

Mapping the soft and ethical dimensions of sea level rise in southern Sweden



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Sea-Rims interview study with citizens living close to the shoreline in Southern Sweden

Aim: To gather qualitative information that can be used in mapping the “soft” or ethical dimensions of sea level rise (SLR)

- Which ethical questions are citizens interested in?
- Which values are worth protecting?
- Who should be responsible for protective measures against SLR?
- How can this be used in our mapping of perceived vulnerability to sea level rise and the “soft” consequences?

Types of questions in pilot interview study*

Classification: Age, education, type of housing arrangement, how far from the sea?

Behavioral: How often do you visit the beach? Have you experienced a previous flooding?

Knowledge: Do you know of any scenarios for sea level rise? Have you seen any local flood risk mapping?

Perception: Do you believe that sea level rise could be a problem here? Are you worried about SLR?

Feeling: How would you feel if this area was underwater in 20 years?

Values: What is most important to protect against SLR and flooding?

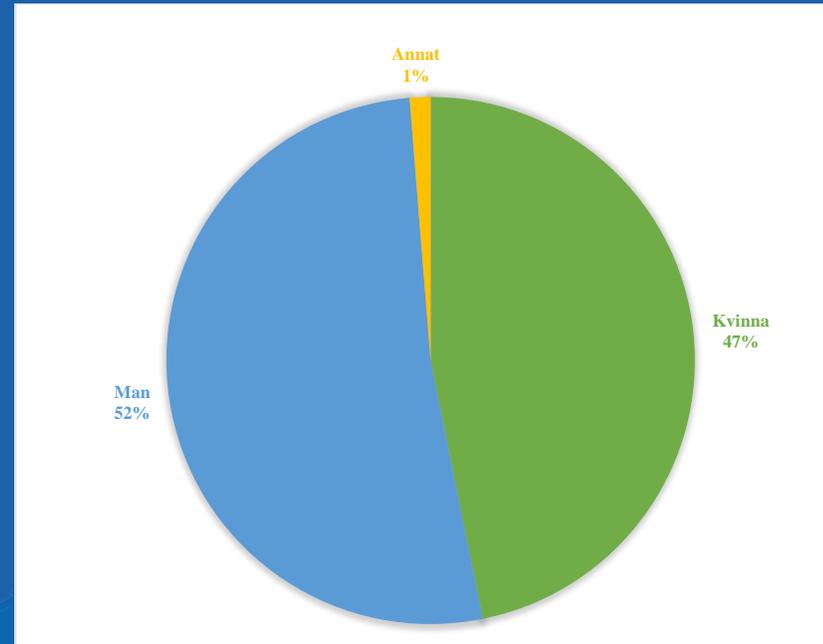
* Inspired by Bird et al 2009

Walking the beaches Southern Sweden and interviewing...

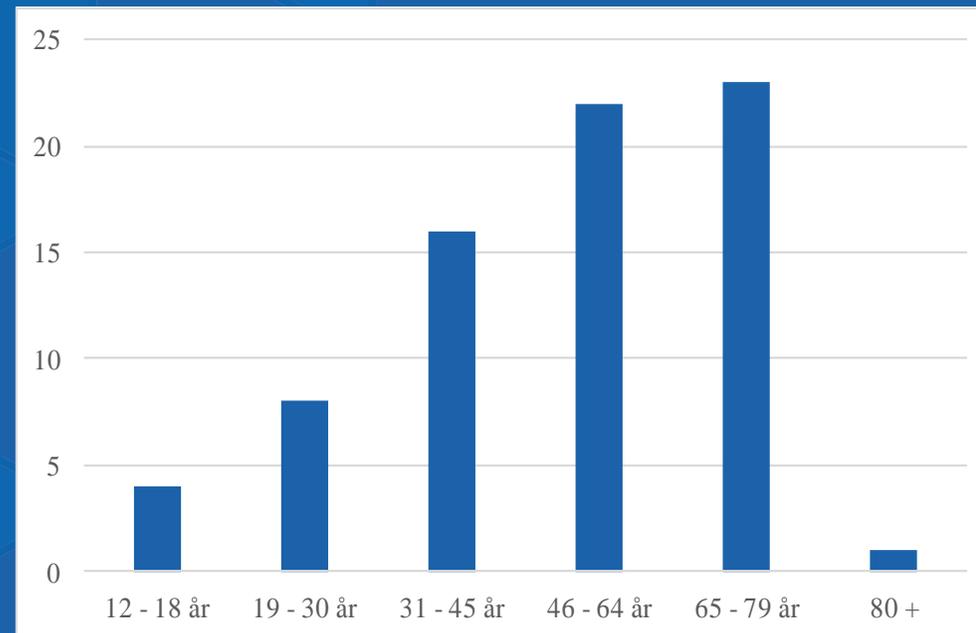
Total 70 pilot interviews in 2018



Photo: L. Van Well



Gender distribution:
Women: 47%
Men: 62%
Non-binary: 1%



Age structure

Some voices from the pilot interviews

“We are at risk here, but only if the sea level rises more than one meter. We can always move the houses, but we can’t reconstruct this special nature on the beach. I’d like my children and grandchildren to be able to experience this beach the way I have done since childhood” (Middle-aged woman in Laholm)

“Yes, there is a risk, but I won’t be here in 20 years so I’m not worried. Just enjoy the day today” (Retiree in Båstad)

“I’m chocked when I start to think about what might happen in this area in 20 years, if we already see a problem today. The municipality should focus more on this problem. But it’s a class questions, isn’t it? Rich people build big expensive houses close to the water and expect the municipality to pay for coastal defences to protect it. That doesn’t seem right” (Young woman in Halmstad)

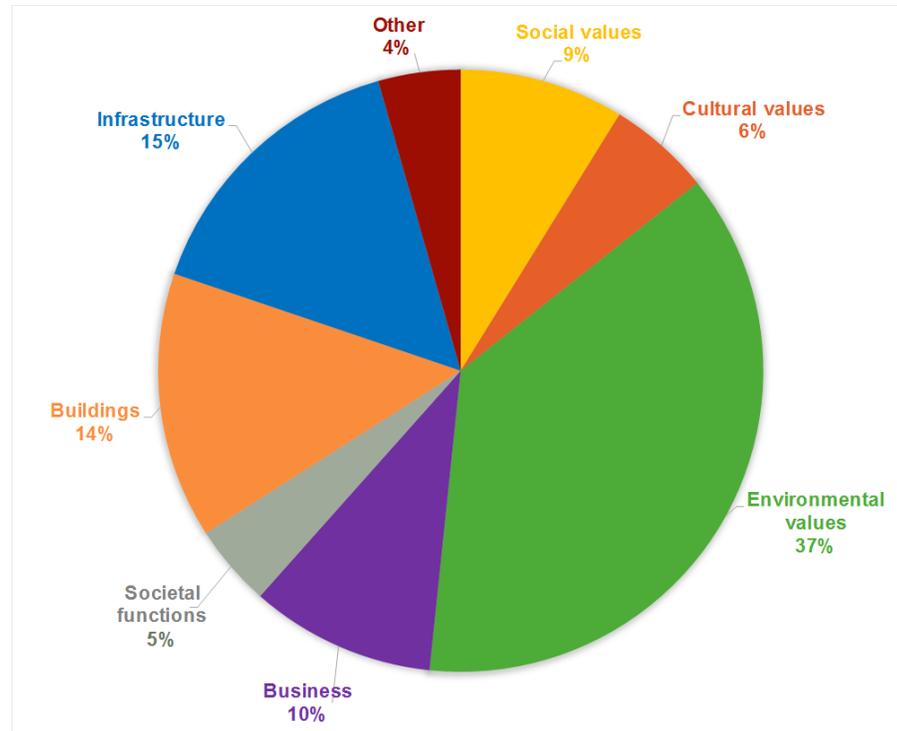
“I don’t believe in climate change or sea level rise” (Young man in Laholm)



Photo: L. Van Well

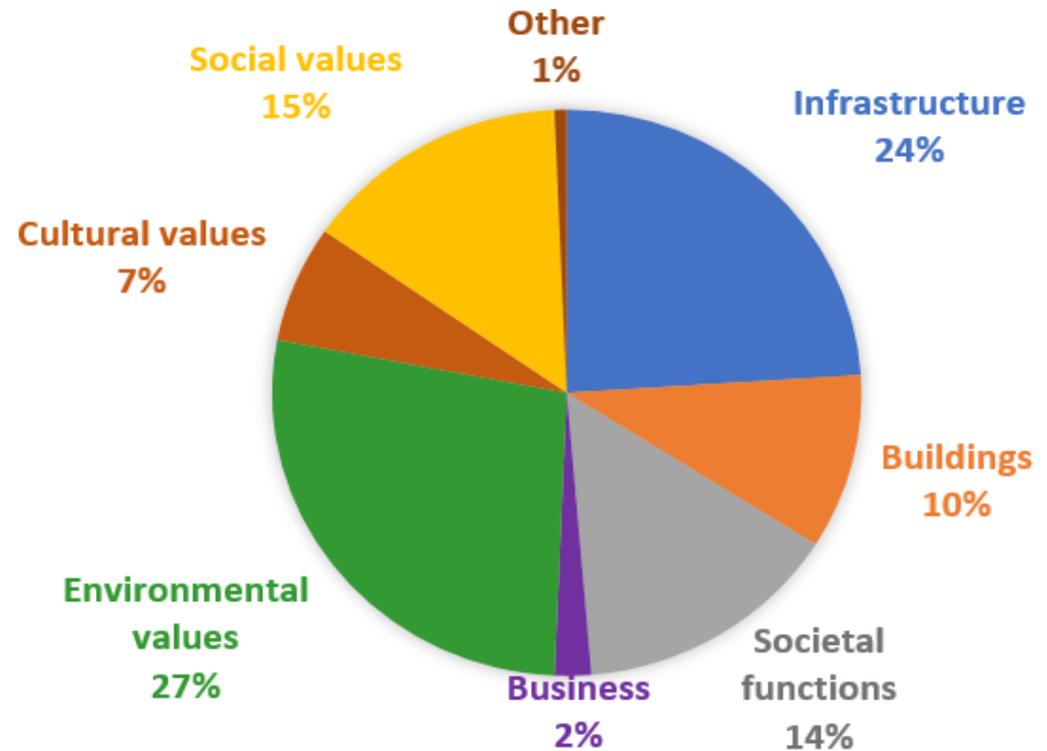
What do you feel is most worth protecting from sea level rise?

Citizens



Data from interviews in Trelleborg, Halmstad, Laholm, Båstad, August- September. 70 responses

National, regional and local authorities



Data from mentimeter voting at Coastal Conference, 13 September. 67 responses

Some reflections from pilot interview study

- Past experience with flooding could make citizens more aware of problems with sea level rise
- More interest in nature values than expected, less in protecting housing
- Very little knowledge about SLR scenarios or flood maps
- Confusion about who should be responsible for SLR/flood protection measures
- Differences in the way climate risks are perceived, due to age, gender, living situation
- Difficult and time consuming to do interviews with a representative sample of citizens

Designing the Sea-Rims story maps: Workshop with stakeholders in Southern Sweden

1. Why use a story map to map the hard and soft consequences of sea level rise?

Maps require explanation! Story maps do this.

To create and visualize a common picture of the consequences of sea level rise. To reach out to inform and engage citizens and to increase societal security.

2. Workshop results with stakeholders in Southern Sweden: Defining target groups

| Who do we want to reach? Target group | What do they know today? | What do we want them to know? | What do we want them to feel? | What do we want them to do? |
|---|--|---|--|--|
| Decision-makers and through them, citizens | <p>That sea levels are rising and there is a risk of flooding.</p> <p>But it is hard to understand this information.</p> | <p>That the sea continues to rise and there are consequences of this.</p> <p>But there are different choices of measures and difficult goal conflicts that must be addressed to deal with sea level rise.</p> | <p>That the situation is serious.</p> <p>But citizens and decision-makers need to take responsibility and planners need to take courageous decisions to motivate sustainable planning.</p> | <p>Plan sustainably and long-term</p> <p>Start a dialogue about measures that are advantageous for the municipalities</p> <p>Allocate resources to dealing with SLR</p> <p>Be decisive in planning</p> |

3. Workshop discussion: Which ethical dimensions are citizens interested in and should be shown in the story maps?

- **Justice and compensation** – measures should not be disadvantageous to the most vulnerable groups in society
- **Intergenerational equity** – planning long-term for future generations
- **Fundamental values** – including nature, culture, environment, recreation, ecosystem services, biodiversity and societal functions – no just economy
- **Precautionary principle** – actions should be taken despite a degree of uncertainty, but this is hard to understand
- **Individual and collective responsibility** – we need to cooperate on all levels to deal with sea level rise

Next steps:

Using the pilot interviews to design a broader questionnaire about the soft and ethical dimensions of sea level rise and continue with building the story map.

Thank you!

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