Climate Change and Water Tourism Ralf Scheibe

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- Scuba diving an ambitious sport in the "offside"?
- Challenges for water sports infrastructure
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Tourism plays a triple role in the "game" of climate change:

- As free-rider: "longer seasons", "decline of competitive destinations"
- As perpetrator: "influence of low cost carriers", "growing individual transport for recreation"
- As victim: "climate-influenced diseases", "algae blooms"

Current trends:

- The chances are overestimated continuously (e.g. by the tourism authorities/politicians)
- The risks are ignored nearly completely (do not fit to the "market" or "brand")

Water Tourism ...

- is (one of) the most important economic sectors of coastal areas not only in the BSR
- > has (today) a remarkable growth potential
- displaces or revives traditional sources of income: fisheries, shipping, shipyards...
- has manifold links to other forms of tourism: health tourism, cultural tourism, nature tourism...
- is important for ICZM-processes: "engine for sustainability", entry point for local people & participation processes

The "three columns" of water tourism



Characteristics of modern scuba-diving:

- High and continuously growing number of sportsmen (beginners, diverse age-groups...)
- Irrespective of (touristic) seasons (depending on the natural background and the equipment)
- High degree of diversifications ("normal scuba diving", apnoe diving, fin-swimming, cave diving...)
- Impact of technical innovations ("tec-diving", "rebreather-diving"...)
- \succ Close contact to the water (...)
- High degree of mobility (individual transport to local dive-spots; long-distance journeys...)

Ideal conditions for scuba diving are:

Warm water (thin diving suit, light-weighted equipment...)



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- Warm water (thin diving suit, light-weighted equipment...)
- No dangers (currents, waves/storms and aggressive/poisonous animals...)
- Good visibility (safety, comfort, photography...)
- Biodiversity (natural attractions: reefs, fishes, mammals, invertebrates, macrophytes...)
- Artificial attractions: wrecks, archaeological sites...



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The future of Baltic Sea scuba diving (1):

- Temperatures of >22°C (surface, summer), but < 8°C (> 10 meters depth, summer): dry suit necessary for deeper dives over the whole year!
- Stable wind (and current) conditions (?)
- Visibility: increasing of algae blooms (low visibility in the near-surface water, less lighting in the depth)



The future of Baltic Sea scuba diving (2):

- Biodiversity: Decrease of the salinity due to the increasing runoff of rivers in the Baltic Sea catchment area; decrease of the biodiversity (?)
- Neobiota: less attractive species; consequences for the food chains (?)
- Dangers for wrecks: Teredo navalis, corrosion...
- Medical risks (poisonous animals and bacteria)

Summary:

- Hardly improvements in the natural background
- Hardly realistic (natural) growth in scuba tourism
- Additional attractions necessary for stable demand

The future of water sport infrastructure (e.g. marinas) (1)

Increasing risks:

Revival of sediment-transport:

- Direct hazards for harbors (e.g. Lohme, left)
- Indirect hazards: silting up of waterways

(e.g. Darßer Ort, right)



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Increasing risks:

- Revival of sediment-transport:
 - Direct hazards for harbors (e.g. Lohn
 - Indirect hazards: silting up of waterwaterwater
 (e.g. Darßer Ort, right)
- Hydro-meteorological disaster occurrence (storms, surges)
- Sea-level oscillation: new investment in quay walls and landing-stages necessary
- Biological threads: Teredo navalis (wooden pillars)

The future of water sport infrastructure (e.g. marinas) (2)

Benefits:

- Longer touristic season (for 1...3 months estimated; growing income from moorings)
- Less ice-coverage (less dangers for yachts; "wintering" in the water thinkable; but: loss of income for boat storage suppliers)

Summary:

- Observation of social trends necessary ("What is trendy?")
- Long-term investments "by the eye"

Winter water sports

Functions:

- Additional offers in traditional winter sport (ski) destinations (e.g. alpine glacier-diving)
- Second foothold with incomes from: events, incentives (ice-bathing, Xmas-diving, ice-sailing...)



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Future conditions:

- > All cold water activities will be possible furthermore
- Ice-coverage: reduced on high-altitude alpine lakes and higher latitudes

Conclusions:

- Interactions between climate change and water sports are very ambivalent
- General conclusions nearly impossible
- Necessity of differentiated analyze of benefits and risks

Conclusions:

Need of further research:

- > Specification of natural background:
 - wind and waves
 - biological effects
 - ...
- Socio-economic development:
 - long-term trends of the "recreational environment"
 - long-term trends of the economic indicators and their effects on the tourism demand
 - investigations on economic risks and benefits

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Conclusions for further ICZM-processes (and ICZM-research):

- Closer contacts between nature sciences and economic sector (tourism economy, insurances), higher degree of "integration"
- Motivation for the tourism economy for middleterm and long-term planning
- Investments only for "safe", promising projects with less natural risks
- Strengthening the public awareness for the true benefits and risk of the climate change

Thank you for your attention!

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