



POLICY BRIEF January 2021

Living with climate change

A look at the “EU Climate Change Adaptation Strategy”, its importance, its objectives and its results

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KEY POINTS

This policy brief aims to;

- Inform stakeholders about the “EU Climate Change Adaptation Strategy” (2013) and its use as a plan of action to mitigate the effects of global warming.
- Explain its specific objectives
- Present the evaluation of the adaptation strategy
- Suggest an action plan for adaptation focused on collective action through the EU.

In recent years, global warming has become one of the issues that require not only national, but also regional and international action in order to be effectively tackled. One key element to this set of actions is the implementation of an adaptation strategy.

INTRODUCTION

What is climate change adaptation?

Adaptation is the process of taking appropriate measures to **prevent, mitigate or take advantage** of the effects of climate change. A process that can be both cost effective and life saving. Climate change adaptation measures can include more efficient use of water resources, construction of buildings less susceptible to extreme weather conditions and changes in agricultural practices. (European Commission, 2014)

The imminent threats of climate change in different sectors of human life and activity as well as its surrounding environment highlighted the need for action on a transnational level. In line with the “National Adaptation Strategies” (NAS) provided by the UN in 2012 in order to identify each country’s vulnerability to climate change and set up a plan for adaptation, the European Commission introduced the “EU Strategy on Adaptation to Climate Change” in 2013. (F.M. Moreira Alves et al, 2014) This proposed Strategy is centered on three general objectives:

encouraging action from EU member-states, enabling knowledge-based decisions by policy makers and promoting adaptation in the most vulnerable areas. (European Commission, 2013) What was acknowledged after the evaluation of the framework in 2018 was, firstly, the importance of this strategy in order to avoid major costly damages as a result of the effects of climate change and, secondly, the need for a more complete action plan aiming at areas and cities most vulnerable to climate hazards. (European Commission, 2018)

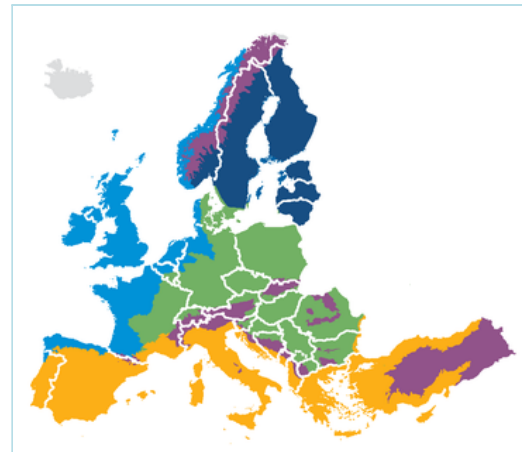
How are different European Regions going to be affected?

In the **Arctic** the temperature increase and the melting of permafrost will destabilize the local ecosystem and human activities. Moreover, the melting of ice will allow the opening of shipping routes and oil exploitation, which although is good for economic profit in the short term, it will be even more destabilizing for the ecosystem in the future. In **Northern Europe** the warmer weather will yield some positive results such as favorable conditions for hydroelectricity production and tourism, increased possibilities for agriculture and forest growth. In the long term, however, this region will experience increased river flow and more frequent extreme weather conditions.

North-West Europe is a region highly susceptible to river floods and flooding in areas close to the sea level. **Central and Eastern**

Europe will experience extreme temperatures, river floods, droughts and forest fires, which will also produce higher crop yield variability. Lastly, the **Mediterranean Region** is already being greatly affected. Decreased precipitation will strike sectors like agriculture, hydroelectricity and tourism very hard, while increased forest fires, heat waves, droughts and losses in biodiversity are also expected.

In addition, densely populated **cities** in general will be more and more vulnerable to extreme weather conditions, heat waves, floods and drought. On the other hand, the overall melting of glacier, snow, permafrost and the change in precipitation patterns in **mountains** will affect more and more biodiversity and related human activities such as energy, tourism as well as water availability in areas of lower altitude. (European Environmental Agency, 2012) According to the European Commission “*every euro spent on flood protection could save €6 in damage costs, according to estimates. Between 1980 and 2011 floods in Europe killed more than 2,500 people, affected more than 5.5 million and caused direct economic losses of more than €90 billion. The minimum cost of not adapting to climate change is estimated at €100 billion a year in 2020 and €250 billion in 2050 for the whole EU*” (European Commission, 2013)



EEA (2017), *Key observed and projected climate change and impacts for the main regions in Europe*

The “EU Strategy on Adaptation to Climate Change”



The European Commission proposed in 2013 the “EU Strategy on Adaptation to Climate Change”, in order to encourage member states to take action so as to adapt to the effect of global warming and save their cities from the economic impact these effects can have in the imminent future. For this purpose the Commission introduced a set of actions in order to encourage climate adaptation in EU member-states, provide the required knowledge for decision makers and promote action in crucial sectors. This set of actions was as followed.

- **Action 1:** provide **guidelines for adaptation** to member states and **evaluating** their progress.
- **Action 2:** provide funding under the "LIFE program", a program developed in order to **fund innovative projects** directed at climate action including but not limited to climate adaptation.
- **Action 3:** introduce the “**Covenant of Mayors Framework**”, through which the European Commission is promoting action by local authorities.
- **Action 4:** support **research** on climate adaptation from the program Horizon 2020 and support the Joint Research Center in its work to evaluate climate change effects and vulnerabilities in the EU.
- **Action 5:** in collaboration with the European Environmental Agency support access to **platforms with relevant information on climate adaptation** such as Climate-ADAPT and provide further funding for “Copernicus” (the EU satellite observation program which provides information on the environment and security)
- **Action 6:** provide guidance on “**climate proofing**” the **Common Agricultural Policy, the Common Fishery Policy and the Cohesion Policy**. Moreover, encourage EU member states to utilize funds under these policy areas for their adaptation strategy.
- **Action 7:** ensure **resilient infrastructure** by mandating standardization organizations to develop standards for infrastructures and provide guidelines governments and private companies, to allow them to have a clear framework when developing climate adaptation projects.
- **Action 8:** encourage insurers to improve their services for natural disaster and promote the utilization of natural disaster insurance. (European Commission, 2013)

Under this framework, many projects have been developed in EU counties with the objective of preventing and mitigating climate disasters. Such projects include flood management plans in Copenhagen (Denmark), Tziza River (Hungary) and the coastal area of Timmendorfer Strand (Germany). Other important projects are the screw pump system which allowed normal water flow in the Albert Canal (Belgium), the system for the restoration of the water cycle in Tamera (Portugal) and the tree plan in Barcelona (Spain), which protects the inner city from heat waves, supports biodiversity and allows better water management. All of these projects were primarily based on cost-benefit analysis and were developed with serious involvement of stakeholders. (Climate ADAPT, 2018)

The evaluation of the strategy in 2018 suggested that while there has been some progress in each of the eight objectives, the EU is still vulnerable to climate change. Specifically, coordination in the state level as well as cooperation with stakeholders, while existing, it is not following a clear path of action. Moreover, while there is plenty of usefull data, risk-benefit assessments and projections available for countries to utilize, this data does not cover some sectors and it is not country specific enough. While gaps in knowledge for policy makers have been identified, there



has not been much work done in order to address them. Additionally, a prioritization mechanism is in place in order to provide guidelines and criteria for project selection. Lastly, funding is substantial but it does not cover all sectors that need to be addressed. Generally, all country-members have adopted some type of National Adaptation Strategy, but not all countries have adopted a National Adaptation Plan. That means that, while there is some general strategy in place, many countries don't have a strategic plan of action addressing the issues in each area. Lastly, cooperation with stakeholders and local governments while it is important it is not efficiently developed. (European Commission, 2018)

SUGGESTIONS

Taking into consideration the abovementioned there are some **suggestions** that can be taken into account in the process of developing the new “EU Adaptation Strategy for Climate Change” as part of the Green Deal.

The EU could:

- Adopt a more decisive role in the adaptation process of member-states by publishing Directives, which encourage them to develop a specific plan of action to protect their most vulnerable regions.
- Establish through Directives region specific standards for “climate proofing” infrastructure in the future (weather resistant and sustainable buildings)
- Direct climate adaptation research toward lowering the cost of sustainability and adaptation (taking from the example of Switzerland which reduced the cost of green roofs to 20% less than traditional roofs, thus encouraging the transition from the use of the latter to the use of the first) (Climate ADAPT, 2018)
- Develop through the Common Agricultural Policy a country specific guideline for agricultural practices, in order to encourage a stable and organized, rather than abrupt, transition to different crops and methods, which can be extremely important for the economy of many European regions.
- Further promote the “Covenant of Mayors Framework” as a way for Local Governments to take initiative for climate action.
- Encourage member-states to organize campaigns with the objective to inform the public on safety procedures for the event of climate catastrophes and extreme weather conditions (manuals for protection against different physical catastrophes)

All these projects for adaptation can not only be cost efficient on the premise of preventing the costs of potential damage, but they can also create new jobs, otherwise lost due to the effects of climate change, showcasing that action for prevention is better than inaction.

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