

Communicating Climate Adaptation

What Do We Know?

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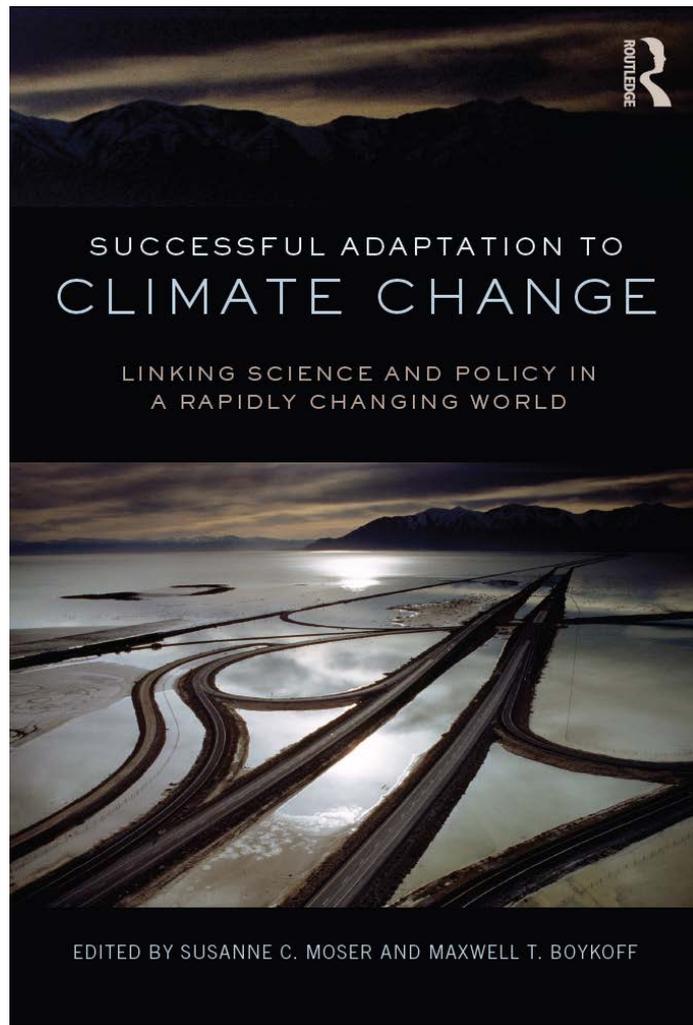
High Tide, Norfolk, VA



King Tide, N. California



Paradise No More!



17 Navigating the political and emotional terrain of adaptation

Community engagement when climate change comes home

Susanne C. Moser

Paradise no more: drawing the battle lines in the sand

I'd say that this place is Paradise. Overall, it's a beautiful area. You walk down the beach sometime in the sunset and the birds and sea lions – that picture is Paradise to me.

(Participant, Focus Group 1, Moss Landing, California, 2012)

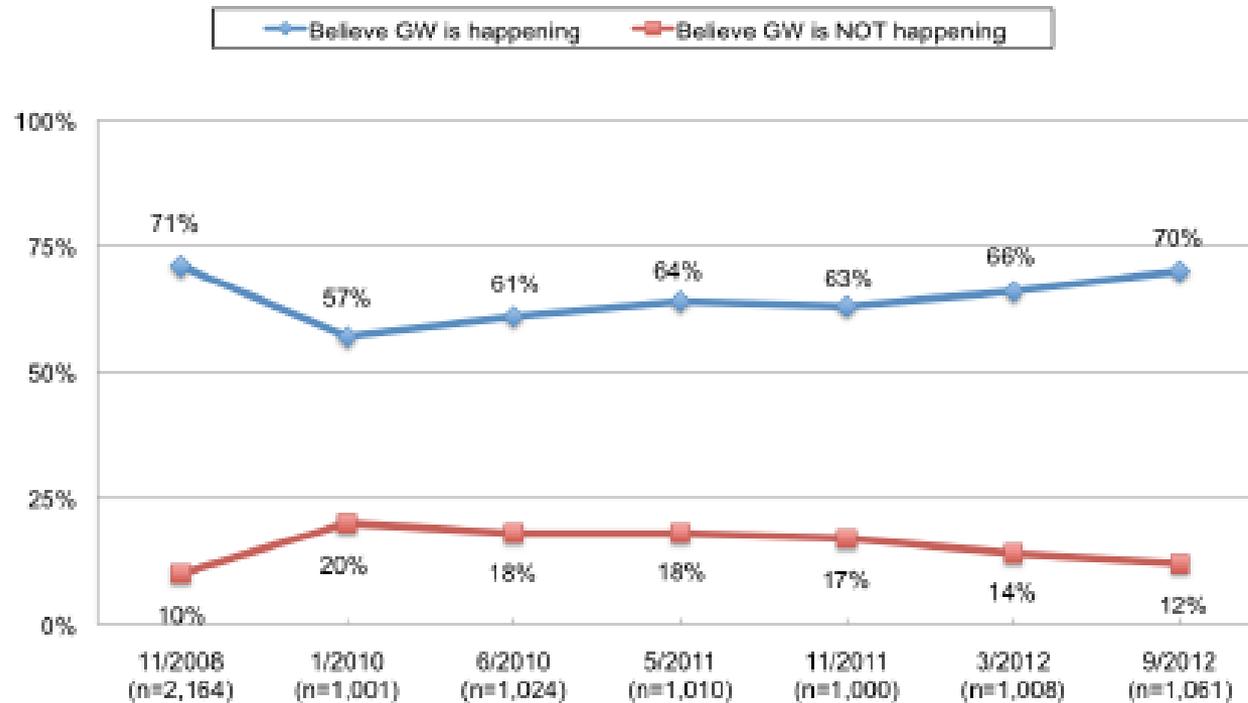
For years, sea-level rise and related impacts of climate change have been communicated to the public in familiar terms: climate change is causing global average sea level to rise by 18–51 cm by 2100 (Solomon *et al.* 2007), or using more recent estimates (reviewed in Moser *et al.* 2012), “We’ll see the oceans rise by 3 or more feet by 2100.” Others have tried to link future projections of sea-level rise to the change experienced historically, suggesting that future sea-level rise will accelerate over the 7–8 inches observed over the past century (e.g. NRC 2012). For most people living at the coast, the anchoring effect of such seemingly small figures – a mere hand span, which most of them have weathered quite well – results in projections not seen as a warning, but a relief. Even several times that figure expected “in a hundred years from now” is easily dismissed as an issue for future generations, not present-time coastal dwellers. It certainly does not rise to being an equal to the concerns over imminent coastal erosion and occasional storm-related flooding problems communities already have, much less to the economic woes and immediate struggles of day-to-day life. Many lay audiences do not make the causal link between the slower, creeping process of sea-level rise, and the acutely felt impacts of storms and floods that are being made worse by the changing baseline. In fact, Spence *et al.* (2012) and Leiserowitz *et al.* (2012a) show that many people continue to keep climate change and sea-level rise *per se* at a geographic and psychological distance and do not connect the more immediate coastal changes they see with the global problem. Neatly compartmentalized in this way, people’s responses seem utterly rational.



*A Precarious
Moment in
Public Engagement*

People are Catching up with Reality

Growing Majority of Americans Believe Global Warming Is Happening - Fewer Believe It Is Not -



Do you think global warming is happening?

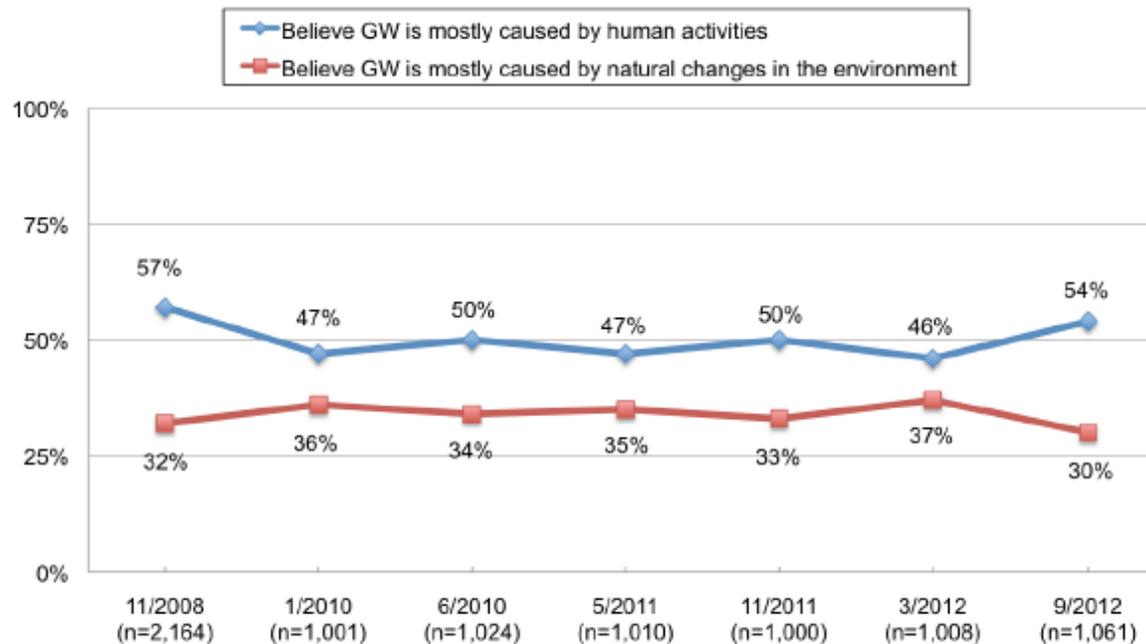
Base: Americans 18+.

Source: Leiserowitz et al. (2012b)

Majority Now Believes in Human Causation

A New Majority Believes Global Warming Is Human Caused

- Fewer Believe It Is Due Mostly to Natural Changes -



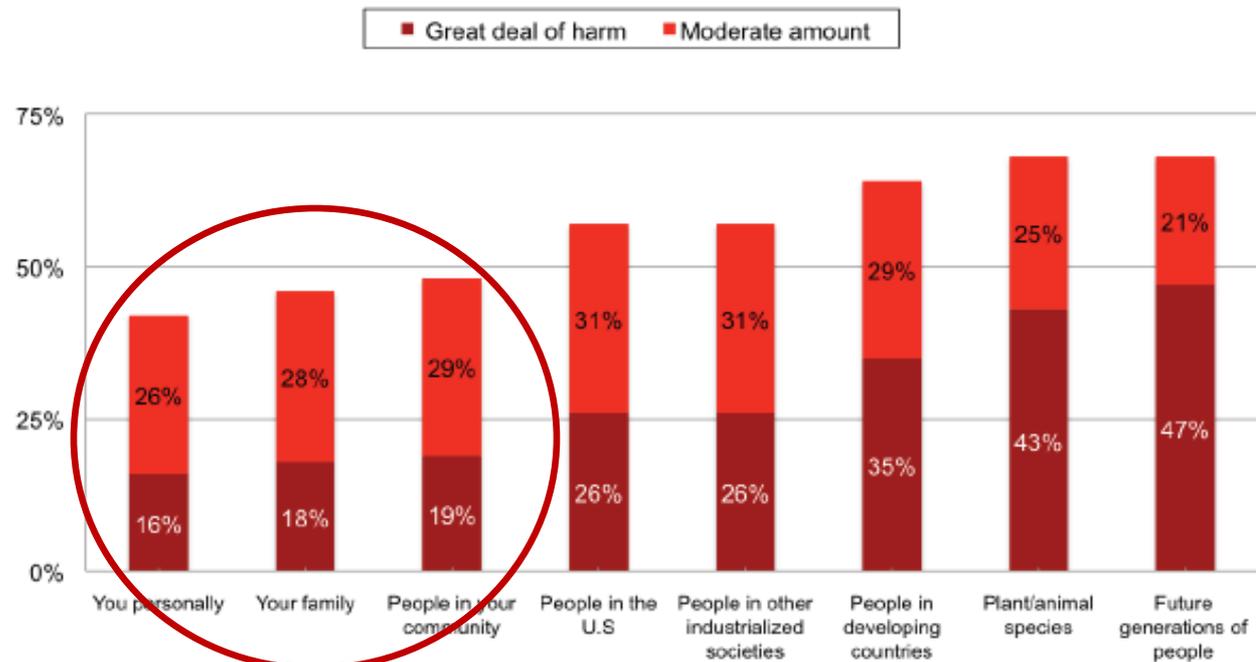
Assuming global warming is happening, do you think it is...

Base: Americans 18+.

Source: Leiserowitz et al. (2012b)

But...Still a Distant Threat for Many

Global Warming Still Seen as a Relatively Distant Threat



How much do you think global warming will harm...?

Base: Americans 18+ (n=1,061)

Source: Leiserowitz et al. (2012b)

Personal Experience of Climate Change Impacts

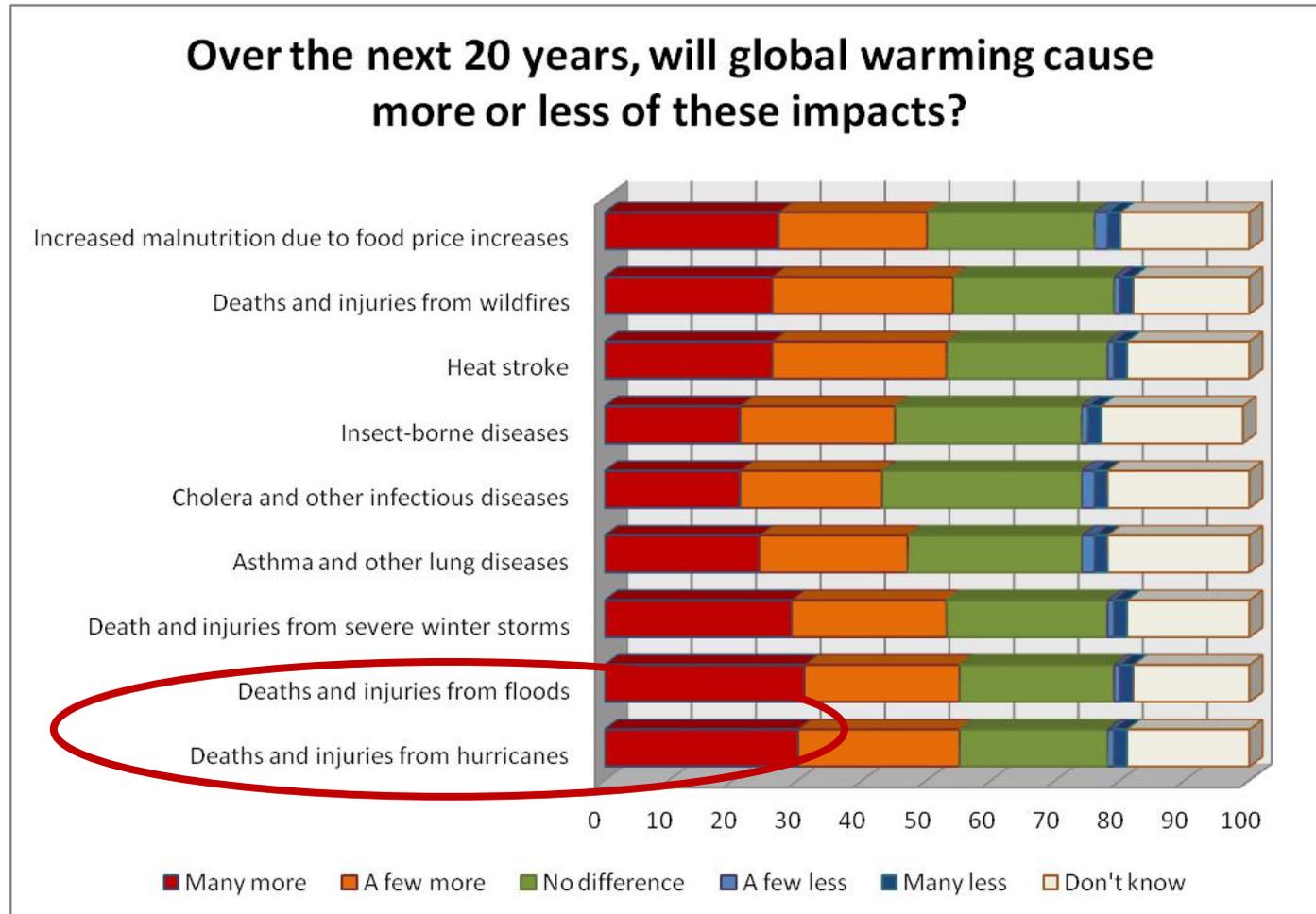
34%... and growing

Q236. I have personally experienced the effects of global warming.

	May 2011	June 2010	Jan 2010	Nov 2008
Strongly agree	5	5	5	4
Somewhat agree	29	25	21	29
Somewhat disagree	34	35	35	43
Strongly disagree	32	35	40	24

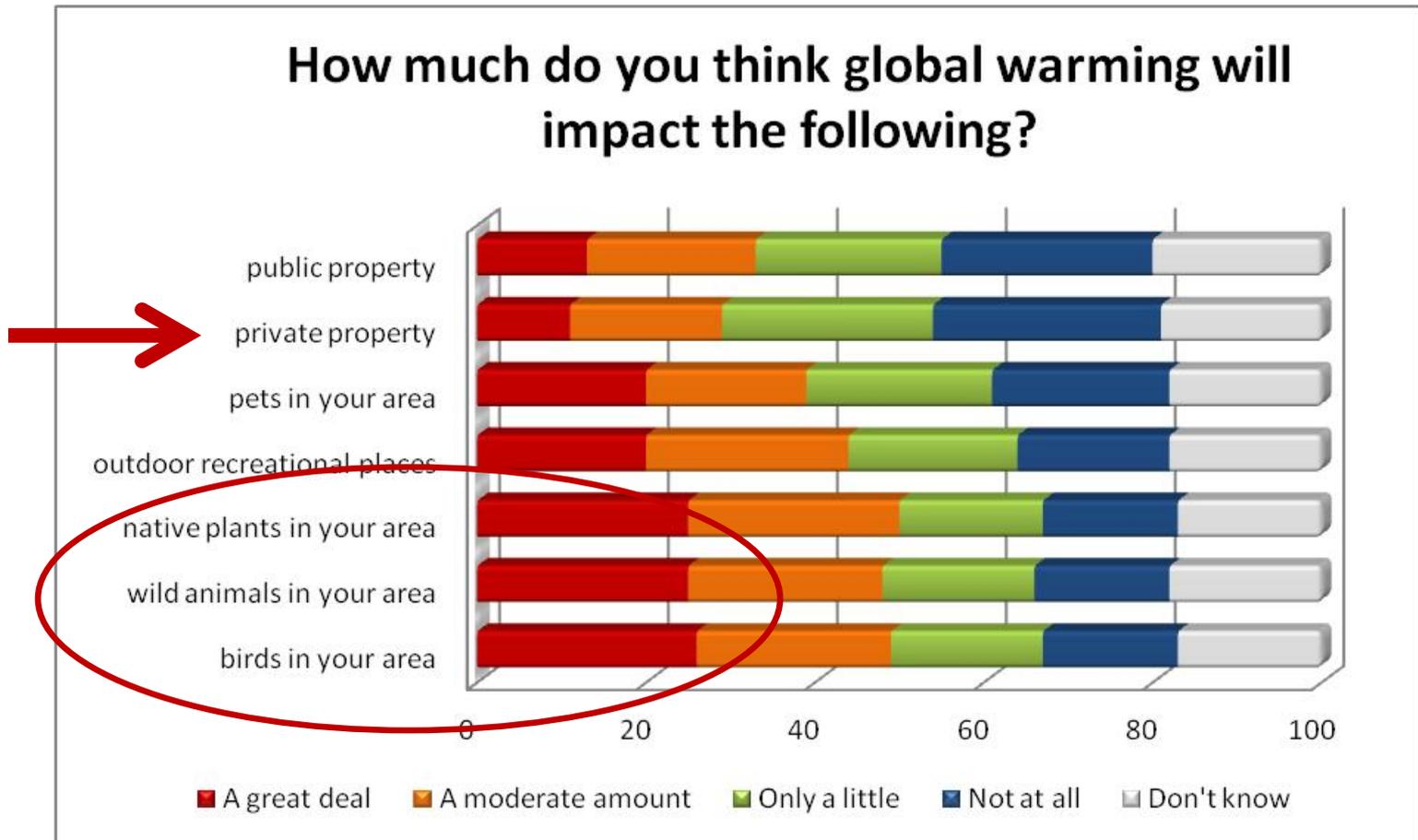
Source: Leiserowitz et al. (Sept 2011)

Expectations of Future Impacts?



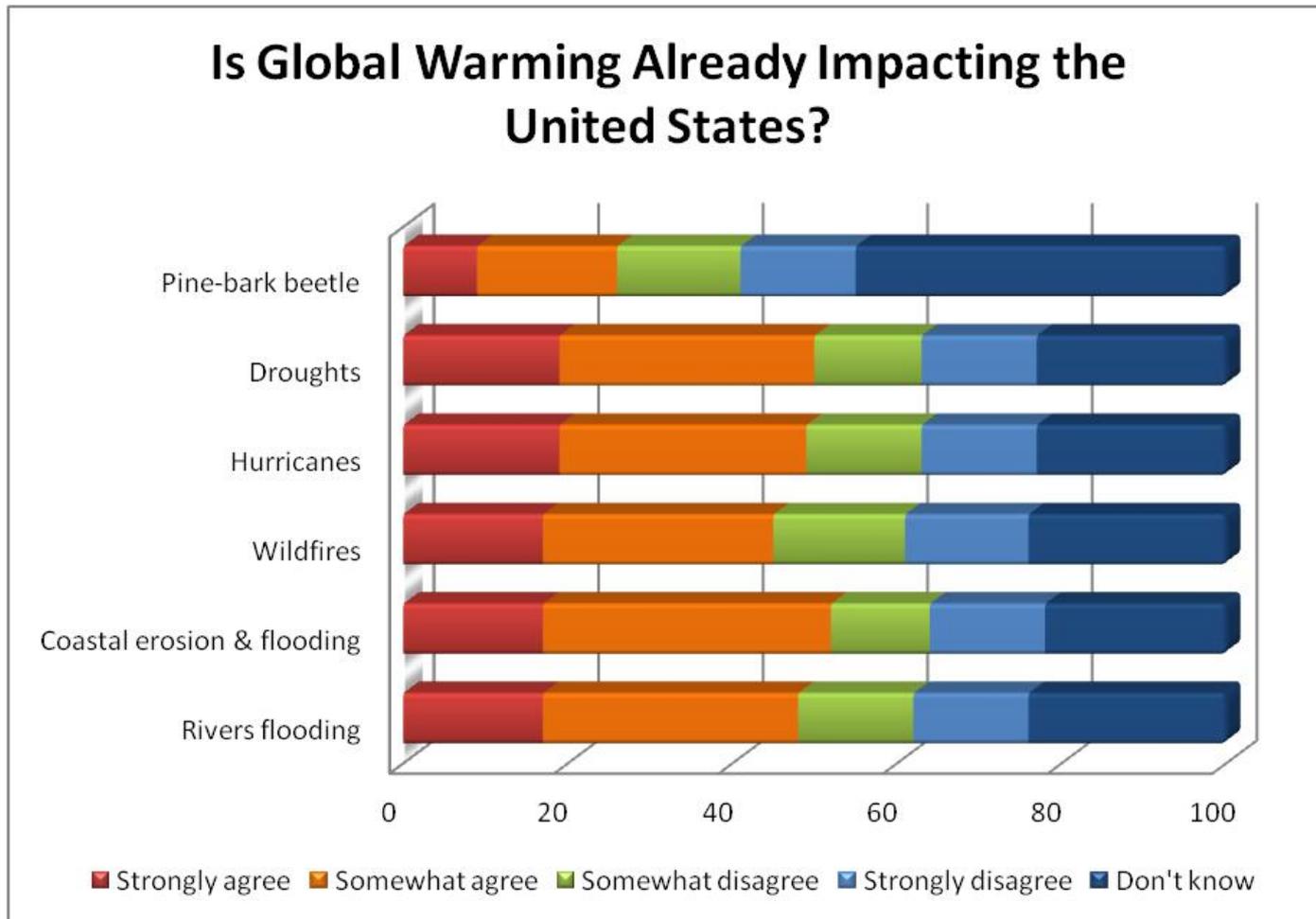
Source: Based on data by Leiserowitz et al. (2011)

Expectations of Local Impacts



Source: Based on data by Leiserowitz et al. (2011)

Has Climate Change Arrived?



Source: Based on data by Leiserowitz et al. (2011)

Yes, It's Coming Home (at least for some)

"The sea level rise that we've
our community ha
tax base, lower p
municipal services and maintenance of infrastructure. . . . So I
think it's very important that we start dealing with the issue that
we can't ignore, because we see the impact on a daily basis."



Renee Cahoon

Mayor of Nags Head, NC
(10/23/09, ClimateWire)

A Crucial Moment in Public Engagement

- Climate change is here, now (and more is coming soon)
- Majority of the public wants more action
- Impacts are scary, worrisome, overwhelming
- No leadership visible
- **NOW is the time to engage the community!!!**

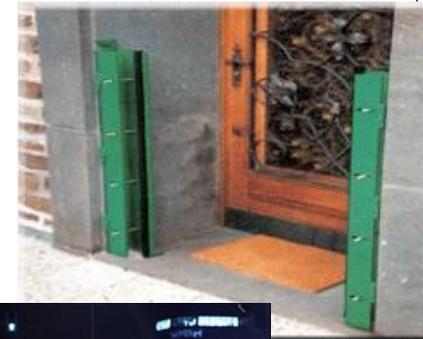




*Communicating Impact
and
the Need for Adaptation*

Why Bother with Communication?

- Support for high-level leadership, policy and action
- Behavior change and civic engagement
 - Actively doing their part in reducing their own emissions
 - Actively doing their part in reducing risks from climate change impacts
- Deeper, transformative change (values, culture, worldviews)

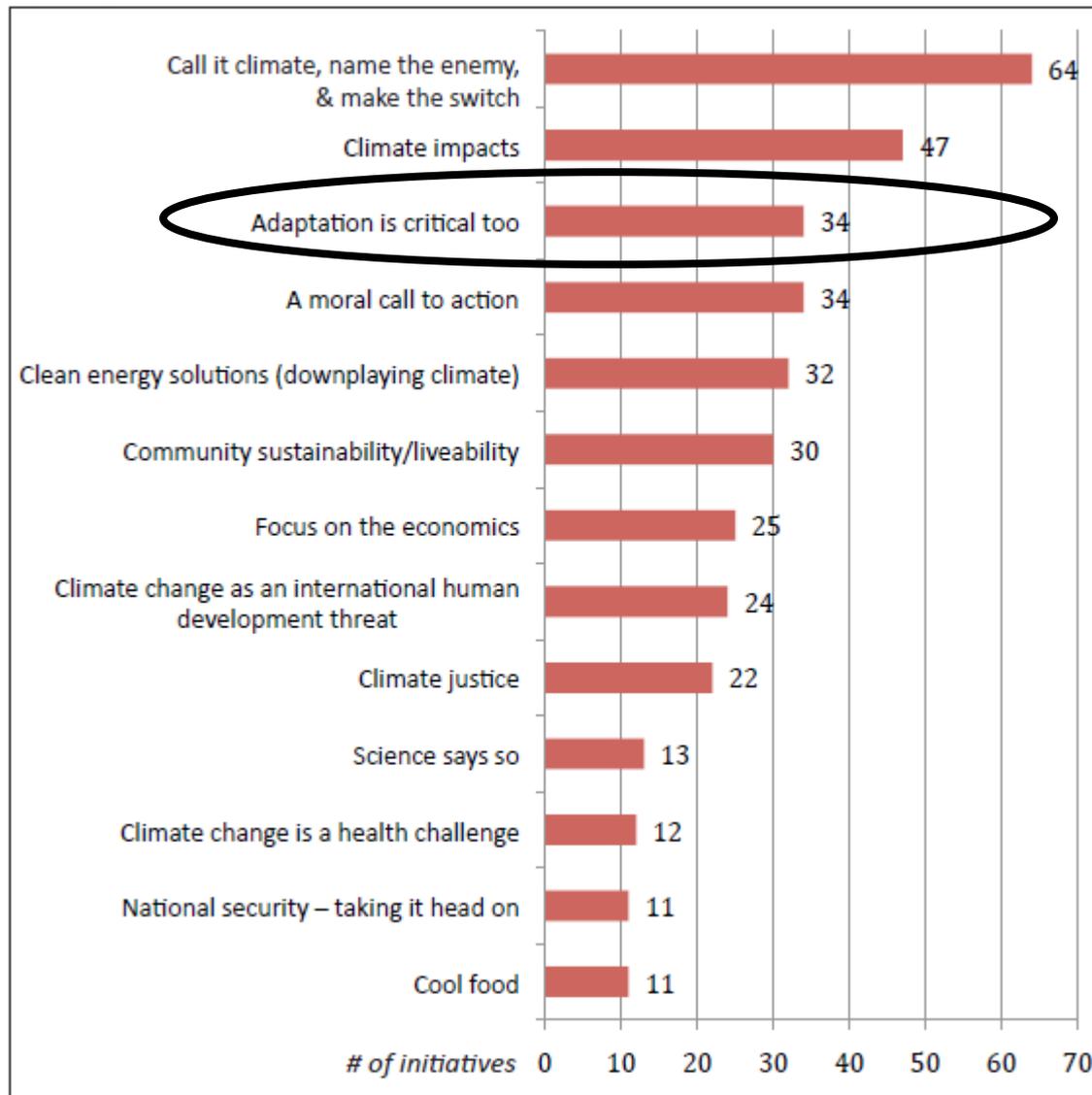


Adaptation ...Some Observations

- **Renaming what we've always done**
 - Emergency preparedness and recovery planning
 - Water conservation
 - Wetland restoration
- **Trying to find a resonant term**
 - Preparing/preparedness, readiness, sustainability
- **Translating adaptation into familiar terms**
 - Planning ahead
 - Upgrading infrastructure
 - Moving out of the floodplain

NGO and Government Top-Level Frames

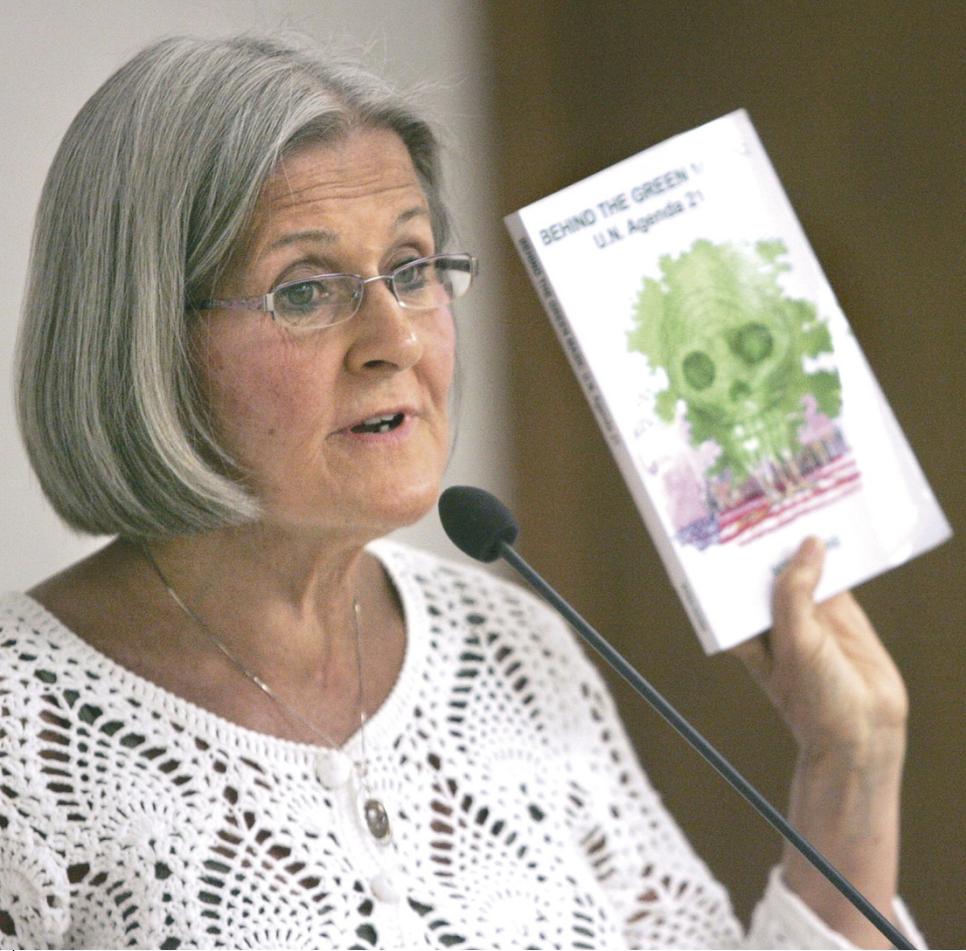
Top level frames



Communicating Impacts and Adaptation: Some Challenges

- The risks aren't local yet for many
- Global-local disconnect with existential threats
- Intense emotional responses
- Interpretive lenses
- Missing voices, trusted messengers
- Hesitancy/fear of local officials to communicate climate change, impacts





Organized protest





Stories of Loss — *Stories of Change*

(from prediction to experience)

Meeting the Psychological & Social Demands of Communities in Distress

- The bravest thing: facing the truth
- Grief work
- Framing this time: a transition
- Growing the capacity to be with people in distress



Moser, S. (2012) “Getting real about it: Meeting the psychological and social demands of a world in distress” in Gallagher et al. (eds., 2012) *Sage Reference Handbook of Environmental Leadership*, Thousand Oaks, CA: Sage Publ. Available at: www.susannemoser.com

Meeting the psychological & social demands of communities in distress

- The bravest thing: facing the truth
- **Grief work**
- Framing this time: a transition
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You Wouldn't Think the Brits Do Grief

- But....



- “Carbon conversations” (see also transition towns)

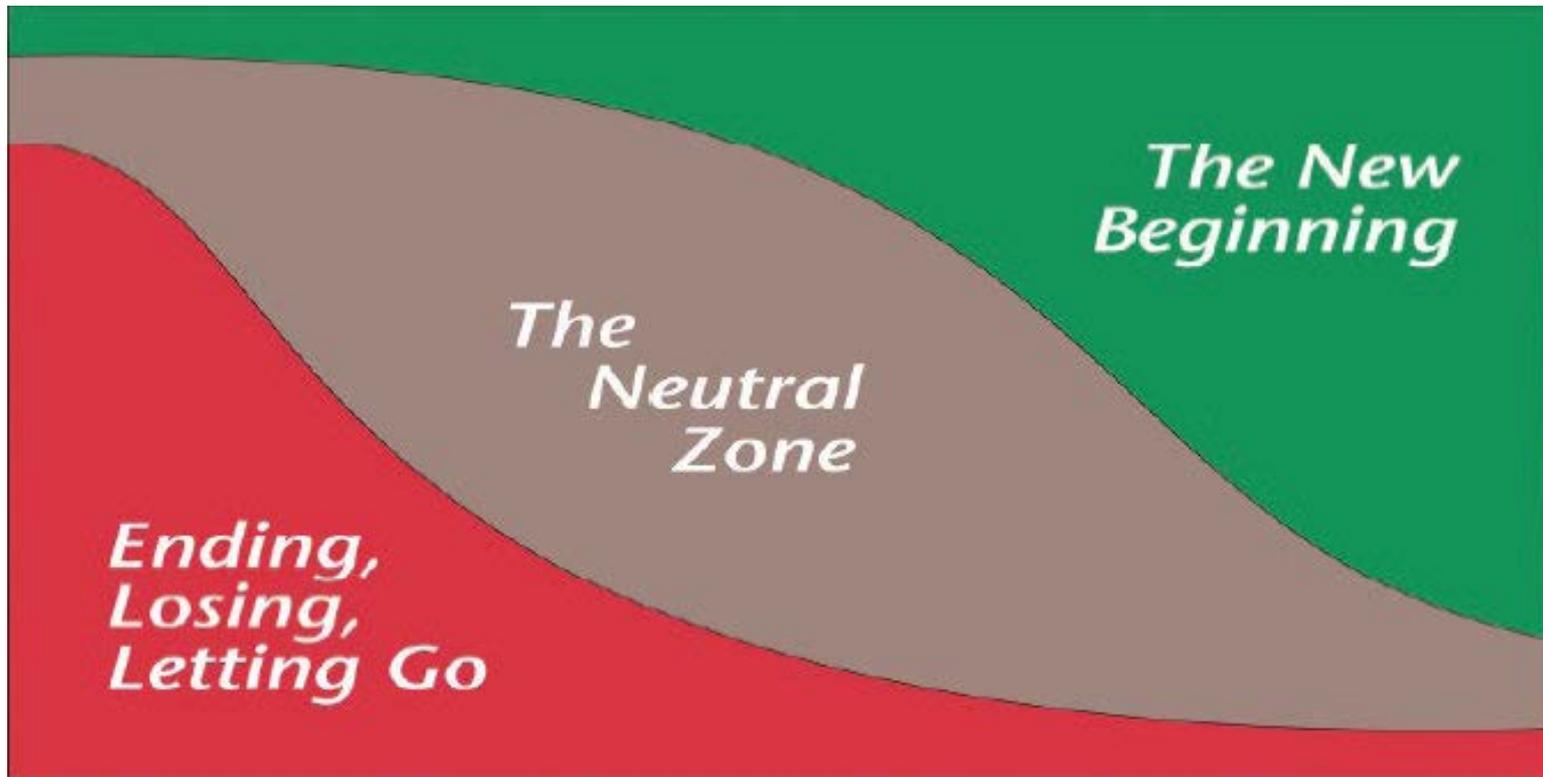


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The Human Geography of Transition



Adapted from Bridges (2004)

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Stories of Loss — *Stories of Change*

(from prediction to experience)

Failure-to-Success Continuum

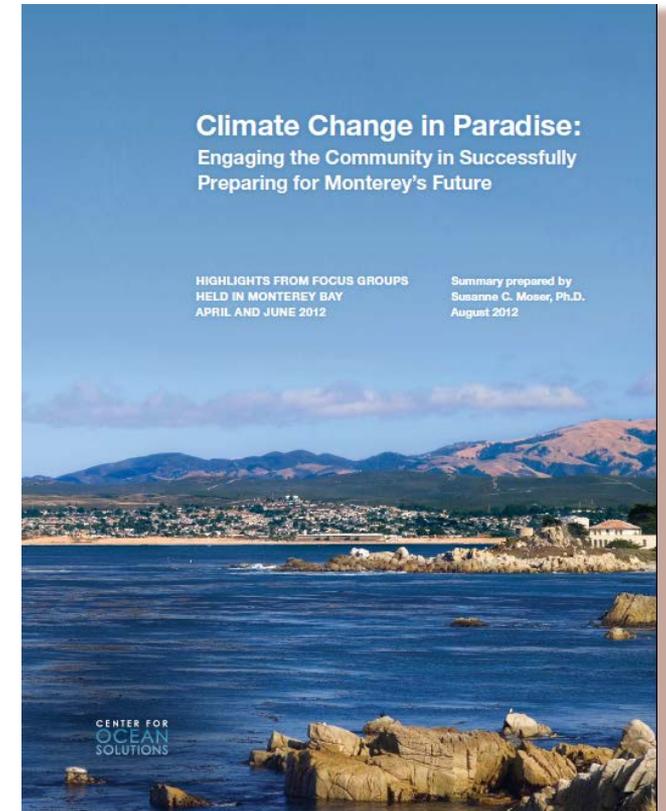


- Maladaptation
- Inadequate response
- Stabilization of a degrading situation
- Repair and recovery
- Building something better



Monterey Area Focus Groups

- 2 groups, 15 people total
- In April, June 2012
- Wide age range, gender balanced, professional diversity
- All shorefront residents or homeowners
- Lived in Monterey for 10-60+ years
- Diversity of worldviews, values, attitudes toward climate change



Deep Connection to Place

“I’d say that this place is Paradise. It’s a beautiful area. You walk down the beach sometime in the sunset and the birds and sea lions... that picture is Paradise to me.”

Focus Group participant



Photo: Dick Rowan/EPA

Worries about the Coastal Environment



Photo: Susanne C. Moser

- Garbage on the beach
- Coastal erosion and loss of beach sand
- Sand mining
- Coastal and river flooding
- Earthquakes, tsunamis, and access to functioning emergency escape roads
- Declining bird and sea life
- Less fog
- Inappropriate siting and development
- Climate change and sea-level rise

“And it makes me upset — the lack of responsibility, that people just take it for granted... I think we need to be more proactive.”

Focus Group participant

Direct Experience, Observation, Worries

- Engaged “issue public” is closely observing coastal changes
- Climate change on their mind, significant concern
- Overwhelm, despair
- Good understanding of erosion and SLR impacts, but not of adaptation options
- Limited personal hazard preparedness
- Expectation of government taking lead on adaptation



Photo: CSUMB (2004)

**“So we’re like in
the second row of
the Titanic, kind of.”**

Focus Group participant

Politics, Lack of Leadership, Apathy



Photo: CSUMB

- Annoyance with self-interested politics, lack of transparency
- Invisibility of leadership
- Institutional problems at all levels of government
- Apathy of majority of public

**“the politics of erosion”...
“the death of common sense”**

Focus Group participants

“The apathy of people is just—” “...terrifying—it boggles the mind.”

Focus Group participants

Take-Home Messages

- Language of “adaptation” is inadequate, but people quickly develop a comprehensive idea
- More intuitive, concrete words needed
- People understand “business-as-usual”, piecemeal approach is insufficient
- Search for near-, medium-, long-term solutions
- People *want* to be engaged in their future
- People *need* to be engaged so as not to get lost in despair

“Preserve the beauty that we have and nourish the people that we have...”

Focus Group participant

“I think what will mobilize people is... to protect the shore resource itself. That’s really why we’re all here.”

Focus Group participant

Making the Connection

- What are your audience's current concerns, struggles, needs?
- What changes are THEY observing?
- What do THEY care about?
- What connects them to the place, community, environment?
- What do THEY value?
- What is interesting to them?

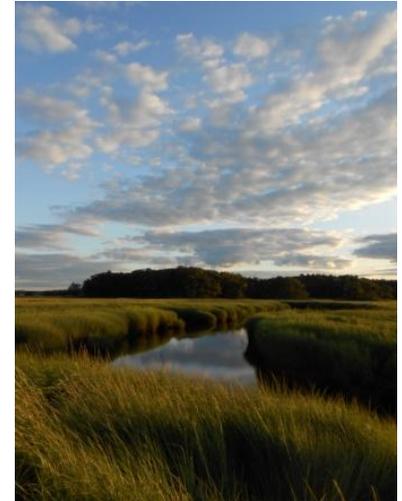


Photo: D.S. Johnson



Photo: S.B. Somerville

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- Disclaimer: All conclusions are ours alone and do not reflect endorsement by Stanford University or NOAA.

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Photo: Susanne Moser