



# Inverting the construction of climate information for local-to-regional climate risk

2023 Climate, Environment & Economic Growth Conference

09–10/11/2023

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# Gaps



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My Climate Risk

“ “ *There is a significant gap between the production and use of climate information that results in part from focusing on better data/models rather than better **decision-making**.* ” ”

# Challenges

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“ “ *Top-down approach is inevitably driven by the climate scientists themselves and, as such, violates the core principles of **co-production**.* ” ”

# Challenges

SPM of AR6 WGI report (2021)

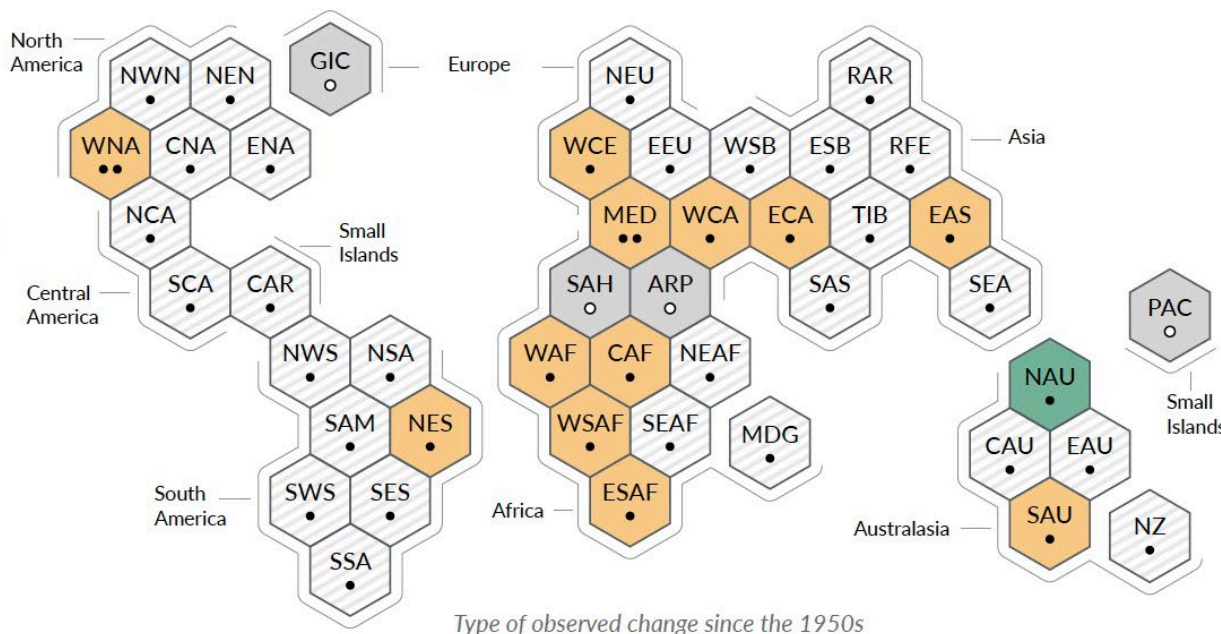
Type of observed change in agricultural and ecological drought

- Increase (12)
- Decrease (1)
- Low agreement in the type of change (28)
- Limited data and/or literature (4)

Confidence in human contribution to the observed change

- High
- Medium
  - Low due to limited agreement
  - Low due to limited evidence

c) Synthesis of assessment of observed change in **agricultural and ecological drought** and confidence in human contribution to the observed changes in the world's regions



Traditional ways of producing aggregated climate information can leave climate scientists empty-handed for many regions of the world

Yet there can be a wealth of local climate knowledge (e.g., Chapter 10 of IPCC AR6)

# Challenges



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“*Climate change science tends to frame the scientific questions as **singular, definitive** ones by interpreting **statistical significance** in a dichotomous true/false manner and avoiding the articulation of multiple plausible hypotheses, which would allow a **plural, conditional** framing of uncertainty.*”

# Challenges



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World Climate Research Programme

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“ “ *Given the observed trends, and the climate models' inability to adequately represent climate variability in so many regions of the **Global South**, can we afford to wait until we have more confident attribution statements to provide decision-makers with the information necessary to **plan** and **adapt**?* ” ”

# Solutions



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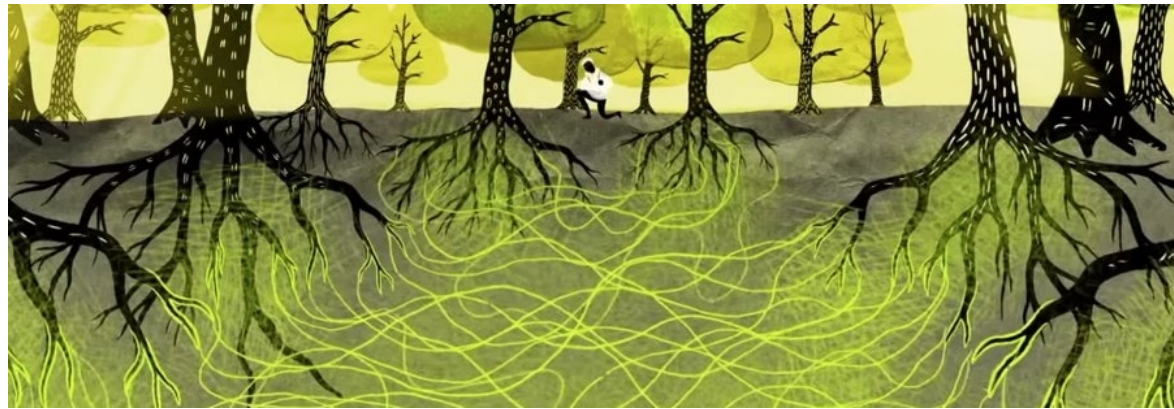


World Climate Research Programme

My Climate Risk



*Inverting the construction of climate information*



*World Climate Research Program  
Lighthouse Activity My Climate Risk*

# Solutions



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World Climate Research Programme

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“*Climate change science has to break with the traditional research/assessment/policy paradigm and bring into existence a community of users and invert the construction of climate information for local-to-regional climate risk, building a **bottom-up approach.***”



# Solutions



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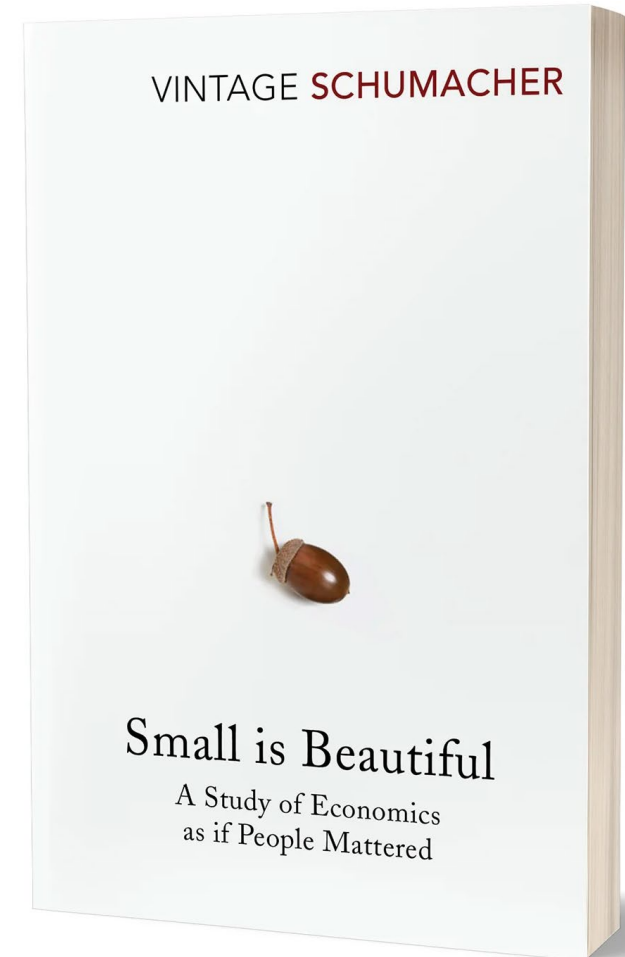
## Small is beautiful: climate-change science as if people mattered

Regina R Rodrigues, Theodore G Shepherd 

*PNAS Nexus*, Volume 1, Issue 1, March 2022, pgac009,

<https://doi.org/10.1093/pnasnexus/pgac009>

“*Each conditional statement can be **singular, definitive,** but together the representation of knowledge is **plural, conditional.***”



# Solutions

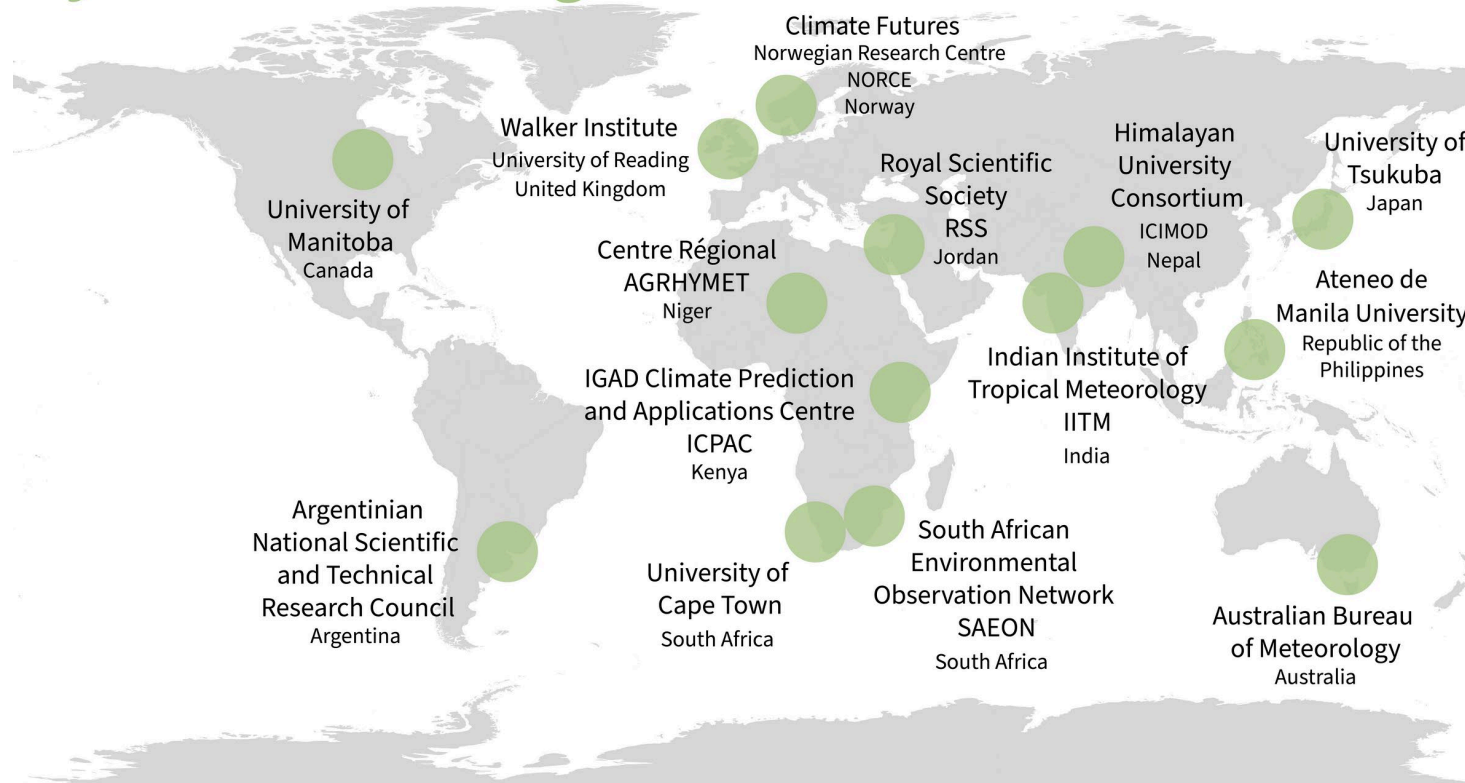


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## My Climate Risk

### My Climate Risk Regional Hubs



“  
A *mycorrhizal network* sharing resources rather than competing for them.”

Thanks!



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