



ClimateGO

Policy Brief

Climate-Smart Decision-making

Climate Change Impacts in Europe

Climate change has profound and far-reaching impacts across Europe, affecting various regions differently. Understanding these impacts is essential for developing effective climate-smart governance at both regional and municipal levels.

Warming, Drought, and Wildfire Risk

Rising temperatures are a significant concern in Europe, leading to increased instances of heatwaves and prolonged periods of high temperatures. This impacts human health, and has also resulted in higher risks of droughts everywhere in Europe, but especially in southern Europe, where water scarcity is already a pressing issue. Additionally, the combination of higher temperatures and dry conditions has escalated the risk of wildfires, threatening both natural ecosystems and human settlements.

Changes in Rainfall, Drought, and Flooding

Climate change also influences precipitation patterns across Europe. Some regions are experiencing more intense and frequent rainfall, leading to a higher likelihood of flooding. Contrastingly, other areas are facing reduced rainfall, exacerbating drought conditions. These changes pose significant challenges for water management and infrastructure, requiring adaptive measures to mitigate adverse impacts.

Biodiversity loss

Europe's biodiversity is facing a significant decline, with many protected species and habitats in poor conservation status. The pressures on biodiversity vary depending on the habitat, region, or species. The pressures on biodiversity come from, for example, agricultural activities, intensification of land use, urbanisation and leisure activities, as well as forestry. Climate change further increases the pressures on biodiversity.

Economic Damages

The economic consequences of climate change are substantial and multifaceted. From damage to infrastructure due to extreme weather events to losses in agricultural productivity caused by shifting climate conditions, the financial burden on European economies is increasing. Effective climate-smart governance is crucial to minimize these damages and ensure sustainable economic growth in the face of climate change.

Climate-smart Governance

Climate-smart governance is crucial for addressing the urgent need to combat climate change at regional and municipal levels. The ClimateGO project emphasizes the development of effective climate policies and their successful implementation. Effective governance requires engaging various stakeholders, leveraging local expertise, and ensuring that policies are adaptable and resilient to changing conditions. It is essential for regions and municipalities to adopt a proactive approach to climate mitigation and adaptation to safeguard their communities and environments.

ClimateGO partners present cities and regions from Finland, France, Ireland, Slovakia, Slovenia and Spain. The partners have various good practices on, for example, local and regional sustainability strategies and their implementation, establishing of cooperation networks, and implementing policies with various stakeholders. However, common challenges include insufficient national policy support, lack of collaboration, and capacity-

building needs. Smaller municipalities often struggle with implementation due to limited resources and economic constraints.

Experiences from ClimateGo partners

Päijät-Häme Region, Finland: Climate-smart governance has been promoted in Päijät-Häme through, for example, a joint effort of seven municipalities on drafting Climate Action Plans. The participatory process was coordinated by the Päijät-Häme Regional Council with financial support from the Finnish Ministry of Environment. The plans were approved at municipal councils at the end of 2024 and the beginning of 2025. The ClimateGO project continues the work by providing training on climate plans for municipal decision-makers starting their term after the 2025 municipal elections. Another example of actions are climate-change walks led by local experts to help raise awareness among decision-makers about observable impacts and risks of climate change.

Grenoble, France: Grenoble has a strong and longstanding commitment to social, environmental, and democratic transitions. The city's environmental engagement dates back many years; for example, in 2005, it became the first municipality in France to adopt a climate plan. Another key initiative is the PCAEM (Plan Climat Air Énergie Métropolitain), developed by the Grenoble Urban Community, which plays a central role in climate governance. The City of Grenoble has established its own PCAET (Plan Climat Air Énergie Territorial, 2023-2027) to implement new actions within its competences to reduce carbon emissions and improve air quality. Looking ahead, Grenoble is actively preparing for the future through the "Grenoble 2040" project, which aims to set a clear course towards a sustainable and socially just future by 2040.

Waterford, Ireland: Waterford City and County Council has developed the "Roadmap to Carbon Neutrality 2040," aligning with national climate action objectives. A steering group composed of various organizations and decision-makers ensures the roadmap's effectiveness and viability. This approach enables everyone, from individual citizens to large organizations, to take meaningful action and contribute to a strong, climate-smart governance framework. In addition, Waterford has established a Business Pledge for a Cleaner, Greener Waterford. The Council recognised the challenge particularly for small businesses to reduce emissions and provides advice to businesses helping them to access funding and training.

Košice Self-Governing Region, Slovakia: Košice Self-Governing Region plans to update its adaptation strategy with a focus on vulnerability assessment, risk analysis, and nature-based measures in the Roňava River basin. Prioritization of water retention projects within the regional project portfolio is crucial. Monitoring of implemented measures to mitigate climate change impacts and development of thematic maps based on data collected from ongoing regional initiatives will be conducted in 2025. The methodology for calculating retained water and carbon sequestration in the natural ecosystems of the Košice Region will be designed to assess water retention and carbon sequestration.

Podravje region, Slovenia: Looking ahead, the Podravje region sees several urgent priorities in its climate transition. Climate adaptation remains at the top of the agenda, particularly in addressing heat extremes, water management, and resilience of critical infrastructure. Energy transition is a major concern, with a strong push to promote solar energy in urban areas. Governance reform is critical, with a mission-led approach to decarbonization aiming for carbon neutrality by 2035.

Alzira, Spain: Alzira has made progress in developing regulatory frameworks, but priority actions still need to be developed to strengthen the region's response to climate change. These include greater climate awareness and education, adaptation of urban and rural infrastructure, and improvement of climate governance. Successful initiatives include sustainable mobility efforts, wildfire prevention plans, and sensor-

based sewer monitoring to prevent floods. The regulatory framework includes the Valencian Climate Change and Energy Strategy and the Climate Change and Ecological Transition Law. These achievements demonstrate that effective policies can be developed with strong political and social will.

Recommendations for Policymakers

1. Develop comprehensive adaptation strategies

Climate-smart governance requires clear strategies and leadership. Mainstream climate adaptation into all relevant policy areas, including agriculture, water management, urban planning, and public health.

2. Strengthen governance and cooperation

Foster coordination between different sectors and levels of government to ensure a coherent and integrated approach to adaptation. Engage local communities and stakeholders in the planning and implementation of adaptation measures to ensure their effectiveness and acceptance. Strengthen cooperation with both regional, national and international stakeholders to ensure knowledge exchange and innovation on adaptation practices and policies.

3. Enhance data and knowledge sharing

Ensure adequate resources for improved data collection and the use of risk assessment tools to better understand climate-related risks and losses. Invest in research and innovation to develop new adaptation solutions and technologies.

4. Increase financial support

Ensure adequate funding for adaptation projects utilising both local and national budgets and EU funding mechanisms. Prioritize long-term solutions over short-term fixes. Encourage private sector investment in climate adaptation through incentives and public-private partnerships.

5. Implement nature-based solutions

Promote nature-based solutions such as ecosystem restoration, afforestation, and sustainable land management to enhance climate resilience. Integrate green infrastructure in urban planning to reduce heat island effects and manage stormwater.

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