly but established incrementally over a series of informal and formal interactions. Users and providers of climate information working together early on in the process of co-creating and co-developing climate services provides a means to build trust and foster a sense of ownership in the development of a product or service. This trust-building process could also include developing shared understanding of ways of working together.

Embrace diversity and respect differences

Create spaces from the outset that allow for different types of knowledge to be included in the community. This requires embracing different ways of working, value systems and practices.

Enhance inclusivity

Create a safe space where everyone feels included, particularly marginalised groups (for example women and indigenous knowledge holders). In practical terms, this may mean doing things differently such as providing information in local languages, being aware of using technical jargon or scheduling meetings at times that do not exclude certain groups.

Keep flexible

Collaborative engagement is a dynamic process, meaning that it is hard to map out an end-point from the beginning. As a result of the engagement process there may be a need to make changes as the collaboration matures. These changes may include, for instance, the way engagement happens, who is involved, the topics of focus etc.

Support conscious facilitation

Whether or not a professional facilitator is engaged in the process, there is a need to be aware of and to diffuse power dynamics and hierarchies in the community, allowing for different knowledge and experiences to be heard equally. The design of the process should enhance co-production, inclusivity and active participation.

Ensure added value for all

To fully engage in the community, all participants need to see the benefit of their participation. Whether this is through an enhanced network, official accreditation, funding opportunities etc. These benefits should be continually reassessed and made clear to the community.

Ensure sustainability

Sustained engagement is the key to long-term change. Once-off or sporadic engagements can often be damaging. Therefore, a commitment by all partners must be made to sustain the longevity of the collaboration in order to maintain the momentum of the process.

WHAT MAKES COMMUNITIES OF PRACTICE WORK?

Fundamentally, there are three structural elements of a collaborative community of practice, these include:

1) Mutual engagement

How people work together within a community.

2) Joint enterprise

A common set of problems that they care about.

3) Shared repertoire

A common language or group of concepts that they have created or agreed together.

Therefore, communities of practice are premised on co-creation of knowledge rather than simply a process of knowledge transference.

Thinking together about real-life problems that the participants really care about, brings communities of practice to life. It is this process of “thinking together” rather than through a community being “set up” that makes a community of practice a success.

This means that communities of practice should be regarded as a process, rather than an end goal.



Developing trust relationships through a community of practice can help to better coordinate roles and responsibilities within the community.

Key components of the collaborative platform that have emerged from the process to date

Having decided to move forward with a collaborative engagement platform as a way of facilitating a community of practice, the South African climate services community was consulted on their desired components of such a platform. The following key components emerged from the community as integral for framing a successful engagement platform in South Africa:

- Be inclusive, representing a broad range of diversity across the climate services themes and sectors, including climate services users
- Provide a point of formal and informal discussions across the community to collectively address the challenges of working in the application of climate services
- Be a point of linkage into other platforms/initiatives so as to avoid duplicate or conflicting initiatives
- Establish a strong champion who will ensure its longevity and continuity
- Provide access to funding or research opportunities as mechanisms for linking actors within the climate services space
- Prioritise policy-relevant activities
- Work towards an established accountability mechanism to formalise the community, such as a collaborative code of practice
- Work towards establishing policies and standards for the community
- Adoption of an appropriate business model and data sharing policy for the roll-out of climate services that will benefit society, the environment and the economy.



Climate scientists need to make many decisions and assumptions which results in a range of different products with different strengths and limitations. Increased transparency and dialogue enables appropriate choices to be made and ensures that information best fits the application.

Recommended next steps for moving forwards

1. Future perfect exercise

It is important to leverage the momentum gained through the engagement process to date in championing the development of an engagement platform for establishing a community of practice. In this regard, a recommended next step is to undertake a “future perfect” visioning exercise. The objective of this exercise is to fully scope out the engagement platform using a technique whereby one envisages what a successful platform would look like at a particular point in the future (e.g. five years into the future). This allows one to work backwards and scope out the elements that resulted in that success while answering questions such as: How will it be managed? Who will be involved? How big will the scope be (what should and should it not do?) How does it fit in with other platforms? How will participants be engaged and retained? The real test of success of the engagement platform will be the evidence of teamwork, trust, inspiration, exchange, assisting one another, supporting one another, sharing and success – all components of collaboration. It is recommended that this process be carefully managed by a professional facilitator.

2. Stakeholder mapping

A key component of the collaborative engagement platform emerging from the process to date is the need for inclusivity i.e. ensuring everyone in the community is afforded an opportunity to engage. Therefore, it is important to have a comprehensive understanding of 1) the bounds/scope of the community and 2) the climate services actors that fall within those bounds. Some actors might not know that they have a role to play in climate services or they might be missing from the climate services landscape and need to be brought on board. To this end, it is recommended that a stakeholder mapping exercise is undertaken, which can be used as a basis for ensuring that all relevant practitioners are included in the community. Such exercises have already been undertaken in the establishment of the climate services engagements by SAWS and these can be refined and expanded on.

3. Developing a mission statement

Related to both the above suggestions, it is recommended that a mission statement or aim for the community of practice is developed. Developing a shared meaning and sense of purpose will inform the scope of the collaborative engagement platform as well as the bounds of the community who should be involved.

CONCLUSION

Despite the excellence of science in climate variability and change, both in the modelling and user community in South Africa, there remains an institutional vacuum in coordinating climate capabilities nationally and bringing together the various role players so that effective decision making can occur. As a result of the engagements presented here, we call for the urgent establishment of a climate services engagement platform so that the climate services community can begin to deliberate and engage on the design and delivery of relevant, responsible and ethically legitimate climate services.