### Climate-ADAPT

### The European Climate Adaptation Platform

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European Climate Change Adaptation Conference, Hamburg, 2013





### **Contents**

- Facts and background
- Short introduction to the Climate-ADAPT platform
  - Overview
  - Types of information
  - Key mechanisms
  - Most relevant tools
- Summary



### Facts & background

- Service contract for EC, DG Climate Action
- Implemented by a consortium led by Alterra (2011 2013)
  - Subcontractors: GeoCAT, CAP Gemini
  - Supported by DG CLIMA, EEA, JRC, many CCA experts
- Launched 23<sup>th</sup> of March 2012
- Hosted and maintained by the European Environment Agency (EEA)
  - ETC-CCA experts
  - EIONET users

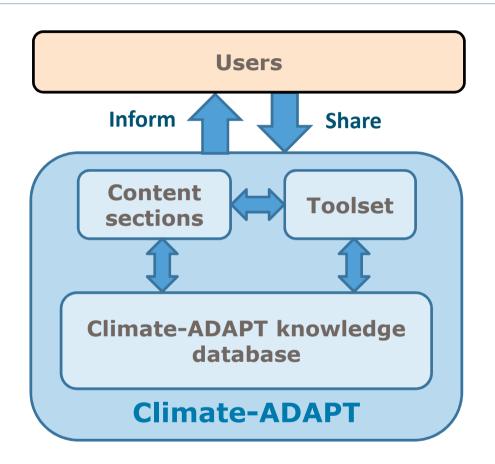


### Facts & background

- White paper "Adapting to climate change: Towards a European framework for action"
  - Building a solid knowledge base on the impact and consequences of climate change for the EU
  - Improve knowledge management, share information
- Support policy-makers at EU, national, regional and local levels in the development of climate change adaptation measures and policies



### Climate-ADAPT basic structure





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# Climate Change Adaptation in Europe

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- Expected climate change in Europe
- Current and future vulnerability of regions and sectors
- National and transnational adaptation strategies
- Adaptation case studies and potential adaptation options
- Tools that support adaptation planning

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### CLIMATE-ADAPT database

Search results: 163

checked information and is annotated by climate adaptation experts with The database contains quality keywords.

### Find data that has...

C Any of these words:

All of these words:

economic cost

### Type of data

- A selection of types C All types
- ▼ Publications and reports
- Waps, graphs and datasets
- Research and knowledge projects
- V Information portais ✓ Indicators
- ✓ Adaptation options ₹ Tools
  - Organisations

### Extended search

- Adaptation sectors
- Climate impacts
- C. Adaptation elements
- Countries

Clear Search

» CORFU project - Collaborative research on flood resilience in urban areas

» FLOODPROBE project - Technologies for the cost-effective Flood Protection of the Built » CLIMATECOST project - Full costs of climate change C User rating » CONHAZ project - Costs of Natural Hazards ▼ Research and knowledge projects (51) ▼ Maps, graphs and datasets (6) Search relevance ▶ Publications and reports (39) ▼ Information portals (3) ▶ Indicators (3) ► Tools (2) Sort by:

CAtoZ

Search relevance:

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Search relevance:

\* ECCONET project - Effects of Climate Change On the inland waterway and other transport

NETworks

Search relevance:

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# CLIMATECOST: Full costs of climate change

The objectives of this study are to advance knowledge of the full economic costs of climate change (costs of inaction and adaptation), through the following tasks:

- 1. To identify and develop consistent scenarios for climate change and socio-economic development, including
- To quantify in physical terms, and economic costs, the costs of inaction for these scenarios
- To extend analysis to quantify and value the costs and benefits of adaptation, and the residual costs of climate change after adaptation
- To asses the physical effects and economic damages of a number of the most important major catastrophic events and major socially contingent effects 4
- To bring all the information above together to provide policy relevant output, including information on physical effects and economic values, and undertake analysis of policy scenarios.

Policy relevant output includes a series of policy briefs on adapation costs for European and Global Climate Change Projections, Sea Level Rise, River Floods, Energy, Health, Europe co-benefits. These can be downloaded from the project website.

### Website

http://www.climatecost.cc/

Stockholm Environment Institute (SEI) Oxford (UK), Tom Downing (tomdowning.sei@gmail.com)

### Partners

22 institutes in Europe, India and China

### Funding

FP 7

### Duration

01/2009 - 08/2011

### Keywords

Cost of impacts/adaptation

### Sectors

Financial

nfrastructure Health

### Elements

National Adaptation Plans and Strategies Vulnerability Assessment EU Sector Policy

### Climate impacts

Flooding

Sea Level Rise

Geographic characterisation European and international

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## Share your information

CLIMATE-ADAPT is a platform for sharing and integrating information on adaptation to climate change. This section provides a summary of the quality assurance process in CLIMATE-ADAPT.

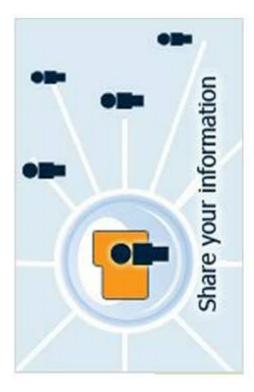
EIONET account can be requested here (Please note that it could take up to 1 hour before your account is It also provides a guide on how to contribute different types of information to CLIMATE-ADAPT. In order to propose content contributions, CLIMATE-ADAPT users need to have an EIONET account to log in. An

# Choose which type of information you would like to contribute:

- Publications and reports. Guidance documents: information portals;
- Research and knowledge projects;
- Adaptation options;
- Case studies;
- Organisations.

Updating of other sections of CLIMATE-ADAPT follows another process which is described here

For general questions regarding such contributions to CLIMATE-ADAPT, please contact CLIMATE-ADAPT's administrator



## Share guidance documents

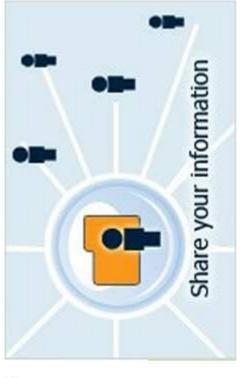
Publications and reports | Information Portals | Guidance documents | Tools | Research and knowledge projects | Adaptation options | Case studies | Organisations General

### Definition:

Guidance documents and guidance portals, sections of portals and web pages are specifically aimed at guidance. In this section of CLIMATE-ADAPT, guidance is included at EU level (e.g. from the European Commission) or from countries.

Governmental organisations are expected to provide proposals for this type of content.

See an example of a CLIMATE-ADAPT guidance document metadata sheet.







## Add a guidance document

\* SHAREAGEMENPORTLET \*\* Back\*

item-name (required)

website (required)

description

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support tool Adaptation

Once you have explored potential adaptation options, they need to be assessed to determine which of them best

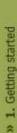
Assessing adaptation options

suit your specific context. There are many criteria you can use to assess the suitability of possible options. You

options. Tools and guidance documents provided in this section will help you select assessment procedures and

feasible options.

impact on sustainability and their costs. Different sets of criteria have been used to assess different adaptation may, for example, consider their effectiveness in reducing vulnerability (or enhancing resilience), or their wider



- » 2. Assessing risks and vulnerability to climate change
- » 3. Identifying adaptation options
- 4. Assessing adaptation options
- N 4.1. How to decide which options to include in an adaptation strategy?
- 4.2. What are costs and benefits of adaptation?
- » 5. Implementation
- » 6. Monitoring & Evaluation

### Further reading

- Assessing the Costs of Adaptation to Climate Change: A Review of the UNFCCC and Other Recent Estimates
- Framing vulnerability and adaptive capacity assessment: Discussion paper \*
- Review of available methods for cost assessment
  - Adaptation to Climate Change: Why is it needed and how can it be implemented?
- Unnatural Hazards: The Economics of Effective The World Bank (2010). Natural Hazards, Prevention. \*

### Guidance and tools

- Costing the impacts of climate change in the UK. Overview of guidelines
- Maptation Policy Frameworks for Climate Change

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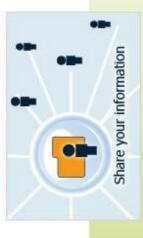


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### Finland

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the wider National Energy and Climate Strategy. Finland will revise/update its national adaptation strategy in 2012-Finland's National Strategy for Adaptation to Climate Change was adopted in 2005 as an independent element of 2013.

ministries in cooperation with different actors. Practical implementation is primarily carried out through various kinds planning, implementation and development processes. The Strategy is being implemented within the sectors of the The starting point for the implementation of the National Adaptation Strategy is to integrate adaptation into routine of strategies and programmes. Some ministries, such as the Ministry of the Environment and the Ministry of Agriculture and Forestry have prepared adaptation action plans for their administrative sectors:

- Adaptation to Climate Change in the Administrative Sector of the Ministry of the Environment
- Action Plan Update for 2011–2012
- An Action Plan to Implement the National Strategy for Adaptation to Climate Change
- Action Plan for the Adaptation to Climate Change of the Ministry of Agriculture and Forestry

A section for adaptation is also included in the national climate and energy strategies of 2005 and 2008

The (mid-term) evaluation of the implementation of Finland's National Strategy for Adaptation to Climate Change was conducted as a survey of whether and how the measures presented in the strategy have been launched in different sectors. A preliminary adaptation indicator was also developed in order to help to evaluate the level of adaptation. The evaluation report was published in 2009. The implementation of the adaptation strategy is followed and promoted by the Coordination Group for Adaptation to Climate which is steered by the Ministry of Agriculture and Forestry. The group consists of representatives of ministries, research institutes, research funding agencies and regional actors.

assessment. Launched adaptation measures included in the communication were identified in the evaluation of the Finland submitted its Fifth National Communication under the United Nations Framework Convention on Climate Change in 2009 and it includes a section on climate change impacts, adaptation measures and vulnerability

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clicking in the map or by searching and selecting if through the Locate function. Determine your location of interest by

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Mos

Sea Riga LATVIA

LITHUANIA

DENIMARK O Copenhagen

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POLAND

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Prague CZECH REPUBLIC

Your selected location

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Case study in non-similar biogeographical region

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Detailed flood risk assessment of Langeoog 🚿

Detailed risk assessment studies were done for the sand barrier island Langeoog and the island, Lower Saxony - DE north wester ...

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## Uncertainty Guidance

When confronted with assembling data and information to support the decision-making process there is a need to understand its nature and how it can and should not be used. One aspect of particular interest is uncertainties should be considered when deciding how to use any data and information, and the types of that for all data and information there are associated uncertainties. The nature and extent of these decision that can be drawn. A natural reaction when confronted with such uncertainties (e.g., uncertainties in climate information) is to possible, more accurate forecasts of future conditions. Unfortunately, even though knowledge will improve, ask those providing the information to improve knowledge and understanding, and to provide, as soon as uncertainty will remain inherent and therefore needs to be considered in adaptation decision making.

around three main topics that are listed below. For each of these topics the guidance first provides basic uncertainty in adaptation planning and for the communication of uncertainty. The guidance is organised information that are most relevant for adaptation planning. It also provides suggestions for dealing with This guidance aims to help decision makers in understanding the sources of uncertainty in climate

background reading and next addresses a list of 'Frequently asked questions' related to uncertainty in adaptation planning. The guidance borrows from existing guidelines for modelling, interpreting, and communicating uncertainty. These sources are listed as background reading.

characteristics. The debate among decision makers and other involved parties about how to deal with uncertainty in the planning process is a crucial element of policy making. The Notwithstanding the advice in this guidance, dealing with uncertainty can never be reduced to a simple cookbook. In the end each adaptation planning process will have its own authors of this guidance hope that the answers and examples provided in the guidance can stimulate this debate.

## What is meant by uncertainty?

- What are sources of uncertainty in adaptation
- Why is there uncertainty in climate information?
- What emission scenarios are the basis of most climate projections?
- So to uncertainty quidance for this topic

### How to factor uncertainty into adaptation decision-making?

- What are ways to account for uncertainty in decisionmaking?
- What are different types of adaptation options? What are no-regret adaptation measures?
- Now are uncertainties quantified?
- What scenario to use for adaptation planning?

## How to communicate uncertainty?

- What are lessons in communicating uncertainty?
- How can uncertainty be presented?
- How are uncertainties communicated in European national portals?.
- So to uncertainty quidance for this topic



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### Show a single map

Climate impact

All climate impacts

Adaptation sector All adaptation sectors

- Name of the stress (ClimWatAdapt project, 2050, EcF)
- Annual average water stress (ClimWatAdapt project, 2050, SUE)
- Annual average water stress (ClimWatAdapt

### Show a set of maps

(2050)

- Climate variables projected changes (ESPON Climate Change project)
- Terrestrial vulnerability and risk (ESPON Climate Change project)
- Vulnerability and risk for the water sector (ClimWatAdapt project)

### About this map viewer

Climate, JRC-IES and ENSEMBLES. Please note that This map viewer provides access to climate related projects and organisations: ClimWatAdapt, ESPON impacts, vulnerability and risks from the following observations and projections of climate change

### Summary

- Climate-ADAPT is a "living and growing platform"
- CCA experts can share their knowledge through Climate-ADAPT
- The platform will evolve and offer improved and new functions and tools towards the future

### **EU Commissioner Hedegaard:**

"This can be a tremendous tool helping decision makers to choose the best solutions to the benefit of their citizens. We are too bad at sharing best practices as well as information on what not to do. This new interactive tool will make efforts much more efficient."



### Thanks for your attention

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### Climate Change Adaptation in Europe

The European Climate Adaptation Platform (CLIMATE-ADAPT) aims to support Europe in adapting to climate change. It is an initiative of the European Commission and helps users to access and share information on:

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5-6 March 2013, World Forests Summit, Achieving sustainable forest management on a global scale, Stockholm, Sweden

18-20 March 2013, European rte Change Adaptation 2013 - Integrating Hamburg.

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