WORLD CLIMATE RESEARCH PROGRAMME

Lighthouse Activity – My Climate Risk
Vision

The new science that is envisaged within MCR is not around models, or observations, or process understanding, but on how they are all used together within a context of deep uncertainty.

Goal

To develop and mainstream a ‘bottom-up’ approach to regional climate risk, which starts from the decision context (and the decision scale) and enables relevant climate information to be brought into that context.

Purpose

By developing a new framework for assessing and explaining the physically plausible climate drivers of regional climate risk, climate information will be made meaningful at the local scale.

Whilst any application of the framework will inevitably be specific and tailored to local concerns, the framework itself will be generic, hence flexible and applicable across a number of region types and intended to become a much-needed scientific support for the development of climate services (Labs)
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<th>Member</th>
<th>Country</th>
<th>Representing</th>
<th>Career Stage</th>
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<td>Ted Shepherd (Co-chair)</td>
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My Climate Risk

Challenges

**Complexity**
- The non-hazard aspects of risk represent a huge and very complex scope, beyond WCRP expertise

**Overlapping**
- The coordination with the other LHAs and homes, especially RIfS, given the significant potential overlap in scope

**Demand**
- Making progress, given the ever-increasing demands on people’s time, in particular during the COVID-19 pandemic
Proposed Solutions

**Complexity**
- Working in specific risk applications with end users using a bottom-up approach *(Labs)*

**Overlapping**
- Drawing on all relevant parts of WCRP; filling gaps; building on what is already working well

**Demand**
- Following a realistic and practical approach, distinguishing between what needs to be done, in terms of research in general, and the role of the WCRP within that (these are different)

**CLIVAR**
How to contribute for regional climate risk?
Practical Example

Unprecedented drought in SA during austral summer

Energy company needs to know how often extremes like this are likely to happen in the next 2 decades

Water supply company needs to know the same thing, except for the next 5 decades

The farmers need to know if the next season will be as extreme

How can we help a researcher to answer these questions?

Which protocol to use, who to talk with, etc…

Precipitation anomaly (mm/day)
2. Partners – internal and external to WCRP

Internal
✓ Regional Information for Society + other homes
✓ Explaining and Predicting Earth System Change
✓ Digital Earths
✓ WCRP regional research fora

External
✓ WMO, GCOS, WWRP, FE, CSP, WASP, WHO, FAO, UNESCO
✓ Other partnerships should be established at more of a grass-roots level given the highly focused approach (Labs)


"...inequitable North–South partnerships [are] borne out of a paradigm of knowledge deficit and capacity development that runs the risk of entrenching existing inequalities....Creating frameworks that enable the establishment of equitable partnerships requires a shift in perspectives on, and processes related to, the design, implementation and evaluation of success."
3. Resource requirements – early thoughts

**Internal**
- Secretariat support
- Support for workshops
- Support for EMCR

**External**
- Science councils
- Support for regional representatives; this is a real challenge
4. Draft Timeline and Roadmap: Science Plans and LHA Launch

- **2021**: Science Plans
- **2022**: LHA Launch
- **2023**: Self-sustained Activities
- **Beyond**:
5. Discussion

Challenges
Are we missing any challenges?

Solutions
Are the proposed solutions reasonable?

Structure
What is the right structure?

Regional Representation
How to foster global regional participation?