# Georgia | Impacts of Climate Change and Adaptation in Tourism and Infrastructure

Find the underlying analysis in the sectoral policy brief "Georgia: Economy-wide Effects of Adaptation in Tourism and Road Infrastructure" and in the report "Supporting climate resilient economic development in Georgia".

Annual changes in % are between a climate change scenario without adaptation (SCC) and a climate change scenario with adaptation (SCCA).

## Georgia's infrastructure and tourism sectors are vulnerable to climate change

**Sea level rise** threatens tourism infrastructure, often located near beaches, and can thereby affect tourism flows.

**Extreme precipitation** can damage infrastructure, which then needs to be reconstructed.

**Heavy wind** may damage infrastructure, followed by the need to repair or rebuild the affected infrastructure.

Negative impacts on infrastructure and tourism can cause **lower growth in other sectors, lower GDP** and **employment.**

## Exemplary adaptation measures for reducing vulnerability to sea level rise and heavy rain

### (Re-)Construction of Coastline Protection

To retain the commercially important beaches for the tourism sector and to protect the infrastructure located on the coastline, it needs to be stabilized (see CZ-NAP 2020), e.g., by **(re)construction measures** like building sea walls. The additional investment may result in higher number of tourists and benefits for tourism-related economic sectors (accommodation, transportation, arts and entertainment).

### Climate Resilient Roads and Bridges

By reinforcing and updating road infrastructure, roads and bridges can be made more resilient to climate change impacts and thereby the negative impacts of damaged infrastructure could be reduced. As an example, changing the composition of road surfaces can make them resilient to high temperatures and extreme precipitation (see OECD 2018).

## Economy-wide benefits of coastline protection and climate resilient roads and bridges

**Economy-wide impacts of investment in coastline protection (SCCA compared to SCC)**


Macroeconomic modelling allows for **long-term assessment of economy-wide effects** of adaptation measures.

→ Investments in the **(re-)construction of coastline protection** can result in up to **0.2%** higher **GDP (170 million GEL)** and **up to 0.08% higher employment** per year **corresponding to more than 1,200 additional jobs** (SCCA compared to SCC).

→ Investments in **coastline protection** have **positive sectoral linkages** leading to **increased household consumption expenditure** of up to 0.19% p.a. (SCCA compared to SCC).

→ Similarly to coastline protection, investments in **climate resilient roads and bridges** can lead to **annual GDP increases of up to 0.17%** and up to **0.05% higher employment** per year, **corresponding to more than 1,000 additional jobs** (SCCA compared to SCC).

**References**
CZ-NAP (2020): National Action Plan for Adapting to Climate Change Impacts in the Black Sea Coastal Zone. Tbilisi, 2020.
OECD (2018): Climate-resilient Infrastructure. Policy perspectives. OECD Environment Policy Paper No. 14. Paris,

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