

From climate science to climate services:

The need for building and supporting climate service providers



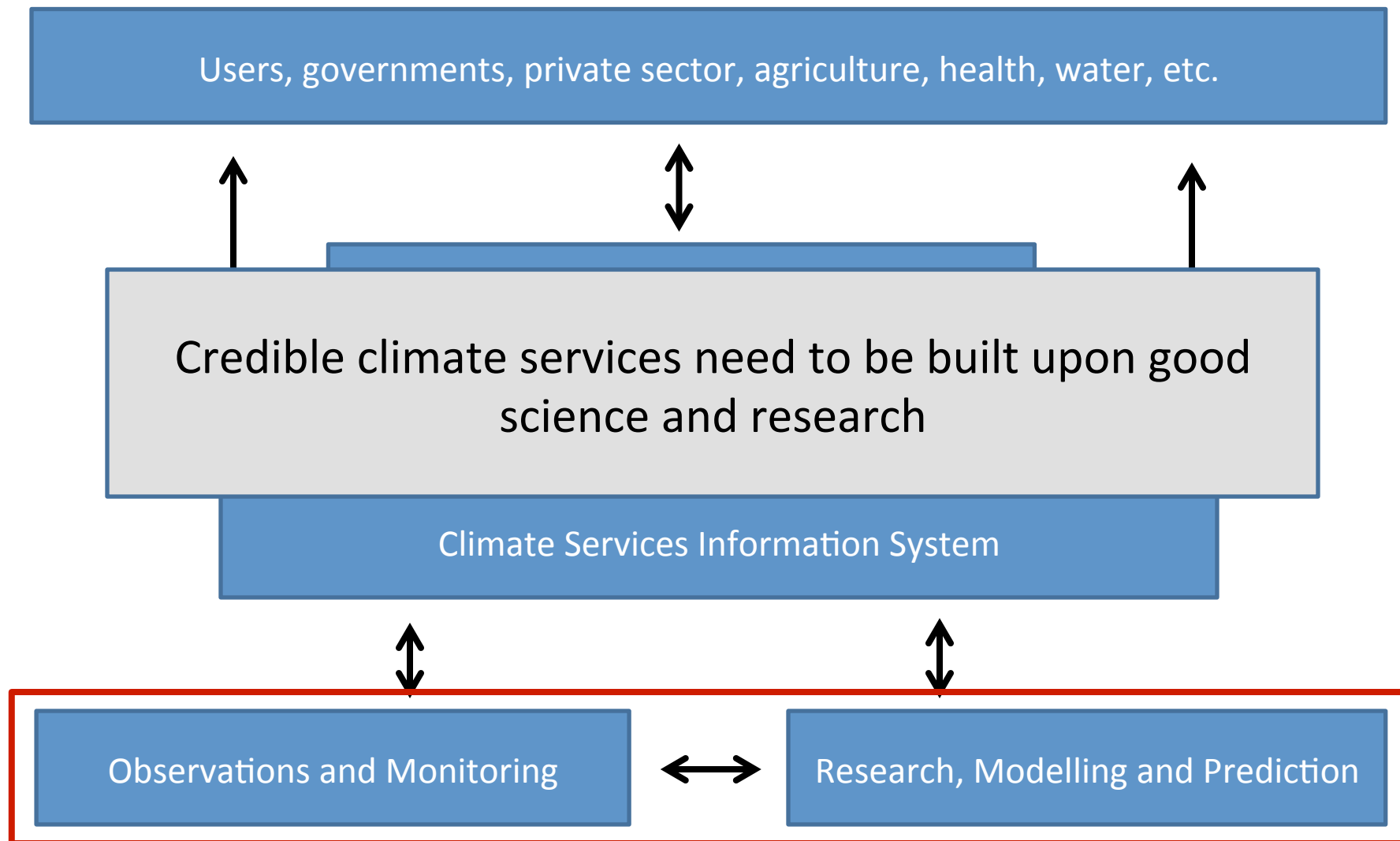
By **Ross Blamey and Anna Steynor**
Climate System Analysis Group
University of Cape Town

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BACKGROUND

- The undertaking of providing climate information to various users by the climate science community has evolved considerably over the past decade.
- What was a 'simple' pipeline of data/information from the scientific community to limited users has grown substantially, both in availability of diverse climate products and the overall number of users.
- The climate science community is very much playing catch up with growing demand for climate information at various time scales.
- We are often trying to operationalize what is effectively substantially incomplete research in order to meet a perceived / real need.
- Many developing countries still lack the infrastructural, technical, human and institutional capacities to provide climate services.

Global Framework for Climate Services



[“Climate services provide climate information in a way that assists decision making by individuals and organizations.] [Such services require appropriate engagement along with an effective access mechanism and must respond to user needs.”]

(from: www.gfcs-climate.org)

A FEW CHALLENGES

- 1.** The field of climate services is still dominated by data delivery activities, which is thought to meet the needs of the growing user base. However, simple delivery of data (depending on the product) very seldom meets the needs of the user.
- 2.** A climate service provider must remain firmly embedded in the ever moving world of climate science, remaining aware of developments and progress, while simultaneously being able to engage fully with a user / decision maker's extremely diverse contexts and needs.
- 3.** Communication. In many cases, climate service providers have 'morphed' from pure climate scientists, which may not necessarily be the most appropriate when dealing with users.

THE BACKGROUNDS

Climate Science
background

General eco-systems/
impacts modelling
background

Engineering consultancy
background



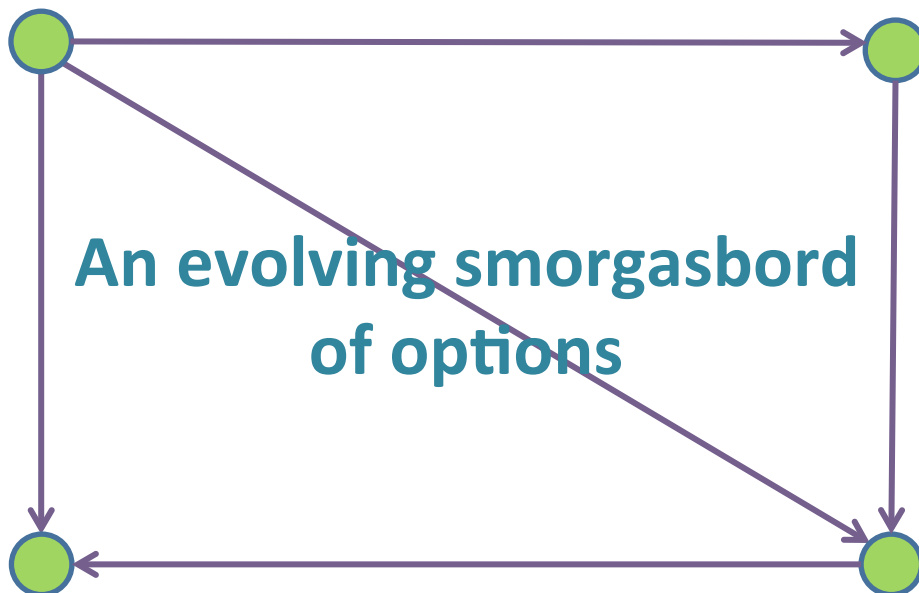
The Good: Often have the fundamental climate science background required to filter the vast array of available climate data and communicate on issues of uncertainty and applicability.

The Bad: Often embedded within a particular paradigm, such as dynamical modelling, and can be poorly positioned to provide a comprehensive range of guidance and information to end users. May not be in a position to understand what information is actually relevant or appropriate for the end user.

THE PRODUCTS

Data dumps
(The grocery store for raw materials)

Quick access packages
(McDonalds)



Facilitated (co-)exploration
(The kitchen, lets see what we can cook-up)

Tailored products
(The French restaurant, we'll tell you what to eat)

The evolving perceptions of the science-society interface

Acknowledgement - Bruce Hewitson

THE WAY FORWARD?

- De Elía (2014) puts forward the suggestion that building well-rounded climate scientists, equivalent to “family doctors” in medicine, could be a solution.
- This may alleviate some of the pressure on climate scientists turned service providers, particularly around aspects of communication.
- Guidelines on the recommended scientific background of climate service providers are near non-existent, but are potentially something that could be of great use.
- Could we learn anything from the concept of “essential climate variables” (ECVs), which have been broadly adopted by science and policy circles (e.g. Bojinski et al. 2014)?

Is it possible to determine what are the recommended background requirements of an individual working in climate services?

THE BUILDING BLOCKS

Humility

Honesty

Trust

Understanding
users needs

Communication
And outreach

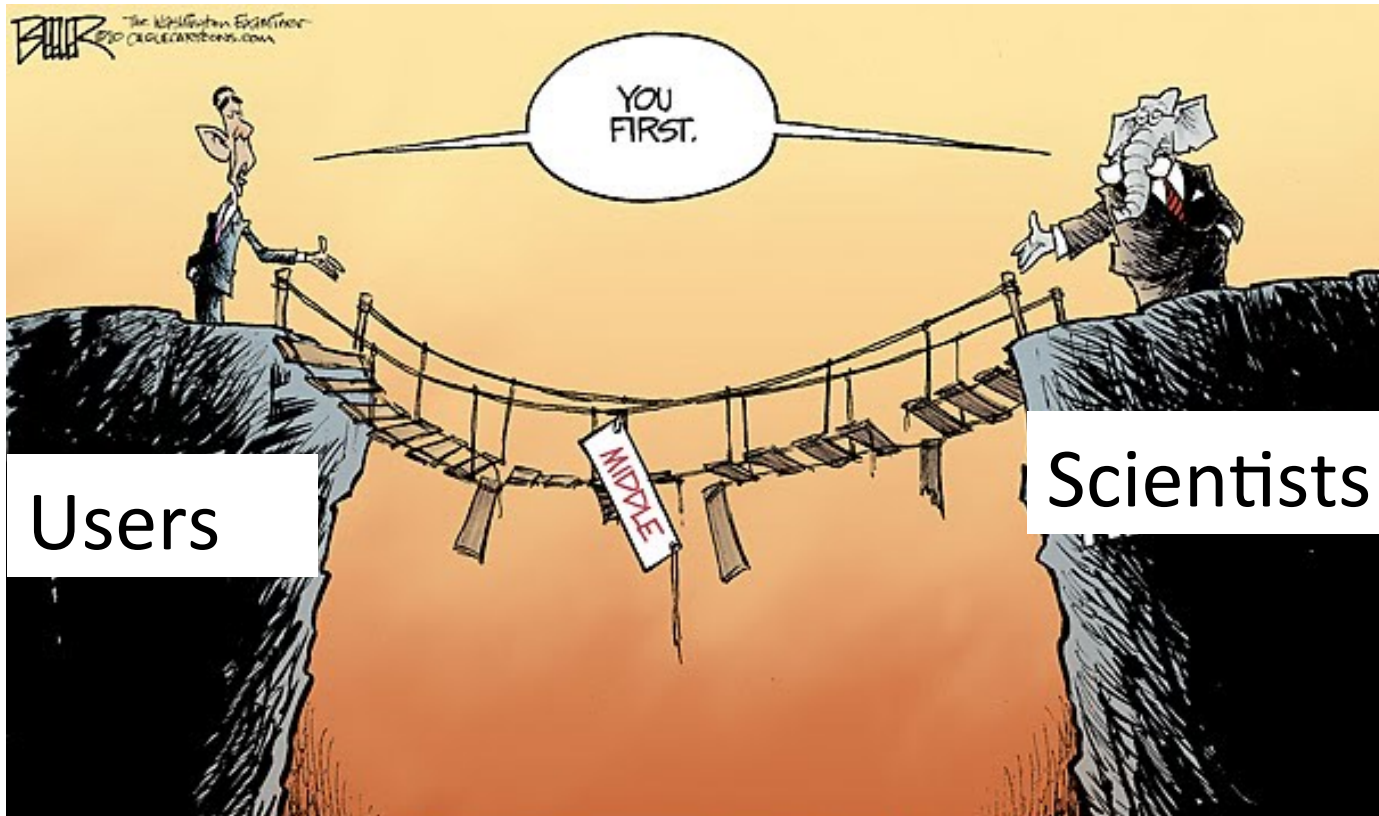
Awareness of
ethical issues

The Physical
Science

Data and Methods
Used (incl.
uncertainties)

Understanding
Timescales

Bridging the science-society gap



Nate Beeler

DISCUSSION

- Identifying the attributes or skills of a well-rounded climate service provider remains a challenging task.
- Given the public position climate service providers are in, it is clear that there is a need to support and develop these practitioners.
- There is also a need to provide guidance to institutions currently or intending to provide climate services as to the necessary skills required.
- The ethics and responsibility associated with providing climate services needs to be engaged with seriously.
- Should a code of conduct for climate services be developed? Should a certification be required? How can this all be balanced with the need for diversity of approaches and academic debate and development?



Climate System Analysis Group University of Cape Town

www.csag.uct.ac.za

asteynor@csag.uct.ac.za

rblamey@csag.uct.ac.za