

Insights on successful?? science-user interaction: A view from the Baltic Coast of Schleswig-Holstein

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The issue: Risks, challenges & chances of climate change for Baltic coastal communities

Scientific **information** / science-based **advice**



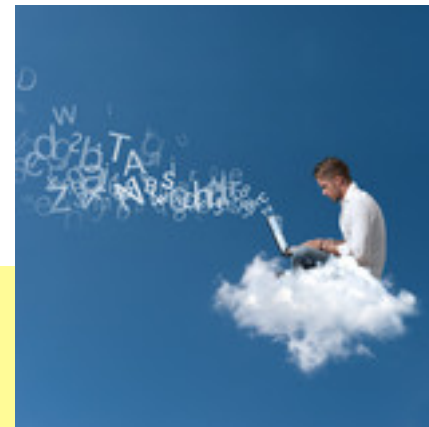
Users:

- mayors & decision makers at community level
- planning & coastal authorities at state level
- tourism managers and entrepreneurs
- regional business
- the public / school children

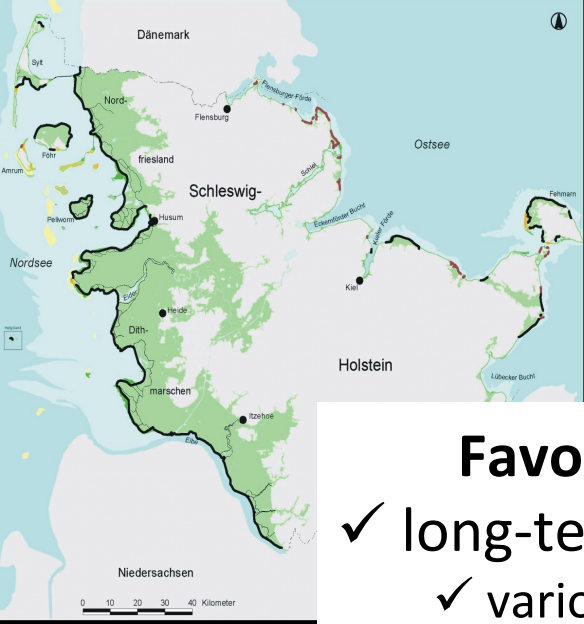
rather like this



(How) does it work ?



Not like this



(How) does it work ? What does it take?

Favorable baseline conditions (biographical notes)

- ✓ long-term research expertise in coastal region such as
 - ✓ various studies on coastal processes, e.g. erosion (1983–1995)
 - ✓ since 1992 consideration of climate change impacts to coastal zone (contribution to IPCC Subgroup on Coastal Zone Management)
 - ✓ German case study on vulnerability to sea level rise, applying the so-called „Common Methodology“ of IPCC
- ✓ close cooperation with coastal & planning authorities
 - ✓ contribution of baseline data to Coastal Protection Masterplan
- ✓ numerous geography graduates as partners in public and private institutions
- ✓ strong scientific allies from neighboring research fields
- ✓ solid scientific reputation & personal credibility



(How) does it work ? What does it take?

Provide information & create awareness for

- ✓ the effects of climate change
 - ✓ the basic facts
 - ✓ its regional relevance
 - ✓ implications for communities & households
 - ✓ implications for costs and benefits



(How) does it work ? What does it take?

Illustrate common problems & common interests

- ✓ climate change impacts
 - ✓ coastal erosion
 - ✓ loss of beach area
 - ✓ flooding from sea level rise
- ✓ weather impacts
 - ✓ heat waves
 - ✓ precipitation extremes
 - ✓ storminess
 - ✓ more beach wrack



(How) does it work ? What does it take?

Illustrate common problems & common interests

- ✓ climate change may improve tourism
 - ✓ extended summer season
 - ✓ warmer water temperatures
 - ✓ attractive coastal landscape & beaches



- ✓ climate change may boost attraction of region in Europe
 - ✓ milder temperatures than farther south
 - ✓ climate-friendly travelling is possible: establish a label that attracts ecologically oriented tourists

- ✓ increase in tourism to sustain local economy
 - ✓ benefits from climate-friendly image



(How) does it work ? What does it take?



The user community asks many single questions such as:

- ✓ which parts of the coast will see mostly positive / negative effects?
- ✓ how can negative effects be avoided?
- ✓ how to best capitalize on positive effects of climate change?
- ✓ what costs have to be expected for coastal management / maintenance in upcoming years?
- ✓ how can maintenance costs be minimized? Who can help to bear the costs ? (cost-sharing solutions?)
- ✓ how can wise adaptive (spatial) planning be achieved?
- ✓ and many more...

But all these questions are interlinked.
Therefore it takes a solidarity approach
and concerted efforts



(How) does it work ? What does it take?

On the way to concerted action it's essential to convey a number of key messages to the user community:

Message 1:

Inspite of climate change uncertainties – we need to act **now**, because delaying will increase the problems / costs and decrease the possible benefits !



(How) does it work ? What does it take?

Conveying a number of key messages to the user community:

Message 2:

acting **now** is a due and fundamental investment into the future from which the region and we all will benefit!



(How) does it work ? What does it take?

Conveying a number of key messages to the user community:

Message 3:

Its easier to find the right answers and solutions when we combine our joint knowledge and potential !



(How) does it work ? What does it take?

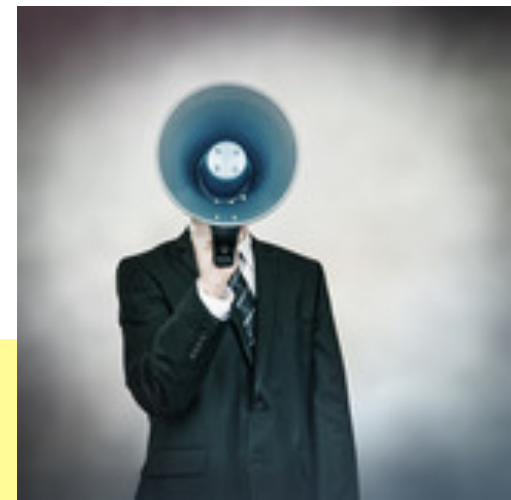
Conveying a number of key messages to the user community:

Message 4:

Joining forces, i.e. establishing an alliance of actors and a community network will considerably strengthen your influence at state level.



Your voice will be heard!



(How) does it work ? What does it take?

Conveying a number of key messages to the user community:

Message 5:

Jointly shared burdens and risks are easier /cheaper to bear for each community.



(How) does it work ? What does it take?

Conveying a number of key messages to the user community:

Message 6:

Persuing common goals makes success not only more likely but also more satisfying.



(How) does it work ? What does it take?

Conveying a number of key messages to the user community:

Message 7:

Legal and administrative problems might be overcome more easily when tackled together.



(How) does it work ? What does it take?

these messages are supposed to yield the fundamental insight in the user community:

Not so:



or so:



But so:




and so:



(How) does it work ? What does it take?

What did we achieve and how did we achieve it?

- ✓ establish climate change adaptation as topic on communal and state level
- ✓ enhance science – policy dialogue, involving numerous communities and various administrative sectors, e.g. coastal defence, spatial planning, environmental management, tourism:  establishing „Kiel Declaration“
- ✓ increase public awareness via teaching, media and public lectures.
- ✓ assist in establishing a strategy for climate change adaptation for Kiel City
- ✓ KBKB experience & expertise for adaptation issues highly demanded
- ✓ install a „climate pavillon“ as model project for public information



Kiel Declaration:

17 coastal communities will act jointly towards climate change adaptation

Kiel Declaration (4.11.2011)

The communities and local decision makers of the Bay of Kiel (if not the entire Baltic Sea coastline of Schleswig-Holstein) agree on the following points regarding the impacts of climate change and how to address them:

1. The coastal communities in the area of the Bay of Kiel assume that climate change will intensify in the coming years and decades.
2. The foreseeable impacts of climate change, including greater risks of floods, changes in the system of coastal erosion and deposition, and an increased occurrence of things washed ashore in certain locations, necessitate a science-based regional development forecast to inform sustainable coastal management and integrated strategies for coastal use.
3. Almost all of the communities in the region lack the financial and technical resources to implement programs to handle the upcoming, above-mentioned impacts; additionally, in many cases the existing legal regulations narrow the scope for pragmatic solutions.
4. Effective adaptation to climate change and its accompanying challenges for coastal areas cannot be achieved with action solely at the municipal level. It is considered vital that the Bay of Kiel Climate Alliance continue to exist, even after the end of the RADOST project. However, more financial support will be needed.
5. The Bay of Kiel Climate Alliance serves as a forum for the coastal communities to articulate their common interests and goals regarding sustainable coastal management. Support from the state and federal governments will also be necessary for the coastal communities to plan effectively in the long term and handle problems and events adeptly in the short term. In the medium term, the Climate Alliance aims to develop into a model region for climate change adaptation along the German coastline.



(How) does it work ? What does it take?

What did we achieve and how did we achieve it?



- ✓ stay in constant contact with decision-makers and administration
- ✓ find strong allies at the political levels (mayors, businessmen, planners)
- ✓ use the regional network of (Kiel) geographers
- ✓ use public media to spread information and raise interest
- ✓ organize and carry out topical workshops (e.g. on beach management), involving more regional experts / scientists
- ✓ initiate a collaboration of tourism decision-makers to develop a climate-friendly image
- ✓ but there is still a lot of work ahead
- ✓

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„Klimanetzwerk Ostseetourismus“ ins Leben gerufen

Schönberg (rr) Zum seinem ersten Treffen „Klimanetzwerk Ostseetourismus“ hatte Schönbergs Bürgermeister Wilfried Zurstraßen gemeinsam mit Professor Horst Sterr von der Abteilung Küstengeographie und Klimaforschung des Geographischen Instituts der Uni-Kiel jüngst ins Rathaus der Ostseegemeinde eingeladen. Ursprünglich sollte das Klimabündnis, das ein Teil des vom Bundesministerium für Bildung und Forschung geförderten RADOPT-Projektes (Regionale Anpassungsstrategien für die Deutsche Ostseeküste) ist, die Gemeinden rund um die Kieler Förde einschließlich der Stadt Kiel umfassen.

Vertreter aus den Gemeinden von Dänischenhagen bis Hohenwacht, Fachleute aus Tourismus und Umwelt sowie Klimawissenschaftler wollten sich in einem ersten Schritt mit den

nahmen zu bündeln und zu kommunizieren und bei den neuen Herausforderungen an einem Strang zu ziehen.

Schmelzende Eisberge, hilflose Eisbären, Dürren und Ernteaufschläge, das sind weltweit Szenarien mit bitterer Realität. Wirbelstürme und Überschwemmungen lassen die Zukunft für Millionen von Menschen schwieriger werden. Es gilt jedoch auch in der heimischen Region Antworten auf die regionalen Klimafolgen zu finden. Julika Doerfer vom Norddeutschen Klimabüro sensibilisierte in einem Vortrag für die weltweiten Klimaentwicklungen.

Im Rahmen des Projekts „Erlebnistour Ostseeküste“ waren die Gemeinden der Kieler Förde bereits ein wenig zusammen gerückt. Angesichts der steigenden Meeresspiegel und heftiger werdenden Sturmschäden wird die Erweiterung der Angebote im „sanften Tourismus“ ge-



Projektkoordinatorin Sandra Enderwitz (rechts neben Bürgermeister Wilfried Zurstraßen/Mitte) machte noch einmal deutlich, dass die Handlungsschwerpunkte nach der ersten Sitzung bereits erkennbar wurden. Foto R...

mal eindrucksvoll vor Augen geführt, dass die Sicherung der Strände und der touristischen Infrastruktur für alle eine große finanzielle Herausforderung darstellt. Gemeinsame Planung und Finanzierung von Strand- und Aufspülungsmaßnahmen sind daher ein wichtiger Punkt. Die wärmeren sommerlichen Temperaturen könnten bereits in naher Zukunft zu einer Saisonverlängerung führen und die Küste als Urlaubsregion stärken. Da könne durchaus an die Erweiterung der Angebote im „sanften Tourismus“ ge-

deutlich, dass erste Handlungsschwerpunkte nach der ersten Sitzung bereits erkennbar wurden. Im März soll es ein nächstes Treffen in Dänischenhagen geben, denn auch auf der anderen Seite der Förde soll sich ein

Recommendations for successful science-user interaction

- trustworthy, well-known scientists to raise interest:
- At least one convinced communal representative from community / administrative branch to encourage others.
- Personal contact is mandatory. This has to be cultivated not only on official events such as workshops but also in informal meetings.
- elaborate on the possible benefits!
- last but not least: a Trouble-shooter with the ability to listen and enough time to keep communication and action running



...extending positive vibrations to the „clients“





