

Field Report

„Working with regional coastal tourism stakeholders to discuss sector-relevant climate impacts and to induce adaptation strategies“



Susanne Schumacher, Nardine Stybel & Inga Haller (2011)

1 Introduction

At the German Baltic coast, tourism is one of the main industries with more than 7 million arrivals and more than 32 million overnight stays in 2010 (figure 1). Though the record of overnight stays in 2009 could not be pursued, a positive trend during the last five years can still be detected. The number of arrivals has been rising constantly or at least maintained in 2010. Gross sales constitute 7.2 billion euro (3.7 billion in Mecklenburg-Western Pomerania and 3.5 billion in Schleswig-Holstein). The number of jobs tourism directly and indirectly offers also demonstrates the added value of this sector: 130.000 employees in Mecklenburg-Western Pomerania and 170.000 in Schleswig-Holstein.

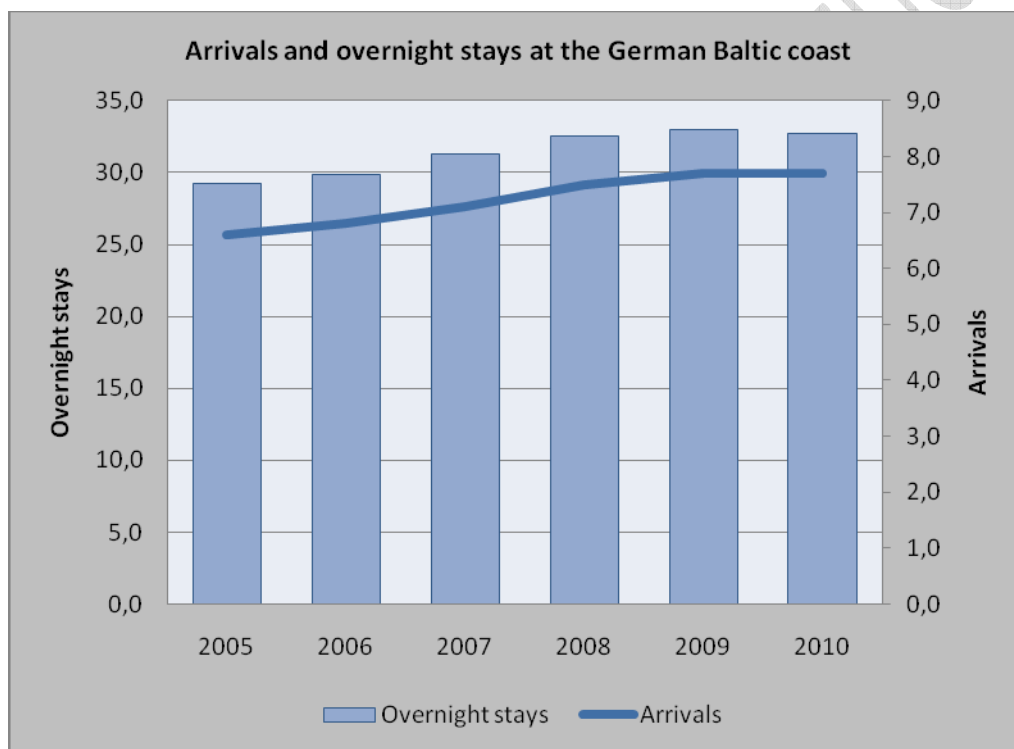


Figure 1: Tourism arrivals and overnight stays at the German Baltic coast (after Stat. LÄ 2011)

Despite its socio-economic importance, on the coastal ecosystem coastal tourism can also have negative impacts. It alters natural landscapes and uses coastal resources such as freshwater, seafood, and building materials (sand and stones). Climate change with its sector-relevant impacts (table1) is one of the challenges the sector will face in the future. A sustainable stakeholder process is necessary to develop joint adaptation strategies.

This article gives an overview about the relevant project activities that were conducted for or together with stakeholders to discuss corresponding climate impacts and initiate a dialogue as well as a movement towards adaptation approaches.

2 Method

2.1 The stakeholder work – a six-stepped process

The climate change adaptation projects *BaltCICA* (INTERREG IVB, 2009-2012), *RADOST* (BMBF, 2009-2014) and *BaltADAPT* (INTERREG IVB, 2010-2013) address regional stakeholders in the two coastal federal states Schleswig-Holstein and Mecklenburg-Western Pomerania. One of the sectors the corresponding works focus on is coastal tourism. Stakeholder activities aim at developing sustainable adaptation approaches for aspects such as coastal development, beach management or water quality. The non-profit organisation EUCC – The Coastal Union Germany acts as partner in these projects. It is committed to further the sustainable development of the coastal zone and the sea and focuses on an exchange of information among stakeholders about current coastal issues and on bridging the gap between science and practice.

Beside a preceding sensitisation of the tourism stakeholders concerning climate change impacts for the German Baltic coast, adequate adaptation measures on a regional level should be worked out conjointly. To reach this ambitious aim, a set of six process steps has been developed. At first, **key stakeholders were identified and the organisational structure of the tourism sector along the German Baltic coast was analysed**. For the following three steps, workshops organised within an appealing event seemed to be an adequate tool. The first workshop focused on **problem recognition and vulnerability assessment**. The second workshop dealt with **adaptation ability appraisal**. The third workshop aimed at **cognising and discussing adaptation options**. For the fifth process step, **adaptation strategies** and the implementation of **adequate exemplary measures** will be discussed conjointly. As a last step, implemented measures as well as the stakeholder process itself will be **evaluated** and if needed, platforms for further discussion will be provided.

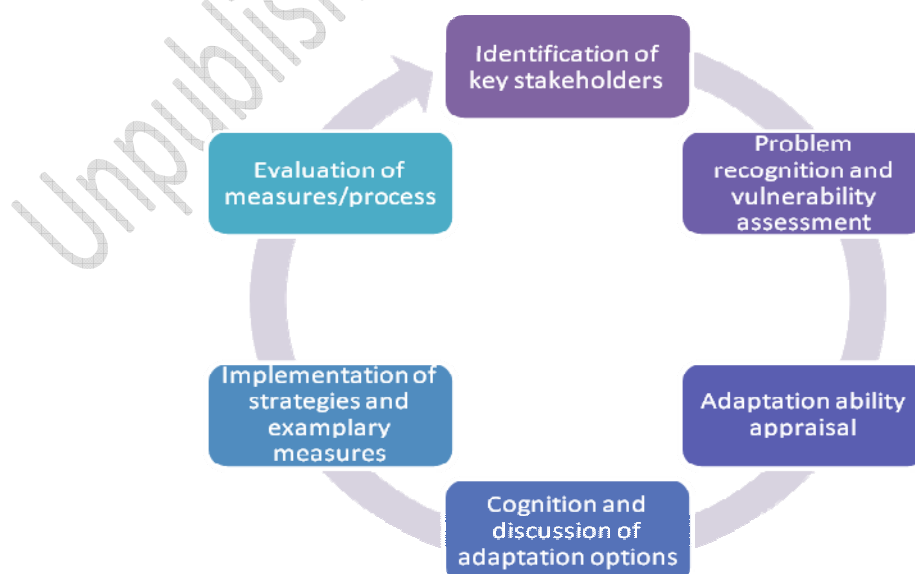


Figure 2: Iterative process steps of stakeholder involvement for the development of adaptation measures

2.2 Identification of stakeholders

To initiate the stakeholder work, in step 1, stakeholders for the perennial process were chosen from the coastal tourism sector due to the described socio-economical and ecological importance in the region. Interviews with key stakeholders were conducted, on the one hand to analyse the structure of coastal tourism (key players, relevant official documents) and on the other hand to gather information whether a perception of climate change or a need of climate change adaptation already exists. Furthermore, the survey should illustrate which communication channels could be used to inject information and measures for climate change adaptation into the sector. Results by Schumacher et al. (2010) showed a wide network of tourism players, connected via memberships and branch meetings, and linked with politics and media.

3 Results

3.1 Initial survey (step 1)

The outcome of the initial survey gave a first insight into the current knowledge basis within the sector. Climate change was perceived, though sector specific impacts were still hard to grasp. Climate change was mostly associated with the reduction of CO₂ emissions. As a consequence, mainly mitigation activities had been communicated within the sector (Schumacher et al. 2010). Through a literature research, additional data about climate change impacts as well as arising risks and opportunities and already existing and ongoing adaptation processes could be gathered (see table 1 and Schumacher & Stybel 2009).

Table 1: Positive and negative climate change impacts for the German Baltic coastal tourism (Schumacher & Stybel 2009)

Impacts	Risks	Opportunities
Increase in air temperature	<ul style="list-style-type: none"> • heat stress • infectious diseases • costs for cooling systems • problems with traffic systems 	<ul style="list-style-type: none"> • extension of the tourist season • increasing number of tourist arrivals and overnight stays
Increase in coastal water temperature	<ul style="list-style-type: none"> • decline in water quality (harmful algae/virus/bacteria) • increased water turbidity • jellyfish frequency • increased beach wrack 	<ul style="list-style-type: none"> • extension of the bathing season
Change in precipitation patterns	<ul style="list-style-type: none"> • less availability of drinking water in peak season • risk of flooding in low season (infrastructure damages) • risk of forest fires in high season (loss of coastal protection function) 	<ul style="list-style-type: none"> • better outdoor weather conditions in peak season
Increase in storms & flooding	<ul style="list-style-type: none"> • coastal erosion (sand losses) • floods (infrastructure damages) • rising costs for insurances or loss of insurability • costs due to down periods 	<ul style="list-style-type: none"> • new innovative offers for low season (e.g. storm watching)

Sea level rise	<ul style="list-style-type: none"> • loss of beach area • salt water intrusions • threat for coastal protection forests
Change in coastal biodiversity	<ul style="list-style-type: none"> • threat for characteristic nature (loss of native species and coastal habitats, advance of invasive species)

At first sight, for the tourism sector climate change impacts might appear positive (season extension, more summer tourists due to an increase of air and water temperature, better weather conditions due to temperature increases and less summer precipitation). Still, closer analyses showed various risks for coastal tourism (table 1). In the course of the stakeholder process, results of this analysis as well as of corresponding scientific works were presented in the workshops, leading to the assumption that there might be even more risks than chances that have to be faced.

3.2 Workshops as discussion platforms (Step 2-4)

For steps 2-4, a series of workshops for key stakeholders of coastal tourism associations, relevant ministries, regional planning associations, municipalities, non-profit organisations, and other relevant stakeholder was conducted. Inputs of the above named projects as well as of other external projects were incorporated. Scientific project partners contributed modelling results of parameter projections for water temperature, nutrients and water transparency. Project members of related climate change projects participated in the workshops and presented their experiences with stakeholder processes as well as their approaches for tools and measures regarding adaptation.

Workshop I:

„Baltic tourism in times of climate change – consequences and adaptation strategies“

On 6 October 2009, a first workshop was embedded in the two-day conference „Coastal management & climate change: status quo“ in Warnemünde. Aimed at problem recognition and vulnerability assessment, scientific lectures as well as best-practice examples (e. g. topic tours, public bike rental system, beach wrack) were presented as state of knowledge. Further, risks and chances of regional climate impacts as well as the initial conclusions for German coastal tourism were given. The final discussion showed an existing perception of climate change although a lack of distinction between mitigation and adaptation was visible. All in all, the stakeholders were interested in further information about concrete regional climate impacts and in adaptation possibilities. The workshop contributed to the exchange of information and the build-up of a network.

Workshop II:

“Tourism and beach management”

On 24 March 2010, a second workshop took place within the first RADOST Annual Conference in Schwerin. EUCC-D, as partner in the national project on climate change adaptation, is responsible for the focus topic ‘tourism’ within the project. To induce adaptation ability appraisal, relevant aspects of the first workshop regarding potential regional climate change adaptation strategies were presented by practitioners. Afterwards, current developments of sustainable mobility with bikes and e-bikes as well as possibilities for beach concepts on a municipality level were discussed. Especially the question on how to handle and dispose beach wrack (sea grass and macro algae washed ashore) was subject of a controversial discussion based on the presentation of possible concepts and technical test runs. The workshop again served as platform for an exchange of knowledge between science and praxis upon relevant regional and thematic questions.

Workshop III:

“Coastal areas and climate change - a future conflict between tourism, coastal protection and nature conservation?”

On 31 of March 2011, a third workshop took place in Hamburg within the conference „Regional Conference Climate Adaptation in Coastal Areas“. For the first time, this workshop was organised interdisciplinary by project partners of different subjects such as natural science, socio-economy, coastal protection, nature conservation and renewable energies. Potential scenarios for these subjects were presented in a sector-relevant approach. At the beginning, the participants’ first idea (vision) of German coastal tourism in 2050 was requested as a basis for later discussion. First adaptation options were cognised and discussed. Recommended procedures were: a cross-sectoral conflict communication of aims and interests as well as a cross-sectoral coordination of measures. Additional information and dissemination about climate change knowledge was as much required as financing options for adaptation, and the parallel involvement of mitigation measures. A questionnaire retrieved the participants’ prioritisation of proposed adaptation options. As concluding element, existing picture postcards with climate change motives captured the participants’ altered visions of a tourist destination 2050.



Figure 3: During Workshop III future visions as well as potential adaptation options were discussed. A questionnaire and a fictive postcard were used as additional interactive tools. (S. Schumacher)

4 Experiences

4.1 Stakeholders' perception

Overall, stakeholders of the tourism sector – even though being interested in the subject and using climate protection (mitigation) as a marketing instrument - cooperated moderate at the beginning of the process. Other challenges such as demographic change, day-to-day business competition, the available income or mass tourism tend to be in the spotlight (figure 4). The topic of climate adaptation was rather neglected. In the course of the stakeholder process of the projects, it could be achieved that the necessity to adapt to the potential impacts of climate change was perceived as part of the collective future challenges that the regional sector will have to face. This can be seen as an important basis for the development of adaptation strategies and exemplary measures.

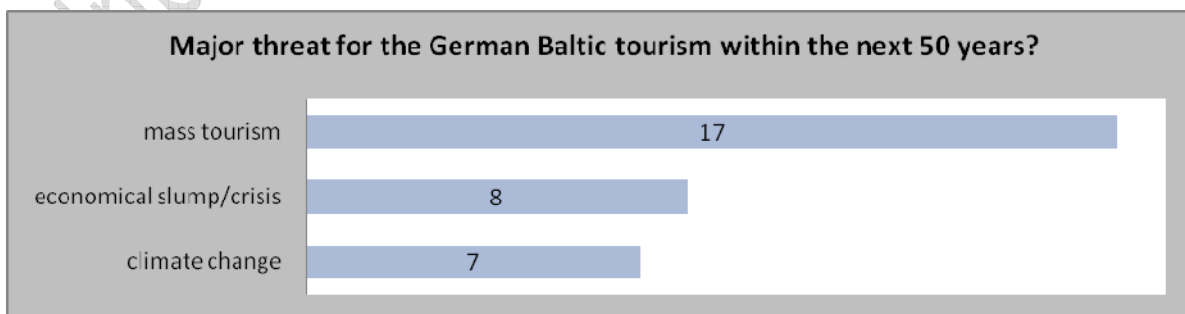
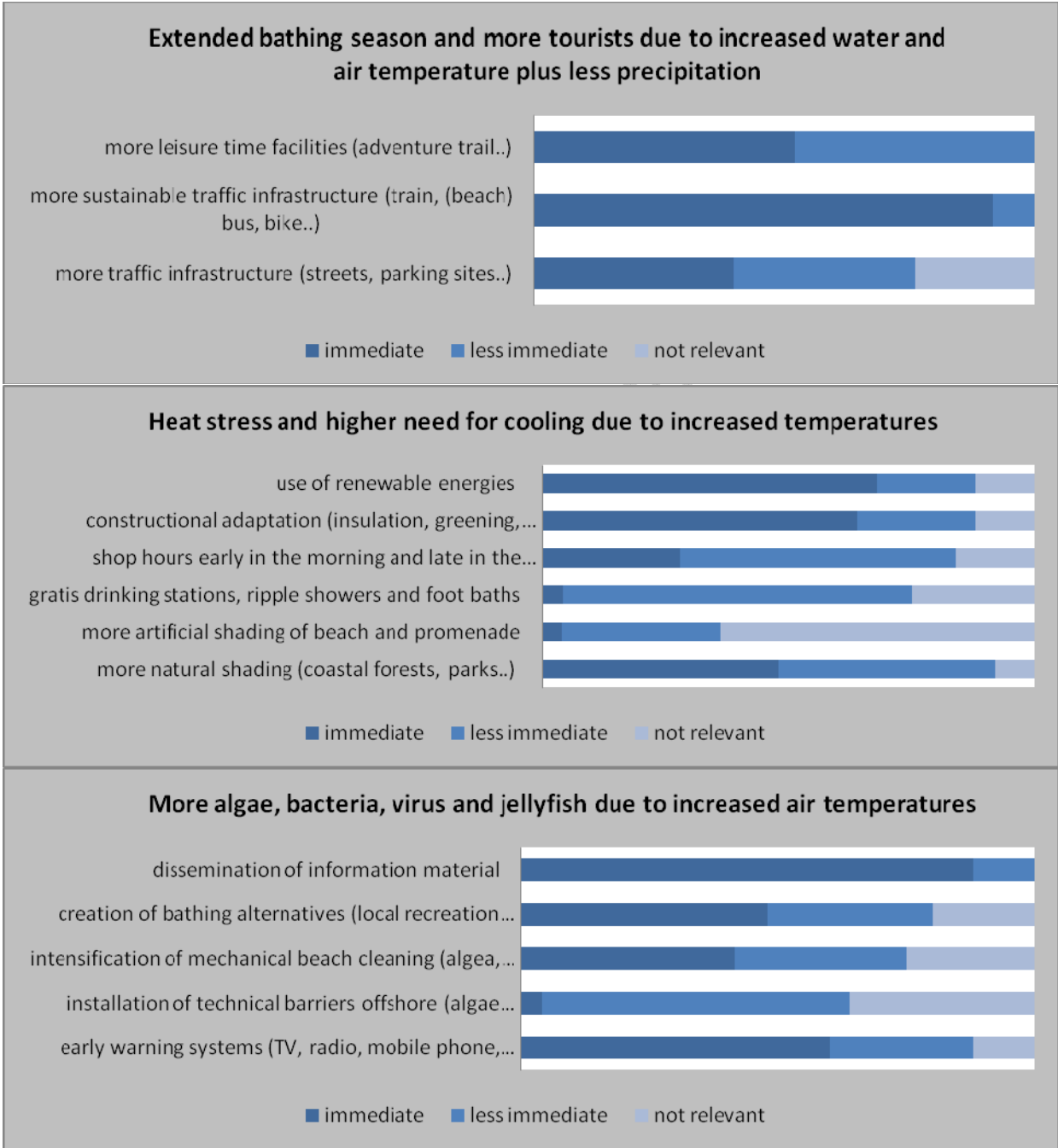


Figure 4: Perception of major threats for the German Baltic tourism (Participants opinion in Workshop 3, 2011).

The above mentioned workshop questionnaire was used as a first inspirational instrument to find out about the appraisal of possible adaptation measures. The multiple-choice approach offered several exemplary measures in relation to a given possible future impact scenario. The answers reflected a perceived need and prioritisation for information dissemination and sustainable developments (see figure 5). The interpretation will be used as input for the design and content of future stakeholder workshops and process steps.



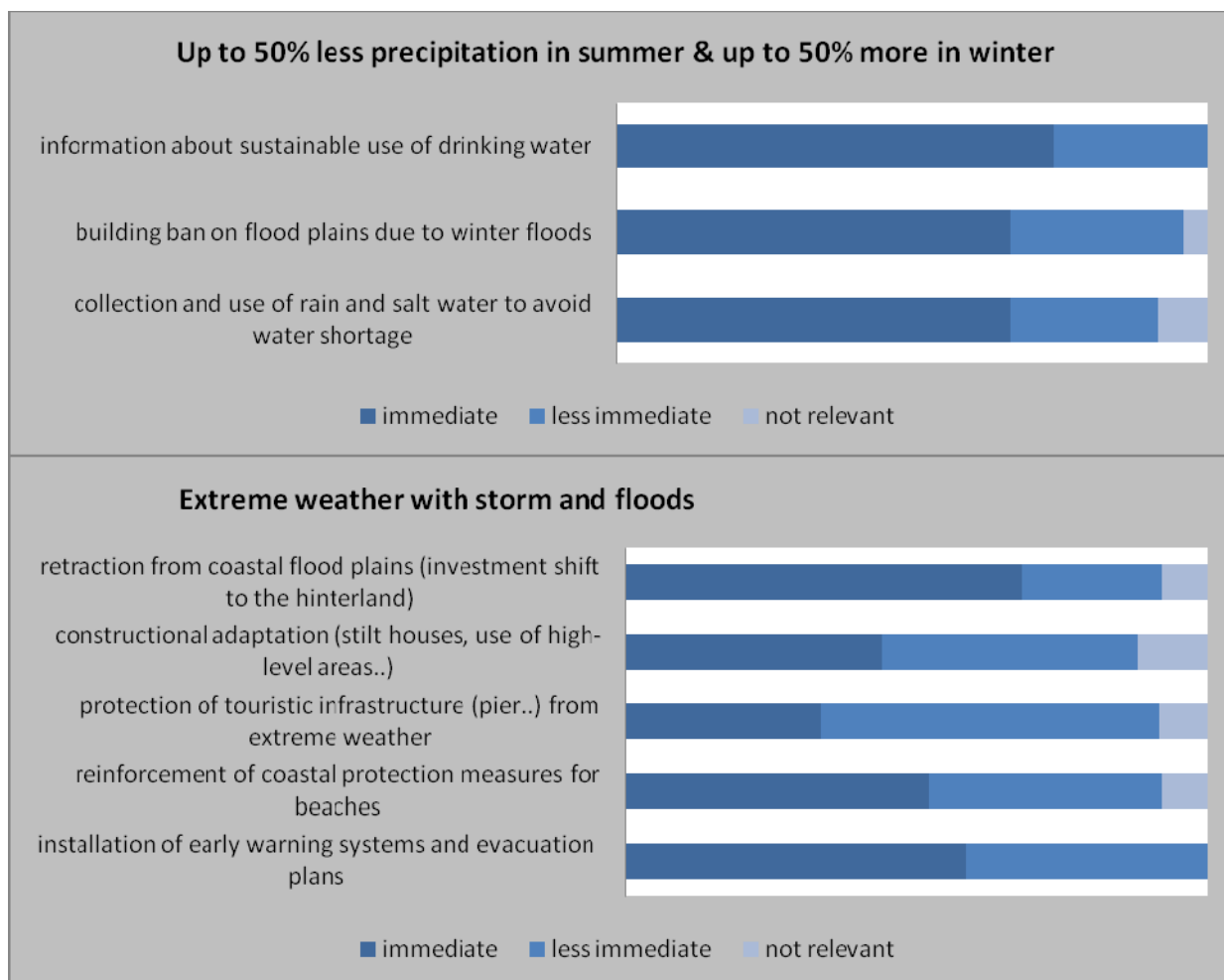


Figure 5: Results of 25 questionnaires about the individual prioritisation of given adaptation options under various future scenarios for the German Baltic tourism in the year 2050 issued during workshop III.

To collect more sector relevant information and to optimise and tailor further workshops to the stakeholder demands, two further surveys were conducted: a questionnaire addressed to tourists aimed at finding out about their perception of regional coastal areas in times of climate change, and interviews with tourism professionals assessed the sectors perception of the significance of climate adaptation. Detailed results will be published separately.

4.2 Limiting factors

As for limiting factors for climate change adaptation within the tourism sector, a major fact is that the tourism sector for the most part plans short term in time frames of maximum 10 years. This is contradictory to the long term planning demands of climate change adaptation. The sector's focus is on profitable revenue within the day-to-day business. A possible approach to make climate change adaptation more attractive for stakeholder participation and implementation could be putting the topic in the context of new market offers that strengthen the attractiveness of destinations. Examples might include offers for season extensions or alternative beach management concepts.

4.3 Information dissemination

With short articles in scientific magazines (Coastal & Marine Magazine, Coastline Reports), newsletters (Coastal & Marine News, EUCC-D Küsten Newsletter) and the German popular science magazine Meer & Küste, latest climate change information relevant for coastal areas has been permanently disseminated and adapted to a format that has been attractive for different stakeholder groups. A climate change movie linked under YouTube shows the results of an international summer school dealing with regional climate change in various sectors like coastal tourism, fisheries, coastal protection, and conservation. A planned e-Learning module about climate change and coastal tourism will supply tourism students and trainees with selected information about the current state of the art regarding climate change and tourism in the Baltic Sea Region.

5 Evaluation

5.1 Technical experiences of stakeholder involvement and lessons learned

Table 2 summarizes EUCC-D's experiences and conclusions in terms of organisation and realisation of successful workshops for tourism stakeholders.

Table 2: Lessons learned about stakeholder workshops

Preparation and organisation	<ul style="list-style-type: none"> • Venue should be conveniently accessible for all stakeholders • Attractive social programme for conferences (sophisticated stakeholder group) • Strict time management for lecturers to allow enough time for discussions • Less front lectures but more discussion elements and working sessions • Stakeholders should be able to look at each other during the discussion (arrangement of tables/chairs in the seminar room) • Distributed questionnaires should be filled and returned within or right after the workshop (not via fax after the event)
Content	<ul style="list-style-type: none"> • Purpose and objectives of the workshop must be attractively shaped and clearly stated to arise interest and point out benefits for tourism stakeholders • Differentiation of the aspects mitigation and adaptation is essential and should be further clarified (in terms of consequences and actions) • No overuse of the terms "climate change" and "climate adaptation", rephrases such as "future challenges" or "possible futures" help to keep stakeholders interested • Within the course of the workshop series: lectures and discussions should develop from sketchy to deepened
Post processing	<ul style="list-style-type: none"> • Workshop materials such as minutes, results and further proceeding should be sent and/or communicated to the stakeholders to keep in contact • Workshops should be consequently evaluated to allow amelioration

One of the main deficits of the workshop series is illustrated in figure 6: The majority of participants can either be assigned to internal or external project partners or thematically related projects or were individuals simply being interested in the topic. Stakeholders from the tourism sector who were addressed in preference only appeared to a limited number.

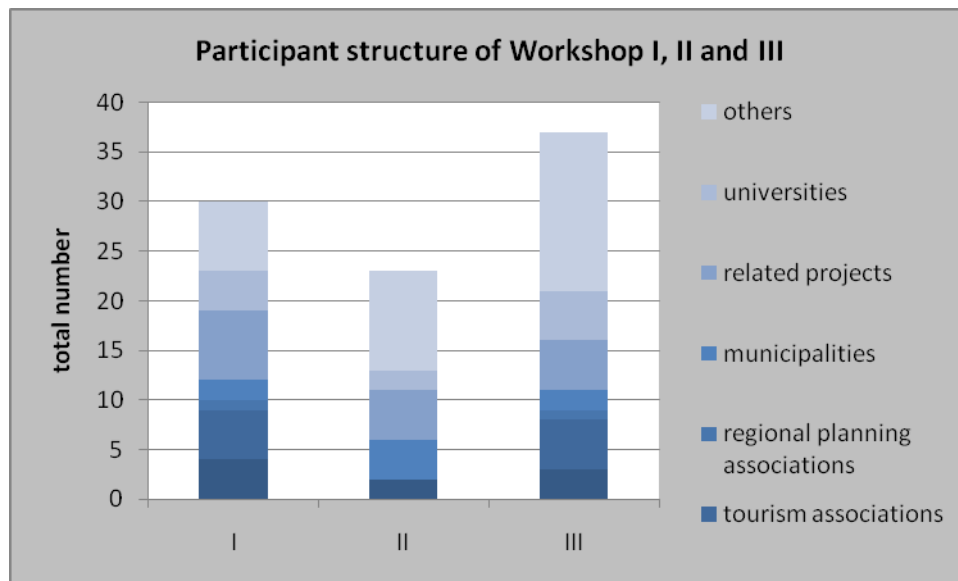


Figure 6: Structure of the overall 90 participants of the first three stakeholder workshops

This imbalance of participant structure allows the conclusion that either the workshop announcements or programs were not attractive enough for the core stakeholder group or that the process of invitations comprised technical deficits (late dispatch of invitations; missing friendly reminder by phone; others). In addition, individuals of the tourism stakeholder group who attended the workshops frequently changed. This fact hindered the initial idea of an ongoing and continuous knowledge transfer or exchange, to be built on a mutual basis of knowledge resulting from previous meetings. As a result, the process of steps 2 to 4 could not be holistically implemented as envisaged.

A second hindering fact referring to the discussion part of the workshops was that due to a strong focus on front lectures combined with time mismanagement, at first, planned discussion parts contracted to a minimum (workshop I and II). As a result, it was difficult to analyse whether a change of awareness of tourism stakeholders regarding adaptation had already taken place. Also, the discussion of concrete adaptation options could not be fully achieved. As a first consequence, workshop III was professionally moderated and contained more elements for interaction and lively discussion. For the future, more thematic discussions regarding adaptation options and information about the current status of climate change knowledge are required by the tourism stakeholders (outcome workshop III).

5.2 Trends and regional adaptation approaches

As for supporting regional adaptation approaches, the follow-up of the tourism concept of Mecklenburg-Western Pomerania, published in June 2010, could be of help for the process, as it states climate change adaptation as one of nine future guidelines (MfWAT MV 2010). Further federal states and coastal regions might follow this example and include the need for adaptation into their tourism concepts or other relevant framework documents. Stakeholder dialogues could be continued based on those official decision-making framework documents.

Up to now, tourism in the Baltic Sea Region is still fragmented and marked by competition (Born 2010). The implementation of adaptation in coastal tourism concepts in the nearer future could induce a competitive advantage within climate-conscious customer segment and could be brought to market as a unique feature (e.g. the region's first offer of shadowing for beach promenades). Market advantages and new guests demands might lead to an increased willingness of tourism stakeholders to be engaged in the adaptation process.

6 Next process steps

Network partners of the three adaptation projects together with partners of related projects work actively together to maintain a sustainable network. Workshop III initiated step 4 of the process: **cognising and discussing adaptation options**. The previous stakeholder process showed a persisting interest of tourism stakeholders to receive information about regional climate change impacts as well as the need to discuss more thematic adaptation options for the sector. Further platforms for an information exchange between science and practice are required and will be provided by EUCC-D. As a consequence and based on the previous workshops described under chapter 4, more workshops integrating touristic focal points and specific views will take place (see below). Parallel to the **development of adaptation strategies and the implementation of adequate exemplary measures** (step 5), the stakeholder process should be evaluated in more detail by both stakeholders and project partners (via work sessions, interviews). Questions to be clarified should deal with:

- Did the ongoing process lead to an enhanced sensitisation about climate change adaptation within the coastal tourism sector?
- Did the process help to develop adequate adaptation options for regional coastal tourism and to prepare its implementation?
- Did the process provide practitioners with adequate climate change information using the right channels in a sufficient dimension?
- How could stakeholder work be optimised addressing climate change issues?

Further planned documents and project results:

- Coastal & Marine Magazine: Special Issue on coastal protection in the light of climate change in the Baltic Sea Region (12/2011)
- Meer & Küste: The third issue will highlight regional challenges and first approaches regarding climate change adaptation (6/2012)

Further Stakeholder Activities:

- Post-processing of the 3rd workshop (results, questionnaire) and invitation to the next thematic workshop (8/2011)
- 4th workshop *coastal infrastructure* and its adaptability (11/2011)
- 5th workshop *coastal climate refugees/demographic change* (3/2012)

References

- Born, W. (2010): First Annual Forum of the EU Strategy for the Baltic Sea Region, Tallin (Online http://www.baltic-sea-strategy-tourism.eu/cms2/BSST_prod/BSST/en/_Downloads/Presentations/index.jsp, 2011/5/30)
- Ministerium für Wirtschaft, Arbeit und Tourismus Mecklenburg-Vorpommern (2010): Fortschreibung der Landestourismuskonzeption Mecklenburg-Vorpommern 2010, Schwerin.
- Schumacher, S., Wever, L., Stybel, N. & Haller, I. (2010): Klimawandel an der deutschen Ostseeküste – ein Thema für den regionalen Tourismussektor? IKZM-Oder Berichte (68). EUCC – Die Küsten Union Deutschland e.V., Rostock.
- Schumacher, S. & Stybel, N. (2009): Auswirkungen des Klimawandels auf den Ostseetourismus - Beispiele internationaler und nationaler Anpassungsstrategien. In: EUCC - Die Küsten Union Deutschland e.V.. International approaches of coastal research in theory and practice. Coastline Reports (13), pp. 23-46. EUCC - The Coastal Union, Leiden, 2009.

Acknowledgement

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<http://www.baltcica.org/>



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<http://www.klimzug-radost.de/>



Part-financed by the European Union (European Regional Development Fund).

<http://www.baltadapt.eu>

Outputs

Identification of the stakeholder group/research:

- Schumacher, S. & Stybel, N. (2009): *Auswirkungen des Klimawandels auf den Ostseetourismus - Beispiele internationaler und nationaler Anpassungsstrategien*. In: EUCC - Die Küsten Union Deutschland e.V.. *International approaches of coastal research in theory and practice*. Coastline Reports (13), pp. 23-46. EUCC - The Coastal Union, Leiden, 2009.
- Schumacher, S., Wever, L., Stybel, N. & Haller, I. (2010): *Klimawandel an der deutschen Ostseeküste - ein Thema für den regionalen Tourismussektor?*, IKZM-Oder Berichte (68). EUCC - Die Küsten Union Deutschland e.V., Rostock, 2010.
- Haller, I., Stybel, N., Schumacher, S. & Mossbauer, M.: *Will Beaches be enough? - Future Changes for Coastal Tourism at the German Baltic Sea*, Journal of Coastal Research (submitted)

Networking, Stakeholder Involvement:

- 1st Workshop in Warnemünde (10/2009) "Ostsee-Tourismus in Zeiten des Klimawandel - Auswirkungen und Anpassungsstrategien", Link
- 2nd Workshop in Schwerin (3/2010) "Regionalcafé Tourismus und Strandmanagement", Link
- 3rd Scenario-Workshop in Hamburg (3/2011) „Küstenregionen im Klimawandel – ein zukünftiges Spannungsfeld zwischen Tourismus, Küsten- und Naturschutz?“, Link

Field reports about the workshops:

- Technical analysis (1/2010), PDF
- Field report I (7/2010), PDF

Information dissemination:

- National Küsten Newsletter and international Coastal & Marine News (bi-monthly)
- EUCC - The Coastal Union (2009): *Climate Change, Coastal & Marine* 18 (2): 14, PDF, 8/2009
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- Posters:
- Schumacher & Störmer (2009): *BaltCICA - Climate Change: Impacts, Costs and Adaptation in the Baltic Sea Region*, Konferenz Küstenmanagement und Klimawandel: Status quo, Warnemünde, PDF, 10/2009
- Schumacher et al. (2010): *Klimawandel und Tourismus an der deutschen Ostseeküste*, Jahrestagung Arbeitskreis Geographie der Meere und Küsten, Hallig Hooge, PDF, 04/2010
- Schumacher et al. (2011): *Ostseetourismus - Regionale Klimafolgen und Anpassungsmaßnahmen*, Regionalkonferenz Klimaanpassung Küstenregion, Hamburg, PDF, 03/2011
- Schumacher (2011): *Baltic Tourism - Regional Impacts of climate change and adaptation measures*, 2nd International BaltCICA Conference, Bergen, Norway, PDF, 05/2011
- Climate change movie "Climate change in the Baltic - Take your role" (3/2011), Link
- E-Learning Module (in prep.)