



SCIENCE AND
EDUCATION **FOR**
SUSTAINABLE
LIFE

***(Urban) Landscapes in transition
- from risk assessment to guidelines for effective
communication, across disciplines to meet challenges
and move forward***

Kristina Blennow

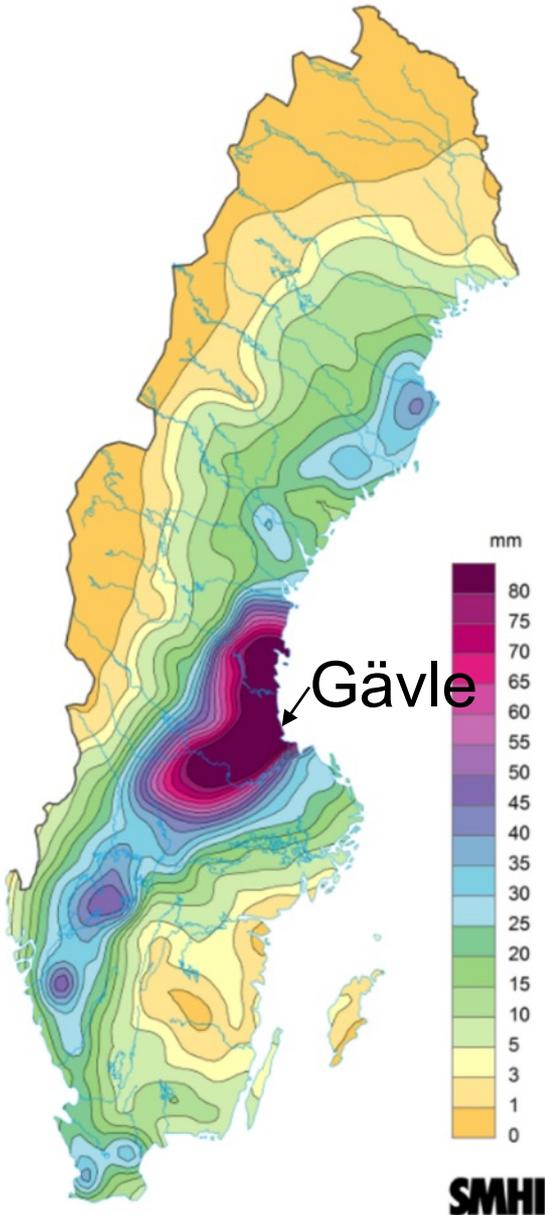
Swedish University of Agricultural Sciences / Lund University



Outline

- "Landscape" approach
- Drivers of climate change adaptation and mitigation decision-making
- Evidence-based guidelines on effective communications on climate change adaptation and mitigation

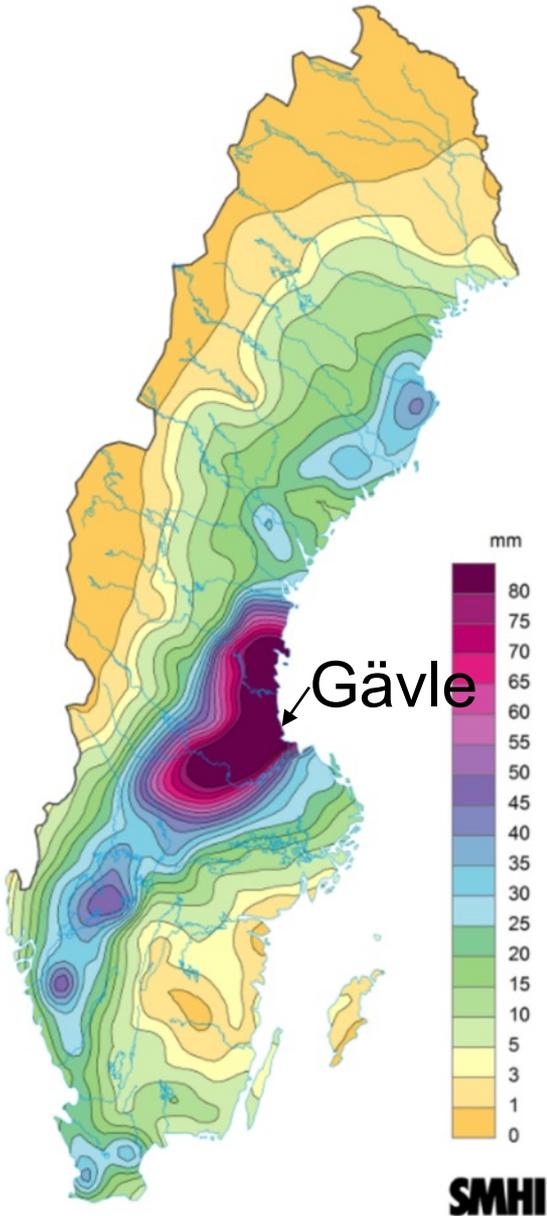




Cloudburst 17 August 2021

Gävle:
161.6 mm in one day

Average for August:
71 mm



Cloudburst 17 August 2021



Physical climate
change science

Impacts

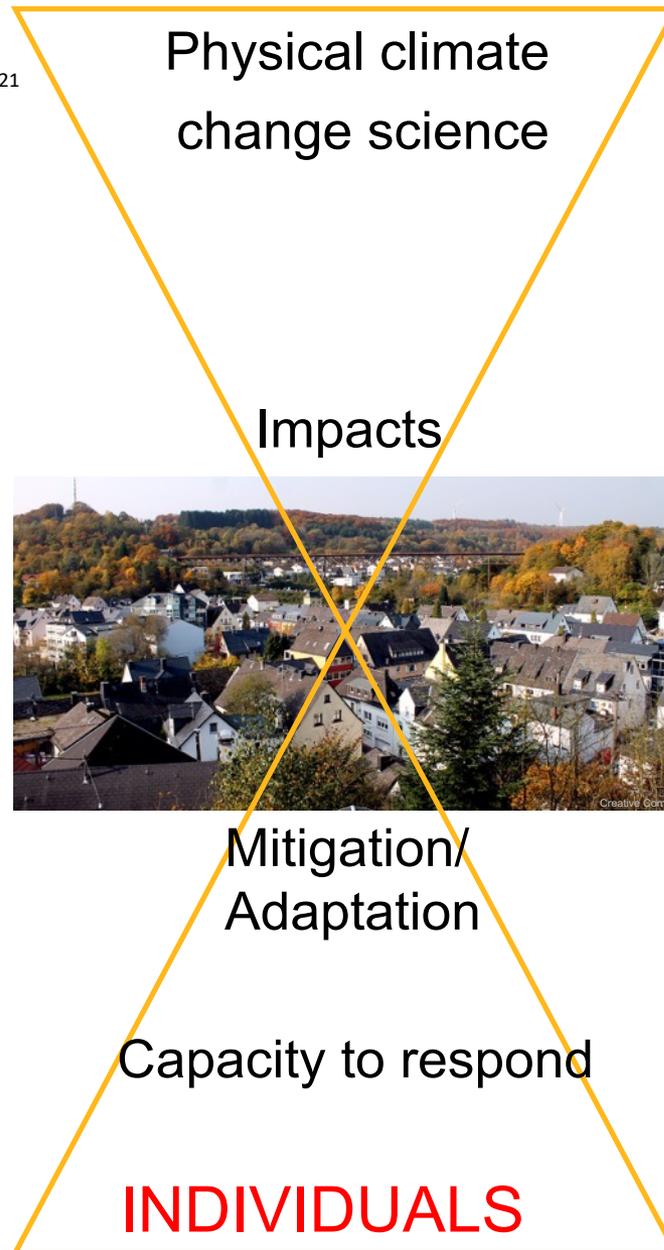


Mitigation/
Adaptation

Capacity to respond

INDIVIDUALS





Decision-making in response to climate change requires **strong belief in the local impacts of climate change**

The belief can be **fortified if one believes that one has experienced the impacts of climate change**

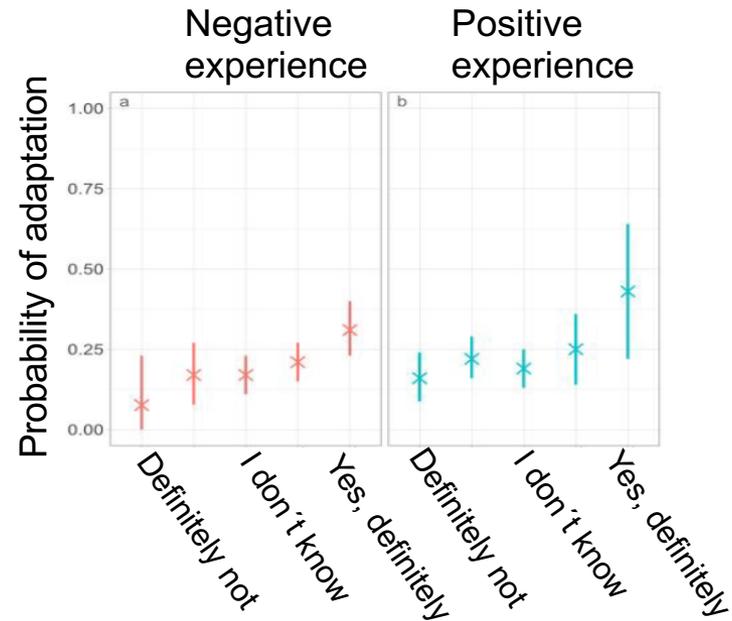
Climate change: Believing and seeing implies adapting. Blennow, K, Persson, J., Tomé, M., Hanewinkel, M. 2012. *PLOS ONE*, 7(11):e50181. DOI: 10.1371/journal.pone.0050182

The role of subjective attribution of causes of an event to climate change

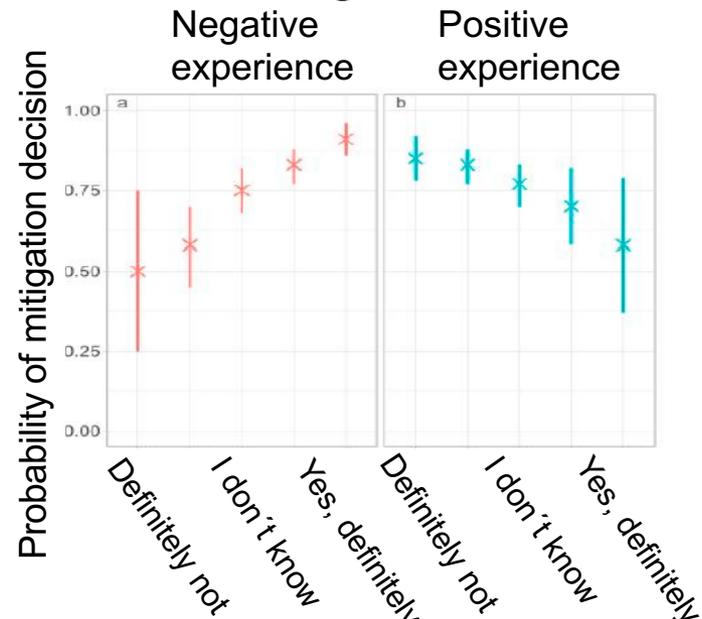
Based on data collected among citizens of Malmö

To Mitigate or Adapt? Explaining Why Citizens Responding to Climate Change Favour the Former. Blennow, K. Persson, J., 2021. *Land*, 10, 240.
<https://doi.org/10.3390/land10030240>

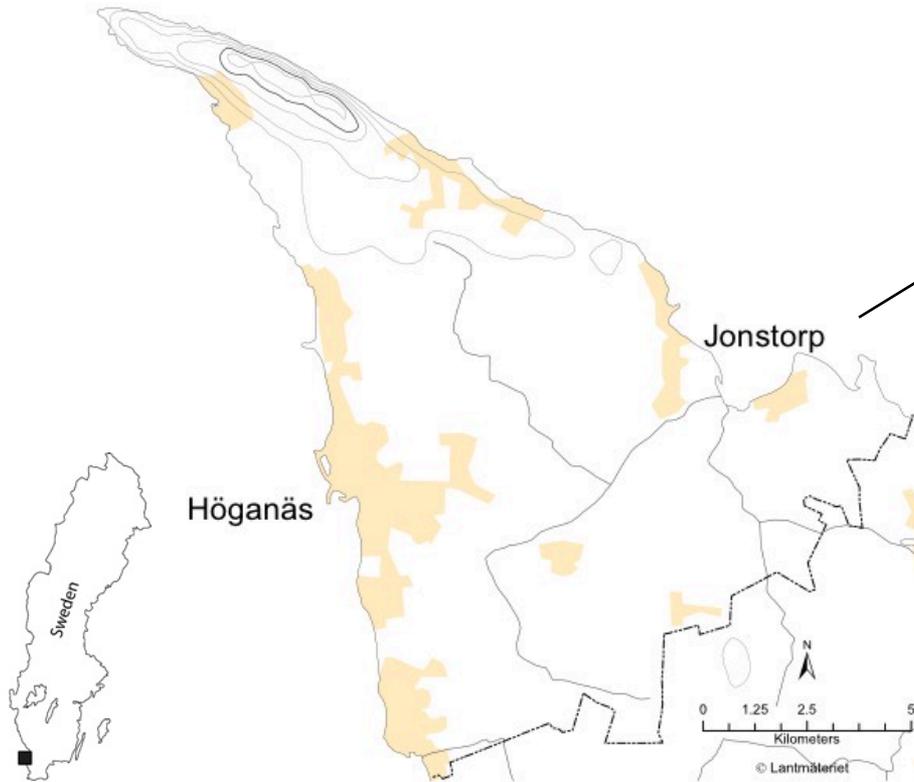
Adaptation



Mitigation

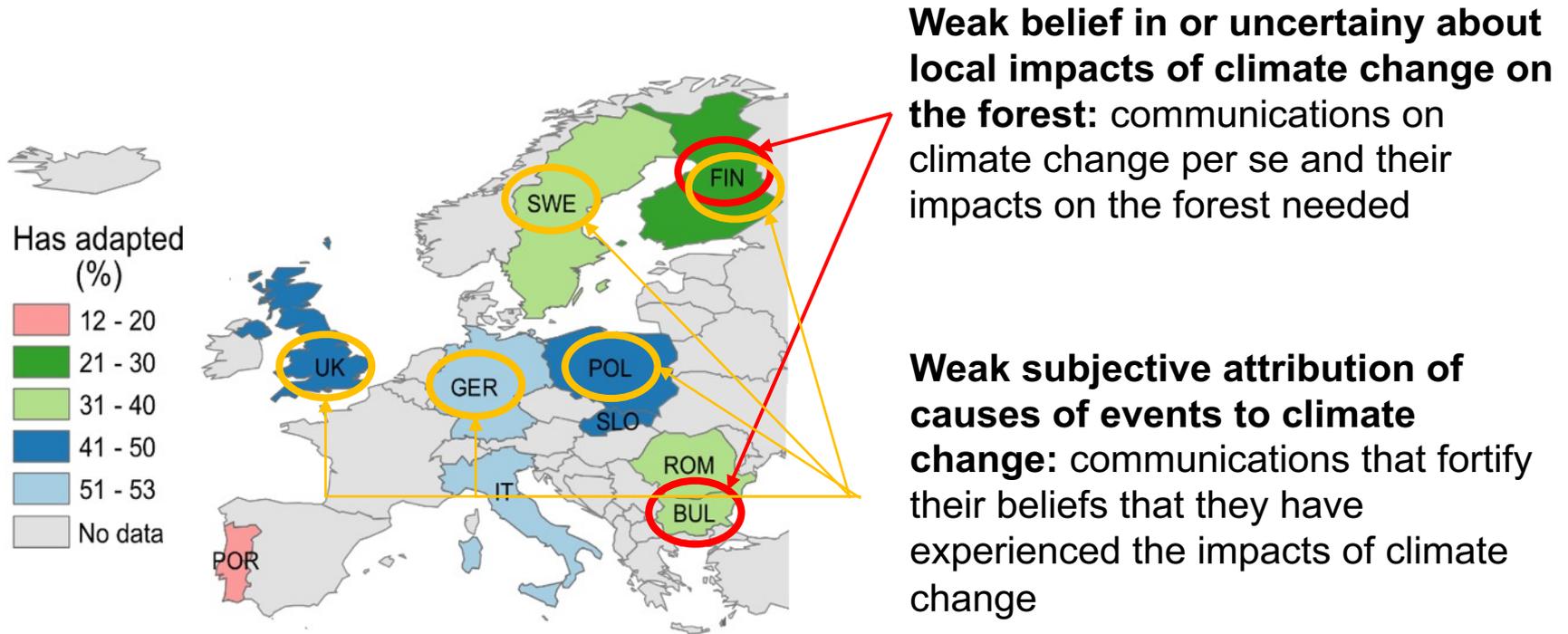


People living in Jonstorp more strongly attributed the causes of events to climate change than people living in Höganäs



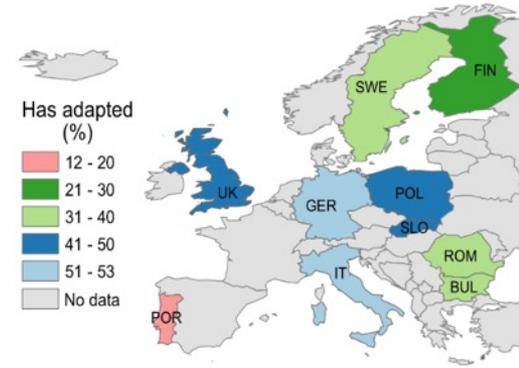
People in Jonstorp have a higher preparedness to take measures to adapt than those in Höganäs

More than 4 in 5 believed in the local impacts of climate change attributed the causes of events to climate change



Forest professionals 2016

Median net value of expected climate change impacts among professionals in the forest sector

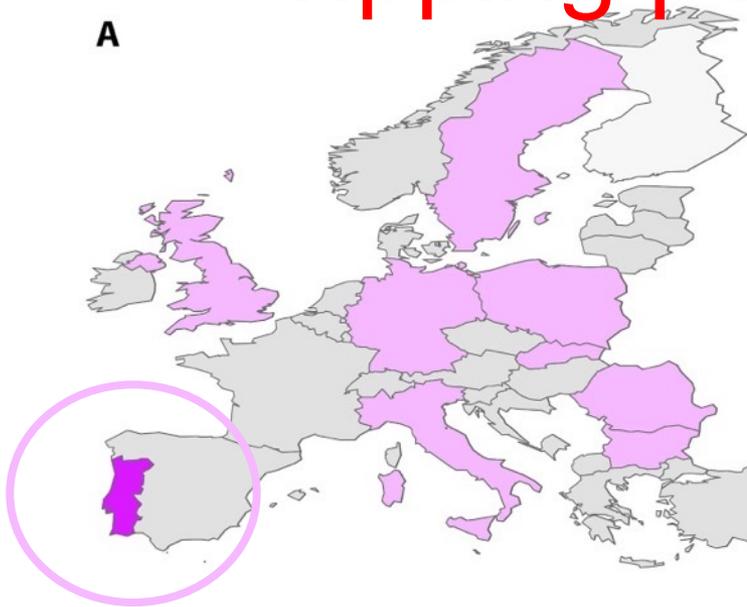


Expected sudden impacts of climate change

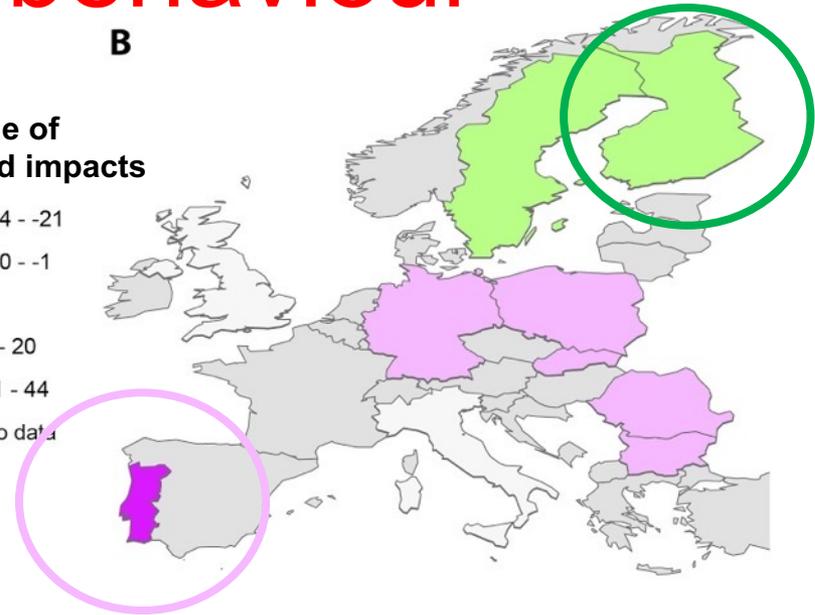
Expected gradual impacts of climate change

Tipping point behaviour

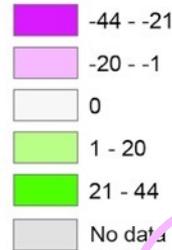
A



B



Net value of expected impacts



Conclusions

Landscape analysis, with the bio-geophysical aspects and the beliefs and expectations of the individuals, can bridge the science/practice gap by

- Identification of drivers and strategies of decision-making
- Evidence-based guidelines for effective climate change policies, including communications

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