

The World Adaptation Science Programme (WASP)

Science for Adaptation Policy Briefs and Research Directions

Adaptation Futures
October 7, 2021



Agenda

- Introduction to WASP
- Science for Adaptation Policy Briefs
 - Cascading Shocks and Stressors
 - Global Goal on Adaptation
 - Early Warning Systems for Adaptation
- Research Directions
- Interactive Discussion
- Wrap Up and Ways Forward

About WASP

Ensure that adaptation research gaps are filled,
focusing on policy-relevant scientific research and
prioritizing research needs in vulnerable developing countries

Three major components

Current research gaps

Future research gaps

Policy-relevant guidance



Anand Patwardhan



Johanna Nalau



Cynthia Rosenzweig

Co-Chairs Science Committee



Youssef Nassef

Chair



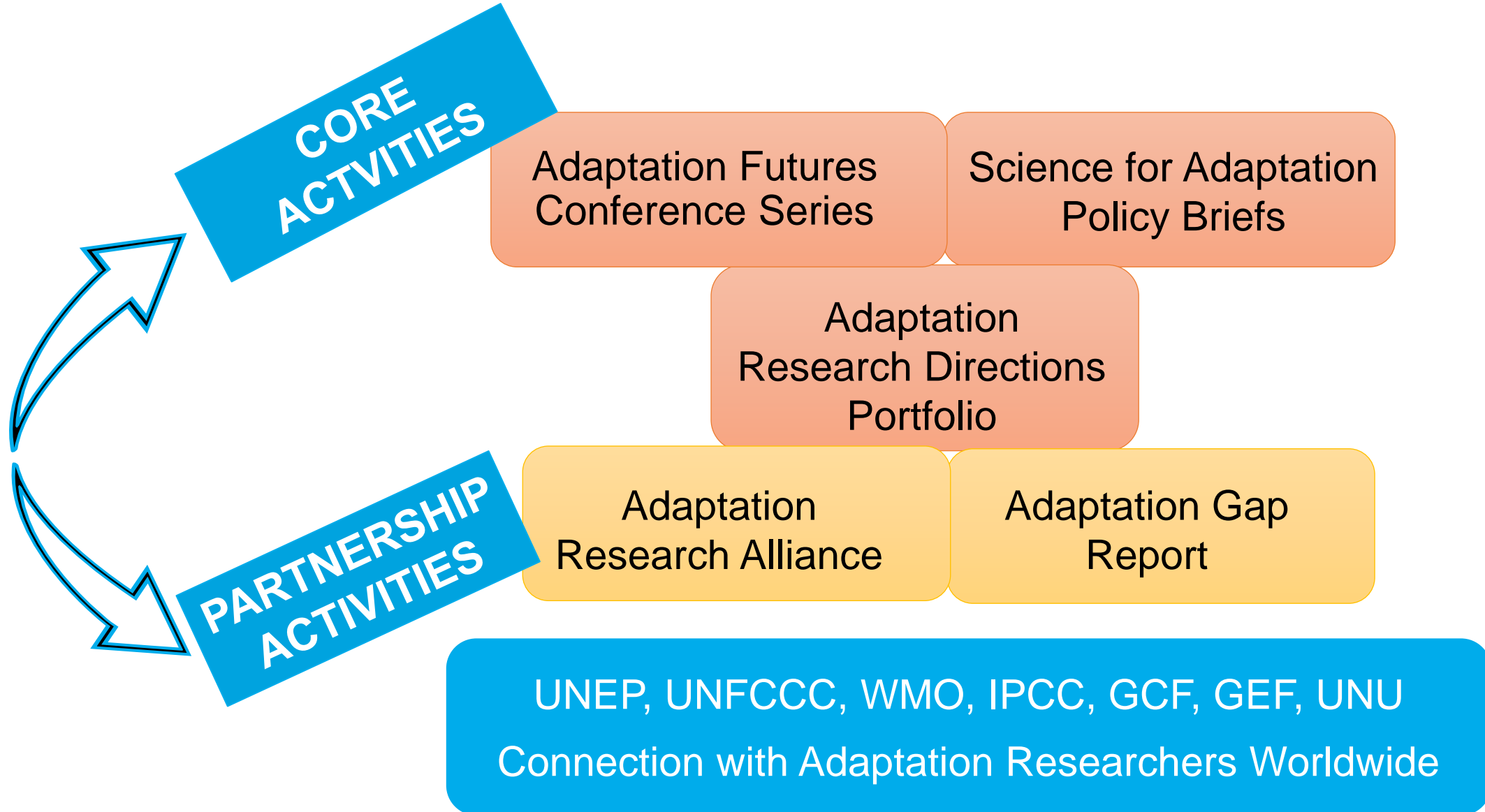
Minpeng Chen

Co-Chairs Policy and Finance Committee



Bruce Currie-Alder

WASP Core and Partnership Activities



New WASP Science for Adaptation Policy Briefs

First Set (published November 2020)

- *Adaptation Decision-Support Tools and Platforms*
- *Transboundary Climate Risk and Adaptation*
- *High-End Climate Change and Adaptation*



New Set (available in October/November 2021)

- *Cascading Shocks and Stressors*
- *Global Goal on Adaptation*
- *Early Warning Systems for Adaptation*



Available from: <https://wasp-adaptation.org>

Cascading Shocks and Stressors

Key Messages

- Cascading impacts of climate change aggravate challenges to the current human-physical systems through **transmission and amplification of negative impacts across temporal, spatial and institutional/systemic context**, which will worsen existing structural deficits.
- Responding to these factors need to **work across scales in a holistic and comprehensive way**. Cross sectoral and disciplinary collaboration is key to identify the linkages in the cascades and how to work together to build the adaptive capacity.
- **Equality and justice are of the essence** to help set the basics. Assurance of habitat environment, provision of basic livelihoods, and access to green skills and jobs will help build adaptive capacity and mitigate future risks.
- **COVID-19 stimulus packages provide an opportunities to tackle climate issues in a systematic way.**

Global Goal on Adaptation

Key Messages

- The Global Goal on Adaptation **links the qualitative concept of an “adequate adaptation response” with the quantitative aspect of a temperature response** in Article 2 of the Paris Agreement.
- The Goal calls for **adequacy in action and support for adaptation**, requiring all parties to engage in and communicate their efforts to plan, implement, and monitor adaptation.
- Each country should follow guidance (to be developed) to **conduct periodic self-assessments of vulnerability and adaptive capacity**, starting from a baseline assessment, per climate-related hazard to assess the status nationally and sub-nationally.
- One indicator should be **formulation and implementation of NAP**; another should be the **extent and success of locally led adaptation**.
- At the global level, **indicators of adaptive capacity, resilience, and vulnerability are needed** that can be aggregated to monitor and evaluate collective progress, within the context of the SDGs.

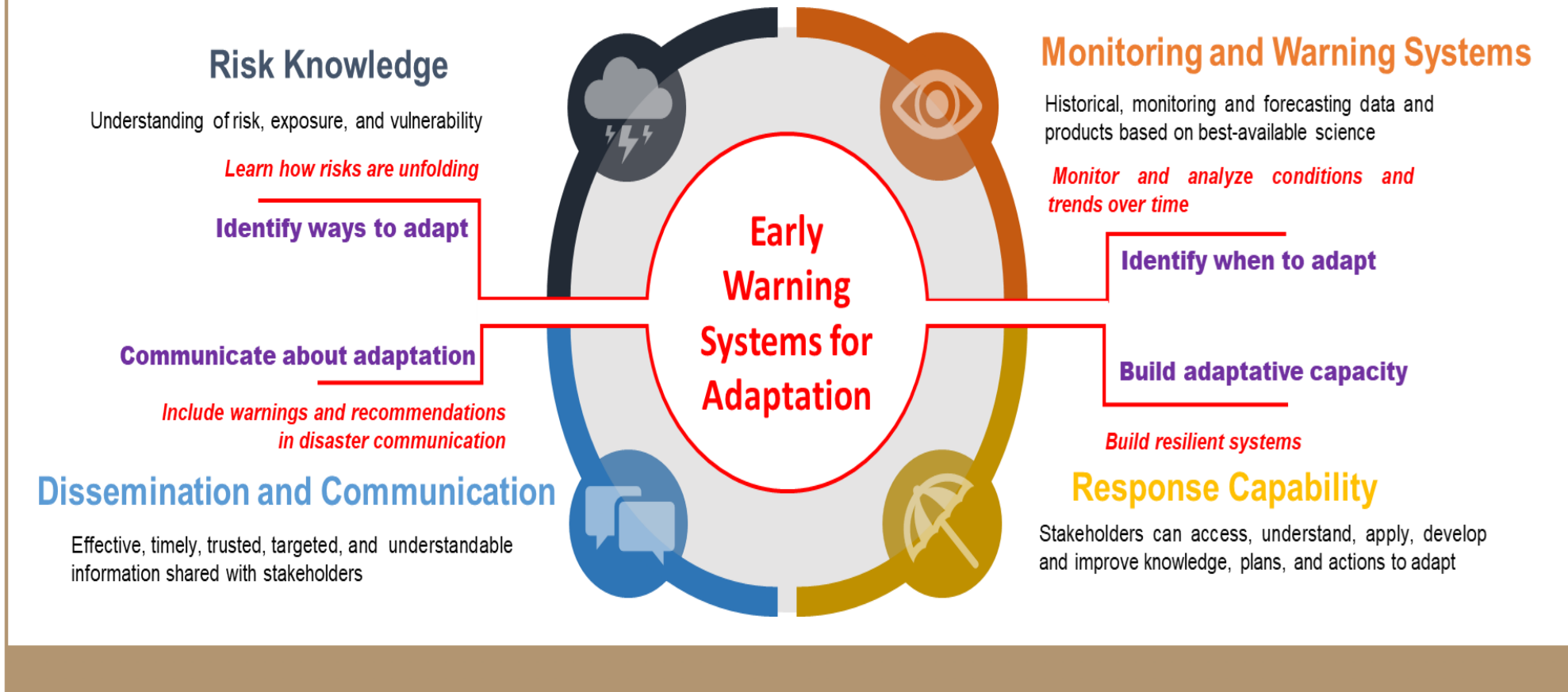
Early Warning Systems for Adaptation

Key Messages

- Strengthening Early Warning Systems for Adaptation (EWSA) helps countries **prepare for extreme weather events, now and in the future**, and improves pathways towards sustainable development.
- Past and present climate data and information along with medium-range forecasts help **identify evolving trends in extreme hazardous events** and their frequency, intensity and duration.
- **Transdisciplinary collaboration, meaningful participation and community engagement** are critical for efficient and effective EWSA.
- Significant improvements to disaster responses can be achieved by **reinforcing both scientists' and stakeholders' capacity to access, communicate and integrate climate information** into risk management policies and practices to improve resilience.
- Efforts need to be **stepped up to reduce the financial and resource disparities** in EWSA capacity among countries and regions.

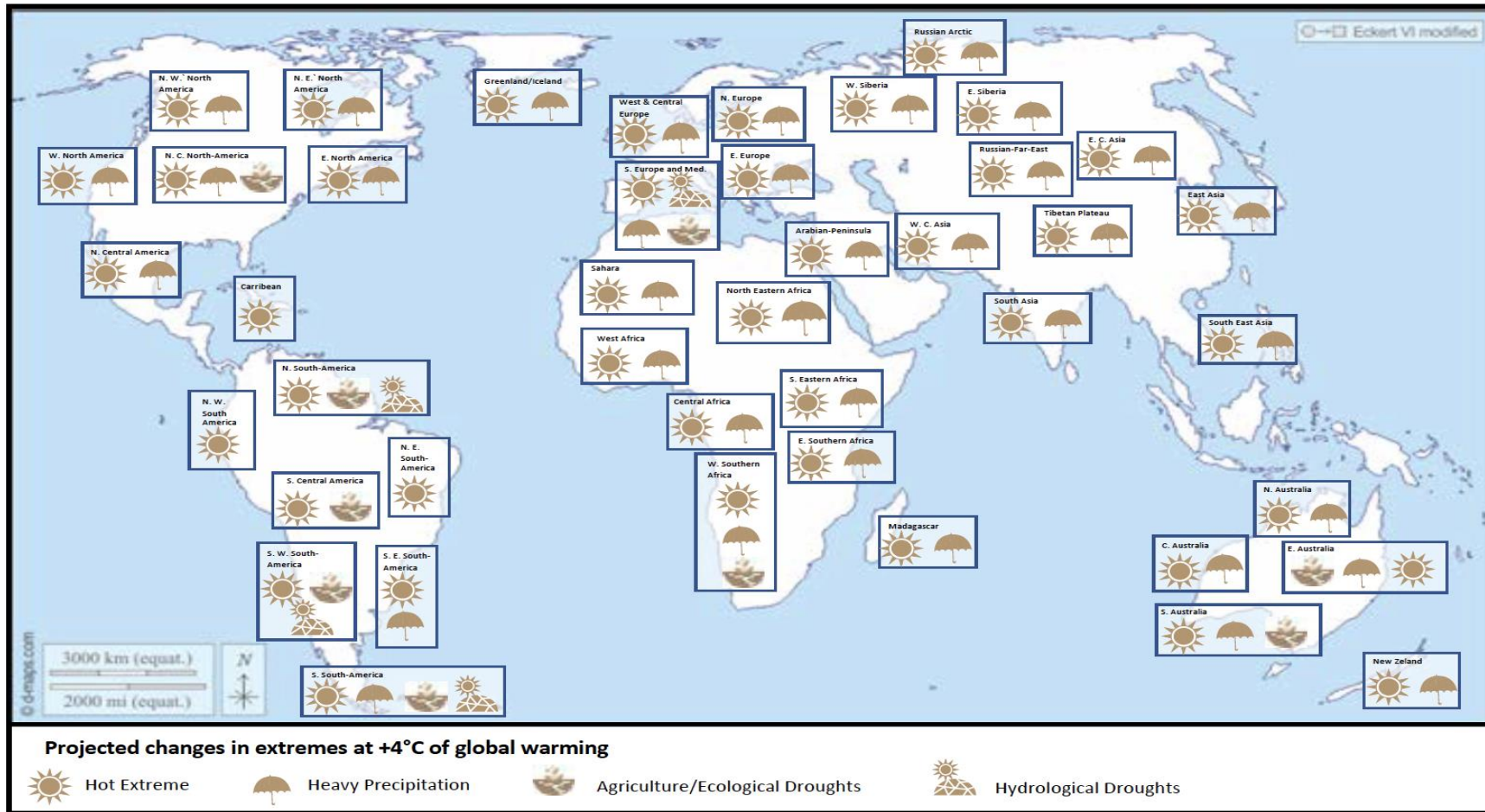
Early Warning System for Adaptation (EWSA)

Figure 1: Systems approach to Early Warning System for Adaptation (EWSA). After: Basher 2006



Projected Changes of Extreme Events

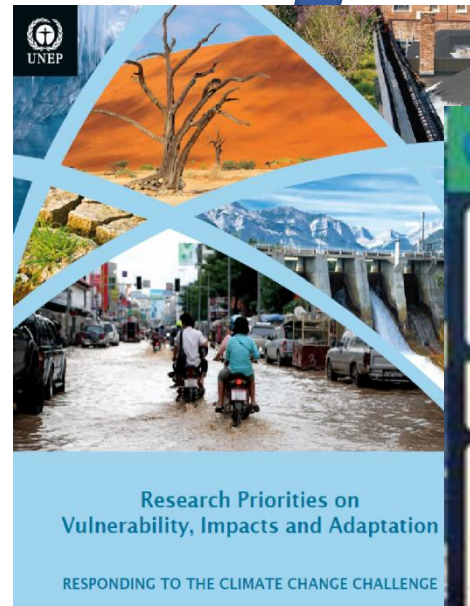
Figure 2: Projected changes of extreme events at +4°C of global warming. Projections are shown for the pre-industrial baseline 1850-1900. Only projected changes with a high level of confidence are represented. Source: AR6 WG1 IPCC report, chapter 11, table A.11.2, pp 17-19.



Research Directions

We asked WASP sponsors:

- What is the demand for research?
- What questions face your organization?
- How is knowledge used & connected to action?



WASP Research Directions

(1) From the interview notes, what KEY IDEAS on research demand & directions resonate with you the most?

(2) What FURTHER IDEAS from the interviews capture your attention?

(3) What INSPIRATION or REFLECTIONS do you have after reading the interviews?

(4) Do you see further TRENDS or gaps in research (beyond the interviews, based on your experience, knowledge & reading)?

(5) What is the CALL FOR ACTION or unique insight for us to focus on in a commentary (or explore in future workshop)?

Climate rationale

Country level matters

Guide climate finance

More precise demand

Reaching places left behind

Potential directions

Survey ongoing

FCDO-IDRC scoping

What We Heard

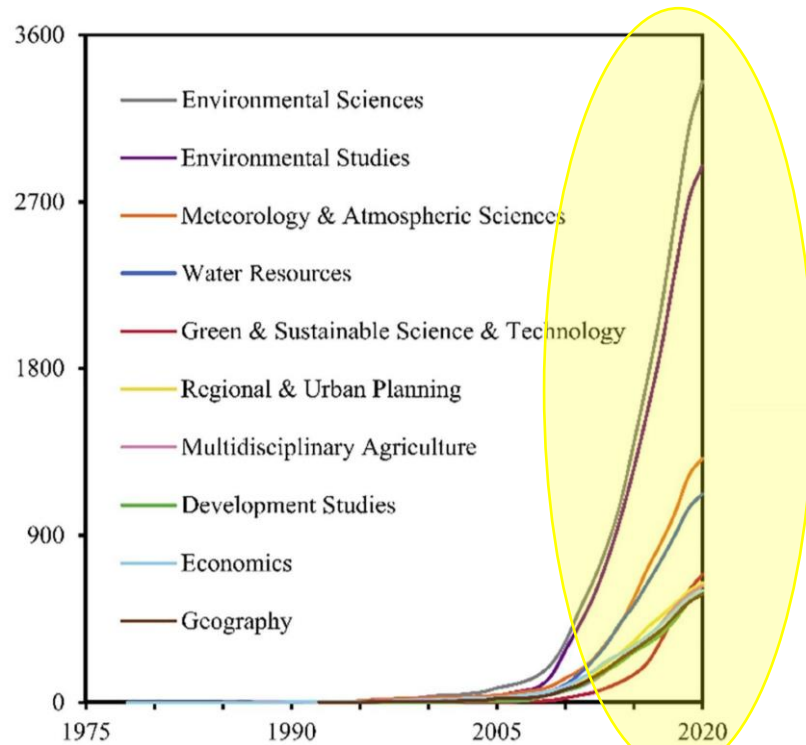
- Informing global stocktake
- Guiding climate finance
- Learning through practice

Commentary for
www.nature.com/commsenv/

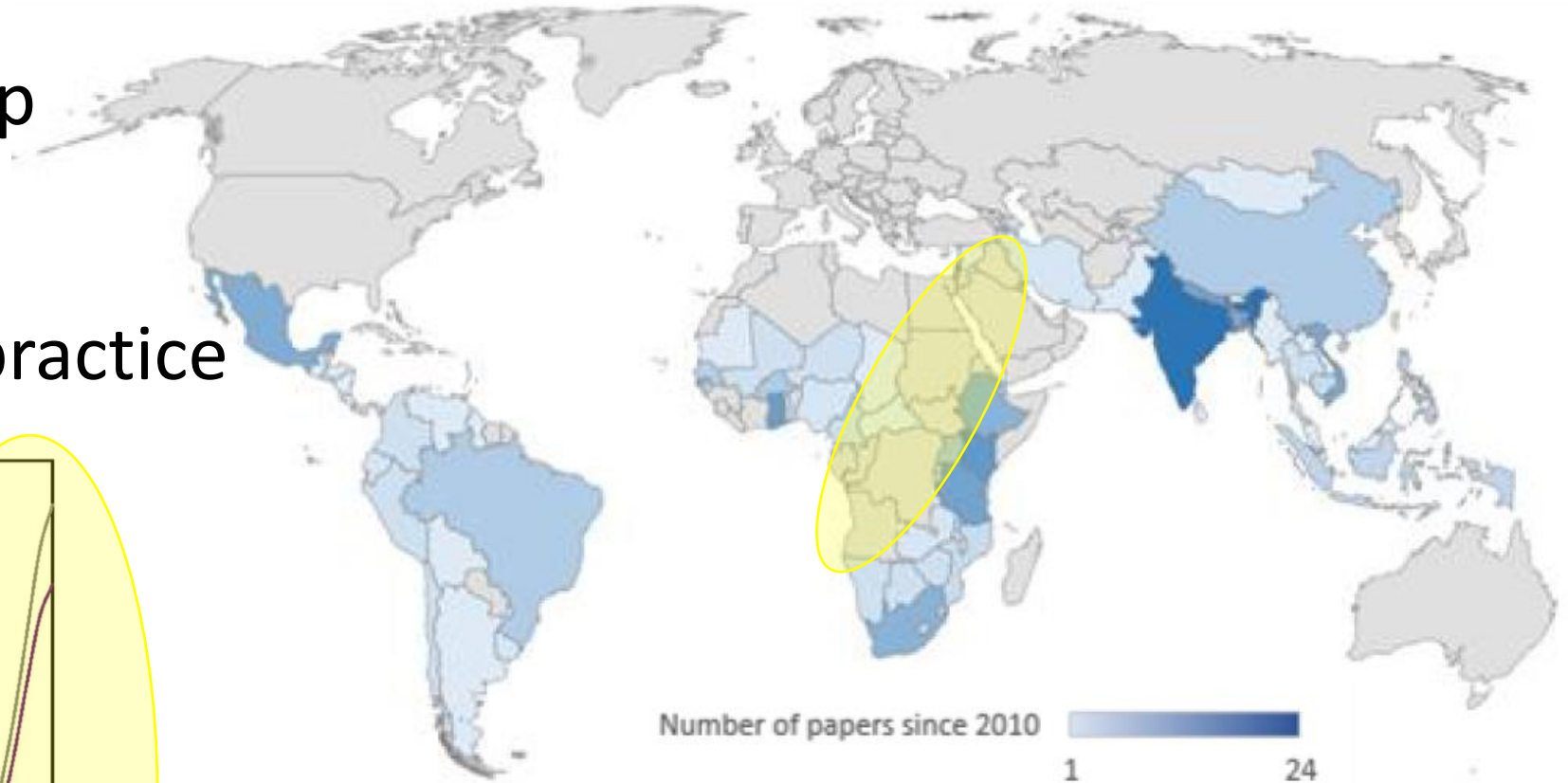


What Else

- Growth in scholarship
- Gaps in coverage
- Turn to synthesis & practice



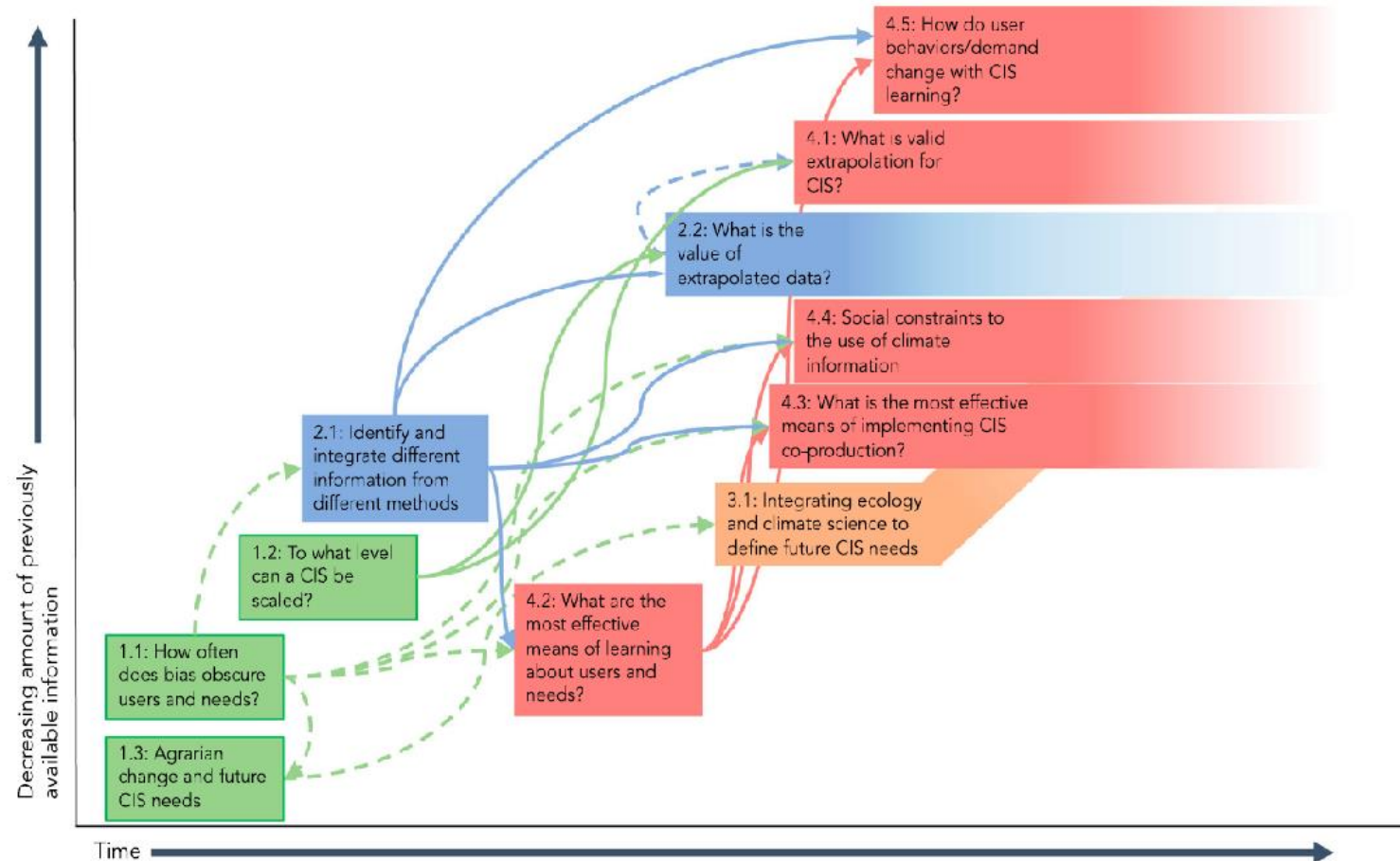
Nalau & Verrall
10.1016/j.crm.2021.100290



Vincent & Cundill
10.1080/17565529.2021.1877104

What Next

- Trends in adaptation science
- Gap with practice
- Mobilizing resources



Example from: Carr et al. 10.1080/17565529.2019.1596061

Join the Discussion <https://tinyurl.com/WASPatAF6>



Bruce Currie-Alder · 3m

WASP session at Adaptation Future

Interaction discussion - Join the conversation with the World Adaptation Science Programme

Comments & questions on POLICY BRIEFS

Bruce Currie-Alder 5m

Topics covered in 2021

Cascading shocks & stressors
Global goal on adaptation
Early warning systems



Add comment

Ideas for FUTURE BRIEFS

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What topics should WASP consider in 2022?



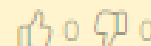
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Comments & questions on RESEARCH DIRECTIONS

Bruce Currie-Alder 7m

What we heard

Informing the global stocktake
Guiding climate finance
Learning through practice



Add comment

Suggestions for WASP learning agenda

Bruce Currie-Alder 5m

Respond to survey



Research directions in climate adaptation

<https://tinyurl.com/WASPDdirections>



Add comment

Bruce Currie-Alder 3m

Brief prepared in 2020



Thank You

Questions and Discussion

<https://wasp-adaptation.org>

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