

# **A COMPARISON OF LOCAL ADAPTATION STRATEGIES - RESULTS FROM A QUALITATIVE DATA ANALYSIS OF NINE COASTAL ADAPTATION STRATEGIES**

Dr. Nico Stelljes  
Ecologic Institute

# RA:dOst

**Regional Adaptation Strategies for  
the German Baltic Sea Coast**

- 5 year project (2009 – 2014)
- funded by the German Ministry for Education and Research

<http://klimzug-radost.de/en>

# REPORT

## KOMMUNALE ANPASSUNGSSTRATEGIEN IM VERGLEICH

INHALTSANALYTISCHE BETRACHTUNGEN VON NEUN  
ANPASSUNGSSTRATEGIEN IN KÜSTENREGIONEN

Nico Stelljes

RADOST-Berichtsreihe  
Bericht Nr. 31  
ISSN: 2192-3140

[http://klimzug-  
radost.de/bericht31/kommunale-  
anpassungsstrategien](http://klimzug-radost.de/bericht31/kommunale-anpassungsstrategien)

## ► HYPOTHESIS

1. According to Fünfgold and McEvoy (2012) existing governance instruments can be used for the implementation of adaptation measures. This should be reflected within the examined strategies.
2. Adaptation is a cross-cutting issue (see Bundesregierung 2008). This should be visible in the strategies by involving different stakeholders.
3. McEvoy et al. (2008) stated that adaptation is done at the local level. In the strategies this should be seen by the identification of concrete measures and responsibilities.
4. Different policy-instruments should be addressed in the strategies on how to implement adaptation measures (see Ribeiro et al. 2009).

### Literature:

Die Bundesregierung (2008): Deutsche Anpassungsstrategie an den Klimawandel – vom Bundeskabinett am 17. Dezember 2008 beschlossen. Berlin, 78 S.

Fünfgold, H.; McEvoy, D. (2012) Resilience as a Useful Concept for Climate Change Adaptation?, 324-328. In *Planning Theory and Practice* 13 (2).

McEvoy, Darryn and Lonsdale, Kate and Matczak, Piotr (2008) Adaptation and Mainstreaming of EU Climate Change Policy: An Actor-Based Perspective (February 2008). CEPS Policy Brief No. 149.

Ribeiro, M., Losenno, C., Dworak, T., Massey, E., Swart, R., Benzie, M., Laaser, C. (2009) Design of guidelines for the elaboration of Regional Climate Change Adaptations Strategies. Study for European Commission – DG Environment - Tender DG ENV. G.1/ETU/2008/0093r.

City / Region	Name of Strategy	Year
Helsinki (FIN)	Helsinki Metropolitan Area Climate Change Adaptation Strategy	2012
Kent (UK)	Kent Environment Strategy: Rising to the Climate Change Challenge - Kent's Adaptation Action Plan 2011-2013	2011
Copenhagen (DK)	Copenhagen Climate Adaptation Plan	2011
Malmö (SWE)	Climate Adaptation Strategy	2011
Melbourne (AUS)	Climate Change Adaptation Strategy	2009
Rostock (DE)	Rahmenkonzept zur Anpassung an den Klimawandel in der Hansestadt Rostock	2013
Rotterdam (NL)	Rotterdam Climate Proof - Adaptation Programme 2010	2010
Saanich (CAN)	District of Saanich's Climate Change Adaptation Plan	2011
Santa Cruz (USA)	Climate Adaptation Plan. An update to the 2007 Local Hazard Mitigation Plan	2011

## ▶ **RESULTS**

## ► CATEGORIES

Category	Sub-Category
Descriptive Information	Definition of Adaptation
	Goals of Strategies
Major challenges of adaptation	Effects of Climate Change
	Dealing with risk
<b>Adaptation measures</b>	The main objectives of the measures
	Types of policy instruments for implementing measures
Resources and challenges for implementing the strategies	Financing of the strategies
	Barriers when adopting the strategies
Involvement in strategy development and implementation	Involved organized institutions
	Public participation in the development of strategies
Monitoring and evaluation of the strategy	<i>(no Subcategories)</i>

### **Examples of Climate Change effects from the Strategies**

- “More and heavier downpours in the future” (Copenhagen)
- “Higher temperatures and urban heat islands” (Copenhagen)
- “Drought and reduced rainfall” (Melbourne)
- “Extreme heatwave and bushfire” (Melbourne)
- “Cliff erosion” (Santa Cruz)
- “Increased risk of wildfire” (Santa Cruz)
- “Groundwater salinization” (Rotterdam)
- “Increased variety of groundwater levels” (Rotterdam)
- “Hotter, drier summers and milder, wetter winters” (Kent)



Saanich	Kent	Melbourne
Ecosystems, Urban Forests and Parks Infrastructure Transportation and Mobility Buildings Agriculture Energy Supply Health Economic Development Land Use Emergency Response	Health & Social Care Public Sector Estate Public Sector Staff Biodiversity, Heritage and Natural Environment Kent Businesses Kent Communities Kent Highways Services Waste Management Planning	Water Transport and mobility Buildings and property Social, health and community Business and industry Energy and communications Emergency service

## ▶ *ADAPTATION MEASURES I*

Adaptation measures in the strategies:

- Saanich identified 87 different measures
- Kent identified 82 different measures
- Melbourne identified 75 measures
- Rostock identified 71 measures
- Rotterdam: exception because presented already implemented measures

Goals of adaptation measures in the strategies:

- Awareness raising
- Risk reduction
- Additional use

## ▶ *ADAPTATION MEASURES II*

Different policy instruments for implementation:

- Financial instruments
  - *Use funding mechanism for adaptation measures*
- Regulative instruments
  - *No building in potential flooding areas*
- Planning instruments
  - *Use exiting plans (‘green plan’, ‘storm water strategy’) for integration*
- Voluntary agreements
  - *Inhabitants are encouraged to recycle water*
- Informative instruments
  - *Inform tourists about health risks.*
- Monitoring instruments
  - *‘Climate Monitoring’, ‘heat stress survey’*

## ▶ *INVOLVED ACTORS – STRATEGY KENT*



- Kent County Council
- Dartford Borough Council
- Dover District Council
- Maidstone Borough Council
- Shepway District Council
- Thanet District Council
- Tunbridge Wells District Council
- Business Link Kent
- Kent Police
- Eastern & Coastal Kent PCT
- Public Health Observatory
- Kent Biodiversity Partnership
- Volunteer Action Network
- Ashford Borough Council
- Canterbury City Council
- Gravesham Borough Council
- Sevenoaks District Council
- Swale Borough Council
- Tonbridge & Malling Borough Council
- Environment Agency
- Kent Fire & Rescue Service
- Kent Resilience Forum
- West Kent PCT
- Kent Waste Partnership
- Improvement & Efficiency South East

## ► *MONITORING*

Monitoring is different handled in the strategies:

- Kent: monitor the strategy on a **yearly** basis
- Rostock: monitor the strategy every **two** years
- Saanich: 'update' every **three** years
- Copenhagen: revise the strategy every **four** years
- Santa Cruz: monitor the strategy every **five** years
- Helsinki: monitoring without time frame

## ▶ **CONCLUSION**

## ▶ *DIFFERENCES AND SIMILARITIES*

### Similarities:

1. All address the risk of Climate Change
2. Most strategies refer to climate mitigation. These experiences are helpful for adaptation
3. Most Strategies address different sectors
4. Binding measures are the exception

### Differences

1. Responsibility for the Strategy (City Council, Environmental Agency, Projects)
2. The costs of implementing measures were stated differently

## ► **HYPOTHESIS**

1. *Existing governance instruments:* → In most strategies it is stated that measures can be implemented in the frame of existing processes.
2. *Adaptation is a cross-cutting issue:* → In all strategies different actors have been involved. Only in some cases these came from industry or the public.
3. *Adaptation at the local level:* → This thesis is only backed-up partly with this analysis. A adaptation-strategy is not automatically leading to implementing measures. More successful for implementation is the integration of adaptation in existing planning processes.
4. *Different policy-instruments:* → *Different instruments are applied to different extend. But mostly planing and information istruments are used. Regulative instruments with financial constraints are only rarly stated in the strategies.*



▶ **THANK YOU!**

[www.ecologic.eu](http://www.ecologic.eu)

<http://klimzug-radost.de/en>