

Expert Meeting on the Robustness of Climate Change Information for Decisions

April 22-24 2024

Centre Albert Borschette, Rue Froissart 36, Brussels (Belgium)

DETAILED AGENDA

April 22 - PERSPECTIVES ON THE CHALLENGES

8.30 - 9.00 Arrival

Please make sure you come early and bring your QR code to enter the venue

9.00 - 10.30

1.1 Opening perspectives

ROOM 4A

This session seeks to present a big-picture view to aid the diversity of participants in engaging with the breadth of the challenge we seek to address. This challenge of non-congruency between data sources has been a long-standing barrier in creating actionable climate information for decision makers and has raised a number of key issues, which include:

1. There is no scientifically adopted systematic approach to assessing robustness of climate information for decisions nor any coordinated effort to address this.
2. Even the understanding of what it means to say information is robust is predicated on perspectives that differ widely across the participating communities of researchers, practitioners, and funders.
3. There remain poorly recognized ethical issues and responsibilities that differ between communities, but ultimately underpin the final accountability a decision maker carries when climate information leads to decisions with societal consequence.

Where have we come from?

The journey to this meeting has a long history and includes key milestones that may be helpfully recognized: the 2010 IPCC Expert Meeting on Assessing and Combining Multi-Model Climate Projections (largely rooted in the physical science); the introduction of the concept of “information distillation” at the 2011 WCRP Open Science Conference, the 2014 WCRP WGRC Expert Meeting on “The Information Distillation Dilemma”, the IPCC AR4, AR5, and AR6 assessment reports which addressed the issue, and the 2023 WCRP Open Science Conference in Kigali. Despite these and other activities, the capacity to assign robustness to climate information for action has seen little advance, and there remains minimal cross-community coordinated effort to address the challenge.

What does it mean to speak of “robust” information?

The challenge lies in the non-congruence of modelling outputs and observational data, the lack of consensus on what defines robust, and how to even qualify/quantify what is robust. There are different perspectives, such as the scientific approach to quantified uncertainty as a modeller may view it, or how robustness of an adaptation action may be viewed across climate scenarios, or even the more philosophical discourse on what robustness means. Ultimately, robustness in the current context is how to arrive at a statement for a decision maker such that it warrants the societal risks and consequences from making a given decision.

The responsibilities facing the community.

	<p>There is a shared ethical responsibility to move beyond business as usual to respond to the time imperative of climate change. This urgently requires new dialogue, coordination, and leadership across communities to work on what is fundamentally a transdisciplinary challenge.</p> <p>This meeting seeks to expand the discourse to develop new initiatives, look beyond the parochial perspectives, and to accept differentiated responsibilities to address the challenge. As such, a measure of this meeting's value is whether we are able to open new paths and catalyse activities that productively move us forward in timely and pragmatic endeavours.</p> <p>Moderators: Kevin Horsburgh and Bruce Hewitson</p> <ul style="list-style-type: none"> • Welcome from the co-chairs (Bruce Hewitson and Kevin Horsburgh) • Ice-breaker activity • Perspectives panel: <ol style="list-style-type: none"> a. Perspectives and priorities of national, international, and philanthropic organisations on the need for and development of robust climate information (Arame Tall) b. Climate services and the construction and communication of robust information on future climate (Richard Jones) c. Science of robust regional climate information (Francisco Doblaz Reyes) d. Ethical considerations (Monica Morrison) • Capturing burning questions
10.30-11.00 Tea	
<p>11.00 - 13.00 ROOM 4A</p>	<p>1.2 Leveling the playing field on the understanding of what is robust regional climate information</p> <p>The session on “leveling the playing field” is all about the imperative of context, and how awareness is a vastly different matter compared to comprehension. Principally the session recognizes the diversity of the lived experience of the different communities. For example, a well-resourced modeller in a world-leading research institution in the global north compared to an impacts researcher in the global south who faces challenges that deeply compromise the daily viability and sustainability of their work. Alternatively, a manager in a donor agency with substantial financial resources who seeks to enable research yet is constrained by policy and institutional agenda that may inflexibly define foci and objectives, whereas a local research community seeking support has a lived experience of the contextual realities and finds the funding terms of reference inappropriate and divergent to the knowledge needs for developing local actions.</p> <p>To this end, the session will engage in an unusual exercise of structured listening to the lived experiences from different communities. Though consideration of the personal emotional experience, the heterogeneity of values and world views framing the activities, and the structural constraints, the session seeks to broaden the discourse and understanding of context. The session discussions set the stage for the breakout group that follows (session 1.3), which explores the challenge to defining and assessing “Robust information”.</p> <p>Moderator: Monica Morrison</p> <ul style="list-style-type: none"> • Language and terminology keynote presentation: Coleen Vogel • Introduction to deep listening: Bruce Hewitson • Learning narratives: <ol style="list-style-type: none"> a) Physical science: Bart van den Hurk and Genito Maure b) Climate services: Faye Cruz c) Funding agency: Mark Tadross

	<p>d) Financing agency: Madeleine Thomson e) Cities: Katharine Vincent f) Small Islands: Michael Taylor</p> <ul style="list-style-type: none"> • Panel: Reflection on commonalities in the narratives from rapporteurs • Open discussion
13.00 - 14.00 Lunch	
<p>14.00 - 15.30</p> <p>ROOMS 4A, 3A, 3C</p>	<p>1.3 Break-out #1: Defining “Robust information”</p> <p>Context: Given how different sources of climate information are non-congruent yet each are nominally defensible, a leading imperative is to develop defensible measures of information “robustness” that are appropriate for informing decision maker’s choices that lead to real societal consequences.</p> <p>Goal of the discussion: To move the different communities forward to better assess and articulate measures of robustness of climate information for decisions with societal consequence. The group should explore the diversity of understanding of what the term “robust information” means in different communities, how this is assessed, the appropriateness and inadequacies of current approaches, and suggest new avenues of development potential to enhance the measures of robustness.</p> <p>Intended outcomes: The discussion should lead to ideas for the development of new avenues of research/collaborations that can advance: generating and analyzing relevant climate data; developing approaches to constructing information; and framing and articulating information robustness. Collectively such actions may advance the collective understanding of how to better assess and articulate the robustness of climate information for decisions that have consequence for society.</p> <p>Starting point: We recognize the most prevalent framing for “robust” emerges from the IPCC and is strongly conditioned by the IPCC approach to confidence statements and measures of quantitative uncertainty (e.g. Kause et al., 2022). This is a dominantly academic and technical perspective that is not strongly rooted in the application context. Alternative framing of climate information robustness exists, such as may be found in the robustness of adaptation actions across climate scenarios (e.g. Whatleley et al., 2014) . One may even take the more philosophical discourse on reasoning about what robust means when considering model outputs (e.g. O’Loughlin, 2021).</p> <p>Questions:</p> <ol style="list-style-type: none"> 1. What are the different ways to understand what “robust” should / does mean? 2. What (new) metrics could better help to identify degrees of robustness? 3. What (new) approaches could enhance the process to reach context-relevant measures of robustness?
15.30 - 16.00 Tea break	
<p>16.00-17.00</p> <p>ROOM 4A</p>	<p>1.4 Report back and open discussion Moderator: Richard Jones</p>

April 23: EXPLORING PATHWAYS TO MOVING FORWARD

8.30 - 8.45 Arrival

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8.45 - 10.00

ROOM 4A

2.1 Developing new and necessary dialogues between communities on regional climate information

This session aims at exploring how to better foster crucial dialogues between diverse communities in order to enhance the development and application of regional climate information. This panel discussion will explore innovative approaches to bridge some of the gaps that exist between the science community, funding agencies, national governments, and stakeholders, as well as limitations therein that need to be addressed in order for such bridging to occur. It will also examine conditions that are needed to establish sustained cross-cutting dialogues, explore knowledge gaps and knowledge-translation needs, ensure stronger representation of the global south in climate research agenda-setting and action, address disparities in funding agendas, and highlight missing dialogues that are needed to advance climate literacy. Through case study examples, the speakers will explore the knowledge gaps that constrain, and knowledge needs that could enhance, the efficacy of their activities.

The concluding plenary discussion opens the conversation to interrogate the leading challenges and opportunities. This discussion is preparation for the detailed discussions in the breakout group that follows on developing new and necessary dialogues between communities (Session 2.2).

Moderator: **Wendy Sharples**

- Recap of day 1: [Bruce Hewitson](#)
- Panel discussion: Developing new and necessary dialogues between communities on regional climate information
 - a) Building dialogues within the science community: **Mat Collins** and **Izidine Pinto**
 - b) Building dialogues between funding / finance agencies / national governments / and the science community: [John Rossiter](#) and **Sepo Hachigonta**
 - c) Building dialogues around climate services and climate literacy: **Jon Padgham** and **Mandira Shresta**
- Open discussion

10:00-11:00

ROOMS 4A,
5B

2.2 Break-out #2: Developing new and necessary dialogues between communities regarding regional climate information

In our increasingly interconnected world, the exchange of regional climate information is primordial for informed decision-making, sustainable development, and effective adaptation strategies. However, bridging the gap between various communities involved in climate-related endeavours poses a significant challenge. The Breakout group 2 focuses on the crucial task of **developing new and necessary dialogues between communities regarding regional climate information**. We recognize three key areas where such dialogues are vital:

a) Building dialogues within the scientific community: Scientists play a central role in understanding, analysing, and disseminating climate information. However, effective communication and collaboration within the diverse scientific community are essential to ensure the interdisciplinary learning, accuracy, relevance, and accessibility of climate data and research findings.

b) Building dialogues between funding/finance agencies and the scientific community: Adequate funding and support are critical for advancing climate research, link with the

	<p>society, data collection, and technological innovations. Establishing constructive dialogues between funding agencies and the scientific community is essential to align priorities, allocate resources efficiently, and foster innovation in climate science.</p> <p>c) Building dialogues around climate services and climate literacy: Climate services provide valuable information and tools to help stakeholders understand, interpret, and utilize climate data effectively. Useful and usable climate services are co-produced through a transdisciplinary collaboration between science and society. Enhancing climate literacy and promoting dialogue among diverse stakeholders, including policymakers, practitioners, and the public, is essential for enabling collaboration, building resilience, mitigating risks, and fostering sustainable development in the face of climate change.</p> <p>Based on what was presented in the previous Panel session, we will explore the following questions in three groups:</p> <ul style="list-style-type: none"> - What types of sustained dialogues would be beneficial? - What modalities would be functional and pragmatic? <p>By engaging in collaborative discussions and sharing insights, we aim to identify actionable strategies and foster partnerships that will facilitate the co-production and exchange of regional climate information and promote collective action towards a more sustainable and resilient future.</p>
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11.00-11.30 Tea

<p>11.30 - 13.00 ROOM 4A</p>	<p>2.3 Panel discussion: Lessons from the past on dealing with non-congruency of regional climate information</p> <p>In this session, we will delve into the complexities of dealing with non-congruency (inconsistency across different sources and forms of information) in regional climate information and the lessons gleaned from past experiences. The session will feature case examples from both the Global North and the Global South, highlighting efforts to overcome the dilemma where climate information plays a central role in stakeholders' decision-making processes. Structured around four different perspectives – stakeholders, climate service providers, the climate research community, and global North-South collaboration – the session will comprise eight presentations. Each perspective will be presented once from a Global South viewpoint and once from a Global North viewpoint, offering an understanding of the challenges and strategies from diverse geographical contexts, complicated by issues inherent in the heterogeneity of culture, values, and capacity.</p> <p>Through these presentations and the following discussion, we hope participants will gain insights into effective strategies, best practices, and potential pitfalls when dealing with non-congruent regional climate information. The session aims to foster dialogue, exchange lessons learned, identify looming challenges in need of more attention from different communities, and inspire future efforts towards more robust and inclusive climate adaptation and decision-making processes globally. This session the subsequent session on envisioning ways forward frames the critical discussions of breakout session 2.6 which focuses on brainstorming pragmatic opportunities for collaboration.</p> <p>Moderator: Dragana Bojovic</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Mandira Shrestha • Lola Corre • Michael Grose • Mat Collins
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	<ul style="list-style-type: none"> • Linda Ogallo • Vaileth Jonas • Alex Hall
13.00 - 14.00 Lunch	
14.00 - 14.30	2.4 Report back on break-out #2 Moderator: Kevin Horsburgh
14.30 - 15.30 ROOM 4A	2.5 Theory and Practice: Envisioning Ways Forward Moderator: Bruce Hewitson <p>This session will set the stage for the rest of the meeting's discussions about next steps. We aim to encourage a balance between creativity, working within practical constraints, and setting realistic targets of measurable progress. We will propose some potential structures for ongoing organizing and approaches for building broader consensus among our colleagues and communities of practice. We will challenge participants to alternatively engage in idealistic "blue sky" thinking, and play "devil's advocate" about pragmatism.</p> <p>After this whole-group session, we will be moving into break-out group discussions to brainstorm new initiatives. We hope that this whole-group session will prime everyone to think creatively and also to be grounded in some common understandings while holding a goal of achievably moving us collectively toward enhancing the value for the decision maker.</p>
15.30 - 16.00 Tea	
16.00 - 17.00 ROOMS 4A 3B	2.6 Break-out #3: Brainstorming pragmatic opportunities for collaboration where the outcomes reflect "the whole is greater than the sum of the parts" <p>Goal of the discussion: Brainstorm new initiatives on advancing "robustness" of regional information for society and how to develop new approaches to overcoming the non-congruence in ways that are practical, sellable (i.e. would appeal to funders), and could deliver measurable added value.</p> <p>Intended outcomes: The discussion should build on previous discussions on robust information and lead to suggestions for pragmatic approaches to develop constructing information by means of collaborations within and between different sectors. These proposed ways forward should inactivate projects in this direction.</p> <p>Areas for collaboration include:</p> <ol style="list-style-type: none"> Within and across the climate science community, with specific focus on building collaboration between the historically silo'd science communities (e.g. WCRP silos); Within and across the impacts community, including social and physical sciences and resilience / vulnerability; Research collaboration within and across the climate services communities, GCFS + regional (e.g. COPERNICUS C3S), NMS, other institutions, commercial services; Collaborations aimed at developing good practice guidance and ethical frameworks, including frameworks for developing transparency. <p>Guiding questions for consideration</p>

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| | <ol style="list-style-type: none">1. What are important background factors and considerations that shape the potential collaboration area for addressing non-congruence? What's the context?2. What factors hinder collaborations to address non-congruence, in the context of the potential collaboration area under discussion?3. What are key opportunities for collaborations that addresses non-congruence in the context of the potential collaboration area under discussion?4. What are concrete actions/next steps that need to be taken? |
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19.00 Meeting Dinner
Brasserie Signature
Place Jourdan 52, Brussels

April 24 : ACTIONS

8.30 - 8.45 Arrival

Please make sure you come early and bring your QR code to enter the venue

8.45 - 9.30

ROOM 4A

- Recap of day 2
- Report-back from Break-out group #3
- **3.1 Collation and categorization of options for initiatives already raised**
- Open discussion to refine priority foci

Moderator: **Bill Gutowski**

9.30 - 10.30

ROOM 4A

3.2 World cafe on written output topics

10.30-11.00 Tea

11.00 - 12.00

**ROOMS 4A,
3A, 3C**

3.3 Break-out #4 Developing concept proposals for post workshop actions to build collaboration initiatives that are cross community

Goal: Identify key topics that would most benefit from further and sustained activity following this meeting, leading to specific outputs. Define those outputs, those responsible for further actions, and time scales.

The six different groups will each focus on one of the topics below. Participants will be invited to sign up for one group during day 1 of the meeting. The topics are:

- a) Developing good-practice guidance for decision makers that draws on transdisciplinary perspectives (that is synergistic with or contributes to other international activities (e.g. IPCC, World Adaptation Science Programme)
- b) Establishing sustained platforms (local/regional/international) for supporting decision makers based on transdisciplinary expert communities
- c) Research actions/outputs on characterizing and communicating uncertainty and non-congruence of model projections
- d) Research actions/outputs on definitions and metrics of robustness of regional information that are relevant to decision makers/in a decision-making context
- e) Initiatives for transforming the global north-south power dynamics into peer partnerships with equality in adaptation decision support
- f) Developing transparency and ethical responsibility to support equity and inclusion in decision-making.

Guiding questions:

1. How important is it to develop sustained activity for this topic compared to the others above, or another not currently listed?
2. What are the practical challenges for success of further action and how might they be overcome?
3. What resources are needed and likely to be made available for the future activities we recommend? How can action be sustained?
4. Who will take responsibility for future actions?
5. What are the next steps required?

12:00 -13:00 ROOM 4A	Report back Moderator: Francisco Doblas Reyes
13.00 - 14.00 Lunch	
14.00 - 15.30 ROOM 4A	<p>3.4 Reflecting on the meeting’s discussion <u>for pathways forward towards enhancing robust, actionable, and adequate for purpose regional climate information.</u></p> <p>In this final plenary of the meeting, we will have five brief panels in which 2-3 people (per panel) will have been invited to reflect on the entire workshop. Each panel of 2-3 will represent differing perspectives from within a community of practice that has participated in the workshop: the research community, funders, the impacts and adaptation community, climate services, and decision-makers. These individuals will share what they are taking away, and what they see as priorities among the next-steps we will have discussed. As throughout the meeting, we aim to have a geographically diverse set of perspectives highlighted supported by dynamic conversations and input from all.</p> <p>After the series of short panels we will have time for a general discussion among participants, before we move on to a wrap-up session with our co-chairs.</p> <p>Moderator: Kevin Horsburgh</p> <p>One panel per topic (panelists TBC):</p> <ul style="list-style-type: none"> ● The WCRP climate research community ● The funding / finance community ● The Impacts and Adaptation community ● The climate services communities ● The Decision maker communities
15.30 - 16.00 Tea	
16.00 - 17.00 ROOM 4A	3.5 Closing summary and open discussion to capture outstanding issues Moderators: Bruce Hewitson and Kevin Horsburgh