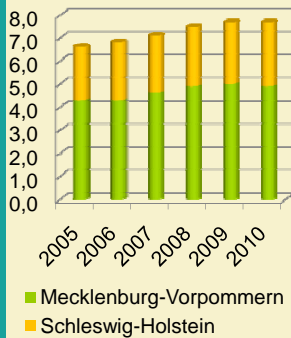


# Baltic Tourism – Regional Impacts of Climate Change and Adaptation Measures

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Arrivals at the German Baltic Region



Tourism at the German Baltic Coast is a most significant economic factor and holds a gross income of 7.2 billion € (3.7 bn € in Mecklenburg-Western Pomerania & 3.5 bn € in Schleswig-Holstein. Tourism has a stake in primary income of 10% in Mecklenburg-Western Pomerania and 4.7% in Schleswig-Holstein. Beach and bathing tourism as one of the most important sectors will be affected by chances and risks of climate change.



Beach wrack washed ashore at a tourist beach (Photo: M. Mossbauer)

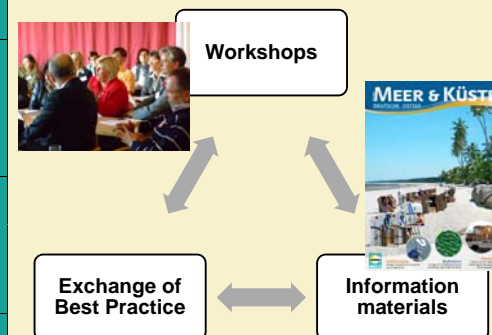
Impact	Risk/Chance	Potential Adaptation Measures
Increase in air temperature	<ul style="list-style-type: none"> <li>heat stress</li> <li>Infectious diseases</li> <li>costs for cooling systems</li> <li>traffic problems</li> <li>season extension</li> <li>more tourists</li> </ul>	<ul style="list-style-type: none"> <li>early warning systems</li> <li>shading systems</li> <li>expansion of forest hiking trails / parks / parking areas , artificial shelters, free drinking stations / foot baths / ripple shower, adventure trails, opening hours</li> </ul>
Increase in water temperature and change in water quality	<ul style="list-style-type: none"> <li>deterioration of water quality</li> <li>jellyfish, seaweed, viruses, bacteria</li> <li>increased amount of beach wrack</li> </ul>	<ul style="list-style-type: none"> <li>extension of the bathing season, technical barriers, beach cleanup, alternatives (recreational areas, boat trips, retail)</li> </ul>
Changes in precipitation	<ul style="list-style-type: none"> <li>availability of drinking water during peak season</li> </ul>	<ul style="list-style-type: none"> <li>use &amp; collection of rain &amp; seawater</li> <li>weather independent offers, information</li> </ul>
More storms and floods	<ul style="list-style-type: none"> <li>storm surges, coastal erosion and infrastructural damage</li> <li>increasing insurance costs</li> <li>financial damage caused by business closure</li> </ul>	<ul style="list-style-type: none"> <li>warning system, evacuation plans, "soft" coastal protection measures, storm-proof buildings/infrastructure, education trips „climate change,, alternatives for open-air-events</li> </ul>
SLR	<ul style="list-style-type: none"> <li>loss of beach area</li> <li>salt water intrusion into groundwater</li> </ul>	<ul style="list-style-type: none"> <li>building freeze on floodplains, pile dwellings, retreat to higher lying areas, investment shifting to hinterland</li> </ul>
Changes in biodiversity	<ul style="list-style-type: none"> <li>loss of native coastal species</li> <li>loss of typical coastal habitats</li> <li>invasive species</li> </ul>	<ul style="list-style-type: none"> <li>early warning systems, expansion of nature reserves</li> <li>education materials, monitoring</li> </ul>
Increased risk of forest fires	<ul style="list-style-type: none"> <li>destruction of the landscape</li> <li>infrastructural damage</li> <li>flood risk in the absence of coastal protection forests</li> </ul>	<ul style="list-style-type: none"> <li>use of fireproof construction materials, afforestation</li> <li>climate information materials for tourists</li> </ul>

## AIM

- development of regional adequate adaptation strategies together with stakeholders, transferable to other regions

## APPROACHES

- sensitisation of tourism operators and tourists for regional climate change impacts
- joint discussion of adaptation options



### Literature:

- 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 (2009), S. 23-46
- 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