ADAPTATION IN COASTAL TOURISM – DISCUSS, DEVELOP AND MEASURE

Silke Schoenwald, Inga Haller, Christian Filies

EUCC – The Coastal Union Germany (EUCC-D)

How is coastal tourism affected by climate change?

Direct impacts:	Indirect impacts:
- Air temperature (warmer) - Water temperature (warmer) - Precipitation patterns - Increase of extreme weather events (heavy rain, storm floods)	- Sea level rise (Southern Baltic Sea) - Changes in wind/wave patterns - Erosion - Marine/Terrestrial ecosystem changes - Changes in tourism travel patterns

- Possible consequences for tourism:
  - Prolonged (bathing) season
  - Beach losses (sand)
  - Temporary decline of bathing water quality (algae, microorganisms)
  - Damages of touristic infrastructure (piers, cycling paths, camp sites)
  - Increase/decrease of guest numbers (depending on site, management and adaptation)

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How to inform and activate the tourism sector?

Workshops with regional tourism stakeholders:

- Information about scientific knowledge and possible climate impacts

- Presentation of future tourism scenarios (storytelling)
  - Imaginary postcard of a guest in 2050, discussion whether the imagined situation is realistic or not, and what kind of adaptation would have been necessary to get there

- Imaginary development of a desirable future (mapping of adaptation)
  - Regional maps and imaginary tourism scenarios, mapping of adaptation measures (where do we want which kind of future development)

Pictures: I.Haller, EUCC-D

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Possible adaptation options/measures discussed

Examples for the German Baltic coast (applicable to other regions of the BSR):

Short-term (re-active)	Mid-term (pro-active)	Long-term (adaptive)
Beach loss: Sand fillings	Enhanced coastal protection	Combined planning of coastal protection + tourism infrastructure (e.g. shaded boardwalks and protection walls; dikes and cycling paths)
Algae bloom: Beach closure, warning signs	Illustrative information material on things that happen (impacts) and measures taken	Financing strategies for beach replenishment (public + private)
Heavy rain: Free umbrellas in hotels, guest houses	Attractive low season offers	Change political and institutional framework or make it more flexible
Heat wave: Free water dispenser/fountains	Closer collaboration between different institutions/agencies	Mechanisms to distribute (a possible increase of) guests in the region

But: .. It became evident that many communities have difficulties with the appraisal of their future risk & preparedness

- Insecurities and long-distance scenarios often hinder adaptation action
  - "When does what exactly happen?", "We need numbers."
  - "We only plan for the next 5-10 years maximum."
- Rare interest for climate change risk assessments (in coastal communities)
- Responsibility is often seen with public institutions
(e.g. for coastal protection, water quality, road safety, etc.)
- Preparedness for today's challenges (e.g. algae bloom, heavy rain falls) isn´t overall estimated as good - particularly with respect to a reassuring explanation/ communication to tourists ("Why this is happening. We are in control and care for your well-being/happiness.")
- Wish for better appraisal of risks + better preparedness for short-term challenges

→ today's knowledge → for a future 'adaptation process'…

To know what tomorrow will bring….

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How to measure the state of and progress towards adapting to the impacts of climate change? → **with INDICATORS**

as one part of a new combined tool
(developed and applied by an international practitioners group)

INDICATORS → data search	WEIGHTING process → a scoring and preference method
a flexible set of **core** and **optional** ones	participatory process
• to illustrate with the help of numbers locally specific situations	• to allow interdisciplinary participation of stakeholders
• allows comparions of data over the years	• serves as a communication tool

allows both
→ to measure the present state

→→ *with indicators for climate adaptation*

→ to develop a future vision

- *adressing* a) challenge of climate change adaptation
    b) develop or expanse sustainable tourism
    c) helps to prevent arbitrary planning (indicator data base)
 - *inclusion*
 - *accompaniment* of exemplary applications of Stakeholders (German Baltic Coast)

↳ to evaluate the tool and elaborate the benefits

…is it necessary to know the present situation.

INDICATORS of QualityCoast

5 CATEGORIES → CRITERIA

→ **Indicators**

- **CORE** (coloured cells): 101
✚ - **Your Choice** (per Criteria at least 2): at least 40 (89)
- **Voluntary**: 43

NATURE	
	1. NATURE & CONSERVATION
	2. ACCESS, INFORMATION & EDUCATION
	3. GREEN POLICIES
	4. OPEN LANDSCAPES

ENVIRONMENT	
	5. ENVIRONMENTAL MANAGEMENT
	6. BLUE FLAGS & BEACHES
	7. WATER MANAGEMENT
	8. SUSTAINABLE TRANSPORTATION
	9. WASTE & RECYCLING
	10. ENERGY & CLIMATE MITIGATION
	11. CLIMATE CHANGE ADAPTION

IDENTITY & CULTURE	
	12. CULTURAL HERITAGE
	13. TERRITORY & TRADITION
	14. LOCAL IDENTITY

TOURISM & BUSINESS	
	15. DESTINATION MANAGEMENT
	16. BUSINESS INVOLVEMENT
	17. HOSPITALITY & SATISFACTION

HOST COMMUNITY & SAFETY	
	18. FREEDOM & JUSTICE
	19. COMMUNITY PARTICIPATION
	20. HEALTH & SAFETY

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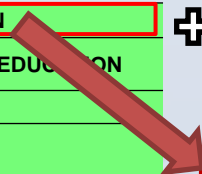Baltic Sea Region Programme 2007-2013

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1. NATURE CONSERVATION

Presence of nature in the territory and international and national designations of terrestrial and marine (12 nm zone) nature

1.1. Nature area as a % of the total land surface of the destination

1.2. Legally protected nature area (including geological features) as a % of the total land surface of the destination (Please add contours on the map)

1.3. Names and type of designation of the protected nature areas (e.g. Biosphere Reserve, UNESCO World Heritage, Natura 2000, National Park, Nature Reserve, Geopark)

1.4. Marine protected area (incl. under Natura 2000) as a % of the marine waters (12 nautical miles zone)

1.5. Main measures & actions conducted by the applicant(s) in 2012 for the conservation, restoration and management of nature (including geological features).

1.6. Which invasive alien species pose a problem for nature conservation?

1.7. What measures do you take to avoid or control invasive alien species?

1.8. Are you responsible for the nature areas referred to in 1.1 and 1.3? If not, who is?

Other important information, problems and constraints

Improvements planned for the next 2 years

For 2nd time applicants: improvements made in last 2 years

For 2nd time applicants: perceptions from Stakeholders /input from local QC Committee

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CRITERIUM 11. CLIMATE CHANGE ADAPTATION

Efforts in place to adapt/protect against climate change

11.1. Does the destination have a system to identify challenges and opportunities associated with climate change? Is this system encourages climate change adaptation strategies for development, siting, design, and management of tourism facilities that contributes to the sustainability and resilience of the destination? (GSTC/A4)

11.2. Total coastline length with seawalls and hard coastal revetments protecting the coast against marine flooding and erosion: total number of kilometres (BasiQ E15)

11.3. % of coastline length with seawalls and hard coastal revetments, compared to the total coastline length of the destination (BasiQ E16)

11.4. Total coastline length with groynes and other structures against beach erosion: number of kilometres (BasiQ E17)

11.5. % of coastline length with groynes and other structures against beach erosion, compared to the total coastline length of the destination (%) (BasiQ E18)

Improvements made in last 2 years (only for 2nd time applicants that had a score below 7 for this criterium)

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→ Indicators **→ *Application***

	ALL COLOURED CELLS MUST BE FILLED IN PLUS
RATE ONLY	**A NUMBER OF WHITE CELLS PER CRITERIUM, AS SPECIFIED**

1. NATURE CONSERVATION

Presence of nature in the territory and international and national designations of terrestrial and marine (12 nm zone) nature

Indicators	RATE	Application
	RATE ONLY	**In addition to the core indicators (coloured cells): Please complete at least 2 of the optional indicators (white cells) for this criterium**
1.1. Nature area as a % of the total land surface of the destination		
1.2. Legally protected nature area (including geological features) as a % of the total land surface of the destination (Please add contours on the map)	>>>>>	Approximate %
1.3. Names and type of designation of the protected nature areas (e.g. Biosphere Reserve, UNESCO World Heritage, Natura 2000, National Park, Nature Reserve, Geopark)	>>>>>	Approximate %
1.4. Marine protected area (incl. under Natura 2000) as a % of the marine waters (12 nautical miles zone)	>>>>>	Approximate %
1.5. Main measures & actions conducted by the applicant(s) in 2012 for the conservation, restoration and management of nature (including geological features).	1/2/3/4/5	Clarify with examples when you indicated 4 or 5
1.6. Which invasive alien species pose a problem for nature conservation?	1/2/3/4/5	Clarify with examples when you indicated 4 or 5
1.7. What measures do you take to avoid or control invasive alien species?	>>>>>	Brief specification
1.8. Are you responsible for the nature areas referred to in 1.1 and 1.3? If not, who is?	>>>>>	Brief specification
Other important information, problems and constraints	>>>>>	Brief specification
Improvements planned for the next 2 years	>>>>>	Brief specification
For 2nd time applicants: improvements made in last 2 years	>>>>>	Brief specification
For 2nd time applicants: perceptions from Stakeholders /input from local QC Committee	>>>>>	Brief specification

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- approximate %
- assess yourself : Scale from 1–5 (no; little; just sufficient; good; maximum)
- brief specification

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BENEFITS

	Island or coastal destination	Quality-Coast Index: % sustain-able	Nature	Water & Environ-ment	Culture & local identity	Tourist reviews & social safety	"Green" efforts of hotels & campings
1	Azores (PT)	84	9,1	8,1	8,9	7,6*	7,6*
2	Ierapetra (Crete, GR)	82	7,9	8,0	8,3	8,4*	8,4*
3	Gozo & Comino (MT)	81	7,9	7,7	8,7	8,0*	8,0*
4	Noordwijk (NL)	81	8,5	8,1	7,8	8,1*	8,1*
5	Migliarino-San Rossore (IT)	81	8,8	8,8	7,8	7,0*	7,0*

1. the **application process itself :**

→ supports decision making

→ supports self-assessment

→ stimulates strategic planning (towards sustainable development)

2. numeric results of the indicator application

1.1. as a tool for IC(Z)M

- encourage destinations in taking action
  (bottum up-approach):
  A) natural/cultural heritage; clean
  environment; local identity; business
  involvement in sustainable development;
  B) in their policies in any of the aspects

- sensitize for, awareness-raising of
  sustainability, today´s and future challenges

- supports local, individual, specific solutions
  e.g. for climate adaptation

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2.1 for the (tourist) economy

• **Certificate (QualityCoast-Award)** visualized, advertised,marketed: via the internet/brochures

• an international network of possible partners (communities) →exchange of 'best practice'

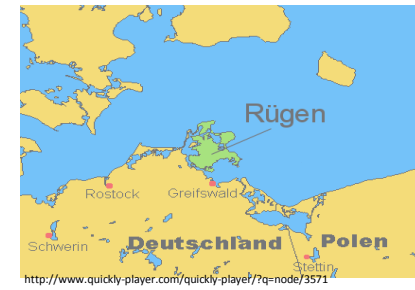• maintaining high standards in the quality of tourism offer

QualityCoast:
since 2007; already 125 tourism destinations awarded: Gold, Silver, Bronze; worldwide applicable

Fuerteventuras, http://canariasactual.com/wp-content/uploads/012/05/Quality.jpg

EUCC-D

- supports the application process of QualityCoast
- uses indicators to communicate climate change adaptation and sustainable development to tourism stakeholders - along the eastern German Baltic Coast (e.g. island Rügen)

http://www.quickly-player.com/quickly-player/?q=node/3571

➢ *THANK YOU FOR YOUR ATTENTION*

http://www.eucc-d.de/

http://www.qualitycoast.info/

http://www.sustain-eu.net/

Biosphärenreservat
Südost-Rügen

http://www.biospnaerenreservat-suedostruegen.de/de/biosphaerenreservat

since 2004→ COASTLINE REPORTS

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