

## Biking tourism in times of climate changes

### What are the significant challenges/opportunities biking tourism might face regarding climate change in the near future?

Climate change is reshaping biking tourism by creating both new opportunities and significant challenges, with the latter likely becoming more dominant over time.

#### **Opportunities:**

Climate change extends cycling seasons, particularly in northern regions, due to milder temperatures and longer spring and autumn periods. This makes destinations such as the Nordics, Faroe Islands, and similar regions more attractive to cyclists, especially those seeking cooler climates. At the same time, growing global demand for sustainable, low-carbon travel aligns well with cycling tourism, increasing its appeal.

There are also opportunities for economic diversification. For example, ski resorts facing shorter winter seasons can adapt by offering summer biking activities. Improved integration between cycling and public transport, as well as cross-border cooperation and infrastructure development, can further enhance accessibility and support tourism growth. Additionally, investments in resilient, multi-use cycling infrastructure can create long-term value and support year-round outdoor activities.

#### **Challenges:**

However, climate change introduces major risks. Increasingly unpredictable and extreme weather—such as heavy rainfall, strong winds, and rapid weather shifts—reduces safety, reliability, and overall visitor experience. These conditions also make trip planning more difficult and can lead to cancellations and revenue loss.

Infrastructure is particularly vulnerable. More frequent and intense precipitation can cause erosion, landslides, peat instability, and damage to trails and gravel roads, resulting in high maintenance costs. Coastal routes face additional threats from rising sea levels and storm

surges. In fragile landscapes, such as peatlands or steep terrain, these risks are even more pronounced.

There are also structural and planning challenges, including gaps in cycling infrastructure (e.g., missing route links, limited e-bike charging stations, and uneven development between urban and rural areas). Environmental changes, such as increased insect populations, may further affect the experience.

Finally, while cycling itself is sustainable, the overall climate impact of tourism depends on how visitors travel to destinations, raising broader sustainability concerns.

## Conclusion

Climate change acts both as a driver of growth and a source of disruption for biking tourism. Destinations that invest in resilient infrastructure, adaptive planning, and integrated transport systems will be better positioned to capitalize on opportunities while mitigating increasing environmental and operational risks.

## Have We Already Seen All Climate Change Challenges for Biking Tourism?

No, it is widely agreed that we have **not yet seen all the challenges** that climate change will bring to biking tourism. Many impacts are still emerging and are expected to intensify over the coming years and decades.

### Emerging and Future Challenges:

Climate change is likely to lead to increasingly unstable and extreme weather conditions, including heavier rainfall, stronger storms, and rapid weather shifts. These will affect route accessibility, cyclist safety, and the reliability of tourism experiences. Infrastructure will face growing pressure, with more frequent damage to trails and bike paths, higher maintenance costs, and increased demands on municipalities and land managers.

In addition, shifting climate conditions—such as shorter and less predictable winters—are expected to increase year-round biking activity. While this may boost demand, it will also

place greater strain on infrastructure and natural environments, requiring stricter management of trail use and environmental protection.

There are also **indirect and long-term uncertainties**, including changes in visitor behavior, increased pressure on fragile ecosystems, and evolving global travel patterns. Some of these effects have not yet fully materialized and may only become visible over time.

### **Opportunities Despite Uncertainty:**

At the same time, climate change is creating new opportunities. Northern and temperate regions may benefit from increased demand as travelers seek cooler destinations (“coolcations”) and more sustainable travel options. Longer shoulder seasons can extend the tourism period and increase revenue potential. Cycling, as a low-carbon activity, is well positioned within the growing demand for environmentally friendly tourism.

Technological developments, such as e-bikes, are also expanding accessibility and attracting new user groups, further supporting growth in the sector.

## **Conclusion**

While some impacts of climate change on biking tourism are already visible, **the full range of challenges has not yet unfolded**. The sector faces increasing uncertainty and will need to adapt continuously through resilient infrastructure, careful environmental management, and flexible planning to respond to future changes.

## **What kind of investments might be needed in biking tourism to meet requirements of climate changes ?**

Adapting biking tourism to climate change will require a combination of **physical infrastructure investments, management strategies, and long-term planning**, not just financial input.

### **Infrastructure and Technical Investments:**

A key priority is developing **climate-resilient cycling infrastructure**. This includes building and upgrading bike paths with durable materials, reinforced surfaces, and effective water management systems (e.g., drainage) to withstand heavier rainfall and changing weather conditions. Investments are also needed to ensure **year-round usability**, including maintaining trails during off-season periods.

Improving **safety and accessibility** is equally important. This involves better signage, safer road solutions for mixed traffic, and the creation of sheltered rest areas. Additionally, integrating cycling with public transport (multimodality) and addressing “missing links” in route networks will improve connectivity and support low-carbon travel.

### **Maintenance, Monitoring, and Data:**

Ongoing **maintenance and monitoring systems** are essential to respond to increased wear and environmental impacts. Collecting data on cyclist behavior, weather effects, and environmental conditions can support more informed and adaptive planning. Investments in **preventive maintenance** will help reduce long-term costs and disruptions.

### **Environmental Protection and Sustainability:**

Protecting sensitive landscapes is critical. Investments should ensure that cycling infrastructure does not contribute to environmental degradation, such as erosion or damage to peatlands that could release stored carbon. Sustainable design and careful land-use planning are necessary to balance tourism growth with conservation.

### **Capacity Building and Management:**

Human and organizational investments are also needed. This includes **training local operators**, raising awareness among visitors, and planning different target groups (e.g., older cyclists using e-bikes). Managing potential conflicts between user groups (e.g., cyclists vs. other trail users) is another important aspect.

### **Strategic and Long-Term Considerations:**

Climate change introduces new uncertainties, including potential increases in **insurance and liability risks** in vulnerable areas. Therefore, long-term strategic planning is essential to ensure resilience. Investments should focus on adaptability, cross-border cooperation, and the development of multi-use infrastructure that can serve various activities under changing conditions.

## Conclusion

Meeting the requirements of climate change in biking tourism will require **holistic and forward-looking investments**—combining resilient infrastructure, environmental protection, smart planning, and capacity building—to ensure the sector remains sustainable, safe, and economically viable in the future.