European Commission



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Adaptation to climate change

- Adaptation means anticipating the adverse effects of climate change and acting to prevent or minimise damage, while exploiting potential opportunities.
- Early action will save lives and money. The EU-wide cost of not adapting to climate change could reach at least €100 billion a year by 2020, rising to €250 billion a year by 2050.
- The EU's Strategy on Adaptation to Climate Change focuses on promoting Member State action, integrating adaptation into EU policies, and supporting better informed decision-making.
- Adaptation strategies are needed at the local, regional and national level. For example, as major centres of population and infrastructure, cities play an important role in adaptation.
- Climate change is a global challenge. Coordinated and effective action at the international level is vital.


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Why we must adapt to climate change

Climate change is already making itself felt across Europe and the rest of the world. Extreme weather events are becoming more frequent or more intense, causing loss of life and damaging economic infrastructure.

The latest report from the UN's Intergovernmental Panel on Climate Change (IPCC) warns, for example, that flash floods are likely to increase throughout Europe, along with winter floods in maritime regions. Meanwhile, water resources in much of central and southern Europe will become scarcer.

The wide-ranging impacts of climate change will change natural environments and have major social and economic consequences over the rest of this century and beyond.

Reducing the emissions of carbon dioxide (CO_2) and other 'greenhouse' gases is essential to fight global warming. But even if all greenhouse gas emissions stopped today, the climate will continue to change as a result of the emissions already in the atmosphere.

Europe and other regions therefore need to learn to prepare for and live with a changing climate. For example, we can protect our water supplies through sustainable management techniques. We can safeguard our food production by developing drought-tolerant crops. We can withstand storms with better flood defences and early warning systems.

By adapting to the current and future impacts of climate change, our societies can strengthen their resilience to these changes.

The benefits of early action

There are strong economic reasons to act. It is estimated that the cost to the EU of not adapting to climate change would be at least €100 billion a year by 2020 and at least €250 billion a year by 2050. With adaptation, costs can be significantly reduced. For example, one euro invested in flood protection now could avoid six euros in damage costs later.

Moreover, adaptation will save lives and protect livelihoods. The 2003 heat wave in southern Europe killed up to 70 000 people, while a heat wave in 2010 caused wildfires across much of south-eastern Europe and a drought in Russia that substantially reduced its grain harvest.

Adaptation measures can also create opportunities and jobs, for example in sectors like agricultural technologies or construction.

Putting adaptation into practice

Climate change will impact every EU country differently, but all are exposed. The European Commission has therefore put in place an EU adaptation strategy which aims to make Europe more resilient to climate change.

The strategy provides a framework for dealing with the current and future impacts of a changing climate. It has three main priorities: to promote action by EU countries, build adaptation to climate change into EU policies and programmes, and make decision-making better informed by filling the remaining gaps in knowledge about adaptation.

Promoting Member State action

The European Commission is encouraging all EU countries to develop and implement national strategies for adapting to climate change. It supports Member States in building up their adaptation capacities and taking action, for example through funding, information and initiatives such as the 'Mayors Adapt' network for cities and local authorities.

Integrating adaptation into EU policies and programmes

The Commission is also working to integrate adaptation measures into various policy areas at the EU level. Priority areas include energy and transport. Guidance is also provided on further integrating adaptation under the Common Agricultural Policy (CAP) and Cohesion Policy. A Green Paper on insuring natural and man-made disasters represents a first step towards encouraging insurers to manage climate change risks better.

A particular effort is made to mainstream climate action into the European structural and investment funds. These funds constitute about 43 % of the budget of the Union in the period 2014-2020. Climate-related expenditure is estimated to amount to more than €110 billion, close to one quarter of the funds.

Making better-informed decisions

As adaptation is a relatively new policy field, there is a need for more information on its costs and benefits as well as analyses at the regional and local level. Policymakers and practitioners also need tools to support decision-making and monitoring and evaluating past adaptation efforts.

The EU programme for research and innovation – Horizon 2020 – will address these gaps by investing in science and promoting innovation to address Europe's societal challenges. Climate action is a cross-cutting issue in many areas of Horizon 2020.

The European Commission also facilitates knowledge-sharing through initiatives such as the Climate-ADAPT platform, a 'one-stop shop' for adaptation-relevant information.

Ensuring resilient infrastructure

Infrastructure projects, which are characterised by a long life span and high costs, need to withstand the current and future impacts of climate change. A World Bank study found that the net cost of adapting infrastructure to climate change is no more than 1 to 2% of the total cost of providing that infrastructure.

The Commission is working with European standardisation organisations to look at how far standards, codes and other rules need to be strengthened so that transport, energy, buildings and other infrastructure can cope with climate impacts and extreme events.


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National adaptation strategies

European countries are aware of the need for adaptation to climate change. To date, 18 EU Member States have developed an adaptation strategy, and several more are developing strategies or action plans to implement them.

These strategies lay the ground for the development and implementation of adaptation actions, most often focusing on 'soft' measures such as providing information or integrating adaptation into sectoral policies.

The sectors that have attracted the greatest attention throughout Europe at national level are agriculture, water, forestry, human health and biodiversity. Government funds earmarked for adaptation are mainly allocated to the water and agriculture sectors.

The LIFE programme

The LIFE Programme for the Environment and Climate Action is the EU's key dedicated funding tool to support innovative climate action projects. The programme will provide €864 million in co-financing between 2014 and 2020 for climate action projects, including adaptation issues such as cross-border management of floods, trans-boundary coastal management, mountain and island areas, urban adaptation and sustainable management of water. Part of the funding will be allocated through a new financial instrument, the Natural Capital Financing Facility, to support innovative financing approaches for projects promoting the preservation of natural capital that address adaptation aspects.


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Encouraging adaptation at the local level

Cities and local authorities are critical to the success of Europe's adaptation efforts. What is more, these centres of population and infrastructure are particularly vulnerable to extreme weather events and other effects of climate change. For these reasons, the European Commission has launched the Mayors Adapt initiative.

Mayors Adapt aims to encourage cities to sign up and commit themselves to developing comprehensive local adaptation strategies. The initiative also seeks to increase support for local activities by providing a platform for greater engagement and networking, and to raise public awareness about adaptation and the measures needed.

International cooperation

Climate change is a global issue that requires coordinated efforts at the international level.

In 2010, the countries that are part of the UN Framework Convention on Climate Change (UNFCCC) agreed that adaptation must be addressed with the same level of priority as mitigation and set up the Cancun Adaptation Framework to enhance action.

Another international initiative, set up by the EU, is the Global Climate Change Alliance (GCCA). Coordinated by the European Commission, the GCCA provides technical and financial support to developing countries to help them integrate efforts to tackle climate change into their policies and budgets.


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Everyone on board

The public plays an important part in developing effective ways to adapt to climate change. We all can do our part!

- By encouraging citizens to save water through local legislative powers and awareness-raising campaigns, the Spanish city of Zaragoza has reduced water consumption by 30% over the past 15 years, despite a 12% population increase.
- In Slovakia, a community network was formed by the NGO sector, which has since gone on to help develop urban strategies that take into account adaptation.
- In Milan, Italy, an action plan organised by the municipality, the local health authority and hospitals aims to mitigate the dangers of heat waves. Elderly and disabled people can call a toll-free number to request advice and services, such as meal delivery and home care.

Further information

European Commission Climate Action
ec.europa.eu/clima/policies/adaptation
facebook.com/EUClimateAction
twitter.com/EUClimateAction
Climate-ADAPT – European Climate Adaptation Platform
climate-adapt.eea.europa.eu
Mayors Adapt
mayors-adapt.eu
LIFE Programme
ec.europa.eu/environment/life
UNFCCC – Action to Adapt
newsroom.unfccc.int/action-to-adapt
Global Climate Change Alliance
www.gcca.eu
Intergovernmental Panel on Climate Change
www.ipcc.ch

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