



Climate Services for Climate Action: The EU Adaptation Policy

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DG CLIMA's mission

- Develop and implement international and domestic climate change policies and strategies on **mitigation** and **adaptation** (2°C consistent)
- **Integrate** the climate dimension in all Community policies
- Lead on the **international negotiations** on CC and coordinate partnerships on climate change and energy with third countries;
- Help the EU to set and meet its targets for 2020, 2030 and beyond to **reduce GHG emissions** including a an EU-wide **MRV system**;
- Develop cost effective **EU-wide adaptation strategies** to climate change.
- To develop and implement the **EU ETS** with the aim of building an international carbon trading market
- To promote development and demonstration of low carbon and adaptation **technologies**,



EU Adaptation Strategy objectives

Overall objective: contribute to a more climate-resilient Europe.

3 Priorities:

1. Promoting action by Member States
2. **Better informed decision making**
3. Promoting adaptation in key vulnerable sectors

The EU Strategy in a Nutshell

Priority 1: Promoting action by Member States

- Action 1. Encourage MS to adopt Adaptation Strategies and action plans
- Action 2. LIFE funding, including adaptation priority areas
- Action 3. Promoting adaptation action by cities along the Covenant of Mayors initiative



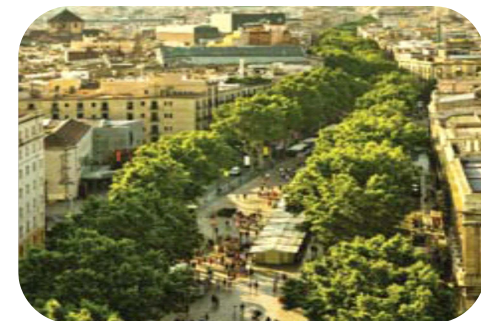
Priority 2: Better informed decision-making

- Action 4. Knowledge-gap strategy
- Action 5. Climate-ADAPT



Priority 3: Key vulnerable sectors

- Action 6. Climate proofing the Common Agricultural Policy, Cohesion Policy, and the Common Fisheries Policy
- Action 7. Making infrastructure more resilient
- Action 8. Promote products & services by insurance and finance markets



Priority 1: EU-wide Adaptation

1. *Action by Member States:*

- National Adaptation Strategies (15 EU MS) & Action plans (6 EU MS) / concrete activities
- Vulnerability assessments (few)
- Research on adaptation (most)
- Monitoring, evaluation (starting)

2. **Life funding.** Priority areas:

- cross-border floods management
- cross-border coastal management
- urban environment
- mountain and island areas
- drought-prone areas (water, desertification, fire risks)

3. **Cities & Local** (Administration below MS):

- Adaptation strategies (few)
- Sector-specific action & Small-scale local adaptation projects

Territorial climate impacts



Arctic

Temperature rise much larger than global average
Decrease in Arctic sea ice coverage
Decrease in Greenland ice sheet
Decrease in permafrost areas
Increasing risk of biodiversity loss
Intensified shipping and exploitation of oil and gas resources

North-western Europe

Increase in winter precipitation
Increase in river flow
Northward movement of species
Decrease in energy demand for heating
Increasing risk of river and coastal flooding

Coastal zones and regional seas

Sea-level rise
Increase in sea surface temperatures
Increase in ocean acidity
Northward expansion of fish and plankton species
Changes in phytoplankton communities
Increasing risk for fish stocks

Mediterranean region

Temperature rise larger than European average
Decrease in annual precipitation
Decrease in annual river flow
Increasing risk of biodiversity loss
Increasing risk of desertification

Northern Europe

Temperature rise much larger than global average
Decrease in snow, lake and river ice cover
Increase in river flows
Northward movement of species
Increase in crop yields
Decrease in energy demand for heating
Increase in hydropower potential
Increasing damage risk from winter storms
Increase in summer tourism

Mountain areas

Temperature rise larger than European average
Decrease in glacier extent and volume
Decrease in mountain permafrost areas
Upward shift of plant and animal species
High risk of species extinction in Alpine regions
Increasing risk of soil erosion
Decrease in ski tourism

Central and eastern Europe

Increase in warm temperature extremes
Decrease in summer precipitation
Increase in water temperature
Increasing risk of forest fire
Decrease in economic value of forests

Increasing water demand for agriculture
Decrease in crop yields
Increasing risk of forest fire
Increase in mortality from heat waves

Expansion of habitats for southern disease vectors
Decrease in hydropower potential
Decrease in summer tourism and potential increase in other seasons

Geography matters

Most vulnerable areas in Europe:

- Southern Europe and the Mediterranean basin
- Mountainous areas, in particular the Alps
- Coastal zones, floodplains, islands
- Arctic region
- Cities



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Assessing risks and vulnerability to climate change

This step aims to provide information about the major climate change trends, Europe. It will also help identify opportunities arising from climate change, and assess adaptive capacity and cope with uncertainty. Adaptation cannot be planned without projections; information on risk and vulnerabilities is also needed to determine socio-economic issues. European-wide and national projects have created socio-economic projections for different climate and socio-economic scenarios. These projections, when combined, provide an indication of future climate change impacts.

Guidance and tools

- » **IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptations**

Further reading

- » **Bridging Climate Change and the Impact of Climate Change**
- » **Framing vulnerability assessment**
- » **Freshwater assessment**
- » **ABI - Assessment of financial impacts**

- » 1. Getting started
- » **2. Assessing risks and vulnerability to climate change**

- » 2.1. How is the European climate changing?
- » 2.2. Risks and vulnerabilities in European sectors and regions
- » 2.3. Are there also opportunities?
- » 2.4. How to assess adaptive capacity?
- » 2.5. How to deal with uncertainties?

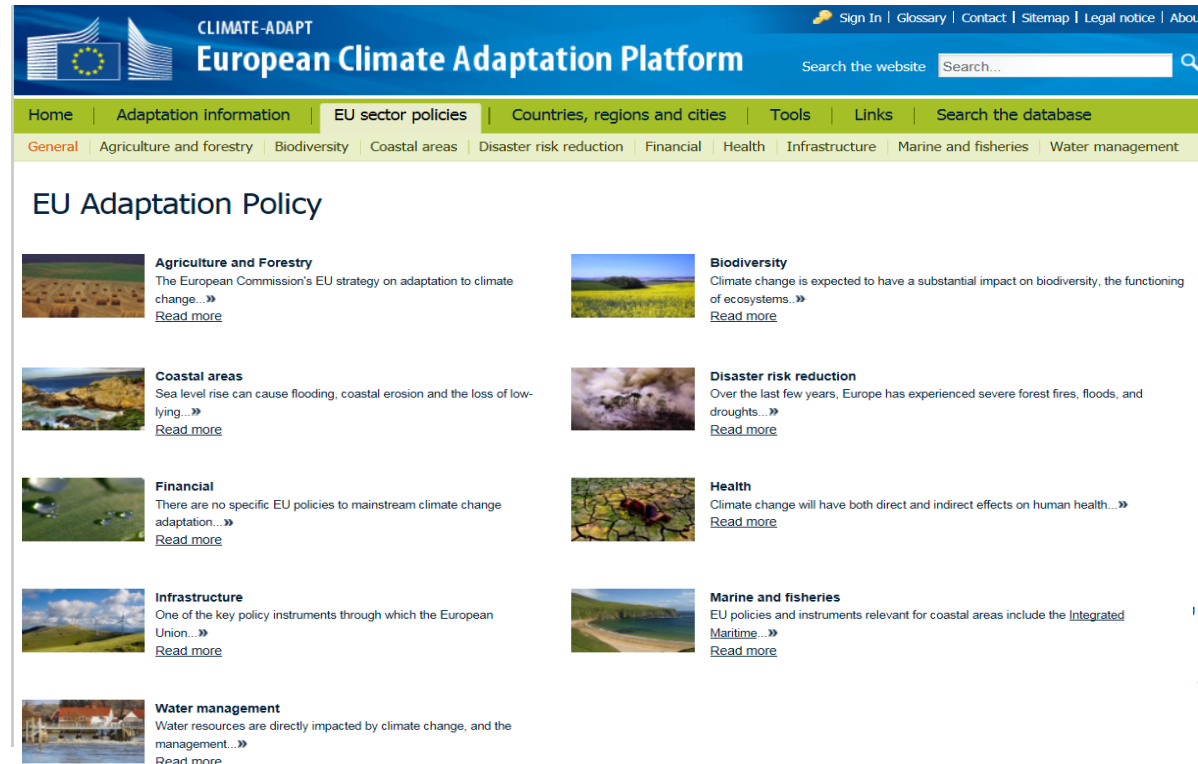
- » 3. Identifying adaptation options
- » 4. Assessing adaptation options
- » 5. Implementation

Priority 3: Vulnerable sectors

6. Mainstreaming into EU policies and funds. Climate proofing of the CAP, Cohesion Policy, and the Common Fisheries Policy (Funds: 20% of EU budget to climate-related action)

7. Making infrastructure more resilient

8. Promote products & services by insurance and finance markets



The screenshot shows the 'European Climate Adaptation Platform' website. The header includes the 'CLIMATE-ADAPT' logo and navigation links like 'Sign In', 'Glossary', 'Contact', 'Sitemap', and 'Legal notice'. A search bar is present. Below the header is a navigation menu with categories: 'Home', 'Adaptation information', 'EU sector policies', 'Countries, regions and cities', 'Tools', 'Links', and 'Search the database'. A secondary menu lists sectors: 'General', 'Agriculture and forestry', 'Biodiversity', 'Coastal areas', 'Disaster risk reduction', 'Financial', 'Health', 'Infrastructure', 'Marine and fisheries', and 'Water management'. The main content area is titled 'EU Adaptation Policy' and features a grid of eight sector-specific cards, each with an image, a title, a brief description, and a 'Read more' link.

Sector	Description
Agriculture and Forestry	The European Commission's EU strategy on adaptation to climate change...
Biodiversity	Climate change is expected to have a substantial impact on biodiversity, the functioning of ecosystems...
Coastal areas	Sea level rise can cause flooding, coastal erosion and the loss of low-lying...
Disaster risk reduction	Over the last few years, Europe has experienced severe forest fires, floods, and droughts...
Financial	There are no specific EU policies to mainstream climate change adaptation...
Health	Climate change will have both direct and indirect effects on human health...
Infrastructure	One of the key policy instruments through which the European Union...
Marine and fisheries	EU policies and instruments relevant for coastal areas include the Integrated Maritime...
Water management	Water resources are directly impacted by climate change, and the management...

Priority 2. Informed Decision-Making

Action 4. Knowledge-gap strategy

- Identify and prioritise knowledge gaps
 - Impacts, vulnerabilities, costs
 - Regional & local level analyses and risk assessments
 - Models and tools to support decision making
 - Monitoring & evaluation of impacts and past adaptation efforts
- Better interfaces science/policy/business
- EU-wide vulnerability assessments: JRC (economic costs of climate change); integrated threat and risk assessment reports (2015).

Action 5. Climate-ADAPT:

- Inclusion of Copernicus climate change service products

Some Key needs

- **Heterogeneity:** unlike mitigation, developing adaptation policies involves different geographic demands and needs
- **Scales and resolutions:** adaptation policies are defined at different geographic scales (EU, national, subnational, local)
- **Multiple sectors:** each vulnerable sector has its specific demands for climate information and services (variables, indicators, time scale, geographic scale).
- **Integration:** adaptation not an isolated topic – facilitate cross-sectoral and scale integration, key to succeed.
- **Uncertainty:** need to enclose /reduce/address it (climate side)
- **Transboundary** impacts and cross-border policies: need for standardized data and services, at EU level and beyond (e.g. Biodiversity, Health)



Some Keywords

- **Standardized**, comparable data, covering all EU (and beyond).
- **Long-term** and **continued** monitoring: data & projections, and comparative analyses
- **Toolboxes**: for different kinds of users, at different levels: sectoral, planners and decision-makers.
- **Governance**: Actors implementing adaptation know what they need – should participate in development of tools, toolboxes, platforms.
- **Available & Friendly** platforms: users need to be able to get data needed without spending months (years) recovering or processing data.
- **Awareness raising** and **dissemination**: climate information needs to be tailored to different kinds of users.



Thank you for the attention

Directorate-General for Climate Action ("DG CLIMA")

<http://ec.europa.eu/clima> – http://ec.europa.eu/dgs/clima/mission/index_en.htm

EU Strategy on Adaptation to Climate Change:

http://ec.europa.eu/clima/policies/adaptation/index_en.htm

European Climate Adaptation Platform (Climate-ADAPT):

<http://climate-adapt.eea.europa.eu/>

