

NERRS CTP Climate Workgroup Webinar

Effectively Communicating Impacts and Adaptation: Engaging Communities when Climate Change Comes Home

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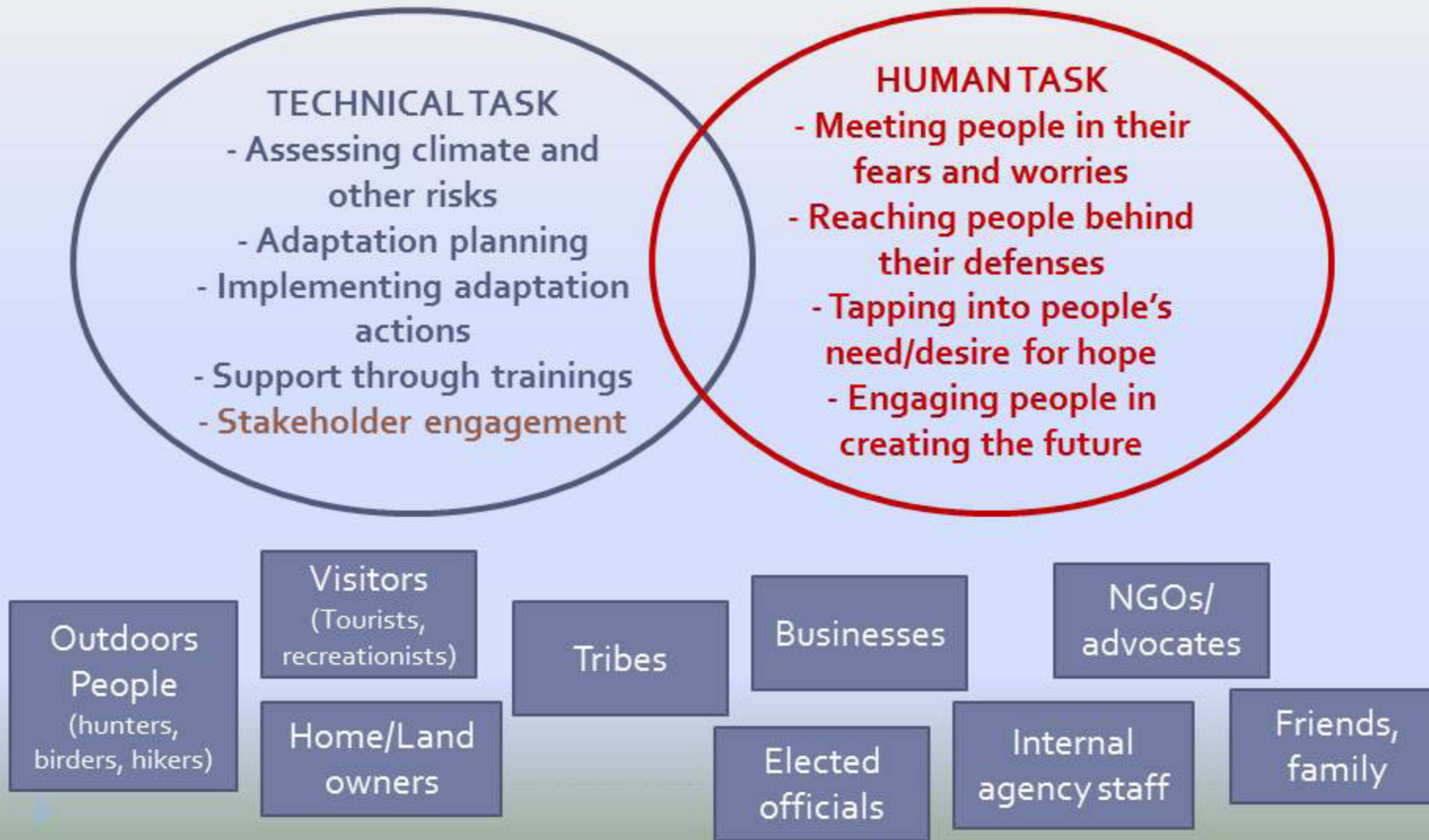
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May 5, 2016

Notes:

- National Estuarine Research Reserves (NERRs) increasingly work on climate change adaptation - either on site or with nearby communities. But engaging staff, stakeholders and partners on a topic as challenging as climate change impacts and adaptation is difficult. This presentation synthesizes what is presently known about perceptions of climate change impacts and adaptation to communicate difficult information about climate change effectively while still motivating people to get involved in finding solutions.

Adaptation: The Task at Hand



NOTES

- Climate change adaptation is often framed as a technical task with stakeholder engagement as one of the last tasks we take on.
- But engaging people is first and foremost a human task that should be integral to everything we do in adaptation. We need to meet people where they are, tap into their needs and desires for hope, and help them stay engaged with the topic.
- There are many audiences that need to be engaged in the conversation about adapting to climate change (*see the list at bottom of slide*) and in participating to bring it about.

Overview

- ▶ State of Knowledge on Public Perceptions of Climate Impacts and Adaptation
- ▶ Dealing with People's Defenses Against Unwelcome News
- ▶ Fostering Hope to Engage and Empower People to Help Create a Better Future



Photos (t>b): blacksunjournals.com; licensedmentalhealthcounselor.org ; mondaymusings.org

NOTES

- Each of the three sections of this presentation is supported by a research paper. Those papers can be found at www.susannemoser.com.

PART I

State of Knowledge on Public Perceptions of Impacts and Adaptation



Welcome to the technical jargon zoo!

climate-smart • climate-resistant • climate-resilient • climate (or weather)-ready • climate-proofing • adaptation • preparation • preparedness • readiness • adjustments • planning • coping • triage • hazard management • climate risk management • mitigating the impacts of climate change

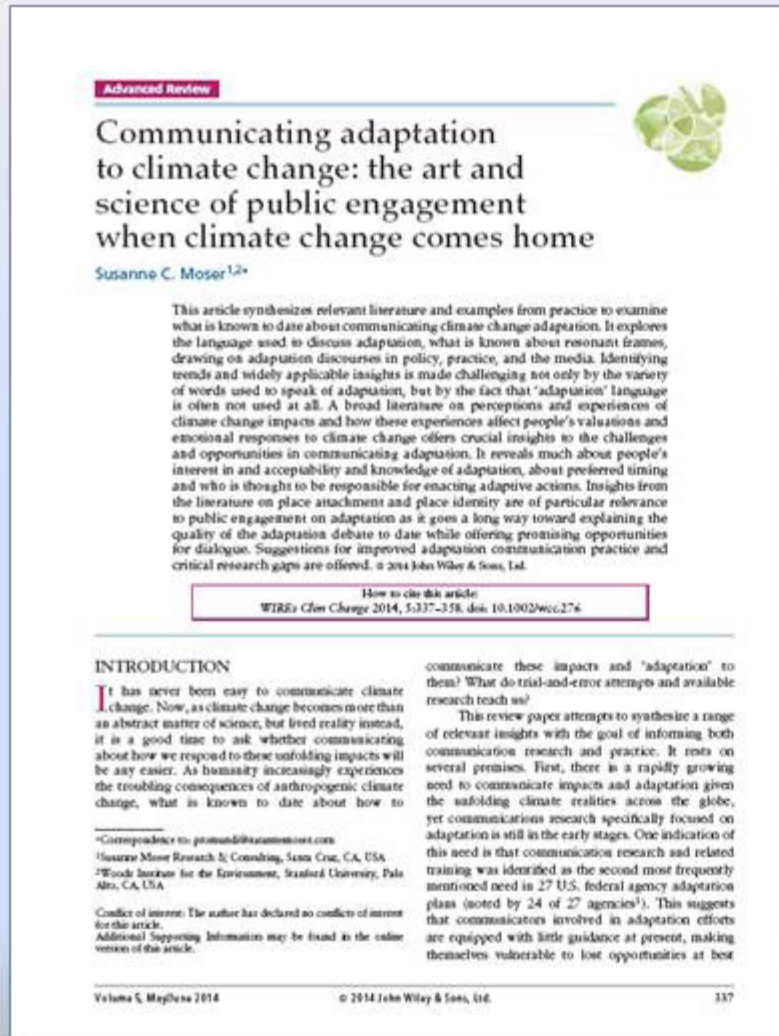


Source: artprojectsforkids.org

NOTES

- Studying how people communicate impacts and adaptation is quite difficult because there are so many different terms out there. All are used to roughly convey the same basic idea. For those just entering the field and for many audiences, however, this plethora of terms is confusing.

Why isn't there just ONE word for this?



- ▶ It's still relatively new
- ▶ Jargon "travels" well
- ▶ Practitioners, public haven't followed years of scientific debate
- ▶ Background shapes preferences
- ▶ Words evoke values
- ▶ Intentional and audience-targeted use
- ▶ Context and communication legacies matters

NOTES

- Within the science community, "adaptation" is largely an accepted term, but it is important to remember that it may sound different to non-scientific ears. For example, for some people the term "adaptation" may have the negative connotations of natural selection - "adapt or die". So it can be useful to be able to use different terms.

Adaptation is largely missing from the news...

(...and if it isn't, we know little about it)

- ▶ “All adaptation is local...”, but unless there is a shovel in the ground, there is nothing to report on

- ▶ Linguistic bias
- ▶ Outlet bias
- ▶ Geographic bias
- ▶ Action bias

- ▶ Extreme event = local/natural; climate change = global

- ▶ Scientists not making links
- ▶ TV meteorologists skeptical

- ▶ Adaptation is complex, hard



NOTES

- One way communication researchers study how people communicate adaptation is to look at how it is reported in the news. But this is challenging with adaptation, because researchers often focus on big national papers, while adaptation - often thought of as a local issue - might not be reported as much in these larger papers.
- Moreover, much of what is going on to date in adaptation is not yet “shovels in the ground,” so reporters find it very hard to talk about it.
- Many research studies underestimate instances of climate change adaptation since they do not include smaller papers, which report on local cases of climate adaptation, in their studies.
- When people hear about an extreme event, they often think of it as a local and natural phenomenon instead of being linked to a global and human-caused phenomena like climate change. Climate’s complexity prevents scientists from making the causal link between an extreme event and climate change.

Climate change impacts are here now

- ▶ Based on review of 75 studies from around the world
- ▶ Varied responses, complex reasons, precarious moment:
 - ▶ Many (~1/4-2/3 of studied populations) are seeing changes now
 - ▶ Gradual changes • More frequent extreme events • Unusual events
 - ▶ And still: to many climate change is still a distant threat
 - ▶ Not all attribute changes to human-caused climate change
 - ▶ Influenced by location, outdoor experience, direct experience of extreme events, knowledge, values and beliefs, gender, perceived peer beliefs, media, interpersonal communication, etc.

NOTES

- In a review of 75 studies from around the world, we find two - seemingly contradictory - findings. First, a considerable number of studies report that people are noticing climate change effects now, including gradual changes (seasons, birds, flowers, trees behaving differently), more frequent extreme events, and unusual events (not previously experienced in certain locations or of uncommon severity).
- At the same time, there are still many people who insist that climate change is still a distant threat, and even those who notice changes don't necessarily attribute them to human causes.



Even the skeptical care...

- ▶ It is necessary to deal with apparent changes and to prepare for possible additional threats.
- ▶ Fits with values of preparedness, responsibility, and being 'better safe than sorry'



Photo: agu.org

NOTES

- It is interesting to note, however, that even someone who is skeptical that climate change is happening or that it is human-caused may see a need to protect themselves and others from the climate-related changes they are experiencing. The human desire to be prepared ("rather safe than sorry") creates an opening to discuss climate change with people.

Responses to perceived climate threats

- ▶ Climate change impacts seen as mostly negative
- ▶ Psychological distance...
- ▶ ... can result in **lower OR greater concern** due to triggering psychological defenses



Photo: examiner.com

- ▶ **Risk perception increases** when people feel the risk:
 - ▶ can happen to them or their children
 - ▶ is happening now or soon
 - ▶ unfolds suddenly
 - ▶ is human-made
 - ▶ doesn't also involve benefits
 - ▶ is imaginable
 - ▶ it is imposed and
 - ▶ there is little control over it

NOTES

- What is known from these studies about how people perceive climate change impacts? The vast majority of people see them as mostly negative.
- Psychological distance is a matter of trying not to think about something. Distance is created by convincing oneself that that something is:
 - occurring far away
 - in the future
 - happening to other species
 - happening to other people
- For some people, psychological distance can make it possible for climate change to be enough at arms length that it gives them space to think about and address the issue. If climate change was too immediate a concern, they may shut down. In this way, psychological distance can be used as a way for people to take on climate change as a concern.
- The studies also reveal under what circumstances people's perception of risk from climate threats increase (see list).

Heart first...

...The head manages the rest

- ▶ Emotional responses to existential threats, threats to self-esteem and to identity
 - ▶ Generalized distress
 - ▶ Anxiety
 - ▶ Deep sense of vulnerability
 - ▶ “Climate grief”, including worries, intense fears, and sadness
 - ▶ Sense of futility, overwhelm, hopelessness, helplessness
 - ▶ Anger
 - ▶ Cool dismissal, denial



NOTES

- People are first and foremost feeling beings, not rational, objective beings. When risk perceptions increase, people do not respond first with their brains, they respond with their heart.
- People’s emotional responses to climate change can include generalized distress or anxiety, a deep sense of vulnerability, feeling overwhelmed, becoming angry, and outright denial. Many experience the various stages of grief before they reach the point where they can allow the reality of climate change in.

NEVER talk about risks without solutions!

Why?

- ▶ Because when faced with a big or overwhelming threat, we ...

(1) reduce the threat

OR

(2) reduce the (unpleasant) feeling about the threat



Graphic: lmkeconsulting.co.za; Photo: learntoprepares.com

NOTES

- Risk communication about climate change needs to be combined with potential solutions.
- If people respond to the “big or overwhelming threat” by sticking their head into the ground, it is very difficult to get them to remove it.
- Talking about climate change without also discussing solutions can have the same effect as being a “climate denier.” It causes people to stick their heads into the ground, instead of allowing them to accept the scientific validity of climate change and joining the work necessary to mitigate and adapt to it.

Limited knowledge about perceptions of adaptation

BUT: Adaptation options tend to be more acceptable if they are:

- ▶ **Familiar**
- ▶ **Necessary**
- ▶ **Proportional**
- ▶ Consistent w/ **expected roles**
- ▶ People are **meaningfully involved** in process
- ▶ Imposed or **compelled by nature** (rather than government)
- ▶ People have **choice and control**



Photo: pixgood.com

NOTES

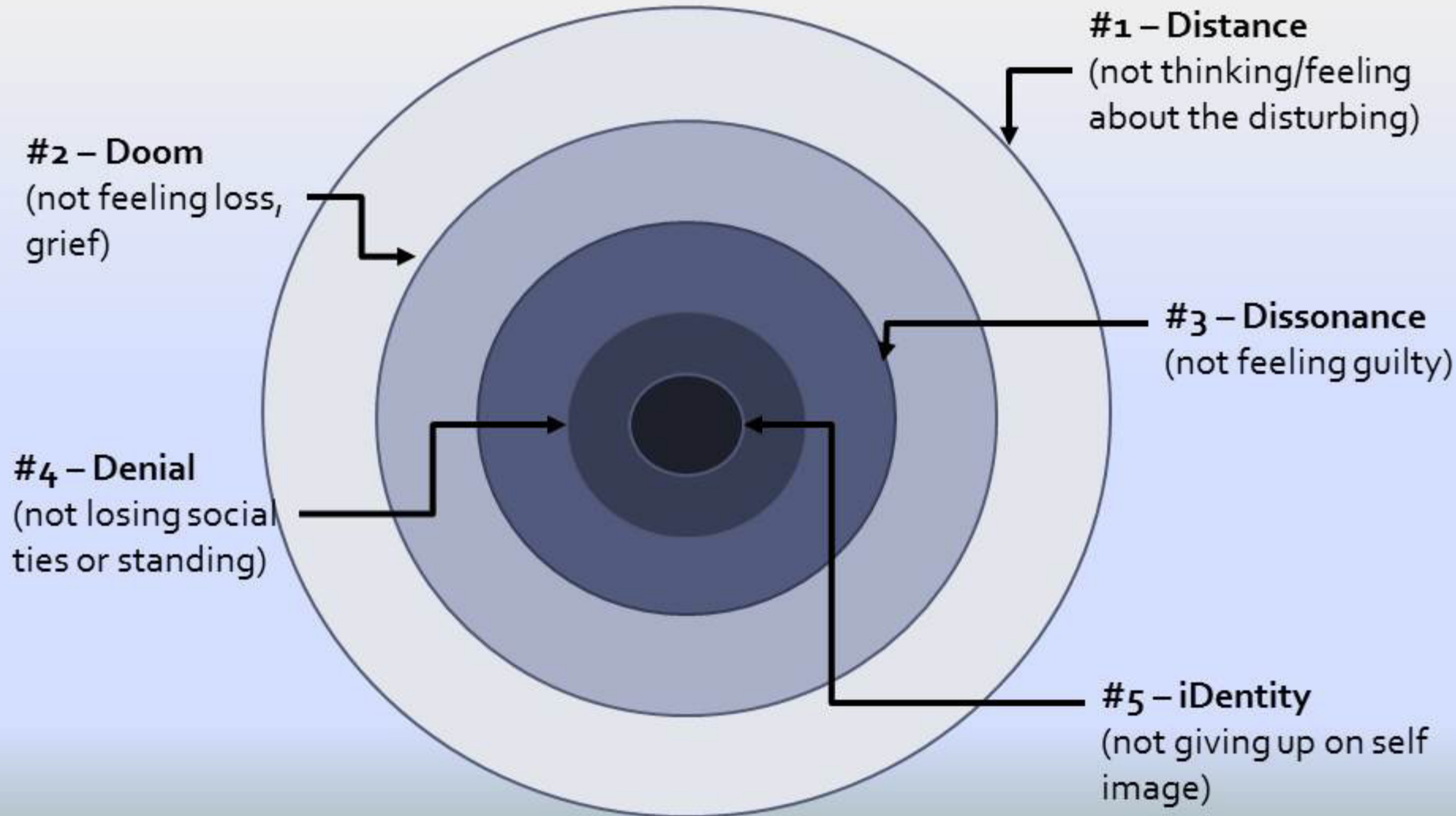
- Not much is known yet about how people perceive adaptation options. But what is known suggests that people accept and embrace adaptation options more easily under the following circumstances:
- They are **familiar** (or have precedent elsewhere)
- Recognized as **necessary**
- Viewed as **proportional** to the threat
- Consistent with **expected roles** of different actors
- Affected parties have been **meaningfully involved** in decisions and governance since they are more likely to have a stake in it
- Spurred or **compelled by nature**, with the changes or impacts resulting from nature, rather than imposed by the government
- People have **choice and control** over when and how adaptation efforts are being implemented

PART II

Dealing with People's Defenses Against Unwelcome News



5 Layers of Self-Defense



NOTES

- Helping people come to terms with the effects of climate change requires an awareness of people's psychological defenses, including:
- **Distance** – Keep it at bay
- **Doom** – Avoid feeling the grief and potential loss that comes with letting climate reality in
- **Dissonance** – Defend against not wanting to feel guilty
- **Denial** – If deciding to act on climate change causes us to stray from our social circle, it can make us uncomfortable and fearful of losing our relationships. To fend against the risk of losing our social ties or standing, we deny that there is a problem in the first place. We would rather act like our social circle than act on knowledge that strays from the group.
- **iDentity** – Redefining our identity is not something we do many times during our lifetime. Because changing who we are or how we see ourselves is very demanding, we defend against it by denying all the reasons that would call for such profound change.

We defend against ...

.. what we don't want to or can't deal with

- ▶ **#1 DISTANCE:**
Maintaining psychological distance to the issue



- ▶ Defense against thinking, feeling and knowing about climate change
 - ▶ Issue avoidance
 - ▶ Narrow focus on here/now
 - ▶ Seeking distractions
 - ▶ Optimism bias
- ▶ Easily reinforced
 - ▶ Climate silence
 - ▶ Focus on urgent current issues
 - ▶ "We have plenty of time"
 - ▶ "It won't happen here, and we can cope"

NOTES

- We enable people to remain distant
- from the issue of climate change if, for
- example:
 - We talk about distant things, such as polar bears or future events
 - We talk about climate change only as a scientific (i.e., abstract) issue
 - We don't talk about it at all

Countering psychological distancing

- ▶ Make the issue feel near, human, personal and urgent by pointing to what is already happening: climate change is happening "here and now"
- ▶ Use respected witnesses to change as messengers
- ▶ Speak of people, places and entities where you are (link animals/plants to people)
- ▶ Use emotion and stories for meaning-making
- ▶ Include a link to personal behavior/experience
- ▶ Point to tangible locus of control
- ▶ Use citizen science opportunities to engage people directly in tracking change
- ▶ Focus on human health
- ▶ Stories of well-being and community (personal, concrete, vivid, extraordinary, show-don't-tell, humorous, witty, strong plot)
- ▶ Signal progress with concrete examples of action in locality or use direct experience

NOTES

- Overcoming distancing is a matter of "bringing climate change home" using any and all of these techniques.

We defend against what we don't want to or can't deal with

▶ #2 DOOM:

Avoidance of feelings of loss, grief



▶ Defense against thinking about or feeling the loss associated with climate change (or with action)

- ▶ Loss aversion
- ▶ Issue avoidance
- ▶ Rationalization of inaction
- ▶ Transfer of responsibility to others/to future (e.g. technological fixes, government, future generations)

▶ Reinforced by

- ▶ Fear-evoking imagery
- ▶ Loss and sacrifice frames
- ▶ Appealing to patriotism, what is/isn't "American"
- ▶ Emphasizing cost of action

NOTES

- If people accept the reality of climate change and let in what it might mean, they quickly run into the second defense: they experience the sad, uncomfortable, anxious feelings related to loss. Sometimes loss is encountered when people think about adaptation - they might lose money, or might not be able to do certain things any more.
- Using images that invoke fearful things, such as forest fires and hurricanes, make it more difficult for people to deal with the issues that will emerge from climate change.
- Imagery that shows loss can trigger these kinds of responses. Talking about the cost of impacts or of adaptation (without also talking about how much money is saved by taking preparatory action) can also trigger this defense.

Countering the “doomsday” experience

- ▶ Focus on past loss and achieved or possible restoration of what has been lost
- ▶ Focus on near-term benefits and opportunities to avoid future losses or costs
- ▶ "A crisis we can't afford to ignore"
- ▶ Use of engaging, reasonable frames (e.g., insurance, preparedness, doing what is right, security)
- ▶ Focus on positive emotions
- ▶ Focus on improvement of health and quality of life (people, love, family, community)
- ▶ Tell stories of people who act out of determination, joy, vision; heroic stories of overcoming adversity
- ▶ Validate all emotional responses; be witness to suffering; allow and encourage the safe public display and exploration of emotional responses (grief, fear etc.)

NOTES

- Effective statements to counter doomsday include:
 - “We have lost X, but we have a chance to restore it, and we have a chance to prevent ‘further loss.’”
 - “We can’t afford to lose X or Y.”
- Countering “doomsday” does not mean that you never talk about negative consequences of climate change or elicit negative emotions. But it is important that you do not end there. It is important to discuss the joy of being involved in the effort or the fun you have doing this together. It needs to be connected to positive things.

We defend against what we don't want to or can't deal with

▶ #3 DISSONANCE: Dealing with cognitive dissonance



Photo: lotsofinsurance.com

▶ Defense against guilt; managing the knowledge-action disconnect

- ▶ Doubt of science
- ▶ Confirmation bias/motivated reasoning
- ▶ Downplaying of problem, or diminishment of solutions
- ▶ Rationalization of inaction
- ▶ Transfer of responsibility to others (e.g. technological fixes, government)
- ▶ Issue avoidance and apathy

Source: Moser (2016)

NOTES

- Cognitive dissonance is essentially a defense against guilt. It arises when we know there is a threat that we should do something about, but we don't (or can't). All of us experience this to some extent, because we live in systems that don't allow us to live entirely in harmony with our values, or because we sometimes have conflicting values.
- We defend against feeling that dissonance by, for example, downplaying or denying the problem, doubting the scientific consensus, or rationalizing why we can't take certain actions.

Countering cognitive dissonance

- ▶ Emphasis on the high degree of scientific consensus
- ▶ Justify action *because of* uncertainty
- ▶ “Better safe than sorry”
- ▶ Emphasize the moral case for climate action
- ▶ “Common sense” type or course of actions
- ▶ Emphasis on building resilience
- ▶ Illustrate solutions in positive, desirable ways
- ▶ Provide opportunities for clear, consistent, visible action
- ▶ Make actions easy, convenient (when possible)
- ▶ Make right action the default
- ▶ Tell stories of discovery and opportunity, stories of “green growth”

NOTES

- Cognitive dissonance can be countered by a number of communication strategies, including:
 - Helping people understand that uncertainty around climate change means its effects could cause things to get better or worse. Therefore, uncertainty in climate science should not be used as an excuse for inaction.
 - Emphasize that actions to prepare for climate change impacts are doable and that making the right action should be our default action.
 - Link climate change adaptation practices with moral values because it is a more compelling, deeper motivation than short-lived monetary gains.

We defend against what we don't want to or can't deal with

▶ #4 DENIAL

Managing fear of losing social ties/recognition



▶ Defense against loss of one's social ties:

- ▶ Active denial
- ▶ Self-defense
- ▶ Playing to in-group/ out-group dynamics
- ▶ Attack on others

▶ Easily reinforced by

- ▶ Unnecessary polarization, demonization, name-calling
- ▶ Triggering fear, guilt and self-protective impulses
- ▶ Use of enemy narratives
- ▶ "Without fossil fuels we can no longer..." claims

Source: Moser (2016)

NOTES

- When we are at risk of losing respect, social standing, or our ties to our social circle, we become increasingly defensive, not just by denying the problem, but also by attacking those who say there is a problem.
- This sort of dynamic is easily reinforced by name-calling or demonizing others, or by triggering people's existential fears.

Countering denial

- ▶ Use face-to-face interactions wherever possible (dialogues, joint action, clubs)
- ▶ Use facilitators and clear rules for difficult/potentially contentious conversations
- ▶ Use peer messengers
- ▶ Use the power of social networks
- ▶ Tap competition, desire to be better, recognized as better
- ▶ Tap desire to work/be together
- ▶ Stories of reconciliation, coming together, cooperation, resilience (not necessarily unity of opinion)
- ▶ Provide positive feedback as signals of valuable change

NOTES

- Dealing with outright denial is difficult, but there are strategies that make it easier:
- It is much harder to be nasty to each other when we talk to one another face-to-face.
- Peer messengers have characteristics or identities that give them credibility and allow their message to be heard and considered with their audience (ex. business person talks to the business community about climate change).
- Tap into people's desire to be better, to become the person they would like to be.
- Connect a person's identity - how they see themselves - with the type of action you want them to take.
- Help people recognize that their actions can be part of the solution and they can be seen as a good person for participating in bringing about solutions.

We defend against what we don't want to or can't deal with

- ▶ **#5 iDENTITY:** Resistance to changing ourselves, losing our identity/sense of who we are



- ▶ Defense against identity loss or change
 - ▶ Avoidance
 - ▶ Denial
 - ▶ Helplessness
 - ▶ Reinforcement of existing identity
 - ▶ Attacks on others
- ▶ Easily reinforced through:
 - ▶ Unnecessary polarization, demonization
 - ▶ "The American way of life is not up for debate..." proclamations
 - ▶ Emphasis on freedom from government, individual freedom, free market economics

NOTES

- The more people feel that taking action on climate change would contradict who they believe themselves to be, the more defensive they might become. The resulting defenses can be very challenging to deal with.
- One defense to protect identity is claiming to be helpless. This allows people to avoid changing identity-defining characteristics about themselves to address climate change. We can identify claims of helplessness when we hear people say, "I can't..."

Countering (undue) identity defenses

- ▶ Appeal to deeply held values (e.g., responsibility, stewardship, family, community)
- ▶ Tap into status as respected, compassionate, leading, innovative community member
- ▶ Illustrate new social/cultural norms
- ▶ Create a sense of “doing it together”
- ▶ Open up space to discuss a wider variety of policies/responses
- ▶ Use the power of stories to make meaning
- ▶ Inspiration (becoming better humans, having a better life)
- ▶ Stories of positive transformation (a better life is possible; quest; hero's journey; overcoming a huge challenge)
- ▶ Stories of commitment, conviction (and change in conviction)
- ▶ Tap into local sense of place/patriotism/community/pride

NOTES

- The point of countering identity defenses is not to change people. Rather, the point is to minimize the risk that these defenses are triggered, and instead to connect who people are and want to be with the right action. For example:
- Help people to know that they are not alone in this work, that they are doing this work with others.
- Appeal to the mutually held values we hold within society.
- Frame what needs to be done in the form of profoundly challenging but rewarding stories, such as a quest or the hero's journey. Tell stories of commitment and conviction, and overcoming a great challenge.

PART III

Fostering Hope to Engage and Empower
People to Help Create a Better Future



HOPE

Engagement and action are the antidotes to hopelessness and other defenses



Image:www.stonehill.edu

▶ Why does it make such a difference?

▶ RESPONSE EFFICACY:

- ▶ knowing that there are solutions
- ▶ they are meaningful, make a real difference

▶ SELF-EFFICACY/MASTERY:

- ▶ knowing more about those solutions
- ▶ what my role is in helping them to be realized
- ▶ where to start and how to do it

▶ POSITIVE IDENTITY REINFORCEMENT:

- ▶ knowing that I don't have to do it alone (achieving something together, exposure to social norm, fun, social contacts)
- ▶ helping to achieve a larger goal

NOTES

- The most hopeful people are people taking action. Active engagement itself creates hope. Why? Because it shows people that something can be done. They are involved in the meaningful task of bringing that solution about and it reinforces who they are and want to be: good people working for the common good.

Varieties of Hope



NOTES

- It is important to understand that hope
- is not just one thing; there are different
- types of hope. Depending on the
- outcome expected and how much effort
- is needed to bring that outcome about,
- Stoknes (2015) distinguishes four types of hope:
- **Pollyanna Hope** – Convinced that “It’s going to be fine”
- **Heroic Hope** – Convinced that “It’s going to be fine but we need to work hard to make that so”
- **Stoic Hope** – Not convinced the outcomes will be good, but we can cope with them
- **Grounded Hope** – On the basis of a realistic assessment of the situation, not at all convinced that outcomes will be fine (quite to the contrary), but committed to working toward the best possible future anyway because just standing by and doing nothing is unacceptable

Hope in a Dark Time

Not...

- ... wishful thinking
- ... a way to keep up spirits
- ... a search for quick & easy solutions



Source: flickr user bk2204

But...

- ... a grounded sense of possibility
- ... a call to rise to the occasion
- ... a deep yearning to be our highest selves
- ... a sign of maturity
- ... a profound inquiry into how to conduct ourselves in the face of grave danger

NOTES

- Thus, hope - sustaining hope - in a dark time is not at all about just wishing it all comes out alright in the end or just a matter of keeping the spirits up, but a commitment to hard work.
- It is a grounded sense of possibility, a call and yearning to rise to the best we can be. It comes from a deep inquiry into how we want to conduct ourselves in a time of great uncertainty and grave danger.

Source: Moser & Berzonsky (in revision)

The Most Important Help You Can Give



- Being real
- Being grounded
- Being solid
- Being mature
- Being inspired

Photo: <http://www.brahmalokaorbust.com/>

NOTES

- The most important message of hope you can bring to any audience is yourself. If you are real, grounded in the reality of climate change, a whole human being in your emotional responses to it, if you express solid commitment to the science, the future, the community, and thus respond maturely to the challenge before us, YOU will be the most inspiring part of what you bring to others.



Come as a Friendly Communicator

(The Communicator as Friend...)

- Be human
- Connect with your audience
- Acknowledge that you come with tough news before you say it
- Tap into their curiosities



Photo: Boomerisque.com

NOTES

The next most important

- recommendation for effective
- communication of unwelcome messages
- is that you don't just "fall into the door"
- with it. You first connect with your
- audience as if you were friends with
- them. Instead:

- Be respectful
- Validate your audience
- Affirm their sense of self
- Appreciate past accomplishments
- Speak to what they care about, treasure, value, aspire to, who they are and want to be
- Use humor

- That lightens up the situation, since
- you do, of course, bring unwelcome
- messages. So prepare your audience for
- it by saying so first before you present it.
- Immediately suggest that you also come
- with a plan of what to do, or that you
- want to engage the audience in finding
- solutions. That taps into the curiosity
- without getting lost in panic (followed by
- emotional defense mechanisms).

Seven Ingredients of Authentic Hope

1. **Clear-eyed diagnosis:** Where are we at?
2. **Vision of a worthwhile outcome:** What is achievable?
3. **Feasible path:** How can we get from here to there?
4. **Strategy for setbacks and interim goals:** What to do when the going gets tough?
5. **Meaningful role for me:** What can I do?
6. **Call on my highest self:** Who do I most want to be?
7. **Doing it together:** What will you (others) do?



Photo: villageofhopeuganda.com

NOTES

- Much is known about the importance of hope and how to help tap into people's sense of hope in medical psychology.
- There are a number of steps to this, augmented here by what we know from other psychological research around climate change:
- **Clear-eyed diagnosis:** Do not come with a wishy-washy diagnosis; convey to people our exact situation
- **How do we get there:** Show people how
- **Strategy for setbacks and interim goals:** Something will undoubtedly happen so that things don't go well; strategize how to overcome setbacks and set interim goals that help people reach accomplishments
- **Meaningful role for me:** Outline a meaningful role for your audience; what can they do to help
- **Call on my highest self:** Link their actions to their highest self
- **Doing it together:** Show them they are not alone; do the work with them

Comments, Questions & Discussion



Photo: cindyscott.com

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Questions

Can you give us some ideas of feasible actions?

- Most people will quickly realize you cannot solve climate change only by
- adaptation. The root causes need to be addressed. Have handouts from
- reputable sources ready for different audiences:
- - Have adaptation and mitigation materials
- - Have things people can do in their own households
- - Have energy savings people can participate in
- The Union of Concerned Scientists has a helpful book on things people can
- do everyday called 'Cooler Smarter: Practical Steps for Low-Carbon Living'
- (2012, Washington, DC: Island Press). Also, do not let people think of this as
- something they only have to do in their own life/house. Create a sense of
- doing it together by encouraging them to engage in local and regional efforts.

If you were working on a long term engagement project, would you start out by recognizing and talking about the 5 layers of self-defense so that, as a group, you could recognize various reactions that may come up?

- I wouldn't start by telling them about the 5 layers of self-defense. In talking
- with people, you will very quickly hear where they are at, their questions,
- and their concerns. Invite them to share it. It will help them see you are
- interested in their well being. You are in the business of the psychological
- task of dealing with people's responses.

How do I respond to people that are not necessarily more open to scientific facts, someone who is not a believer of climate change and probably not going to move off of his position?

Identify where the person falls on the defenses map and tailor your response accordingly. At the very least, acknowledge their concerns and affirm their identity.

OWLized: A Glimpse of the Future



An OWL

In California:
Pilot:
Marin Co.

Now:
San Mateo Co.
San Francisco

Los Angeles TBD

HERE • NOW • US

www.here-now-us.org

NOTES

- OWLize is a project that uses realistic visualizations to help people see the future landscape based on the best available climate science at a given location. It also shows viewers adaptation options and asks them to respond about how this new information has changed their attitudes.
- The program was piloted in Marin County (CA) and is also a part of a project in San Mateo County (CA) and San Francisco.

Surroundings



Current dry conditions

First scenario seen in Owl



Current King Tide conditions

NOTES

- The current conditions is what people see as they spend time in this location. The first scenario they see looking through the OWL viewer is the King tide flooding conditions that are already happening during high tides at present (*see top image*).
- The second visualization in the OWL shows a flooding scenario in this location due to an additional 3 ft. of sea-level rise (*see bottom image*).

First
adaptation option



Virtual Seawall Option

Second
adaptation option



Virtual Ecoberm Option

NOTES

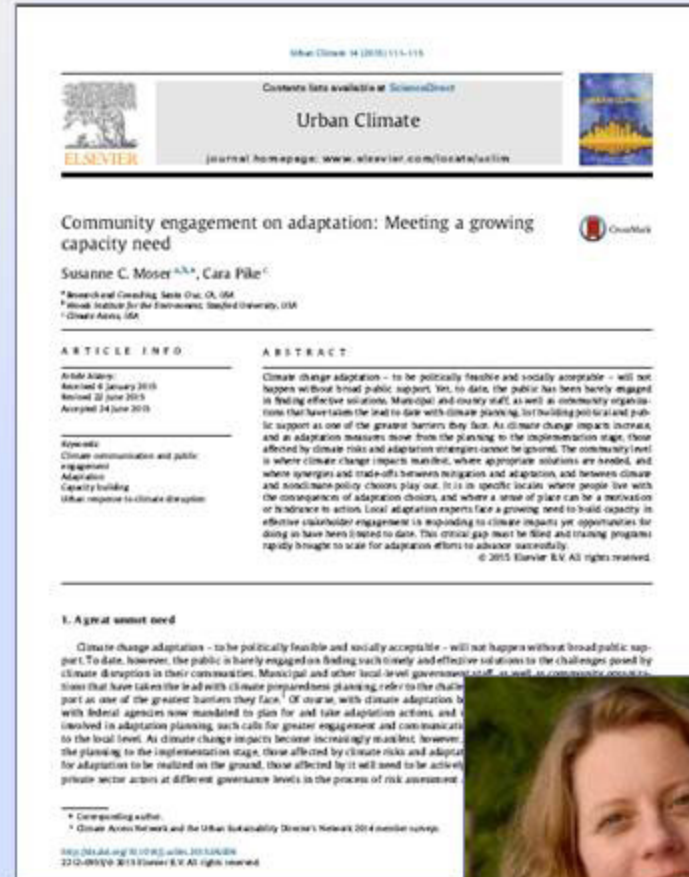
- The OWLize then shows possible adaptation options for dealing with rising sea level. For this scenario, it shows what the site would look like if they built a seawall (*see top image*).
- It also shows a second option if Marin County were to build an ecoberm (*see bottom image*).
- The survey inside the OWL then asks viewers about their interest in learning more about these and other adaptation options and about their interest in getting more engaged in the community's adaptation planning process, as well as their age.

Key Findings from OWL Project to Date

- ▶ In-situ visualization is highly effective in
 - ▶ overcoming psychological distance
 - ▶ raising people's concern
 - ▶ elevating people's interest in learning more about adaptation
 - ▶ increasing people's motivation to engage in community adaptation planning process
- ▶ Particularly effective in engaging the very young and the oldest generation
- ▶ Needs to be directly linked to immediate, tangible, feasible action
- ▶ Best thought of as one element of an engagement campaign

Building communication and engagement capacity

- ▶ Together with Cara Pike of Climate Access:
 - ▶ Development of a “train the trainer” curriculum in effective climate change communication and engagement
- ▶ Contact me with your needs, ideas, suggestions: promundi@susannemoser.com



Cara Pike

Source: Moser & Pike, *Urban Climate* 14 (2015) 111–115

NOTES

- The work on the OWL project is funded by FEMA as part of a larger effort to develop a “train the trainer” curriculum for community engagement and effective communication around climate change impacts and adaptation.
- Building capacity for engagement and communication, particularly at the local level where adaptation needs to be implemented, is a growing need.
- Susanne Moser is working with Climate Access executive director, Cara Pike, to develop training materials.
- If you have needs, ideas, suggestions for such a training, please contact Susi at the email provided on the last slide.

References (see: www.susannemoser.com)

- ▶ Moser, Susanne C. (2010). Communicating climate change: History, challenges, process and future directions. *Wiley Interdisciplinary Review—Climate Change* 1(1): 31-53. DOI: 10.1002/wcc.011.
- ▶ Moser, Susanne C. (2014). Communicating climate change adaptation: The art and science of public engagement when climate change comes home. *Wiley Interdisciplinary Reviews—Climate Change* 5: 337-358. doi: 10.1002/wcc.276.
- ▶ Moser, Susanne C. and C. Pike (2015). Community engagement on adaptation: Meeting a growing capacity need. *Urban Climate*, 14(Part 1): 111-115, DOI 10.1016/j.uclim.2015.06.006.
- ▶ Moser, Susanne C. (2016). Reflections on climate change communication research and practice in the second decade of the 21st century: What more is there to say? *WIREs – Climate Change*, in press, doi: 10.1002/wcc.403.
- ▶ Moser, Susanne C. and C. Berzonsky (forthcoming). Hope in the face of climate change: A bridge without railing. *Environmental Communication*, in revision.

NOTES

- The following references can be accessed and read at www.susannemoser.com/publications.communications.php

For more information

Photo: HeinzGutscher



Thank you!

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> **Links to the papers cited here**



This presentation was supported in part by the National Estuarine Research Reserve System Science Collaborative, which supports collaborative research that addresses coastal management problems important to the reserves. The Science Collaborative is funded by the National Oceanic and Atmospheric Administration and managed by the University of Michigan Water Center (NAI4NOS4190145).

