

At a glance

5 Pilot regions	4 Major climate hazards	531 Resilience indicators reviewed
36 Indicators linked to recommendations	90 Concrete recommendations	10 Policy Letters

Climate change affects European regions in different ways. Even when regions face similar hazards, the consequences depend on local geography, population, infrastructure, economic activities, governance structures and existing resilience capacities. ClimEmpower was developed around this understanding: climate resilience cannot rely on generic solutions, but needs locally relevant information, tools and recommendations.

The project worked with five pilot regions – Andalusia in Spain, Sicily in Italy, Osijek-Baranja County in Croatia, Central Greece in Greece and Troodos in Cyprus. Through cooperation with regional stakeholders and Communities of Practice, ClimEmpower explored local climate challenges, resilience needs and priorities, while developing tools and resources that can also support other European regions.

Understanding climate risks

Across the five pilot regions, four major climate hazards repeatedly emerged as particularly relevant:

Heatwaves Human health, energy systems, urban areas and quality of life	Droughts Water resources, agriculture, ecosystems and local economies	Floods People, buildings, transport systems and other critical infrastructure	Wildfires Communities, ecosystems, agriculture, infrastructure and tourism
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However, ClimEmpower demonstrated that the same hazard does not create the same risk everywhere. The level of risk depends on the interaction between hazard, exposure and vulnerability, making local knowledge and sufficiently detailed regional data essential.

Measuring resilience

To understand how well regions are prepared to respond and adapt, ClimEmpower reviewed 531 climate resilience indicators. The work showed that resilience cannot be described only through environmental or climate information. Social, economic, infrastructural and governance conditions are equally important.

The final resilience framework covers six dimensions:

- Health & Wellbeing
- Population & Education
- Economy & Labour Market
- Infrastructure
- Governance
- Environment, Nature & Settlement Areas

Rather than creating a single “black-box” resilience score, the project emphasised transparent and interpretable indicators that can help decision-makers understand where resilience is strong and where additional action is needed.

From assessment to recommendations

ClimEmpower translated evidence into practical guidance. The final recommendations framework contains 90 concrete resilience recommendations, directly connected to 36 resilience indicators and organised across seven fields of application.

Recommendations are not intended as generic climate advice. They respond to measurable territorial conditions and can be considered in relation to the relevant climate hazard, governance level and implementation timeframe.

Regional stakeholders also helped identify the measures most relevant to their contexts. Shared priorities were further translated into 10 Policy Letters, designed to provide decision-makers with concise recommendations, implementation roadmaps, co-benefits, funding opportunities and examples of good practice.

Bringing information together

The ClimEmpower Toolbox brings different project results into a common decision-support environment. It combines climate information, risk maps, resilience indicators, vegetation monitoring, historical hazard information, social sensing and resilience recommendations.

The overall ClimEmpower approach can therefore be summarised as:

Understand climate risks → assess resilience → identify local priorities → select suitable measures → support implementation and policy action.

By connecting scientific evidence with regional knowledge and practical recommendations, ClimEmpower supports regions in moving from understanding climate change to taking informed resilience action.

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