



# WORLD CLIMATE RESEARCH PROGRAMME

Lighthouse Activity – My Climate Risk



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# Contact

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# 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

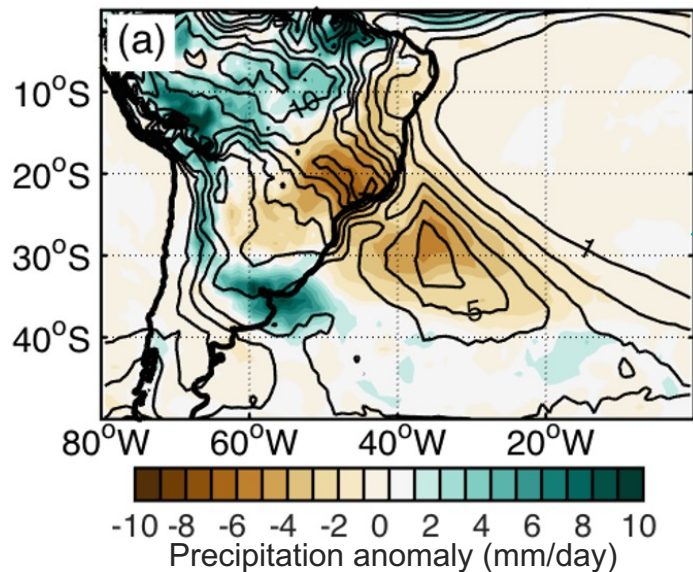
By developing a new framework for assessing and explaining the physically plausible climate drivers of regional climate risk, climate information will be made meaningful at the local scale.

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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## Practical Example

Unprecedented drought in SA during austral summer



**RISK**

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...

✓ One goal of MCR is to empower climate scientists in developing countries to become the local experts, and to support the development of homegrown climate services

A real example, from Regina Rodrigues

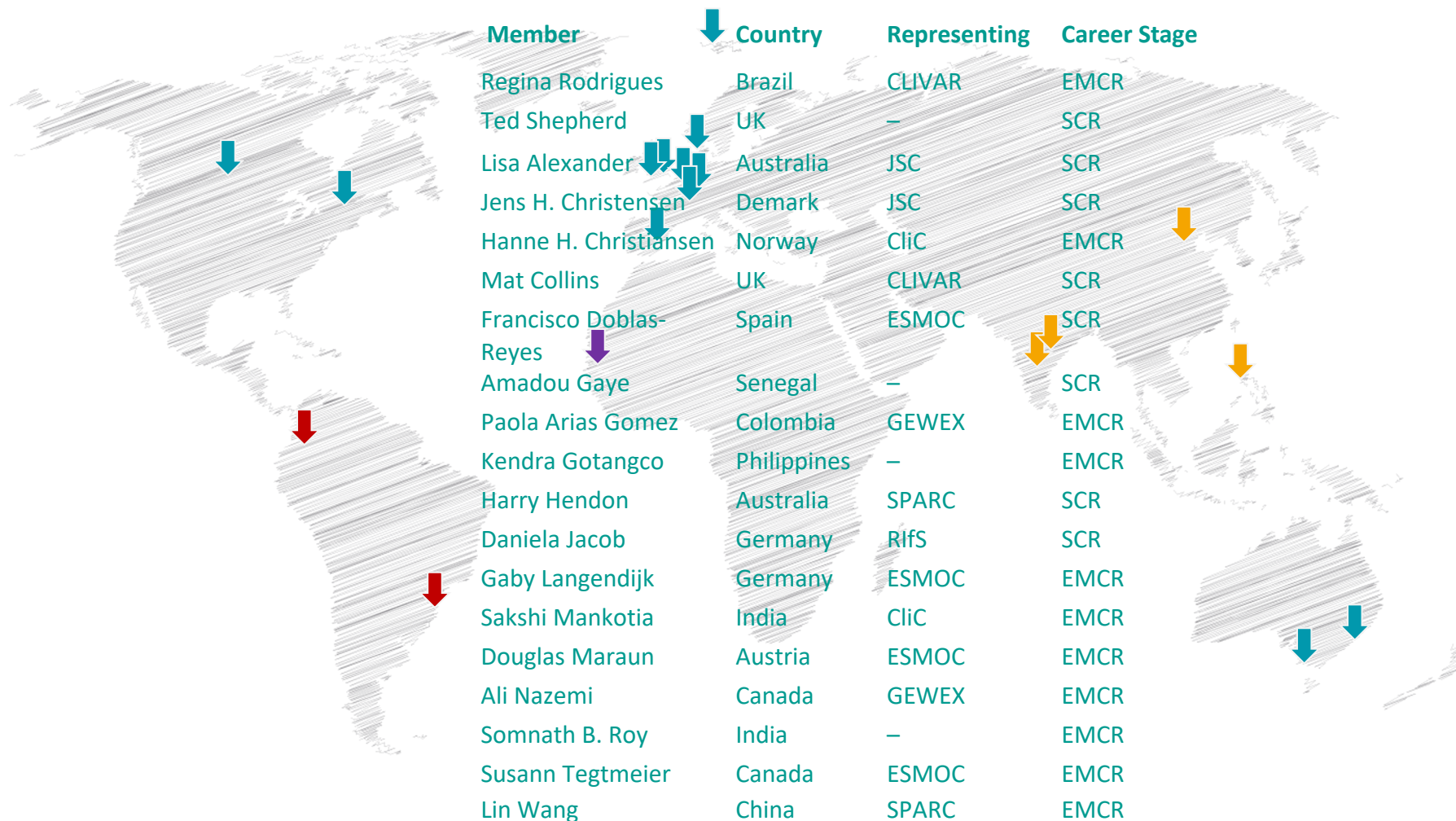
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Member	Country	Representing	Career Stage
Regina Rodrigues	Brazil	CLIVAR	EMCR
Ted Shepherd	UK	—	SCR
Lisa Alexander	Australia	JSC	SCR
Jens H. Christensen	Denmark	JSC	SCR
Hanne H. Christiansen	Norway	CLIC	EMCR
Mat Collins	UK	CLIVAR	SCR
Francisco Doblas-Reyes	Spain	ESMOC	SCR
Amadou Gaye	Senegal	—	SCR
Paola Arias Gomez	Colombia	GEWEX	EMCR
Kendra Gotangco	Philippines	—	EMCR
Harry Hendon	Australia	SPARC	SCR
Daniela Jacob	Germany	RfS	SCR
Gaby Langendijk	Germany	ESMOC	EMCR
Sakshi Mankotia	India	CLIC	EMCR
Douglas Maraun	Austria	ESMOC	EMCR
Ali Nazemi	Canada	GEWEX	EMCR
Somnath B. Roy	India	—	EMCR
Susann Tegtmeier	Canada	ESMOC	EMCR
Lin Wang	China	SPARC	EMCR

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## 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

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## Proposed Solutions



### Complexity

- ✓ Working in specific risk applications with end users using a bottom-up approach (**Labs**)
- ✓ Developing partnerships with institutes which can act as regional hubs and provide continuity



### Overlapping

- ✓ Drawing on all relevant parts of WCRP; filling gaps; building on what is already working well
- ✓ Developing an ecosystem of research clusters rather than a hierarchical structure



### 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)

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## Another challenge: equity and legitimacy

VINTAGE SCHUMACHER



Small is Beautiful

A Study of Economics  
as if People Mattered

From Vincent et al. (2020 Nature Clim. Change, doi: 10.1038/s41558-020-00910-w):

"...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."

From E.F. Schumacher's "Intermediate technologies" (1973):

- Production methods should be
  - used in workplaces located where people live now (rather than forcing them to migrate)
  - cheap
  - relatively simple
  - using local materials and mainly for local use
- In our case, we are producing *information*, so can draw on the worldwide storehouse of information through the entire WCRP

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## Proposed Activities

### Conferences

- ✓ Session at Sustainability Research & Innovation (SRI 2021) Congress in June 2021
- ✓ Session submitted for the AGU Fall Meeting 2021

### Workshops

- ✓ With Himalayan University Consortium (part of International Centre for Integrated Mountain Development, ICIMOD)
- ✓ With Euro-CORDEX
- ✓ With UN Ocean Decade

### Partnerships

- ✓ WCRP Academy, Regional Focal Points, etc