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ADAPTATION TO CLIMATE CHANGE



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Adapting Tourism to Climate Change in Lower Saxony, Germany

Creating adaptation toolboxes for 15 tourism regions according to their unique features

The TourismusMarketing Niedersachsen initiated a process to tackle climate change by developing adaptation strategies for the 15 tourism regions in Lower Saxony and supporting their practical implementation.

Key Learnings

- **Developing the sectoral adaptation strategy:** The project team developed the sectoral strategy in a structured process and in a participatory way. Involving all relevant stakeholders as well as external consultants ensured the relevance and acceptance of the strategy.
- **A tailor-made toolbox:** A broad range of different tools which are fitted to the needs of the tourism regions were developed. Each toolbox aims to support the adaptation process in the regions. This shows that it is necessary to consider regional features while developing climate change adaptation tools.
- **Supporting implementation:** Adaptation is a challenging task requiring long-term implementation. Therefore, the TourismusMarketing Niedersachsen initiated a follow-up project to coordinate the implementation of the adaptation strategy by offering consultations, workshops, and networking events.

About the region

Lower Saxony covers an area of 47.624 km² and is the second-largest federal state of Germany. About 8 million inhabitants live in Lower Saxony and Hannover is the largest city. The tourism destination Lower Saxony consists of five main geographical zones: The coastal region, the eastern lowlands, the western lowlands, the mountain and hilly region, and the Harz.

Climate Hazards

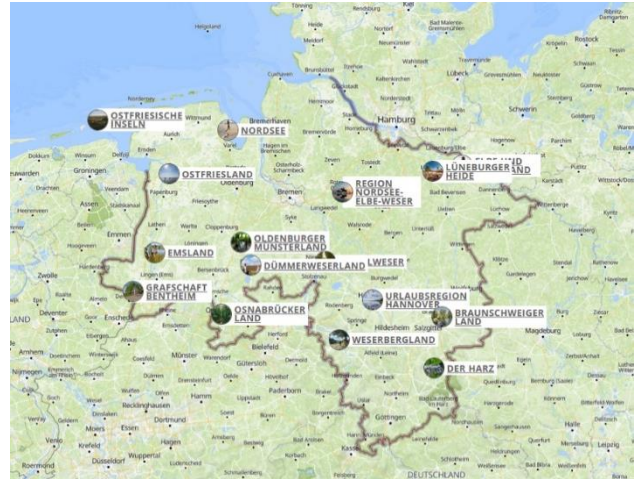
Extreme Temperatures, Droughts, Storms

Sector

Tourism

Key system

Critical Infrastructure



Climate Threats

From 1881 until today, the annual mean temperature in Lower Saxony increased by 1,5°C. Additionally, weather extremes are shifting, as more summer days with temperatures above 25°C and fewer frost days with temperatures below 0°C have been recorded. The annual precipitation has risen by approximately 80mm. This increase is especially recognisable in autumn and winter. At the same time, drier springs and summers with occasional heavy rainfalls have occurred.

Slow-onset changes and extreme events with climate change affect tourism offers, infrastructure and, ultimately, tourism demand. As Lower Saxony is characterised by a variety of landscapes and related tourism offers, impacts vary in each sub-region. In the Harz, for example, the attractiveness of the landscape could be increasingly impaired by forest damages, and warmer temperatures in the coastal region could favour the growth of algae and jellyfish. However, some impacts of climate change could also harbour opportunities. For instance, warmer temperatures can lead to extended seasons and higher demand for some offers and regions within the destination.

"As a driving force, we not only want to react to the risks of climate change but above all, also utilise the opportunities and potential that this issue brings with it. We want to actively promote the adaptation of tourism in Lower Saxony and continue to position the state successfully in the competitive environment."

says Meike Zumbrock, CEO of TourismusMarketing Niedersachsen GmbH

Developing an adaptation strategy for the tourism sector

The factors that determine tourism demand are diverse, and the impacts of climate change can directly or indirectly influence the demand for a tourism region and specific tourism offers. Therefore, TourismusMarketing Niedersachsen (TMN) aimed to address the risks and opportunities posed by climate change. The result of a process carried out together with the regions is an adaptation strategy for the tourism sector with a customised toolbox for each region.

The basis for developing tailor-made adaptation measures is a comprehensive knowledge base of past and future climatic changes, including the impacts on tourism offers, infrastructure and demand. Therefore, the tourism destination comprising 15 tourism regions was divided into five zones according to their climatic and geographical features (see Figure 1).

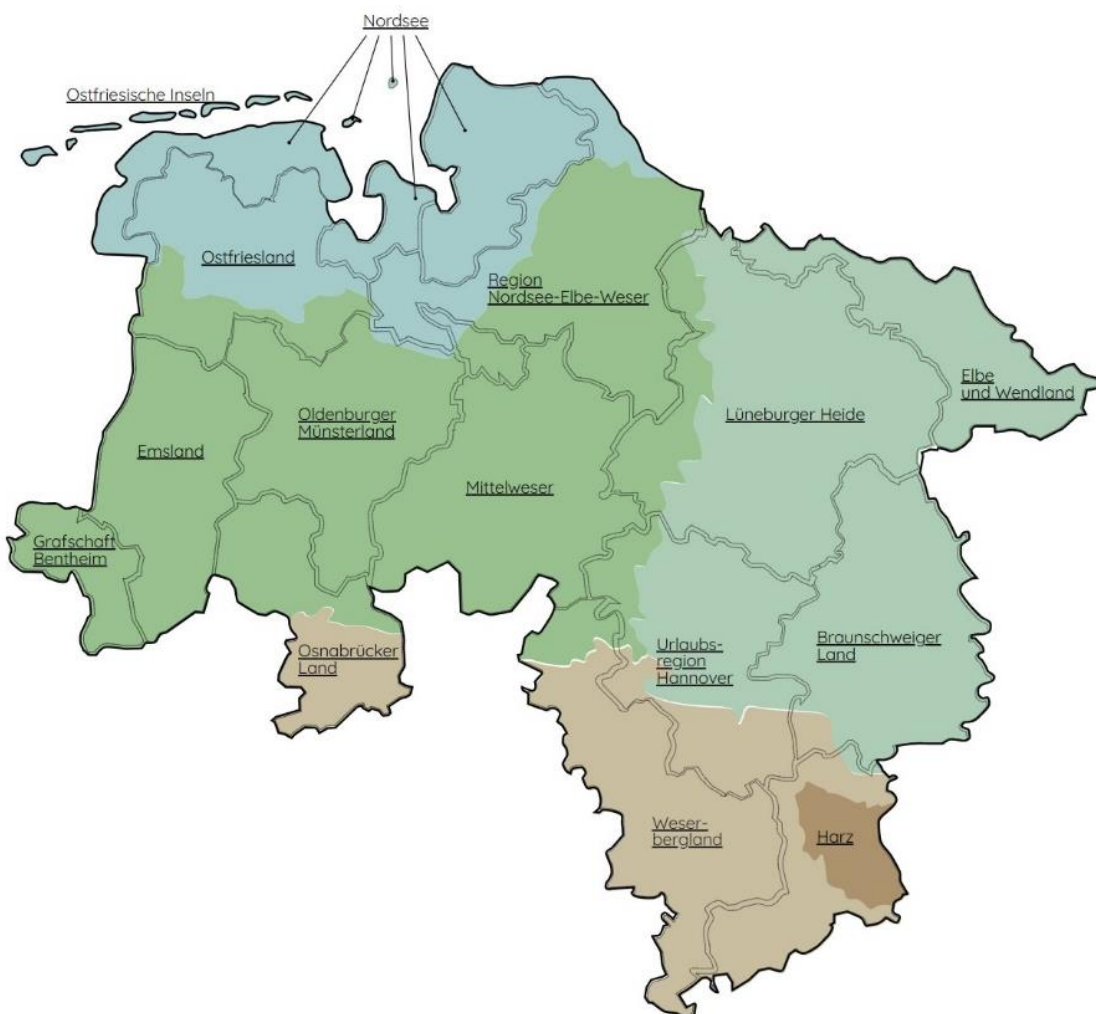


Figure 1: Division of the state of Niedersachsen into five geographical zones including the 15 travel regions. Image Credit: TourismusMarketing Niedersachsen.

To identify risks and chances related to climate change, the project team developed detailed climate impact chains for the key components of the tourism offer. In the next step, they elaborated suitable adaptation measures to mitigate risks and take chances to support the regions and tourism professionals in the climate change adaptation process.

Handlungsfeld Stranderlebnis

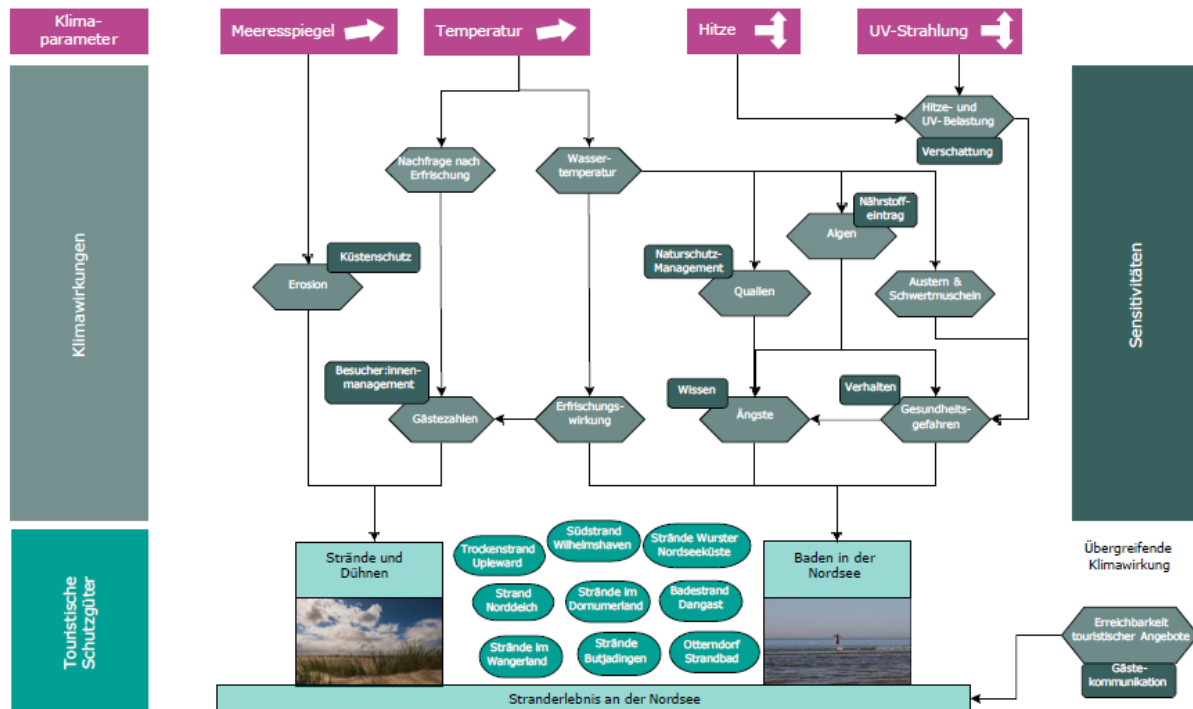


Figure 2: Example for a climate impact chain. Beach experience at the North Sea. Image Credit: TourismusMarketing Niedersachsen.

Stakeholders from the tourism regions were involved in 15 online and face-to-face events, six advisory board meetings, and an online survey. This facilitated the development of tailor-made tools and guidance documents for each region, which aim to support effective climate change adaptation on the ground.

The toolbox¹ for each tourism region includes:

- Climate factsheets (overview of climatic changes) per region
- Climate impact chains (visualisation of the cascading impacts of climate change) on the different tourism activities and infrastructure
- Adaptation compass (navigation aid in the complex process of adaptation)
- Funding radar (support to find appropriate funding opportunities for adaptation)
- Exchange of ideas (good practice examples for inspiration)

Moreover, posters, information sheets on how to deal with extreme weather events as well as guidelines and checklists for tourism stakeholders and tourist infrastructure are included.

Based on this, Lower Saxony updated its tourism funding program. Since 2023 the program also enables to receive funding for climate adaptation measures such as adaptation of tourism offers (including

¹ The results are available for download at <https://nds.tourismusnetzwerk.info/inhalte/klimawandel-nachhaltigkeit/klimawandel-und-tourismus/ergebnisse-klimawandel-anpacken/> (in German)

infrastructure measures). One funded project, for example, is the “Nordsee Reisepass” (North Sea Passport). A project in which guests in the North Sea region of Lower Saxony can purchase a stamp booklet and use it to collect stamps throughout the region, just like in a real passport. Over 200 locations in the region are participating in the project and can be visited. The proceeds from the sale of the stamp booklets are invested in environmental and nature conservation projects in the region, such as planting campaigns that will continue to provide shade in the future.

Adapting to climate change in the tourism sector is a challenging task, particularly as tourism is at the interface of various sectors. As cause-effect relations are complex and multiple factors influence demand, uncertainties regarding the impacts of climate change on tourism regions remain. The transition towards more resilient and sustainable tourism will require a high degree of expertise, persistence and flexibility from all partners involved. Climate change needs to be mainstreamed into all touristic concepts, strategies and plans to be able to adapt tourism offers and infrastructures regarding current and future changes. Moreover, communication and coordination are central to successful adaptation.

However, the development of an adaptation strategy and toolbox only marks the beginning of the process. A follow-up project has started to support the tourism regions in the process of implementing climate change adaptation. This includes consultations, workshops, and networking events.

Lower Saxony was the first federal state in Germany to comprehensively analyse climate risks affecting tourism and to develop adaptation strategies for the tourism regions. The project was awarded the “German Tourism Award” (2nd Place) due to the structured process and the broad range of tools.

Summary

Climate change will affect tourism in Lower Saxony. Therefore, TourismusMarketing Niedersachsen initiated the development of an adaptation strategy for the tourism sector to tackle future challenges and opportunities related to climate change. Tailormade toolboxes for each of the 15 tourism regions were developed, considering the geographical and climatic features and tourism offers. The project involved tourism stakeholders to achieve the best possible outcome and did not end with the development of the adaptation strategy but included practical support for the implementation of adaptation measures.

Further information

- <https://nds.tourismusnetzwerk.info/inhalte/klimawandel-nachhaltigkeit/klimawandel-und-tourismus/klimaanpassung-im-tourismus/> (in German)
- [Ergebnisse des Projekts “Klimawandel anpacken” | Tourismusnetzwerk](#) (in German)
- <https://nds.tourismusnetzwerk.info/inhalte/klimawandel-nachhaltigkeit/klimawandel-und-tourismus/tmn-und-wirtschaftsministerium-machen-niedersachsens-tourismus-fit-fuer-den-klimawandel/> (in German)
- <https://www.deutschertourismuspreis.de/innovationsfinder/tourismusmarketing-niedersachsen-klimawandel-anpacken.html> (in German)

Contact

Robert Wenzel

Team leader sustainability and market research

TourismusMarketing Niedersachsen GmbH

T: +49 511 27048836

M: +49 1520 9080378

wenzel@tourismusniedersachsen.de



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