

What drives adaptation in coastal communities?

Findings from a socio-cultural research project at the German Baltic Sea Coast

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Outline:

Background

Research Hypothesis

Study Region

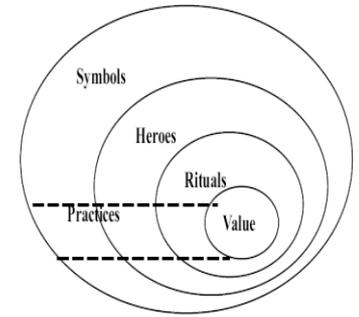
Research Focus and Methods

Snapshot of Findings & Conclusions

Background of the Research

RADOST - Regional Adaptation Strategies for the German Baltic Sea Coast





The 'Onion Diagram' of culture: Shili Sun, 'Organizational Culture and Its Themes', International Journal of Business and Management, Vol. 3, No. 12 (2008).

Research Hypothesis:

Different attitudes and values influence the selection and implementation of adaptation measures to accommodate climate change and sea level rise.

Local historical events (e.g. storm surges), infrastructural developments, political characteristics (e.g. Eastern/Western Germany) lead to a different understanding of ecology.

**Study Region:
Two communities at the
southern Baltic Sea Coast in Germany
300 km apart**



Research focus: Values in the communities; perceived level of threat posed by climate change (categories: coastal protection; tourism; agriculture & fisheries; understanding of nature/ sense of place) and the effects on the adaptation behaviour.

Overarching framework: Political history/ history of storm surges

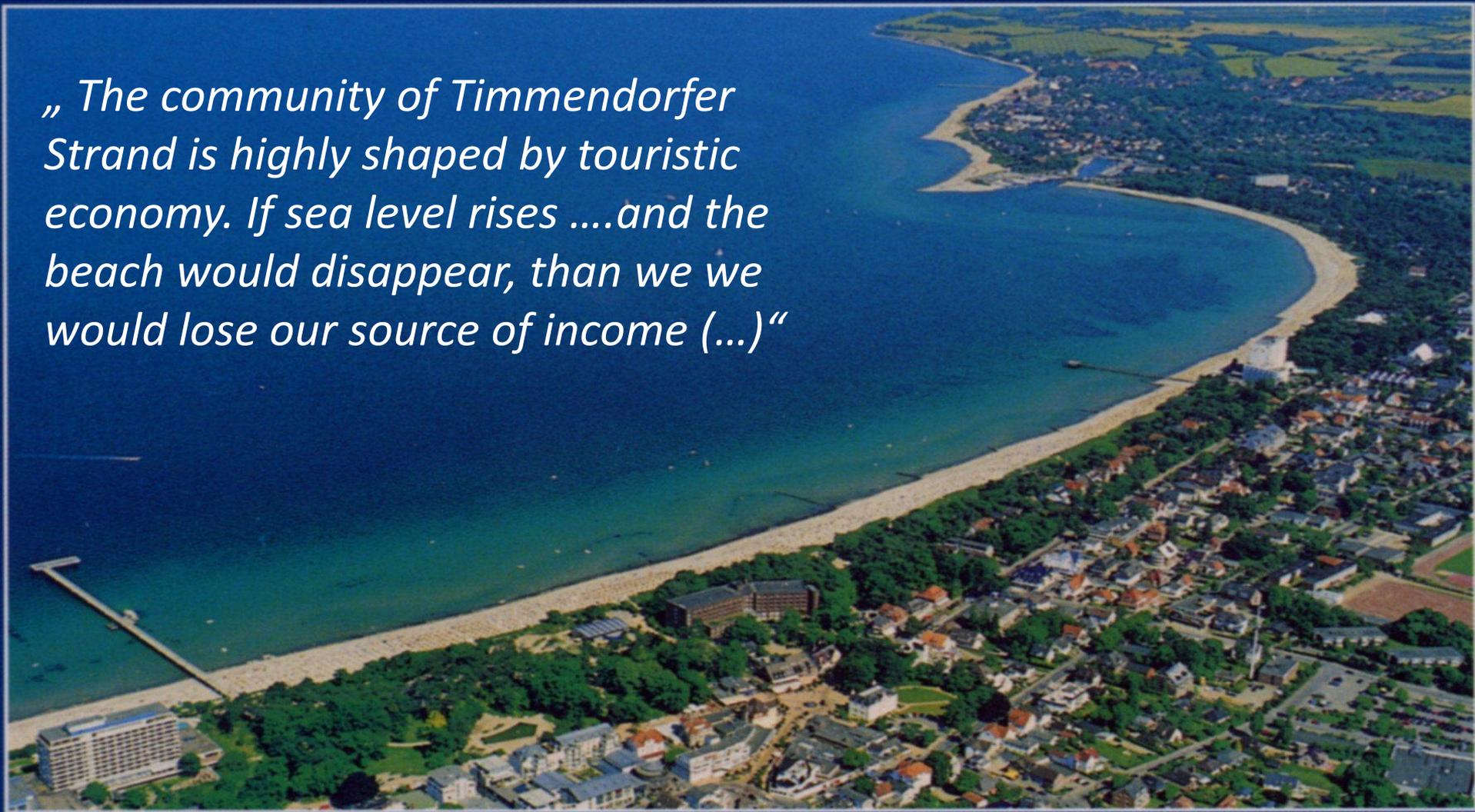
Methods:

- 30 Semi-structured personal (approx. 2 hours each) and 40 random interviews (between 10-20 min each)
- Background (document) analysis)) on ethnography of the communities (geography, demography, economy, political history, history of storm surges, local traditions and practices, land use, -change, -planning, coastal management)

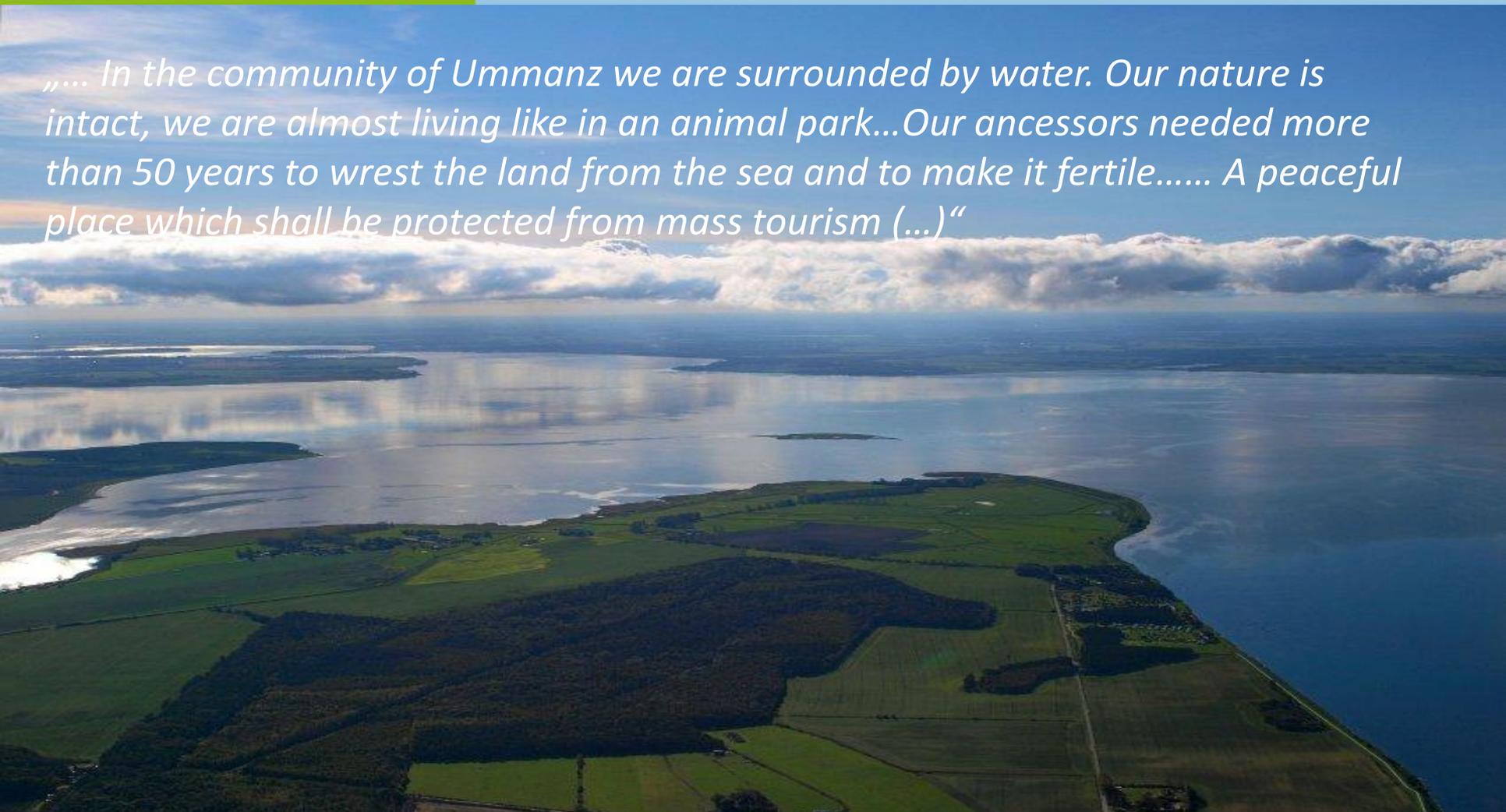
Stakeholder groups:

- (1) Elected representatives (mayor/ dean/ deputy)
- (2) Knowledgeable community members active in committees, people living in the community for generations (sense of place/„Heimat“)
- (3) Local entrepreneurs

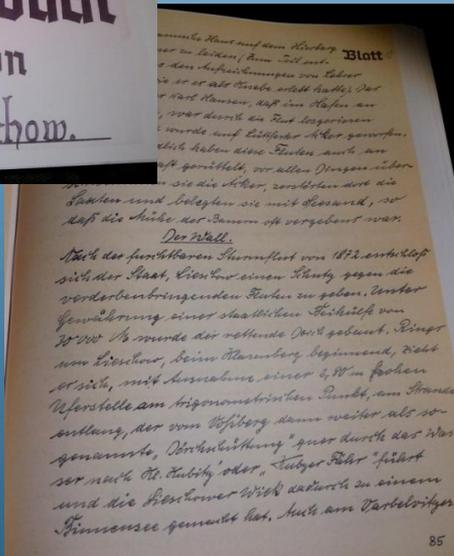
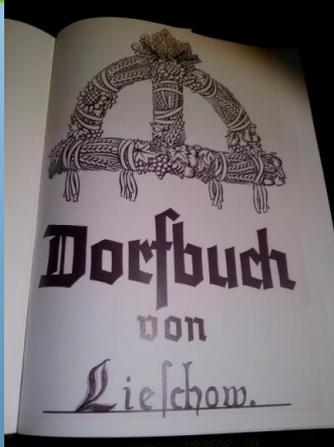
„ The community of Timmendorfer Strand is highly shaped by touristic economy. If sea level risesand the beach would disappear, than we we would lose our source of income (...)“



„... In the community of Ummanz we are surrounded by water. Our nature is intact, we are almost living like in an animal park...Our ancestors needed more than 50 years to wrest the land from the sea and to make it fertile..... A peaceful place which shall be protected from mass tourism (...)"



The contribution of history to the understanding of local values and actions: The example of storm surges in Timmendorf and Ummanz



Explanation about the erection of a dyke („Der Wall“) in 1873 in the chronicle of Ummanz (Mecklenburg Pommerania), Source: Mursewiek: 1947)



1872 Storm's historic mark surge in Dahme (Schleswig-Holstein), Source: Eckert: 1992



Timmendorfer Strand (Schleswig-Holstein) after the highest previously known flood in November 1872; Source: Herde:2002

Snapshot of Findings

Coastal Protection: Identical exposure to storm surges (1872, 1949, 1954, 1995, 2002, 2006) shaped distinct economic realities and coping strategies in both communities

Dyke in Timmendorfer Strand

Notice about the break-up of the assembly „habitat“ in Ummanz, February 2013, Baltic Sea Newspaper



Tourism:

For more than a century the economy of Timmendorfer Strand was solely depending on tourism which shaped the communities values and preferences.

„Yes Timmendorfer Strand is an exclusive place, it has always been and it will remain to be...The Sea with it's beach and coastline is our vital line, our capital....“

In Ummanz farming has been shaped the landscape and people's customs for centuries. Drainage of the land has a high priority. Tourism just recently arose as an alternative to make a living.

„A peaceful place which shall be protected from mass tourism...“

Agriculture:

In 1925 Timmendorfer Strand became connected to the railway system and tourists could easily reach the - by now – well developed spa resort.

„Today we have agriculture only at two farm in the region. All the other farms became a victim of tourism (....)“

After the second world war agriculture & fisheries in Ummanz were heavily subsidized by the government of the GDR (area of mass production/ co-operations. Cattle farming became a main source of income.

„I can tell you that we started with 850 cattle and when the GDR collapsed we had 7.500 cattle. But you know all that changed after the German unification (...)“

Understanding of Nature/ Sense of Place:

In both communities the interviewees had a positive relationship to the sea. Negative („indundation“) und neutral namings („you have to live with nature“) are less often than positive (sun sets, quality of live...):

However nature is extremely significant to the people in Ummanz, parts of community belongs to a nationalpark/ tourism shall bring a new source of income: *„Our ancestors needed more than 50 years to wrest the land from the sea and to make it fertile. So we do not want the sea taking our land away. We do not want renaturation.“*

Conclusions: What drives adaptation in communities?

- Historic development paths shaped each community's attitudes towards material/immaterial values. This resulted in different requirements for coastal protection and adaptation strategies.

Timmendorfer Strand: Interests for coastal protection/ adaptation to climate change coincided with wishes for touristic development.

Ummanz: Community is interested to conserve landscape. Values are connected with farming. Immaterial values such as peace and solitude are central. Unlike Timmendorfer Strand the community is lacking financial resources to finance its "dream solution" of a coastal adaptation measure.

- Contribution of single person as initiator/ multiplier

- Economic development is a very strong driver;
- Local values and socio-economic developments are in a co-evolutionary process framed by political constellations; adaptation to cc is a non linear process;
- Sense of place and a collective local memory are the answer of populations and institutions confronted with natural risks and hence need to be taken into consideration;
- For the transfer of (adaptation) knowledge similar perceptions and values are more important than geomorphological similarities;

Thank you for your attention!

Regional Adaptation Strategies for the German Baltic Sea Coast (RADOST)

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