Toward More Effective Climate Change Communication

Lessons and Suggestions for Testing in Norway

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Overview

- Current state of play in climate change communication in the US
- Possible challenges and opportunities in communicating about adaptation
- Best practices in communication for social change
- Take home messages

WMO

INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

2007

UNEP

And yet...

"**To Americans, the risks of global warming are not imminent.**

A majority worries about climate changes, but thinks problems are a decade or more away."

Gallup Poll

conducted 22-25 Feb 2007

A fuller picture of perceptions

- >90% of American public aware of “global warming”
- For 30-40% it is personally serious, urgent, worth worrying about (rather stark partisan differences)
- Serious impacts are seen as decades away; no need to act; more immediate issues have persistent priority
- Still confusion about causes of global warming
- Few know about solutions; most are (believed to be) ineffective or irrelevant (the light bulb problem)
- Global warming seen as inevitable and unfixable
- Seen as signs of irreversible deterioration of moral values
- Few if any studies have looked at perceptions of need or outlook for adaptation

“The typical global warming news story overwhelms and immobilizes people.”

(Frameworks Institute 2003)

The Challenge of Communicating Climate Change to Non-scientists

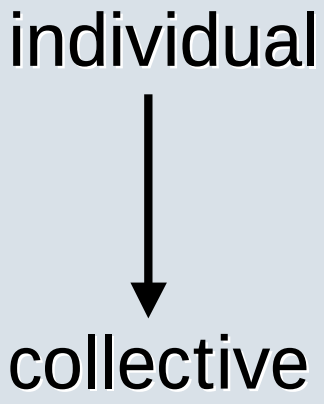
Why does the problem not seem urgent?

- Lack of immediacy between cause and effect
- Creeping nature of problem
- Remoteness of impacts in space, time
- Time lags
- Solution skepticism
- Threats to values and self-interest
- Imperfect markets
- Tragedy of the commons
- Political economy and injustice

Despite these difficulties...

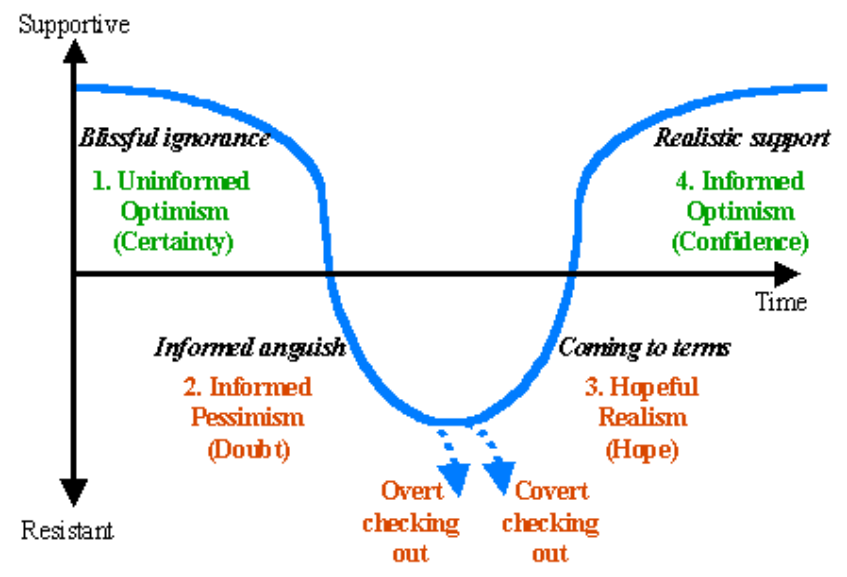
Effective communication is commonly seen as an essential prerequisite to achieve the necessary social changes

- behavior change
- organizational change
- policy change
- cultural change

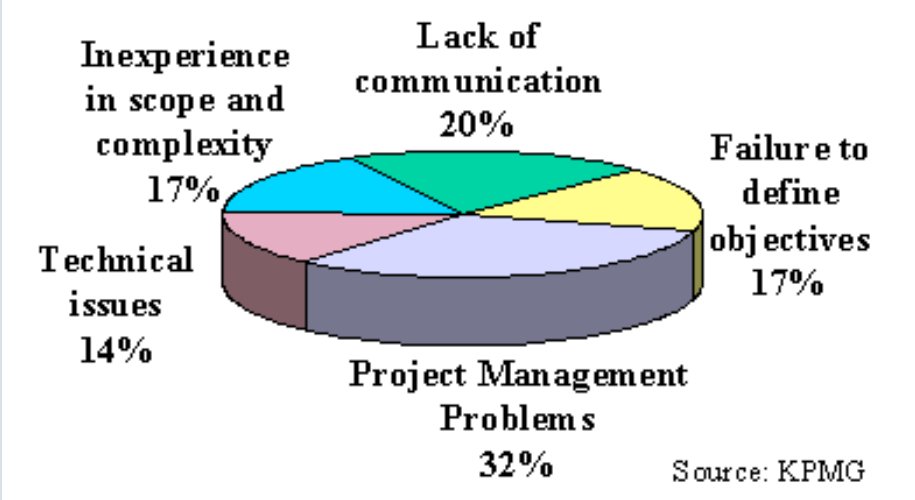


Creating Change

Response to change

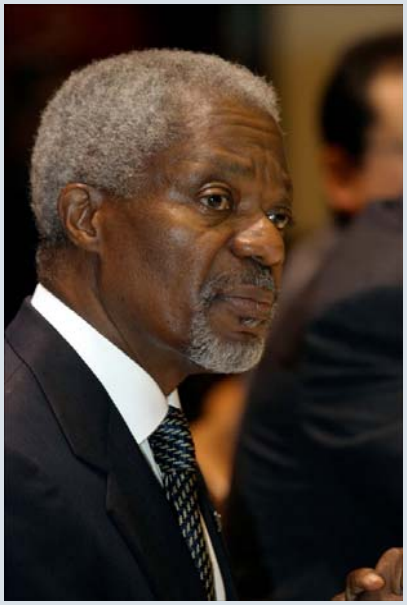


Why change projects fail



Source: http://www.epmbook.com/orgchange.htm (2006)

Climate Change Needs Social Change



“The question is not whether climate change is happening but whether, in the face of this emergency, we ourselves can change fast enough.”

Kofi Annan
Nairobi, November 2006

How Well Have We Done?

- Dominant framing as science issue
- Failure to explain causes, solutions
- Lack of understanding of mental models, framing effects, emotional impact, audience needs
- Failure of social scientists to communicate their insights on communication and social change to messengers
- Lack of communications training for many key messengers
- Deception campaign
- Media practices

More Fear? More Guilt? More Information?

- Make the problem more scary?
- Make everyone feel more guilty?

- If only they understood...

Communicating Climate Change:

Getting Beyond Awareness and Understanding, Toward True Engagement

The task is daunting.

The prospects dim.

So, is it hopeless?

Possible Opportunities in Communicating About Adaptation

- Adaptation is rarely if ever to climate change alone
  - Opportunity to link to current, topical problems
    - Immediacy of experience of impact, damages, loss
    - Immediacy of benefits of taking action
    - Clearer cause and effect link (time and space)

- Effectiveness of action can be observed
  - Direct feedback
  - Opportunity for personal engagement
  - Builds social capital, caring for local environment
- Opportunity to link adaptation to preservation of self-interests and enactment of (local) values
  - Forward looking, proactive, precautionary planning
  - Concern for sustainability of local economy
  - Concern for future generations
  - Balance of economy and environment

Possible Challenges in Communicating About Adaptation

- Careful messaging around the dual need for mitigation and adaptation
- Persuasion challenge to plan ahead and prepare now, rather than wait until later
- Where impacts and adaptation could undermine entrenched interests, difficult public debates may be ahead
- Need for long-term engagement
- Maybe… need to open up some taboos…

- CC over next few decades already "in the pipeline", mitigation necessary to keep impacts manageable
- Win-win strategies; show with hard $ figures how preparing and prevention pay
- Be prepared; use skilled facilitators; be prepared to find compensation; ensure that adaptation doesn't harden social injustices
- Build standing, but open groups for ongoing engagement
- Open up a visioning exercise; use visualization of future scenarios

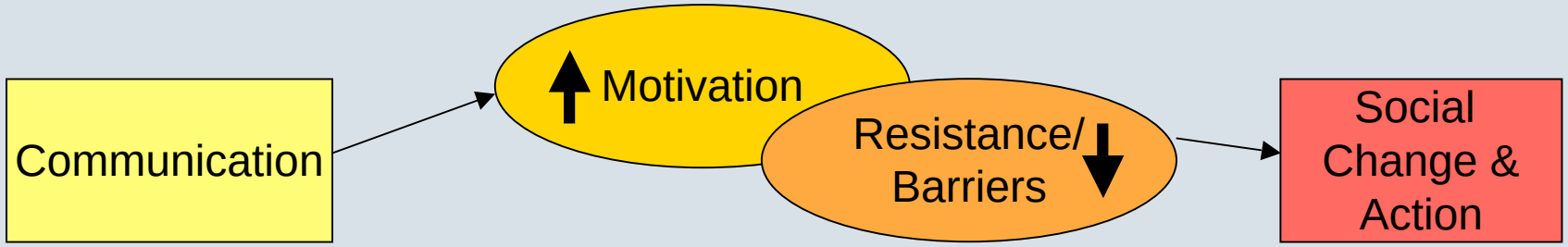
The Challenge of Effective Communication

For *communication* to be effective, i.e., to facilitate an intended societal response or desired *social change*, it must accomplish two things:

(1) sufficiently *elevate and maintain the motivation* to change a practice or policy

&

(2) *contribute to lowering barriers and resistance* to doing so



Where to Begin?!

Best practice in communication begins with the audience!

Improving Communication

- Strategically select your audience
- Learn about mental models; levels of understanding; interests, values, and concerns
- Match message content, framing, and audience values
- Make global warming, impacts, and needed actions “local”, salient

Improving Communication (cont.)

- Lead with certainty, but never misrepresent uncertainty
- Move beyond the science and scary impacts
- Use “PLUs”: Match messenger with audience; broaden the circle
- Beware of message reception!
- Offer solutions, practical help, and hope

Not Everyone Thinks Like Us!

... and not even scientists are motivated by scientific knowledge alone!

Elevating Motivation

- What is motivating differs among people
  - Greater understanding, knowledge
  - Deeply held beliefs, concerns, values
  - Social norms, social influence
  - Aspirations, identity
  - Bottom line and risk of financial loss
  - Political gain
  - Legal mandates
  - Direct impacts of climate change
  - A vision of a worthwhile future

Beware of the Hurdles!

Social change typically fails at the barriers, not for lack of information or motivation to change.

Overcoming Barriers

- Break through disinterest, apathy, information filters with surprise and novelty
- Interpersonal and small-group dialogue
- Recognize the cost of changing habits of thought and behavior
- Provide concrete solution information
- Identify, engage sources of social support
- Use institutions as “laboratories”

Toward the Social Tipping Point

If you want to make a difference, learn as much about social change as about climate change!

Facilitating Social Change

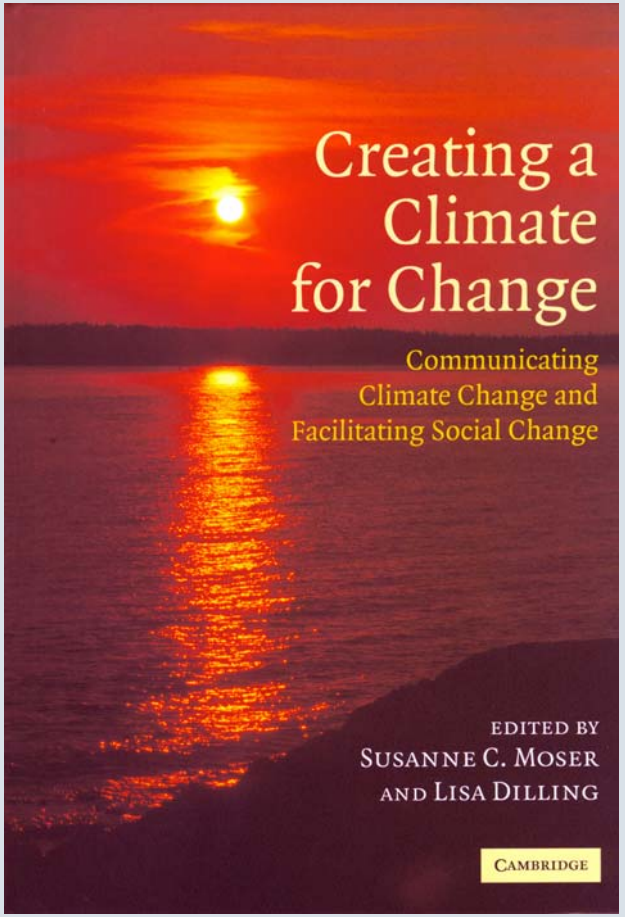
- There is NO ONE scale or sector to focus on
- But: strategic choices in a given political-economic context
- Countless leverage points (bottom-up, top-down, across)
- Small changes plow the ground, spread symbolic message
- Don’t forego deeper social changes and be especially mindful of long-term decisions

Key Take-Home Messages

- Make communication central, not an afterthought
- Choose audiences carefully, strategically, and tailor communication accordingly
- Train the communicators
- Move from one-way information dissemination to engaging dialogue
- Reach out to the heretofore not-yet-engaged
- Go beyond science and impacts; focus on solutions, capacity building, and empowerment
- Begin visioning a positive future, engage stakeholders in identifying measures of progress toward it; chart a path

For Further Information

- Key Publications
  - 2004 – “Making Climate Hot” in *Environment 46(10)*
  - 2006 – “Talk of the City” in *Environmental Research Letters 1(1)*
  - 2007 – *Creating a Climate for Change* (Cambridge)
  - For other publications see: http://www.isse.ucar.edu/communication/
  - Email: smoser@ucar.edu



Thank You!

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  - My co-leader/editor, Lisa Dilling
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Science-Policy Communication

– A Special Case

Linking Science to Decisions

- **To create information need**
  - Illustrate vulnerabilities, costs, impacts on valued assets
  - Illustrate usefulness of information
  - Give models of how information is used (by others)

- **To meet information needs**
  - Who makes coastal management decisions?
  - What kind of decisions?
  - What information do decision-makers currently use, need?
  - When and in what format do they need it?
- **To foster information use**
  - Build awareness among decision-makers for climate change, coastal impacts, vulnerability
  - Assist decision-makers in assessing and using available information effectively
  - Allow information to be built into existing (or: new, additional) decision processes
  - Lower (real or perceived) barriers to acting on the relevant information

Decisions and Information Use

- Understanding decisions
  - Decision-makers, processes, contexts
  - Stakeholder engagement processes
  - Information needs (what, when, how?)
  - Science-practice/policy interface (forms, processes)

- Providing decision support
  - Management options
  - Decision-relevant information
  - Information management
  - Decision tools

- Communicating science
  - Understanding the communication—societal response process
  - Awareness raising, education, outreach
  - True engagement

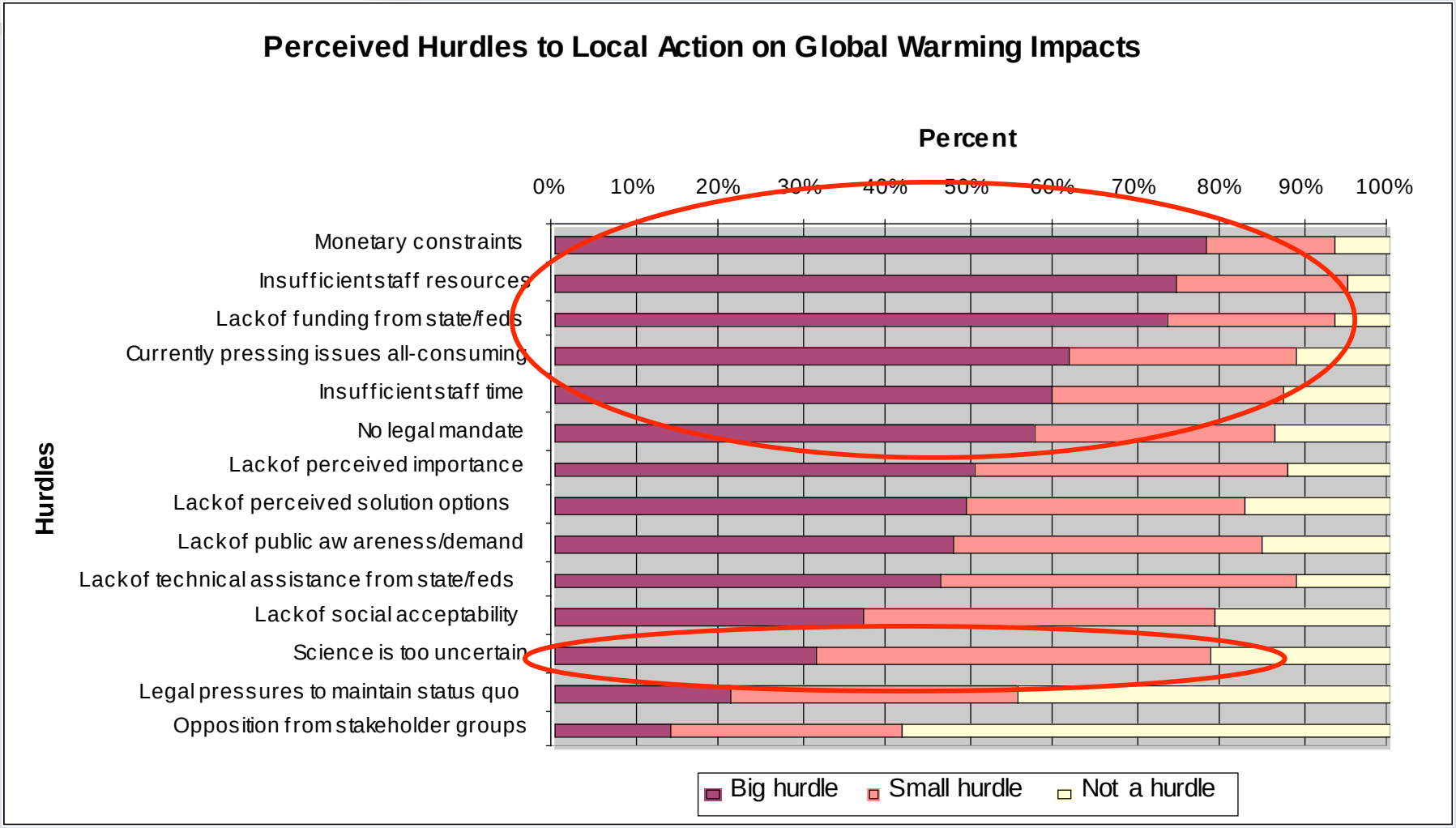
A Cursory Summary of Key Findings from California Coastal Mgmt Study

- Awareness, Knowledge, Concern, Readiness to Act
  - Awareness, concern, ready to act high
  - Actual knowledge moderate to limited
- Analytic Capacity
  - Moderate
  - Constrained by resource and staff limitations
- Actions (and Barriers to Action)
  - No existing local plans account for potential impacts from climate change on costal areas
  - Several local plans with consideration of coastal impacts in preparation at present
  - Local communities have very specific information and support needs, esp. staffing, state and federal resources, mandate, and help with ongoing problem burden

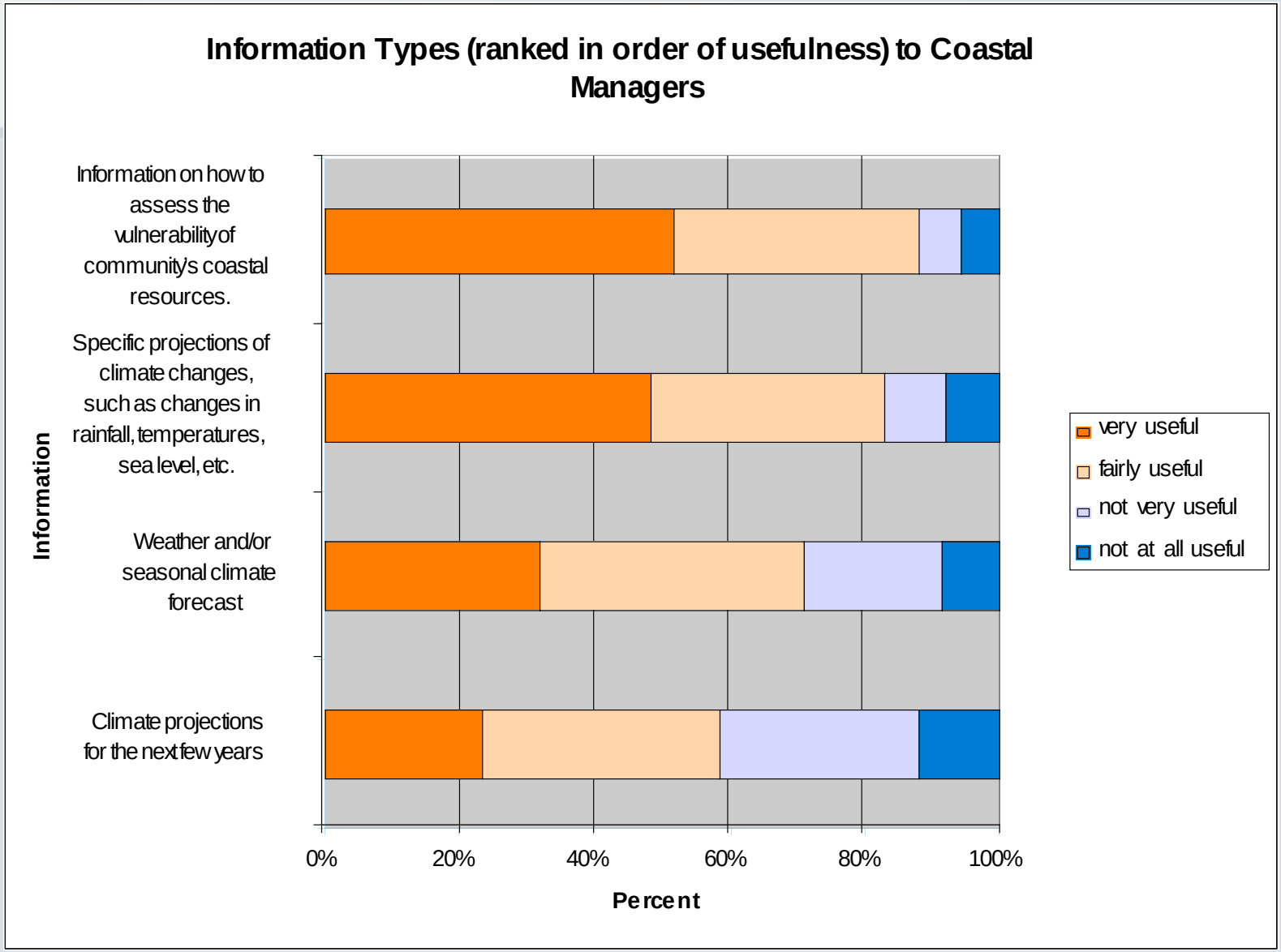
WHY?

WHICH?

Why Coastal Managers Don't Plan for Climate Change (Yet)



Climate Change Information Needs



More Than "Just" Information

- **Desirable opportunities to learn more**

	hands-on training	user manuals	conferences	better college edu.	web clearing-house	dedicated listserves	in-house sharing
very useful	47.2%	45.1%	40.7%	43.9%	47.2%	33.6%	29.5%
extremely useful	24.4%	13.9%	13.8%	9.8%	18.7%	15.6%	10.7%
Total	**71.6%**	**59.0%**	**54.5%**	**53.7%**	**65.9%**	**49.2%**	**40.2%**

- **Important capacity building opportunities**

Climate Change Information Needs (cont.)

- **Translation of climate change into actionable information**
  - Turning projected sea-level rise, changes in coastal ocean, storm frequency, and wave climate into shoreline retreat, beach erosion, and bluff retreat rates over various planning- or project-relevant timeframes (5, 10, 20–25, 50, 75 years)
  - More reliable forecasting of El Niño events, and any changes in the frequency or severity of such events, and impacts on shoreline retreat rates
  - Remapping of flood zones under different sea-level rise projections
  - Information about potential changes in runoff, pollution load, salinity, and near-shore coastal and estuarine water temperatures, and exploration of the implications of such changes for water quality, water availability, and aquatic ecology

Information Needs Regarding Uncertainty

- Uncertainty ranges around climate change impact projections to indicate scientific confidence
- Well founded distinctions between more and less likely impacts (e.g., “at-least” sea-level rise vs. “maybe-as-much-as” sea-level rise)
- Explanation of reasons for uncertainty
- Scientific basis for uncertainty buffers (e.g., additional setbacks, extra capacity for storm water runoff)

Information Management and Accessibility Needs

- **Inventory** and **integration** of existing (and additionally developed) information into common formats, e.g., GIS
- **Accessibility** of integrated databases at various spatial aggregation/resolutions and for different temporal resolutions
- Adequate funding of **ongoing monitoring** of critical, management-relevant variables
- **Information exchange** among coastal states and communities about their responses to climate change–related impacts and risks
- **Better collaboration** and exchange of relevant information among all involved agencies within California

Trusted Information Sources

- Suggested information providers (in no particular order of preference):
  - Federal Emergency Management Agency (FEMA)
  - National Oceanic and Atmospheric Administration (NOAA)
  - United States Geological Survey (USGS)
  - Scripps Institution of Oceanography (SIO)
  - California's Ocean Protection Council
- Viewed as more problematic or not mentioned:
  - Regulatory agencies
  - Other state agencies
  - Other academic sources