

FINAL REPORT

Knowledge field development of climate services ethics in South Africa

Background to the project

Climate services is the rapidly growing field of applied climate science that seeks to translate and communicate scientific knowledge to and with decision makers and policy. Given the urgency of the climate change challenge there has been an explosion of activities purporting to offer climate services, while a formal framework has been developed by the World Meteorological Organisation (WMO) called the Global Framework for Climate Services (GFCs). The GFCs aims to facilitate the provision of decision-relevant climate information and build capacity to robustly apply the information in decision making. However, this framework lacks any mention of the ethical responsibilities of those involved in the provision of climate services. Despite this, climate services are being widely and prolifically delivered, many with positive outcomes, or potentially positive outcomes, yet there is also the potential for widespread damaging consequences for decision making and society.

Climate services raise a range of ethical concerns in the framing, conceptualization construction, tailoring, and delivery of information, and while there is increasing awareness and acknowledgement of the broad issue, there is little deliberation over how to manage these ethical concerns or how they should be dealt with. For instance, there is potential for recipients of climate services to misinterpret complex information and make decisions based on this erroneous 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 inherent in the science. How should scientific uncertainty be represented and unpacked, firstly so that it is an honest representation of scientist's confidence, and secondly, so that recipients are able to comprehend and interpret the uncertainty correctly? How do we manage the reality that scientists and decision makers bring different professional and personal values to play in the process of constructing and using information? To some extent the nature of the information produced is a consequence of who produced it, as is clearly evidenced by the

divergent messages emerging from different climate services offerings. There are also further questions such as how to ensure the equitable distribution of climate services amongst the community so that the benefit of climate services are not focused on one sector or socio-economic grouping within society.

Despite these pressing ethical concerns there remains weak acknowledgment of, and engagement with, these issues in the international climate services community; as made evident by a notable absence of these discussions at international conferences. In recognition of this, the Climate Services Partnership Working Group on Climate Ethics released a white paper outlining an ethical framework and set of principles of practice for climate services¹. The document espouses the general societal motivations for climate services, fundamental values underpinning climate services, and a set of principles of practice which offer normative guidelines for climate service providers.

While a step in the right direction, the White Paper has received limited attention and there is weak evidence of it being implemented in practice. Moreover, the principles and guidelines set out in it are aimed at an international community of providers, rather than tailored to a country level context. The South African climate services community recognises the need to interrogate the ethics of climate services in the context of South African circumstances, particularly in light of the implementation of the South African National Framework for Climate Services. While some ethical issues in climate services are applicable across a broad range of communities, many complexities arise out of South Africa's socio-political and culturally specific milieu, and thus a need to interrogate the ethics of climate services specific to this context is imperative. Furthermore, there is a need to build a community of practice within climate services in South Africa that will foster ongoing collaboration in addressing some of the contextual challenges of climate services. Continuous engagement and interaction between members of the climate service community South Africa will ensure that arising issues are collaboratively tackled and addressed.

1. Adams, P., Hewitson, B., Vaughan, C., Wilby, R., Zebrak, S. and Eitland, E. (2015) Toward an ethical framework for climate services, Clim. Serv. Partnersh. White Pap., (October). doi: 10.13140/RG.2.1.1029.0645.

PROJECT OBJECTIVES

Recognising the need to interrogate the ethics of climate services in the South African context, this project sought to meet the following objectives:

- Raise awareness and build capacity in climate services ethics across a wide range of actors in the climate services field in South Africa including the public and private sectors.
- Collaboratively explore the ethical issues inherent in the South African context with a view to suggesting principles or actions to address these issues going forward.
- Establish a community of practice to provide an ongoing support network for collectively addressing the challenges of working in the application of climate services as well as providing a collective problem-solving community in order to build capacity in implementation of this emerging field.
- Provide preliminary resources to enable the training of emerging researchers on the realities of carrying out climate services and the ethical considerations that this requires.

Project workshop process

Given the objectives of the project, an emergent co-production process was designed in collaboration with the project partners. Due to the outbreak of the COVID-19 pandemic, the process remained responsive to change throughout the implementation, in response to national lockdown measures. Ultimately all engagements were virtual, including the final development of a podcast recording which could be used as a capacity development tool going forward.

The project process consisted of six engagements with the South African climate services community. The initial engagement sought to start the conversation and expose pertinent ethical issues in the South African climate services context. This initial engagement was followed by four thematic dialogues that aimed to further explore some of the themes that emerged from the first engagement. The final engagement was an open-access interactive webinar that communicated initial results of the project and solicited feedback on the proposed way forward. Each engagement process and their associated outputs are outlined below.

The first workshop – process and results

15 October 2020 - The first workshop brought together 31 invited attendees, all of whom were actors in climate services in South Africa. The 1.5 hour workshop process was used to a) introduce the concept of climate services ethics to the attendees and b) initiate a discussion about ethical issues inherent in climate services in the South African context. Due to the, potentially, sensitive nature of some of the topics

being discussed, the project team enlisted the services of three cartoon artists. Their role was to listen to the discussions and draw out some of the “unspoken” conversation into cartoons. This methodological technique not only added some humour to the process but also acted to succinctly expose some of the underlying ethical concerns. The finalised cartoons are available in the annexure of this report.

The first workshop exposed a number of issues, which were then distilled into four major themes. These themes were used as topics for follow-on dialogues (described below). Each theme had an associated “flagship” cartoons which was used as springboard for discussion.

Major themes that emerged in the first workshop raised questions around:

- 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 and data custodians. Where do we draw the line of responsibility between e.g. climate modellers, intermediary services providers and users?
- How do we address structural issues such as sound 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?

The thematic dialogues - process and results

Following on from the first workshop, four one-hour thematic dialogues were held during November 2020. The aim of these dialogues was to further explore each of the themes identified in the first workshop and to propose recommended principles or practical actions that could address concerns that arose. Participants signed up to dialogues that interested them, on a voluntary basis. Each dialogue was facilitated and recorded on a virtual white board.

Resulting from these dialogues were a set of recommendations to consider in taking the process forward. It should be noted that considerable overlap arose in recommendations arising from each of the thematic dialogues. The overarching recommendations resulting from the dialogues are presented below.

Overarching recommendations from the dialogues:

- Enhance or formalise collaboration, communication and partnerships to work beyond interdisciplinary barriers (e.g. researchers, practitioners, parastatals and policy-makers).

- Recognise and formalise the role of intermediaries. Potentially through a regulatory body/professionalisation. Develop formal training for intermediary service practitioners in South Africa.
- Develop intermediaries at a grassroots level and consider inclusion of indigenous knowledge.
- Commit to increase transparency in the value chain. Mapping the producer-user value chain to understand the gaps.
- Interrogate deeper assumptions and uncertainties in climate modelling.
- Standardize data delivery and communication of information (e.g. standard reporting formats, improved transparency and clear guidance for interpreting information).
- Assess government structural issues in the relay of information e.g. increased capacity of the value chain to ensure accessible information for all and improve early warning systems.
- Raise awareness about the cost of producing climate information and value of climate services. Investigate new models of funding and public/private partnerships.
- Develop a formalised ethical code of principles that will regulate the community of practice and the interpretation of information throughout the chain.

The results of these dialogues were then taken into consideration by the project team in designing a way forward that a) addresses the recommendations identified in the dialogues and b) aligns with ongoing activities within the implementation of the National Framework for Climate Services (NFCS), which could act as a champion for this activity beyond the confines of this discrete project.

The resulting proposal was to establish an engagement platform under the NFCS which could facilitate the implementation of the majority of the recommendations resulting from the dialogues. For instance, formalising an established community of practice through an engagement platform would allow for strengthening the climate services value chain through enhanced collaboration, standardisation of data delivery and communication, raising awareness and building of capacity amongst intermediaries, and an interrogation of the underlying assumptions of roles within the community. Ultimately, this enhanced collaboration may lead to a formalised ethical code of practice if deemed appropriate.

Final workshop - process and results

3 March 2021 - The final engagement process allowed for the project to be extended to the wider climate services community through an open-access interactive webinar. The aim of the final engagement was to feedback on the process to date, to present a proposal for the establishment of a climate services engagement platform under the NFCS and to gather feedback on desires from this engagement platform.

The final 2-hour webinar was attended by 53 participants

and was facilitated by a professional facilitator to ensure that every participant was afforded equal opportunity to input into the process. Through small group processes, feedback was solicited as to a) learning from similar engagement platform initiatives, b) desired scope of the platform and c) what individual participants could offer to the platform. This feedback resulted in high-level recommendations that are key for scoping the engagement platform. These recommendations are outlined below:

Recommendations for engagement platform scoping:

The platform should:

- Be inclusive, representing a broad range of diversity across the climate services themes and sectors, including the users of climate services.
- 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 parallel 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.
- Aim to establish policies/standards for the community.

Recommended way forward

The project, to date, has been successful in drawing together a community of climate services professionals, both users and producers of climate information services, in raising awareness around the ethical issues inherent in climate services. It is important to leverage this momentum in championing the development of an engagement platform and continuing to engage the community moving forward. As agreed, the Department of Environment, Forestry and Fisheries will lead the development of the platform moving forward, with the support of the South African Weather Services. This activity will fall under the mandate of the NFCS.

In moving the platform forward, a recommended next step is to undertake a “future perfect” visioning exercise. The objective 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? All partners in this initial phase project have committed to continue to be involved in the ongoing development of the platform under the leadership of DEFF and SAWS.

PROJECT OUTPUTS

Through the collaborative workshop process and the corresponding development of capacity building tools, the project was successful in meeting the objectives of the project proposal. The following outputs are directly attributable to this project:

- Raised awareness of ethical consideration in South African climate services amongst approximately 80 people.
- Developed a community of practice amongst climate services professionals and established a champion for continuing the discussions through an engagement platform hosted under the National Framework for Climate Services.
- Developed capacity development material in the form of a reflective podcast, set of cartoons and an e-learning module.
- Developed a policy brief outlining a way forward with this knowledge frontier.

ANNEX: Cartoons focused on ethical concerns in South African climate services

