

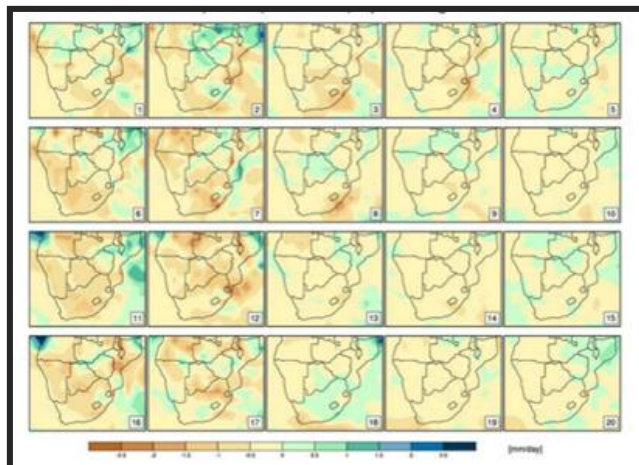


Expert Meeting on the Robustness of Climate Change Information for Decisions



Organizing Committee

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The Problem Statement

The absence of consensus or general agreement on how to address the non-congruence between climate information sources presents a significant barrier in the use of climate information to inform decisions

Colloquial version

“How robust is this information for informing my decision that has substantial societal consequence?”

Two Keywords

“NON-CONGRUENT” & “ROBUSTNESS”

When was this slide presented?

A (cynical) view of relevant knowledge communities

The adaptation community
advises
("stop, wait, move over there, run!!!")



The mitigation community
tries to steer it
("we think can keep it under 2 degrees
warming – with a bit of luck")



The user
community
with variable
awareness



Scientists trying to understand
what the elephant is and will do
("it's *probably* headed that way" : climate services)

When was this slide presented?

A (cynical) view of relevant knowledge communities

The adaptation community advises
("stop, wait, move over there, run!!!")



The mitigation community tries to steer it
("we think can keep it under 2 degrees warming – with a bit of luck")

The conspiracy community
(Its really a mouse, you're just trying to take advantage of me)

The catastrophe community
(It's the end of the world

community with variable agendas

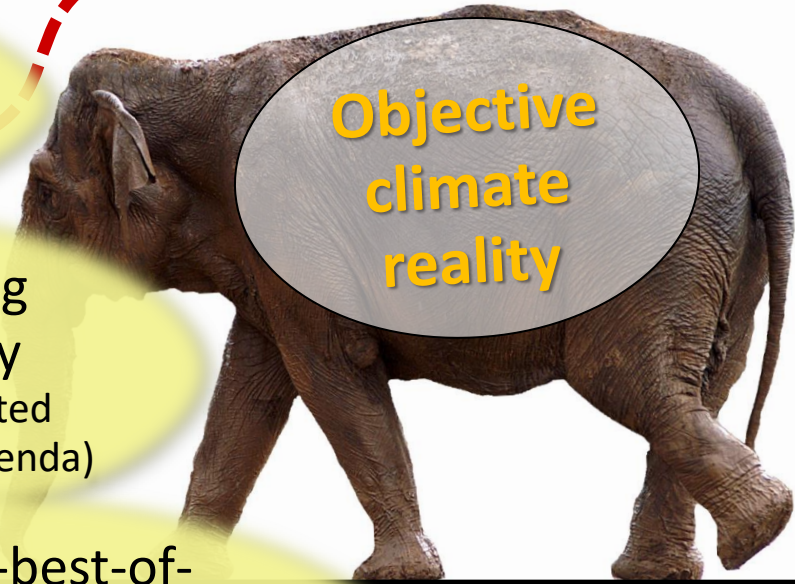
The funding community
(I'm not interested unless I get my agenda)

The Denial community
(Elephant? What Elephant?)

The self-interest community
(I'll wait until you do something first)

The "with-the-best-of-intentions-but-am-not-very-self-aware" community
(I've never seen your elephant, but I can tell you that ...)

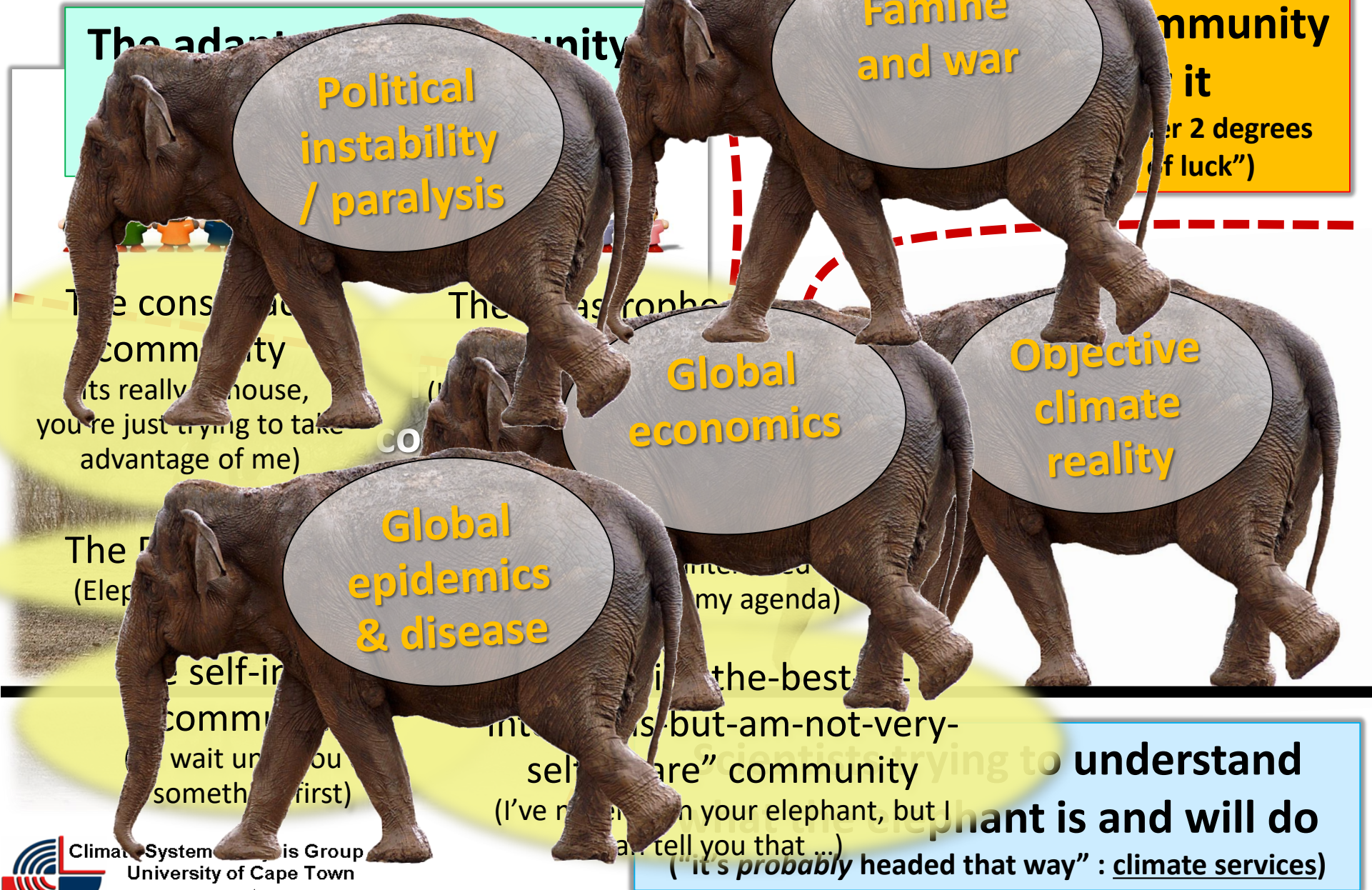
Objective climate reality



scientists trying to understand the elephant is and will do
("it's *probably* headed that way" : climate services)

When was this slide presented?

A (cynical) view of relevant knowledge communities

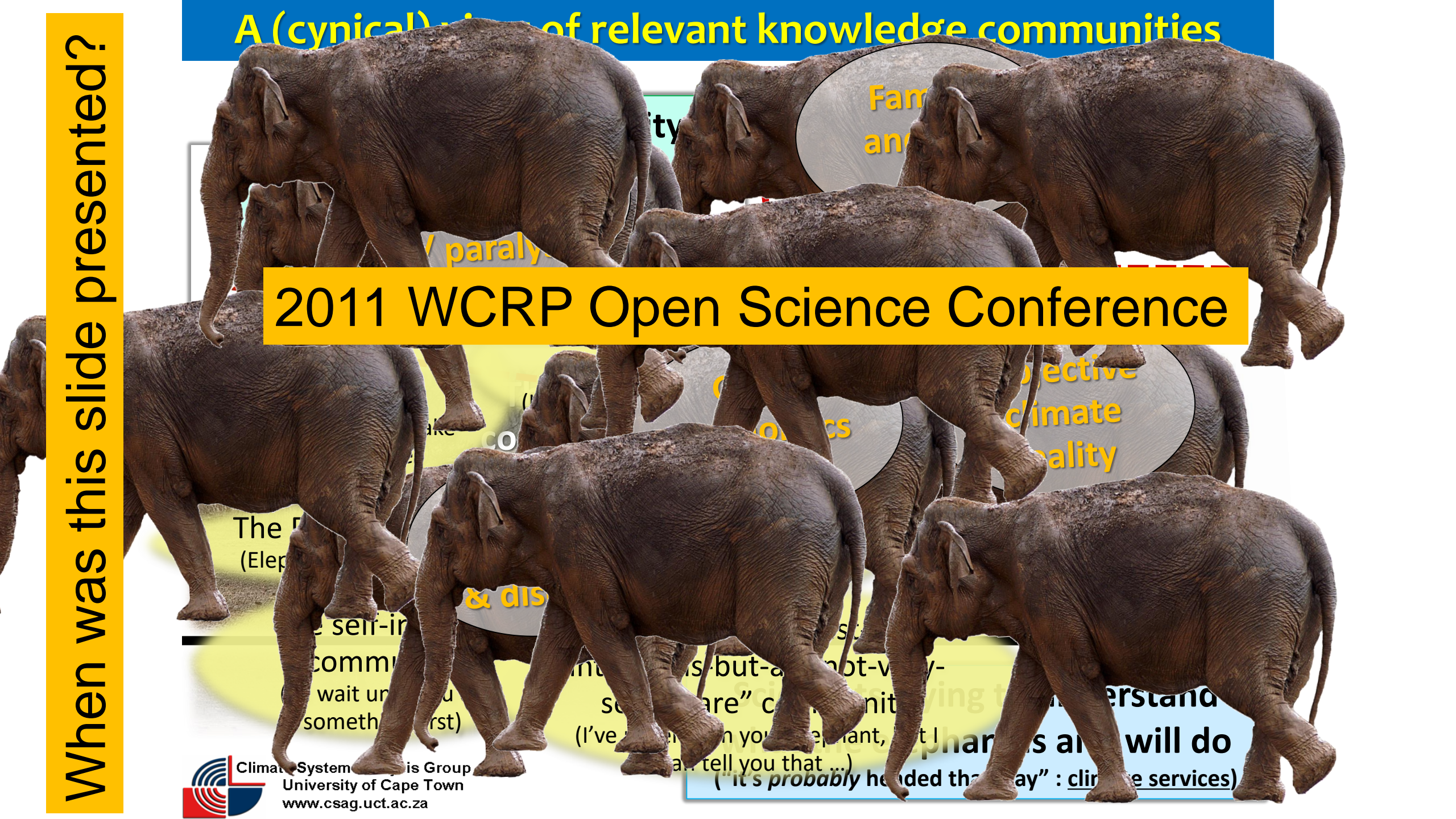


When was this slide presented?

A (cynical) ... of relevant knowledge communities

2011 WCRP Open Science Conference

...pharmaceuticals will do
... ("it's probably headed that way" : climate services)



Some example markers on the journey this point:

- IPCC reports: e.g. 1994 Technical Guidelines for Assessing Climate Change Impacts and Adaptations through to 2021 AR6 WG1 with 4 chapters on with foci on regional information
- 2010 IPCC Expert Meeting on Assessing and Combining Multi Model Climate Projections
- 2011 Introducing the concept of “distillation” at the 2011 WCRP Open Science Conference
- 2014 WCRP WGRC Expert Meeting on "The Information Distillation Dilemma“
- 2023 Discussion at the 2023 WCRP JSC and the WCRP Open Science Conference in Kigali
- 2024 “Rinse and repeat”?

From a decision maker’s perspective, the problem remains poorly addressed in any systematic, accepted, and coordinated manner



Rifs
Regional
Information
for Society



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World Climate
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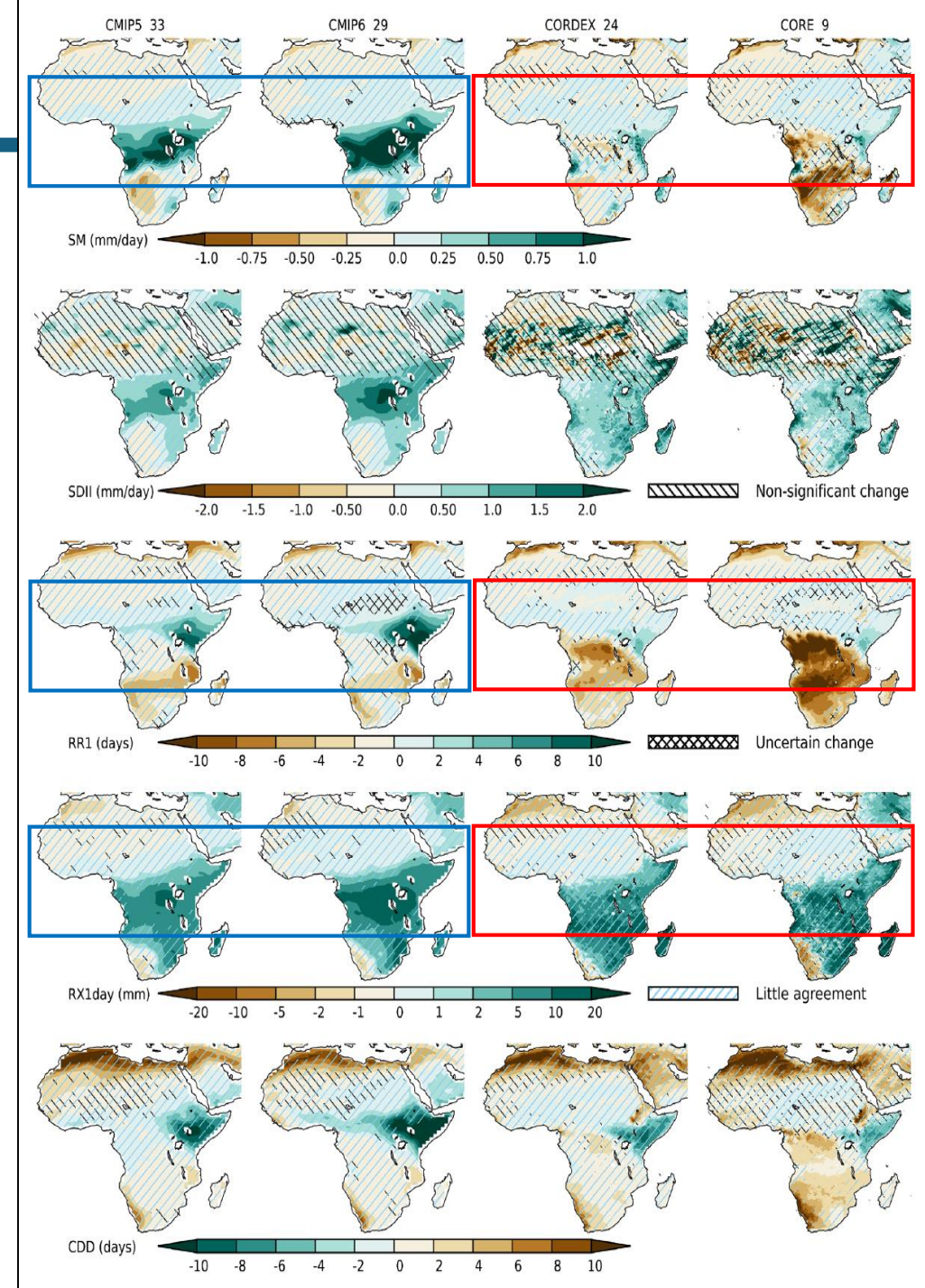


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“Non-congruent”

- **The ethical issue:** Everyone is a decision maker with accountability for consequence
- **The data issue:** different conclusions reached depending which of multiple equi-defensible data sources is selected.
- **The community issue:** Limited research collaboration across silos with limited integration of stakeholders in research design



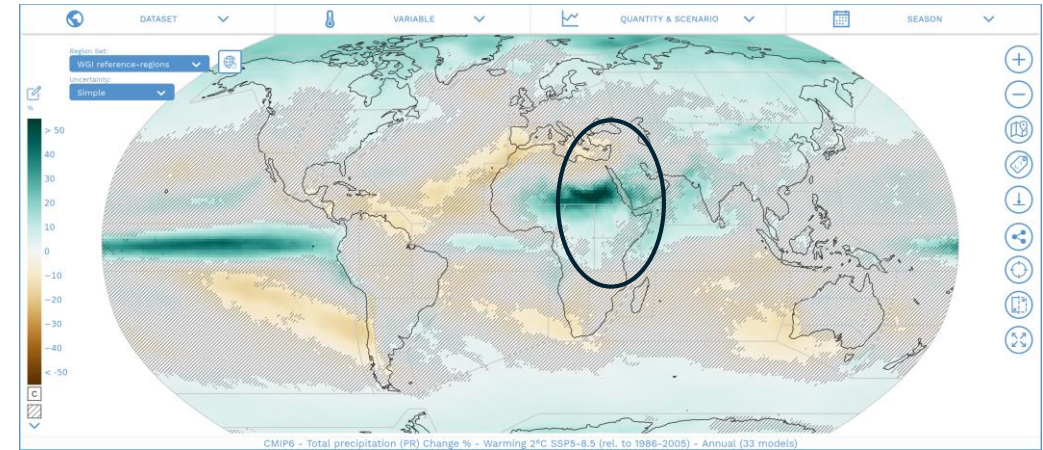
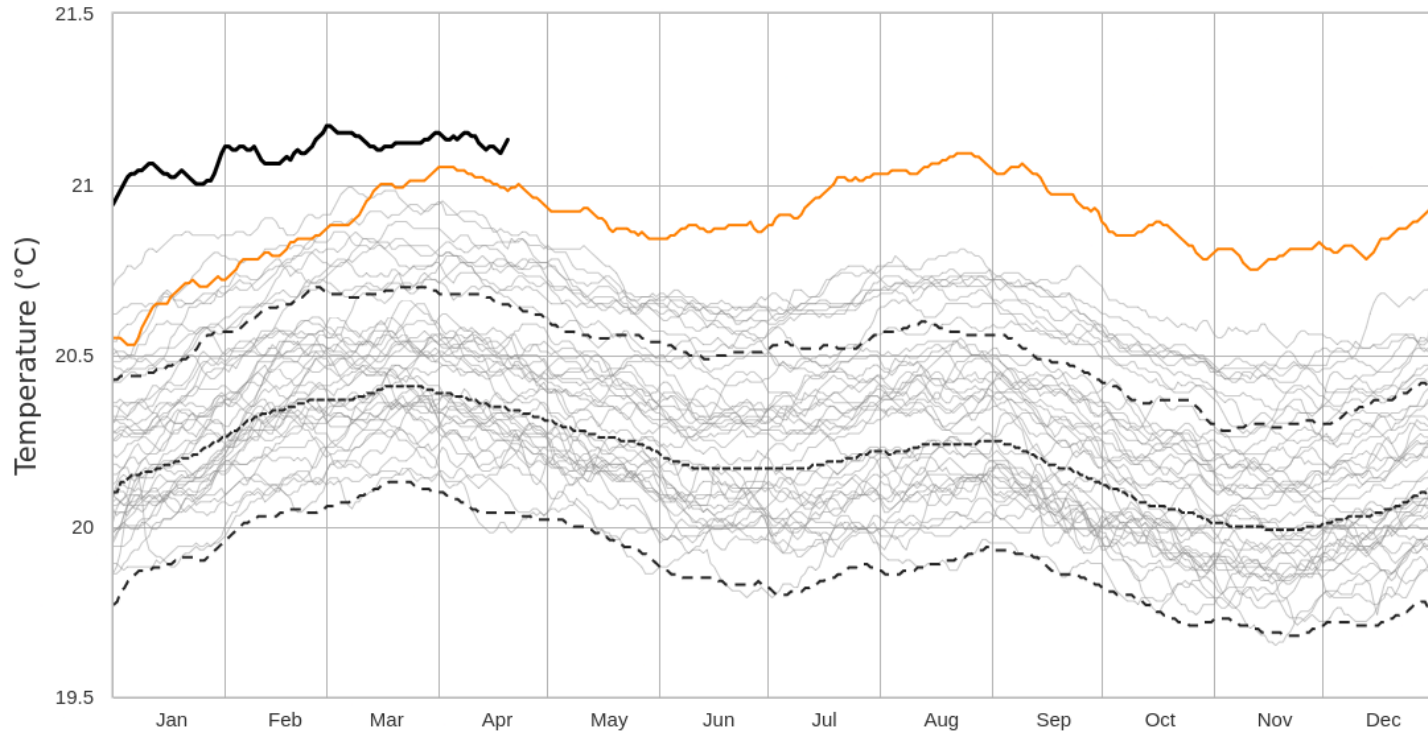
“Robust” : What does this mean in a climate crisis?

Different concepts of robustness

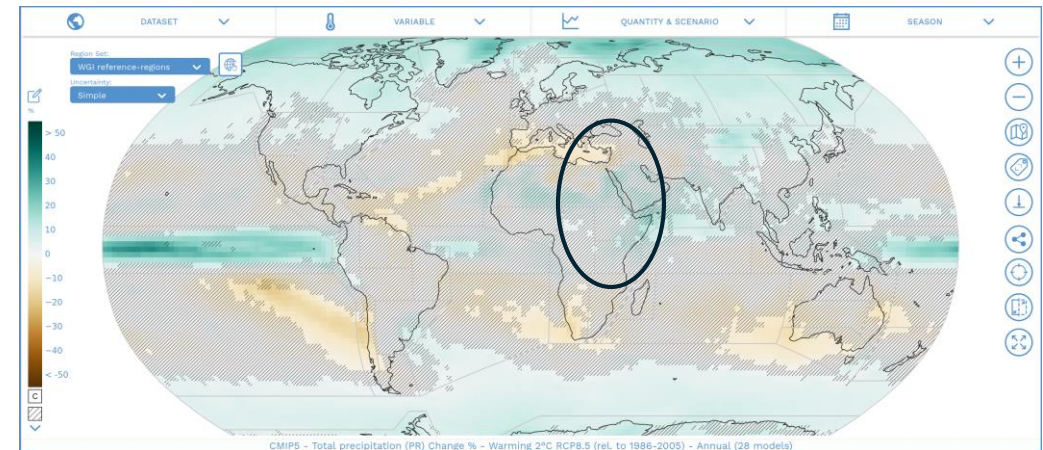
What is considered “robust” is context and community dependent

Daily Sea Surface Temperature, World (60°S-60°N, 0-360°E)

Dataset: NOAA OISST V2.1 | Image Credit: ClimateReanalyzer.org, Climate Change Institute, University of Maine



CMIP6 / AR6 Atlas



CMIP5 / AR6 Atlas



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European
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Seeing “non-congruence” and “robust” in societal contexts

Examples: consider a decision maker who uses your selected climate data to initiate consequential adaptation actions.

1. City planner developing storm water infrastructure
2. Resource manager deciding whether to invest heavily in large scale pre-emptive development
3. Risk and resilience manager redesigning flood lines that entails relocation, with consequential social disruption

The narrative of the next three days

Day 1: Getting on the same page, sampling other community's perspectives

Day 2: Unpacking the information pathways from past to future

Day 3: Constructing, committing, and communicating

The “ask” of you

Actively listen

Creatively contribute

Consider commitment

Examples of possible outcomes – seeding thinking

1. Documents: position papers, review papers, white papers, proposal papers, etc ...

- e.g. *“Mapping Barriers and Challenges”*, *“Defining robustness from different community perspectives”*, *“Ethics and epistemic issues and accountable responsibilities”*

2. Structures: potential working groups, task teams, etc.

- Working group: cross-community to foster and coordinate new activities?
- Tiger teams: for agile responses on “choke points” or information challenges?
- Task groups: to identify, conceptualize, and develop targeted guidance resources.
- Frameworks: for better collaboration and communication between silos/communities
- Engagements: with donors to support pilot actions that are regional, bottom up, champion led, and develop new paths to context-aware robust information for decisions



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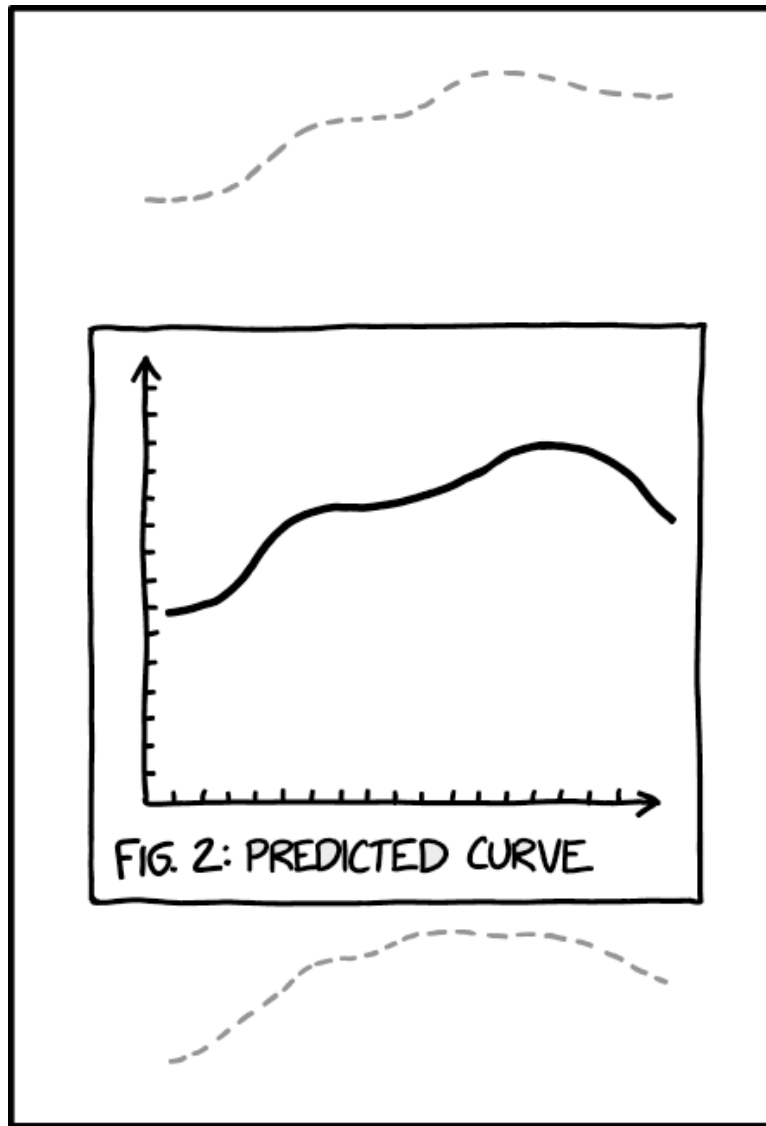
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<https://xkcd.com/2311/>

SCIENCE TIP: IF YOUR MODEL IS
BAD ENOUGH, THE CONFIDENCE
INTERVALS WILL FALL OUTSIDE
THE PRINTABLE AREA.