Climate Communication – What is it, and what works?
Gregor Vulturius
Stockholm Environment Institute

- SEI is an international nonprofit research organization that has worked with environment and development issues from local to global policy levels since 1989
- SEI has the mandate to bridge science and policy to find robust responses to the challenges of sustainability
- SEI has 240 scientific staff at 9 different offices and centers
Areas of expertise

• Research and capacity building for low-emission and sustainable development under the Paris Agreement and the SDG

• Supporting policy makers, NGOs and companies including UNDP, EU, WWF and Holmen Skog

• Supporting the IPCC in research and communication

• Hosting UNESCO’s Framework Program for Sustainable Lifestyles

• Mistra-SWECIA project about climate change adaptation and the Swedish forest sector

• Recognized as one of the top three environmental policy think tanks in the world by Philadelphia University Think Tank Project
The problem

How do we engage people about climate change?
What is climate communication?

- Climate communication are efforts to use **scientific information** and **knowledge** to **engage** a **target audience** with the issue of **climate mitigation** and/or **adaptation**
- Engagement can lead to **cognitive**, **behavioural** and **collective change**
- Like other hotly discussed issues, **what** is being communicated, **by whom**, how its content is **perceived** and what it can **achieve** is impacted by **norms**, **values** and **socio-economic conditions**
Information deficit syndrome

- There is a general assumption that people will act on climate if they know more about it.
- However, research has shown that disseminating information is a necessary, but insufficient step to changing people’s minds and actions.
- In the age of **fake news**, what is scientifically established knowledge is increasingly called into question.
Awareness about e.g. climate change and even approval for political action is high

But only few change their habits

People are not making rational decisions, instead they have **bounded rationality**

They use imperfect **heuristics** to understand the world

Most of our behaviour is learned through **observing and mimicking others**

And most of the time, we make unconscious, automatic decisions
Individual vs collective change

Individual change

- cognitive factors
  - knowledge
  - expectations
  - attitudes

- behavioural factors
  - skills
  - practice
  - self-efficacy

Social Cognitive Theory
Bandura

Collective change

- cognitive factors
  - social norms
  - access in the community
  - influence on others & environment

- environmental factors
  - social norms
  - access in the community
  - influence on others & environment
Objectives with communication

1. **PERSONAL**: Raising awareness among forest owners about climate change risks

2. **BEHAVIOUR**: Promoting the uptake of measures to adapt forest to changing climatic conditions

3. **SOCIETY/COMMUNITY**: Changing forestry management practices and strategies
Activity One

Describe your latest effort to inform the public about issues in your biosphere reserve.

What was the target group?

What was the objective?
Public perception matters

- Like when you have an argument with a friend or family member, don’t expect that what you are saying is perceived the way you think it should.

- But how information is perceived matters very much if your aim is to raise awareness, change behavior and influence policies.

- Public perception of science is influenced by: cognitive biases, values, culture, and, increasingly, political discourse.
Expected vs actual risks
Values, so many values....
Activity two

What misperceptions about climate change have you encountered?

Which values, do you think, have those in common that come to your public workshops? And who is missing?

Have you experienced polarization?
Does climate communication work?

- That depends on what our objective is. Do we want to raise awareness, change individual behavior or trigger policy change?
- Science only provides some insights, but that may change soon due to innovative ways of machine learning.
- Learning by doing, working in your local environment helps you set priorities and identify challenges.
Storms or droughts offer prime opportunities to raise awareness of climate risks perceived as distant or abstract. Necessary to give people feeling that they can do something
Trust building
Putting on someone else's shows
Adapt your language

Climate change means the forests are changing and we need to adapt.
Activity three

What has worked for you?

What could you have done better?
Swedish experience with communication

• The Swedish Forest Agency (SFA) has been very active in communicating about climate change risks and adaptation measures.

• Two main communication projects: “Forest owners and climate” and “Forestry in a changing climate” took place between 2011 and 2014 and involved almost 25,000 forest owners in evening meetings, courses or individual consultations with experts from the SFA.

• SEI was not involved in either project, but we were given the chance to use data later.
Data

Comparative survey

Survey with two groups of Swedish forest owners:
1) 3000 randomly selected
2) 3000 that had participated in SFA’S climate communication projects

Cross-sectional, single-blind test

Focus Groups

Focus group discussions and surveys with 48 Swedish forest owners

Surveys before, 6 months after and 4 years after end of focus groups

Longitudinal, purposeful sampling
## Results Cross-sectional analysis

<table>
<thead>
<tr>
<th>Group differences</th>
<th>Control Group</th>
<th>Communication Group</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statement</strong></td>
<td>Mean (standard deviation)(^a)</td>
<td></td>
</tr>
<tr>
<td>I consider the risk of climate change to my own forest to be very serious</td>
<td>2.90 (1.10)</td>
<td>3.00 (1.10)</td>
</tr>
<tr>
<td>I believe that I have enough knowledge to adapt my forest to climate change</td>
<td>2.69 (1.10)</td>
<td>3.03 (1.10)</td>
</tr>
<tr>
<td>I believe that extreme events in Sweden the past 10 years have been caused by climate change</td>
<td>3.13 (1.21)</td>
<td>3.23 (1.20)</td>
</tr>
<tr>
<td>I consider climate science to be trustworthy</td>
<td>3.22 (1.11)</td>
<td>3.32 (1.10)</td>
</tr>
<tr>
<td>I need to take climate change into greater consideration</td>
<td>2.75 (1.10)</td>
<td>3.00 (1.05)</td>
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</table>
## Results: Focus groups

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage of valid responses agreeing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T-0</td>
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<tr>
<td>I consider the risk of climate change to my own forest to be very serious</td>
<td>42</td>
</tr>
<tr>
<td>I consider the consequences of climate change for my forest to be negative rather than positive</td>
<td>35</td>
</tr>
<tr>
<td>I believe that I have sufficient knowledge to adapt my forest to climate change</td>
<td>26</td>
</tr>
<tr>
<td>I consider climate science to be trustworthy</td>
<td>45</td>
</tr>
<tr>
<td>I need to take climate change into greater consideration</td>
<td>52</td>
</tr>
<tr>
<td>Group differences</td>
<td>Control Group</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Forest management options</strong></td>
<td>Mean (standard deviation)(^a)</td>
</tr>
<tr>
<td>Taking local conditions into greater consideration during commercial cutting or</td>
<td>2.30 (0.94)</td>
</tr>
<tr>
<td>replanting</td>
<td></td>
</tr>
<tr>
<td>Shortening rotation periods between planting and commercial felling</td>
<td>3.04 (0.99)</td>
</tr>
<tr>
<td>Increasing mix and diversity of tree species</td>
<td>2.58 (1.03)</td>
</tr>
<tr>
<td>Heavier pre-commercial thinning</td>
<td>2.64 (1.04)</td>
</tr>
<tr>
<td>Continuous-cover forest management</td>
<td>2.63 (1.18)</td>
</tr>
<tr>
<td>Taking measures against biohazards such as insects</td>
<td>2.86 (1.06)</td>
</tr>
<tr>
<td>Improvements to drainage systems and dikes</td>
<td>2.58 (1.10)</td>
</tr>
</tbody>
</table>
Conclusions

- Cognitive factors—trust in climate science, belief in climate change and risk assessment—are much better in explaining individual adaption than income, education or even experiences with extremes.

- The cross-sectional comparison suggests that communication has a significant but small influence on individual adaptation. Timing of communication may be key to greater impact.

- The longitudinal analysis shows that communication can lead to behavioural changes, but also to discounting of risks.

- Importantly, results also suggest that communication promotes individual adaptive action *indirectly* by affecting personal beliefs about climate change risks, its severity and salience, and the urgency to adapt.

- Adaptation measures are generally considered as too weak.
Final discussion

What do you know about the knowledge needs of forest owners, and other land use managers and stakeholders, in your biosphere reserve?