Mapping the "soft" and ethical consequences of sea level rise - with stakeholder and citizen input

Lisa Van Well

Swedish Geotechnical Institute NOCCA 2018, Session 2C 24 October 2018

Anette Björlin, Per Danielsson, Gunnel Göransson, Godefroid Ndayikengurukiye and Anelya Isayeva

Sustainable and Ethical Adaptation to Rising Mean Sea Levels

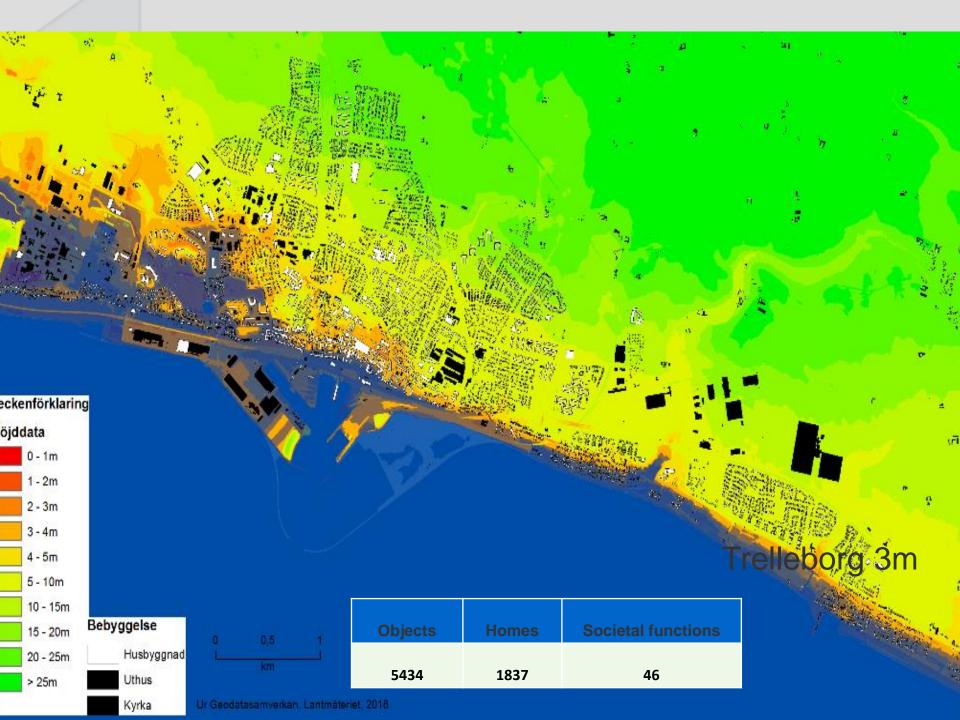
- GIS-tool for mapping the consequences of sea level rise and measures both the "hard" and "soft" consequences
- With 18 local and regional partners in Skåne, Halland, national authorities, citizens.











Sea-Rims interview study

Aim: to gather qualitative information that can be used in mapping the consequences of 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?

Types of questions

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?

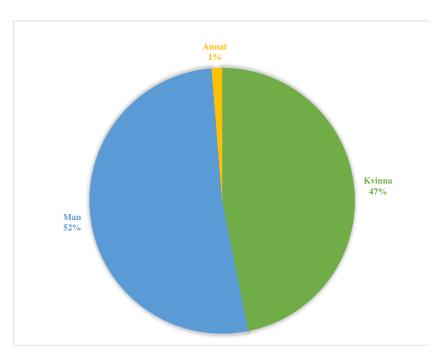
Values: What is most important to protect against SLR and flooding?

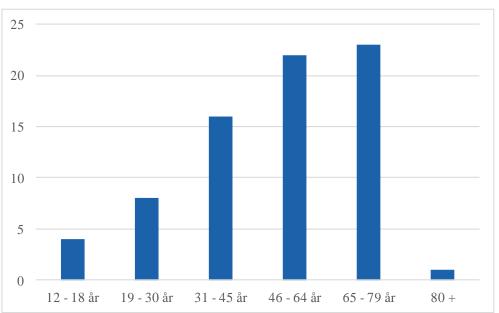
Walking the beaches of Halland and Skåne...



Total 70 interviews

Trelleborg (16-17 August) = 19 Halmstad (14 Sept) = 19 Laholmsbukten (15 Sept) = 17 Båstad (16 Sept) = 16





"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)



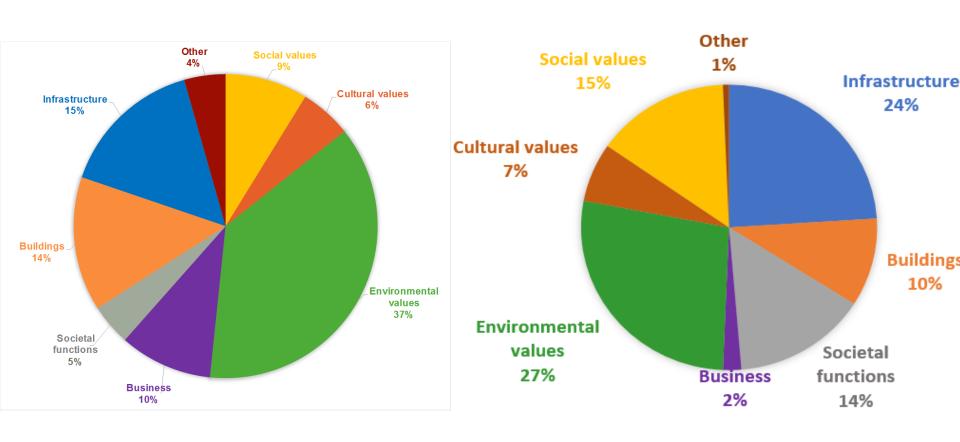


"I'm chocked when I start to think about what might happen in this area in 20 years, if we already see a problem today. The municipality should focus more on this problem. But it's a class questions, isn't it? Rich people build big expensive houses close to the water and expect the municipality to pay 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)

What do you feel is most worth protecting from SLR?





Data from interviews in Trelleborg, Halmstad, Laholm, Båstad, August- September. 70 responses Data from mentimeter voting at Coastal Conference, 13 September. 67 responses

Preliminary conclusions

- 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