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## Chapter 5.3.2. Urban complexes

#### **Authors:**

- Sonja Deppisch (HafenCity University Hamburg)
- Sirkku Juhola (Aalto University Helsinki)
- Michael Richter (HafenCity University Hamburg)
- Holger Janßen (Leibniz Institue for Baltic Sea Research Warnemünde)

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#### **Overview**

- Introduction
- Chapter structure
- Chapter contents
- Summary/general findings
- Problems/further issues





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#### Introduction

 observed and potential future climate change impacts on urban complexes

#### **Urban complexes:**

- human dominated settlements
- higher population density in comparison to rural settlements

non-climatic drivers not considered







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## **Chapter structure**

- 5.3.2.1 Introduction / Background
- 5.3.2.2. Past, current and future impacts of climate change on urban complexes
  - (5.3.2.2.1. Natural resources and ecosystem services)
  - 5.3.2.2.2. Urban services and technical infrastructure
  - 5.3.2.2.3. Buildings, housing, settlement structure
  - 5.3.2.2.4. Socioeconomic structure
    - 5.3.2.2.4.1. Impacts of climate change on different sectors of the urban economy
    - 5.3.2.2.4.2. Social impacts of climate change on urban population
    - 5.3.2.2.4.3. Adaptation to climate change in the urban context
- 5.3.2.3. Synthesis/Conclusion: Impacts of climate change on urban complexes





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## **Chapter contents**

#### 5.3.2.2. Urban services and technical infrastructure

Wastewater management

Drinking water supply systems

Transport





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## **Chapter contents**

#### 5.3.2.2.3. Buildings, housing, settlement structure

- Sea level rise
- Extreme events
- Precipitation

Benefits: less heating





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## **Chapter contents**

#### 5.3.2.2.4. Socioeconomic structure

- 5.3.2.2.4.1. Impacts of climate change on different sectors of the urban economy
- 5.3.2.2.4.2. Social impacts of climate change on urban population
- 5.3.2.2.4.3. Adaptation to climate change in the urban context





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#### **Chapter contents**

# 5.3.2.2.4.1. Impacts of climate change on different sectors of the urban economy

- Primary sector
- Secondary sector
  - Industrial sector
  - Energy sector
- Tertiary sector
  - Tourism
  - Transport
  - Insurance sector (financial sector)
  - Retail and commercial services





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#### **Chapter contents**

## 5.3.2.2.4.2. Social impacts of climate change on urban population

- Thermal stress
- Changes in air quality
- Storms
- Floods
- Food supply





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## **Chapter contents**

#### 5.3.2.2.4.3. Adaptation to climate change in the urban context

Adaptation policy

Adaptive capacity

Examples of city level strategies





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## **Summary/general findings**

- Difficult to generalize findings on urban comlexes
- Overweight of some cities understudy (esp. Coastal cities)
- Dominating impacts in literature:
  - Sea level rise
  - Extreme events
  - Combinations of impacts





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## Problems/further issues

- 5.3.2.2.1. Natural resources and ecosystem services?
- Chapter urban climate?
- 5.3.2.2.4. Socioeconomic structure?

Impacts of climate change on different sectors of the urban economy

Social impacts of climate change on urban population

Adaptation to climate change in the urban context

- →3 sub-chapters?
- Cross-items?