

Fine-tuning climate resilience in Marine Socioecological Systems:

the need for accurate space-time representativeness
to identify relevant consequences and responses

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About this talk:

- 1.- Traditional communication of climate change
- 2.- Discrepancies of global VS regional / local realities
- 3.- Fine-tuning climate resilience

1.- Traditional communication of climate change / global warming

Communicate global consequences

(delocalised geographically)

Chaotic impacts

(everything is bad)

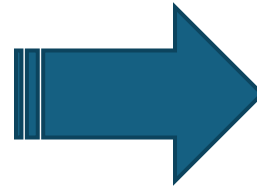
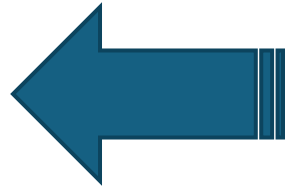
Generate guilt and fear

(it is your fault and you will die)



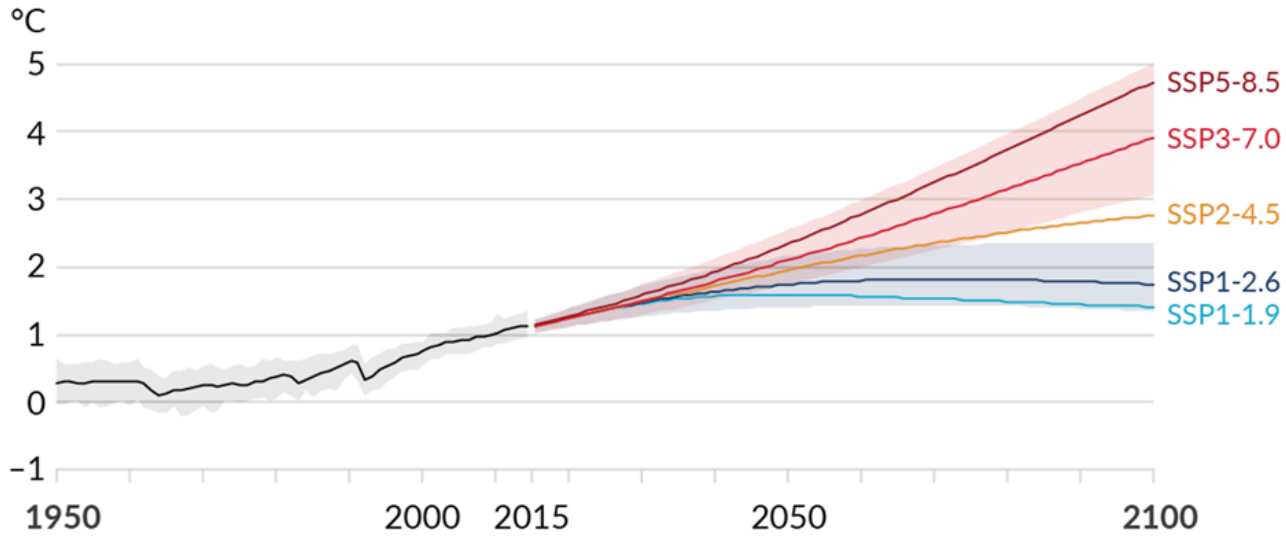


No symbolic
connection!

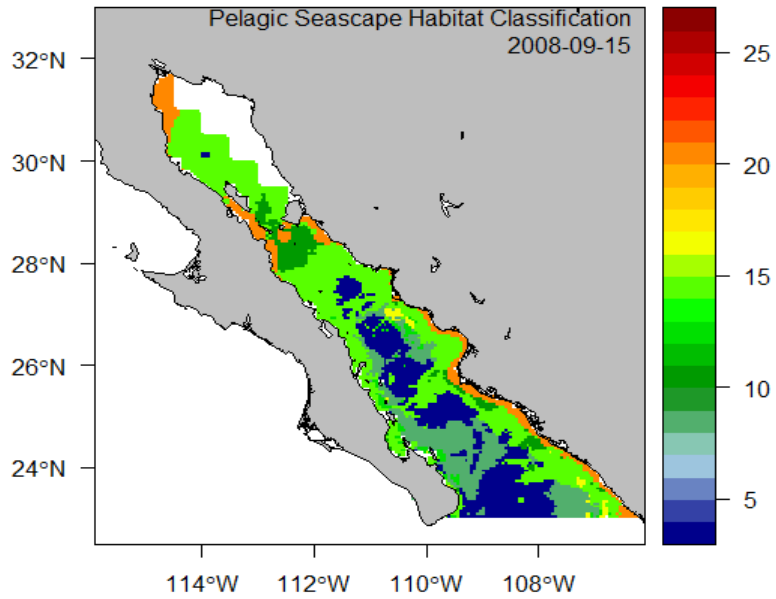
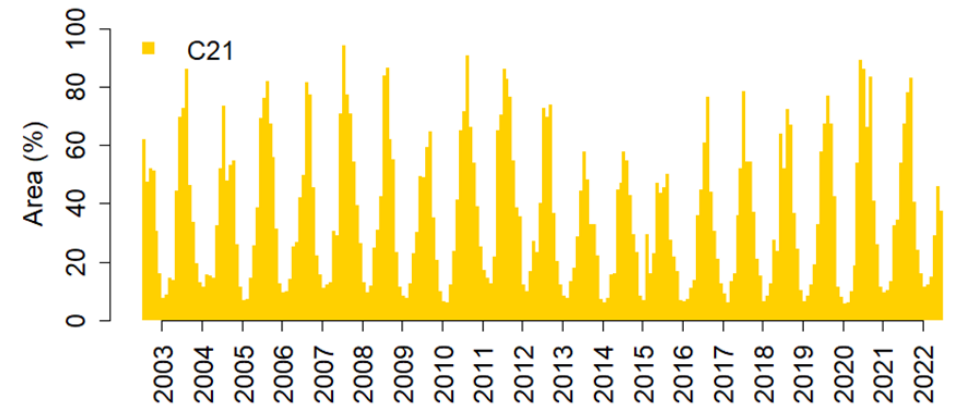


A consequence is that people distance themselves from scenarios of change (or model abstractions) / They do not mirror their own experiences and perceptions, causing a so called “psychological distance.”

Global surface temperature change relative to 1850–1900

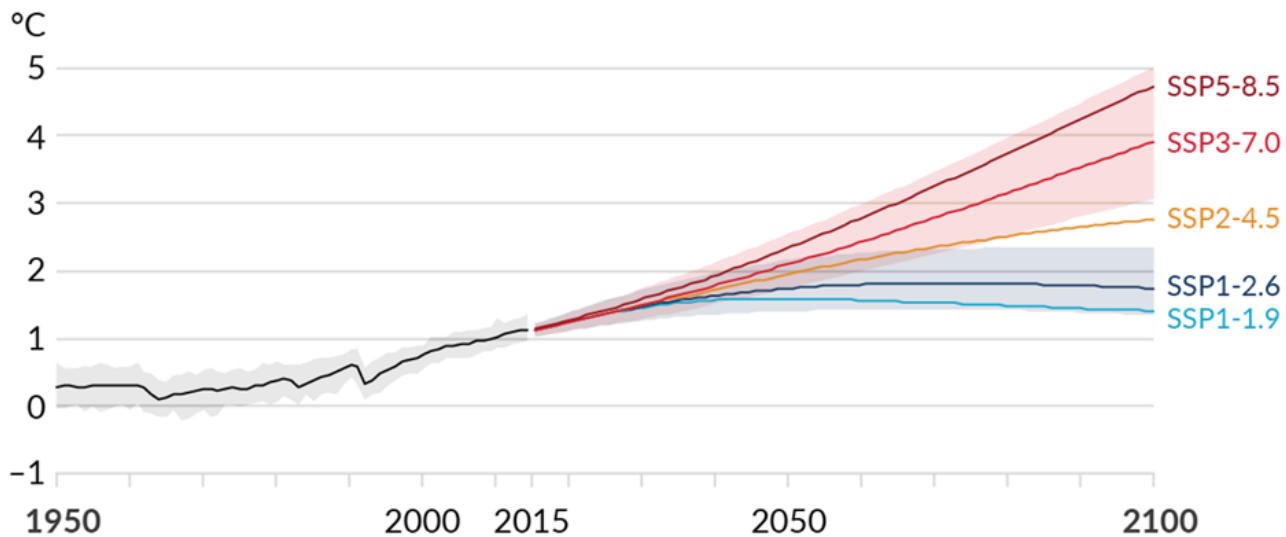


<https://blog.metoffice.gov.uk/2023/11/21/making-sense-of-climate-change-projections/>

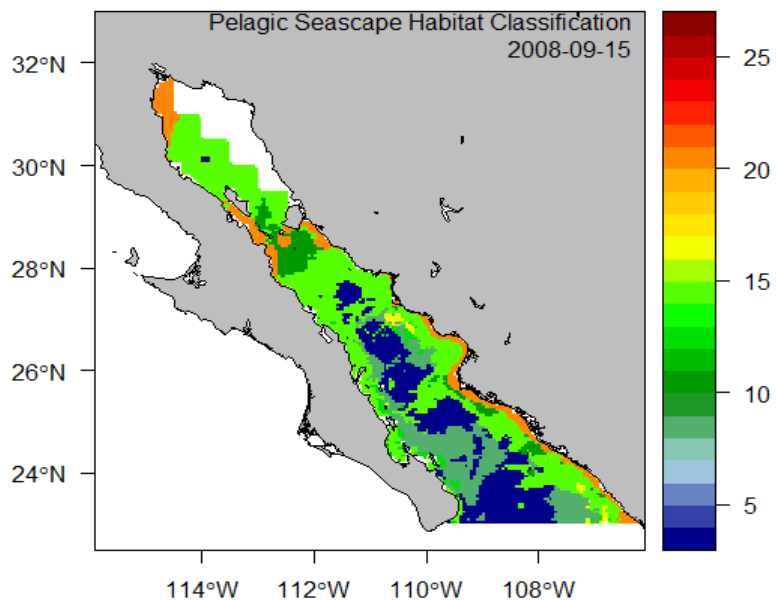


<https://coastwatch.noaa.gov/cwn/products/seascape-pelagic-habitat-classification.html>

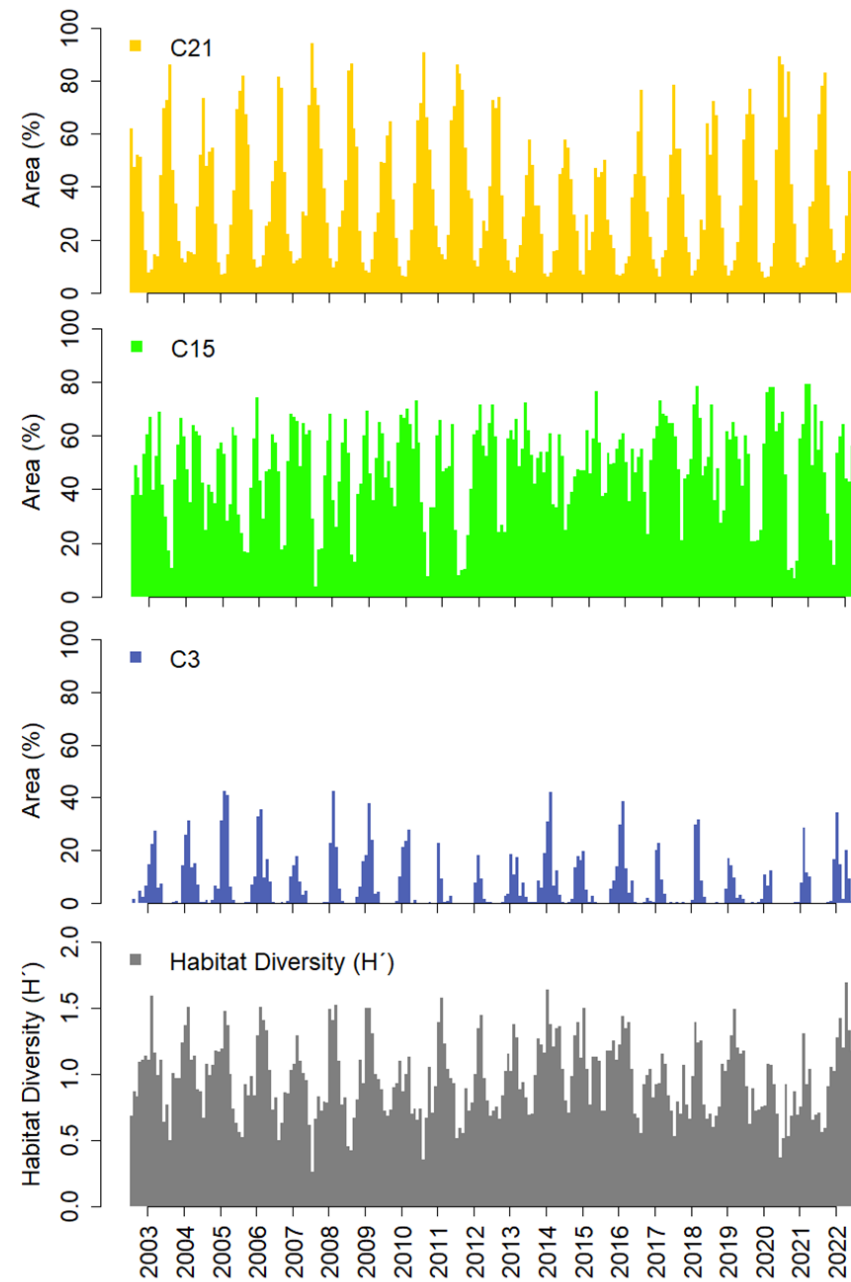
Global surface temperature change relative to 1850–1900



<https://blog.metoffice.gov.uk/2023/11/21/making-sense-of-climate-change-projections/>

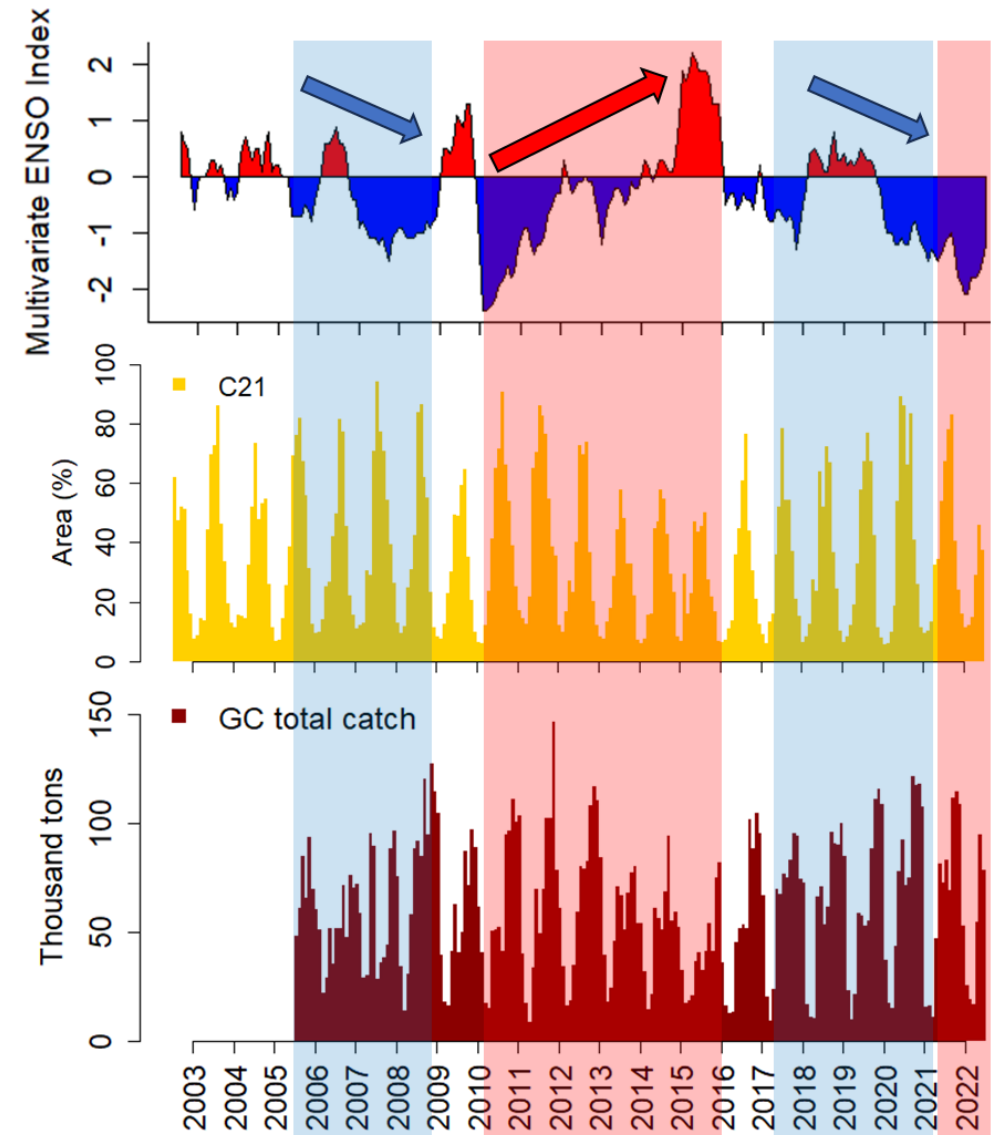


<https://coastwatch.noaa.gov/cwn/products/seascape-pelagic-habitat-classification.html>

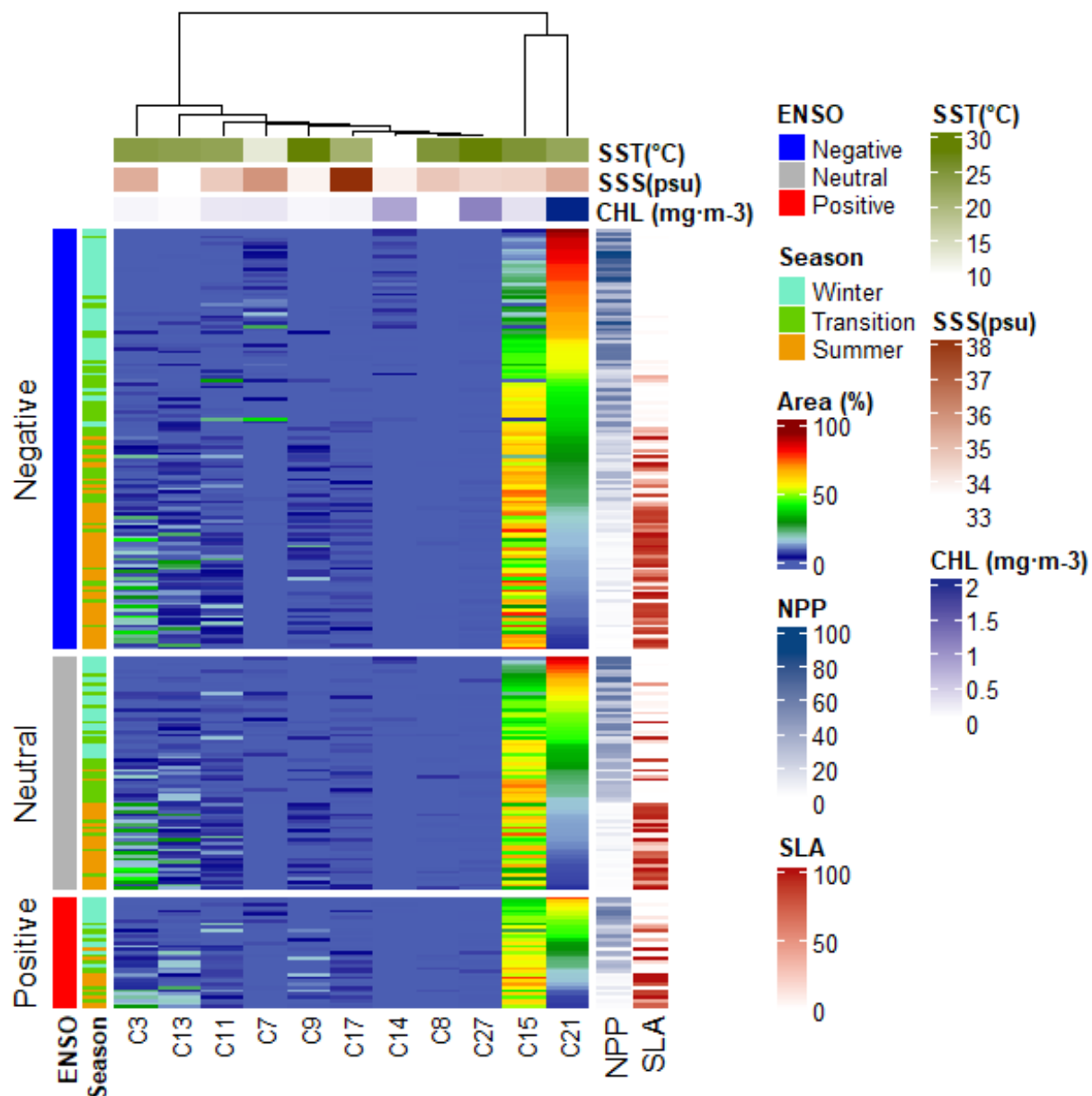


Saldívar-Lucio *et al* in prep.

Time-structure

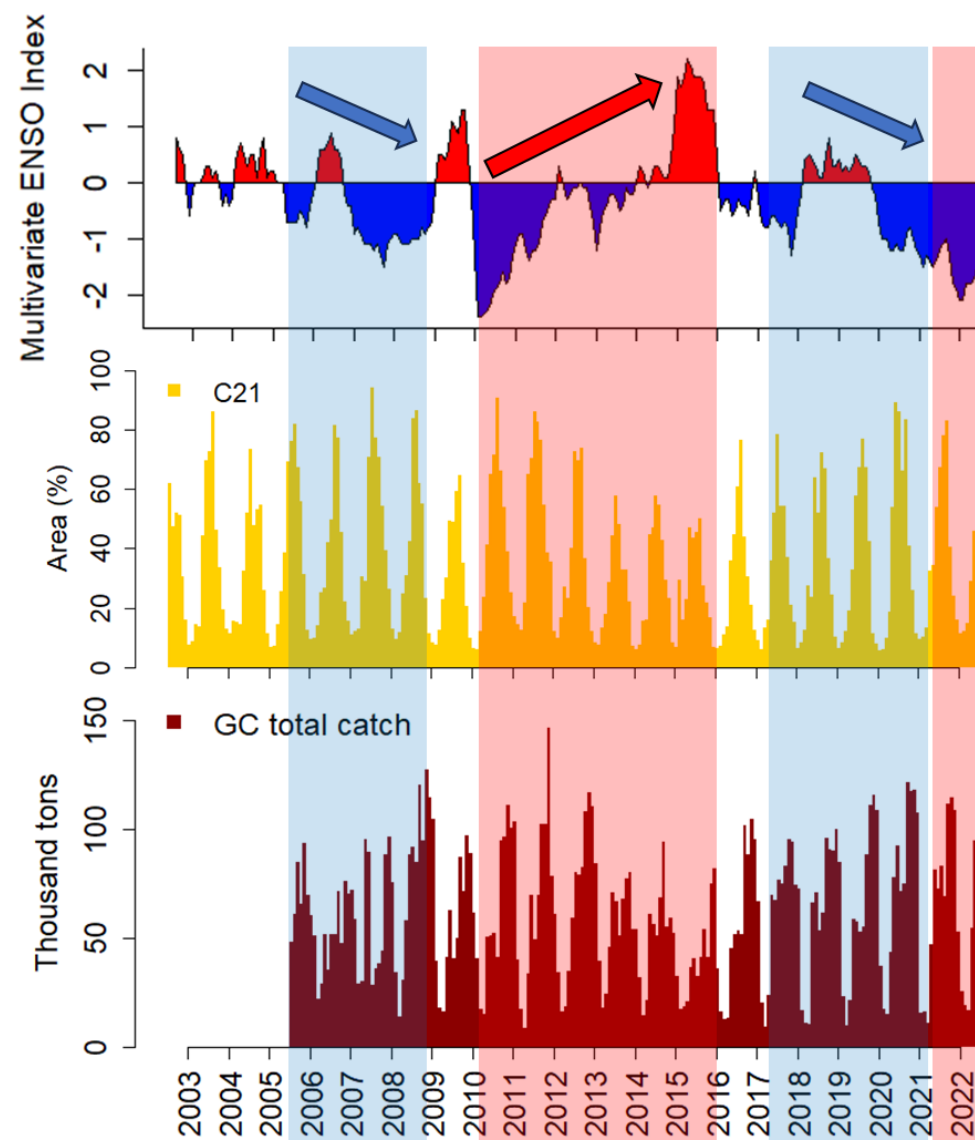


Pelagic habitat - structure



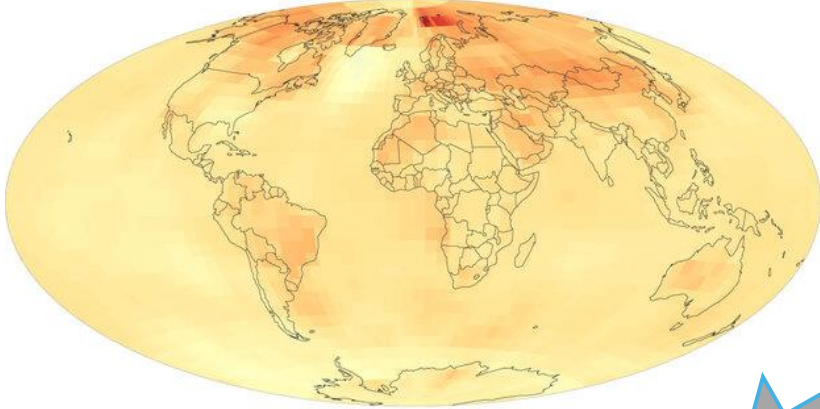
Gu, 2016; Saldívar-Lucio *et al in prep.*

Pelagic habitat time-structure

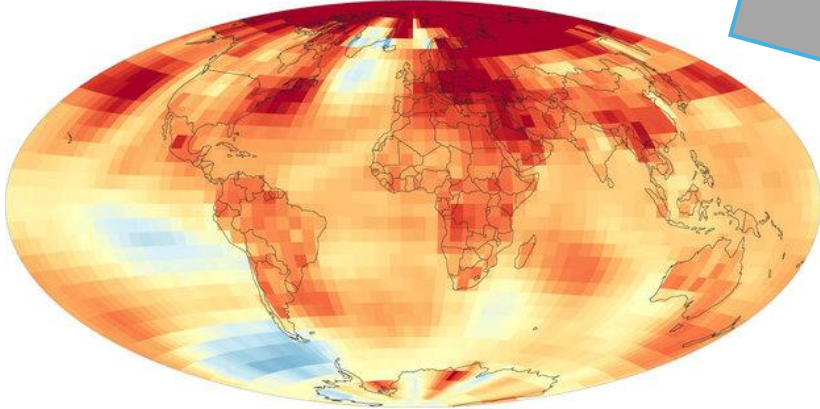


WARMING OVER PAST 30 YEARS IS MUCH FASTER THAN LONG-TERM TREND

1901-2023



1994-2023



Change in temperature ($^{\circ}$ F/decade)



NOAA Climate.gov
Data: NCEI

Figure from: www.climate.gov

Symbolic
connections

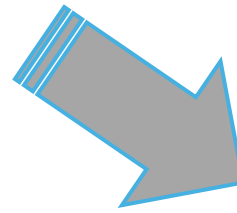
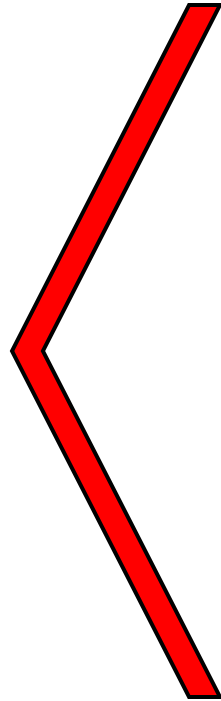
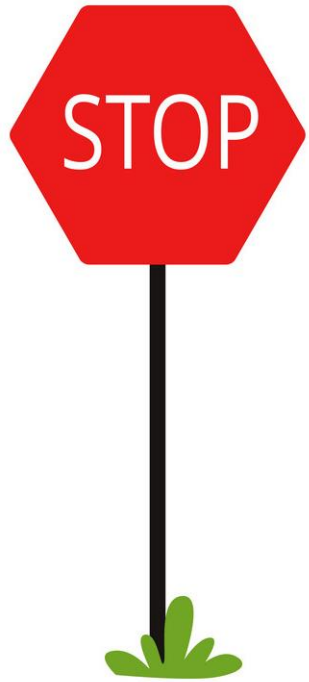


Photo: www.worldbank.org



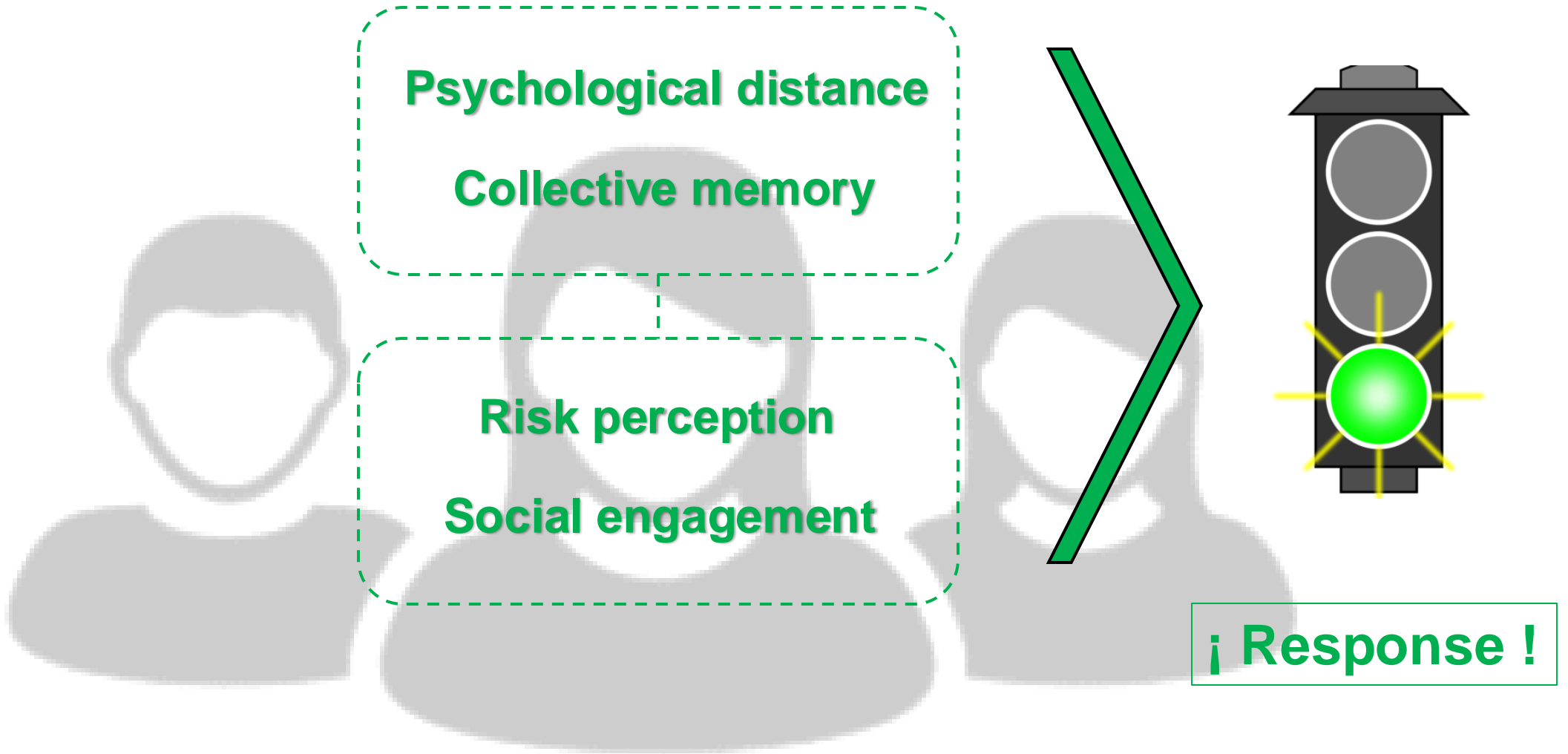
Psychological distance

Collective memory

Risk perception

Social engagement





Sustainability



Resilience



Adaptive Capacity Gendered

*Psychological
distance*

*Collective
memory*

*Risk
perception*

*Social
engagement*

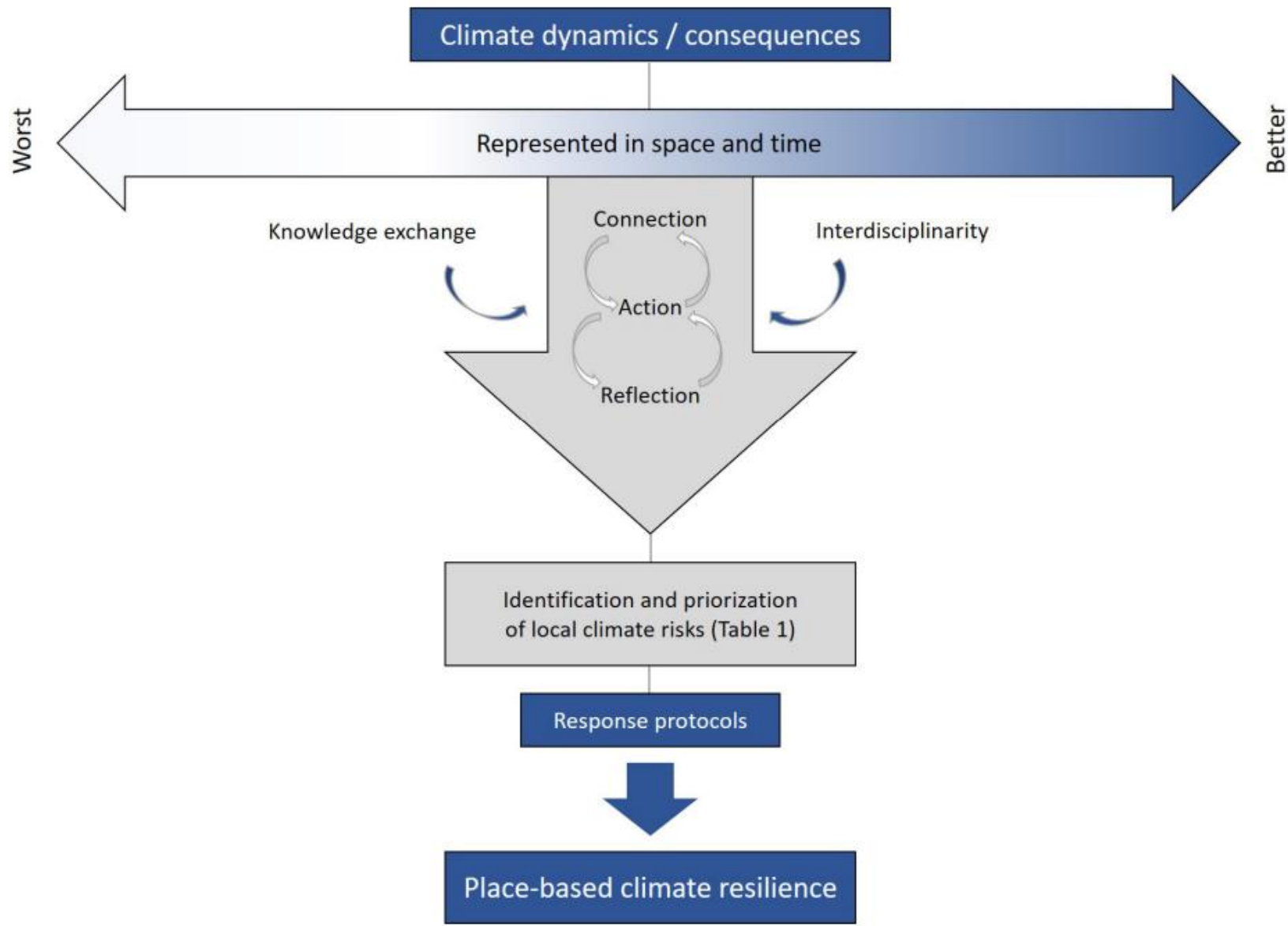


FIGURE 1 | Schematic workflow to support place-based climate resilience in MSES.

Conclusions:

- 1) **The context and specific stressors** affecting coastal systems at different scales, influence (positively or negatively) the process of building adaptive capacities to CC.
- 2) All views are needed (e.g. sectors / women & men) to advance and promote resilience by **fine-tuning local with regional and global scales.**



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THANK YOU!

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