



Evaluation of the EU's Strategy on Adaptation to Climate Change What future for Europe's mountains?

EUROMONTANA'S RESPONSE TO THE PUBLIC CONSULTATION ON THE EU STRATEGY ON ADAPTATION TO CLIMATE CHANGE

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FOREWORD

Mountain populations are among the most sensitive to the disruption to the global balance caused by climate change. This sensitivity was recognized in the Declaration Rio+20, "The Future We Want". If we positively welcome the ratification of the Paris agreement signed at the end of the COP 21, we nevertheless regret the lack of reference to mountain territories.

Mountain populations will be the first to be affected by the economic, environmental, physical and social effects of climate change, but the impacts will also be felt far beyond on the populations in the lowlands. Measures to combat the effects of climate change will not be able to completely prevent these, but rather only alleviate them. The list of major climate impacts affecting mountain regions as established by the European Environmental Agency includes: 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 and decrease in ski tourism.

Mountain areas, and mountain people, who have always been used to adapting to difficult conditions, are also an asset in the fight against the effects of climate change, with their ecosystems that can contribute to carbon storage, prevent soil erosion, slow down landslides, and enable the provision of many types of renewable energy.

The situation asks for people living in mountain areas to adapt to climate change. This means that they should position themselves to anticipate the adverse effects of climate change and act to prevent or minimize the damage they cause, by limiting CO₂ emissions and implementing adaptation strategies. This also implies seizing opportunities to ensure a high quality of life for future generations.

Euromontana, as a representative of more than 70 farmers' organisations, research centres, local development agencies, local and regional authorities, farm advisory services and chambers of commerce all over Europe, would like to seize the opportunity to suggest further steps for several Actions of the EU Strategy on Climate Adaptation to better take into account the specific needs of mountain territories.

*The **EU Adaptation Strategy** refers in particular to three main priorities and defines a series of eight actions to implement in order to fulfil them. Euromontana addresses some suggestions for future improvement and examples of best practices for several of these actions here under.*

Action 1 "Encourage all Member States to adopt comprehensive adaptation strategies"

Adoption of Adaptation strategies in EU Member States

Mountains are explicitly mentioned in paragraph 33 of UN Resolution A/RES/70/1, "Transforming our world: the 2030 Agenda for Sustainable Development": *"We recognise that social and economic development depends on the sustainable management of our planet's natural resources. **We are therefore determined to conserve and sustainably use oceans and seas, freshwater resources, as well as forests, mountains and drylands and to protect biodiversity, ecosystems and wildlife.** We are also determined to promote sustainable tourism, tackle water scarcity and water pollution, to strengthen cooperation on desertification, dust storms, land degradation and drought and to promote resilience and disaster risk reduction."*

Mountains are then clearly mentioned again in several targets within Sustainable Development Goal 6 (SDG), "Clean Water and Sanitation", and SDG 15, "Life on Land". The SDGs can only be welcomed in this optic as the Paris Agreement fails to mention the specific mountain dimension. Nonetheless, despite the fact that mountain areas cover 29% of Europe's area, only one European country, Andorra, has explicitly mentioned mountains in its Nationally Determined Contribution (NDC). Euromontana believes the EU has an essential role to play in ensuring that the European Union's joint NDC with the Member States should be updated by notably taking into account territories with specificities such as mountains which are the first impacted by climate change.

Evaluation and monitoring of Evaluation strategies

Action 1 also involves the development of an adaptation preparedness scoreboard, identifying key indicators for measuring Member States' climate readiness. Euromontana would like to highlight the work undertaken by the Mountain Partnership (a United Nations partnership and international voluntary alliance) on the themes of [Water](#), [Energy](#), [Forests and Biodiversity](#) and especially on [Climate Change Adaptation and Disaster Risk Reduction](#) in this context. For mountain areas, key indicators of climate change preparedness could include:

- ▶ Number of countries incorporating and supporting mountain specific ecosystem-based management and adaptation approaches
- ▶ Number of national disaster risk reduction plans specific to mountain areas
- ▶ Percentage of communities implementing an integrated risk management approach
- ▶ Percentage of communities with an early-warning system in place
- ▶ Proportion of degraded mountain ecosystems restored, ecosystem resilience built and the contribution of biodiversity to carbon stocks enhancement
- ▶ Share of sustainable energy in the overall energy mix
- ▶ Rate of improvement of energy efficiency in mountainous regions

These indicators could be added to the NDCs to better monitor the progresses done on these sensitive areas.

Action 2 “Provide LIFE funding to support capacity-building and step up adaptation action in Europe (2014-2020)”

The EU has committed at least 20% of the EU budget for the 2014-2020 programming period to climate action and the EU must continue its commitment to support climate change adaptation during the next programming period, despite the difficult debates on the Multi-annual Financial Framework. Euromontana recognises the importance of the LIFE programme complemented to a large extent by the ESIF (European Structural and Investment Funds)¹, Horizon 2020, the European Fund for Strategic Investments (EFSI) and the European Energy Efficiency Fund (EEFF). Euromontana encourages the EU to maintain adequate and sufficient funding to support adaptation

Knowing that a large number of Europe’s biodiversity hotspots are almost exclusively in European mountain areas, this unique mountain flora and fauna must be protected. The European Environmental Agency predicts that 60% of mountain species will be extinct by 2100. Euromontana calls for LIFE funding to pay specific attention to:

- ▶ The preservation of species and habitats through a sustainable development approach while maintaining economic activities;
- ▶ The support of the diversity of mountain production systems and the genetic diversity of breeds and varieties. This diversity, gives value to all mountain areas through farming;
- ▶ Appreciation of the ecosystem services provided by mountain farmers and forestry owners and better compensation of these ecosystem services, which contribute to the well-being of the entire population;
- ▶ Ensure that payment for ecosystem services is used for the provision of these services;
- ▶ The preservation of ecological continuity between reservoirs of biodiversity and protected areas, through the maintenance and construction of natural corridors between Natura 2000 areas and existing protected areas, including across borders;
- ▶ Encourage successful local initiatives to develop at a bigger scale and help them in achieving a critical mass.

Related to the LIFE Climate Action priority and the LIFE Energy Efficiency Programme (PF4EE), and with the objective of reducing energy production and producing increased sustainable and renewable energy, Euromontana calls for:

- ▶ Energy savings through increased energy efficiency, notably at the local level;
- ▶ The development of renewable energy, in particular through the combined use of different energies (hydroelectric installations, small wind turbines, photovoltaic and solar heat systems) to contribute to the development of renewable natural energy resources, available in mountain regions;
- ▶ Adequate compensation of mountain communities for the use of their renewable energy and resources.

¹ €115bn out of the €454bn earmarked by the EU for climate support over the 2014-2020 period are covered by the ESIF according to the figures published by DG CLIMA in 2017

The example below, although not a LIFE project, illustrates the type of initiatives being taken in European mountains, in this case Slovenia, to step up capacity-building and adaptation action at the local level.

EXAMPLE OF A NEW GOVERNANCE MODEL TESTED IN SLOVENIA TO IMPLEMENT A LOCAL LOW-CARBON STRATEGY

Five Slovenian Alpine communities came together to implement their own Low-Carbon Strategy. Some measures they managed to implement were the following: multimodal car train option, long distance district heating powered by biomass, network of e-car charging stations, etc. The project used a bottom-up approach, which turned the threat of climate change into an opportunity. For instance, it managed to change mentalities in the area by connecting organic farmers and tourism operators, supported by sustainable mobility to reduce overall energy consumption.

See more info here: https://www.euromontana.org/en/events/x_euro_mountain_convention_braganca/

Action 4 “Bridge the knowledge gap”

Opportunities under Horizon 2020

The protection, conservation and enhancement of the natural capital of Europe’s mountains requires more coordinated research at the European level. For millennia, mountains have supplied water, minerals, timber and non-timber forest products to both mountain and lowland populations. Rivers originating in mountains connect them to the lowlands, providing water for agricultural, domestic and industrial use. All of these services are threatened by climate change.

There is clear scope within Horizon 2020 to include topics relating to the roles of mountains in addressing wider European and global challenges. Given the diverse challenges faced by Europe’s mountain regions and the linkage of these challenges to the well-being of lowland populations, finding solutions is imperative. A greater focus in Horizon 2020 on such issues would constitute a unique possibility to make vital contributions across the mountain ranges of Europe and the world.

Both the [Mountains for Europe’s Future: Strategic Research Agenda](#) published by the former Swiss-Austrian Alliance for Mountain Research (CH-AT) and the brochure on *European Mountains as test-beds for Europe to face global changes* published by NEMOR, the European Network for Mountain Research, have emerged from fruitful collaborations between many researchers and come up with proposals for research calls. Suggested research lines are included here below.

- ▶ Identification, modelling and projected drivers of change of main abiotic drivers and their dynamics in mountain areas.
- ▶ Identification of sustainable ecosystem and landscape management needs and strategies for mountain areas, with an emphasis on
 - Strategies to reduce or eliminate conflicts for resources;
 - Increasing the quality of the ecosystem services that mountains provide to the lowlands (forests, water, biodiversity, cultural heritage, tourism, etc); and
 - Combining use and conservation of resources (e.g. mineral resources)
- ▶ The study of forest dynamics in mountain areas over the last 18 000 years, considering forest dynamics in conjunction with the evolution of the climate and its cycles and with the effects of human pressure.
- ▶ Fire ecology in mountain areas, identifying how changes in drivers influence fire regimes; modelling and estimating impacts of changes in fire regimes on the supply of ecosystem services; looking for an optimization of the ecosystem and landscape structure and configuration to

minimize fire hazards

- ▶ Defining a social, economic, and technical strategy to ensure the water resource balance between the requirements of mountain and lowland people (the latter are generally more effective in protecting their needs).
- ▶ Defining a new perspective in approaching the transition in the high mountain area from a typical glacial and periglacial environment into the emerging paraglacial (highly influenced by gravitational processes and running water).

Bridging the gap between researchers and end-users

Euromontana encourages all types of projects aiming at closing the knowledge gap on climate adaptation and would wish for research and innovation to better target adaptation processes in mountain areas and, above all, to propose new paths and tools for end-users to adapt to climate change. Effective communication between researchers and the many local stakeholders is key to efficiently use newfound knowledge and European networks are valuable links for this purpose.

Euromontana would further like to stress the role of projects in enabling the mobilisation of actors at all levels, specifically European political decision-makers at the national, regional, and local levels, through a participatory approach; in exchanging good practices in climate adaptation across mountain regions in Europe; and awareness-raising among mountain actors, especially among young people, of ways to mitigate climate change including through daily behaviour and activities.

The example hereafter illustrates a project which started off with research activities on local climatic data in the French Massif Central mountains but then involved local farmers and chambers of agriculture to provide them with useful agricultural prevision tools to better adapt their farming system to the impacts of climate change.

EXAMPLE OF A PROJECT BRIDGING A KNOWLEDGE GAP ON THE IMPACT OF CLIMATE CHANGE ON AGRICULTURE IN THE FRENCH MASSIF CENTRAL

The AP3C project (Adaptation of Agricultural Practices to Climate Change) led by the French chambers of agriculture in the Massif Central mountain range aims at rethinking production systems to promote adaptation as a necessary condition to climate mitigation. The project is innovative in that it developed climactic models compatible with the locally observed evolution and precise variability increase. Local models provide farmers with more accurate and useful data that allows them to better adapt to their actual and near-future situation.

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Action 6 “Facilitate the climate-proofing of the Common Agricultural Policy (CAP), the Cohesion Policy and the Common Fisheries Policy (CFP)”

Climate-proofing the Common Agricultural Policy

The CAP [“Communication on the Future of Food and Farming”](#) published by DG AGRI in November 2017 states that *“cross-compliance, green direct payments and voluntary agro-environmental and climate measures, will be replaced and all operations integrated into a more targeted, flexible and coherent approach”*. So far, it is not really clear to Euromontana as to how the CAP will have higher ambition for resource efficiency, environmental care and climate action and what mechanisms will be put in place. Euromontana calls upon the European Commission to be particularly attentive to the mix of compulsory and voluntary measures in Pillars I and II to meet the environmental and climate objectives that would be defined in the CAP national strategic plans. Euromontana is waiting for more details to see how this new greening approach would be adapted in mountain areas, especially for small farms, which are

already providing a large amount of ecosystem services.

Furthermore, this Communication underlines changes to be brought to the current CAP and notably a **shift in the delivery model**, from compliance to performance. Euromontana welcomes this result-based approach, which would require more solid and measurable output, result and impact indicators, if it takes well into account the timing (some farming measures can only have an impact on the long term and thus cannot be measured on a short-term and yearly basis) but also taking into account the external factors on which the beneficiaries do not have any influence or impact. Euromontana thus invites Member States to define these indicators in collaboration with the beneficiaries during the elaboration of the CAP strategic plans.

Euromontana calls for **the reinforcement of regional production chains** in agriculture, silviculture and the agri-foodstuff industry under the CAP to avoid useless transport of goods and in so doing to bolster the regional added value and recognise the specific role played by mountain agriculture in climate regulation.

Euromontana also calls for **developing and selecting crops and varieties adapted to the expected longer seasons and available water resources**, that are more resistant to the new rain patterns and seasonal temperatures, and to diseases and invasive species; for adjusting the timetable of agricultural operations such as sowing, mowing or harvesting; **for encouraging the maintenance of grazing lands** that constitute an asset for biodiversity and carbon storage; and **for promoting local consumption through the promotion of short circuits and green public procurements** for schools and hospitals in particular.

The mountain forests have extensive potential for protection against natural hazards, the production of biomass, protection against soil erosion or carbon storage. They are nonetheless imperilled by more extensive periods of drought. Euromontana therefore calls for **conserving and preserving mountain forests that can capture CO₂**, particularly by **planning the regeneration** of species in the long term and by reducing natural risks linked to forest fires and the invasion of insects, and **encouraging the use of wood** as a substitute for fossil fuels; for **improving governance with concerted forest management** in terms of production and land policy; and finally, for **encouraging the use of biomass** as a source of energy and as a building material.

Climate proofing the Cohesion Policy

The Cohesion Policy aims “*at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions*” and states that “**particular attention shall be paid to (...) mountain regions**” according to the article 174 of the Treaty on the Functioning of the EU. Thus, the Cohesion Policy has a key role to play in addressing the specific challenges of mountain areas. Unfortunately, so far, there is little evidence that the Cohesion Policy has paid enough attention to these territories and has successfully achieved to address this territorial challenge and develop a place-based policy for mountain areas. Thus, Euromontana would welcome to better take into account the mountain dimensions in the Operational Programmes of the Cohesion Policy for different thematic priorities off the Cohesion Policy including climate change, but also tourism, transport, Information and Communication Technologies (ICT), and risk management. We have detailed below a set of recommendations for a few important investments areas in mountains:

Tourism

Every year, mountains welcome tens of millions of tourists. Climate change will continue to decrease the availability of snow for winter sports thus it is imperative to diversify the touristic offers. Euromontana calls for:

- ▶ The development of new products and services based on traditional activities, local products, the mountain environment and the heritage and unique culture of mountain areas in order to make the touristic season last beyond the traditional touristic season and encourage new customers, such as seniors;
- ▶ Having a targeted approach to the different types of tourists and adapt the tourism offer

accordingly;

- ▶ The development of agro-tourism, and synergies between agriculture and tourism and the direct sale of local products (farm-gate sales);
- ▶ The updating of tourist information on public transport options enabling travel to and from destinations and within mountain areas

The example hereafter illustrates a project of four-season tourism in the Slovenian Alps, also integrating climate adaptation measures for mountain farming.

EXAMPLE OF HOW TO COMBINE TERRITORIAL DEVELOPMENT AND CLIMATE-PROOFING OF AGRICULTURE IN THE SLOVENIAN ALPS

The Slovenian ski station of Rogla has had to diversify its activities to adapt to the decrease of snow and ski revenues. Recovering of alpine pastures and alpine wetlands during summer time to produce quality mountain products is one possible solution, combining tourism, natural conservation and rural development. The “Tastes of Rogla” label was created to promote those products and is now an essential component of the agri-touristic activities in that region. The tourism sector has developed summer offers and guided tours to attract more tourists over that period.

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Sustainable transport

To further develop sustainable transport options in order to reduce the number of journeys and enable environmentally-friendly soft mobility, Euromontana calls for:

- ▶ The European Commission to develop a legislative package on rural mobility, as has been done for urban mobility;
- ▶ Strengthening basic and applied research on electric vehicles; and its implementation in the territories;
- ▶ National and regional authorities to implement ambitious policies to support sustainable transport options (public transport, on-demand transport, electric vehicles);
- ▶ Regional and local transport authorities to develop multi-services in public transport (like transportation of people and goods at the same time) in order to avoid empty vehicles and to increase the viability of public transport.

Information and Communication Technologies (ICT)

Access to high speed broadband and ICT in mountain areas is a major challenge. Addressing this challenge will prevent unnecessary travel and reduce the carbon footprint, making it also possible to collect information on climate change. Euromontana calls for:

- ▶ The prioritization of access to high speed broadband by favouring remote areas where public incentives should be stronger than in densely populated areas;
- ▶ The promotion of teleworking and smart teleworking centres that bring together different services and users in one place;
- ▶ The training of ICT personnel and notably young people, especially for alert and prevention tools in case of avalanches, landslides and floods;
- ▶ The collection and analysis of climatic data at a more local level.

Risk management

To prevent natural risks and improve responses to emergencies, Euromontana calls for:

- ▶ The integration of climate change variability into the calculation of prevention measures against natural hazards;
- ▶ The consideration of future variations due to climate change in spatial planning;
- ▶ The sharing of risk-related data in open access;
- ▶ The promotion of an integrated approach to natural hazards management
- ▶ The training of risk experts.

The example hereafter illustrates a research project on risk management in the mountains of the Basque Country, in order to provide foresters with tools to adopt an integrated forest management approach and be able to face new risks associated with climate change.

EXAMPLE OF HOW TO IMPLEMENT INNOVATIVE RISK MANAGEMENT IN BASQUE FORESTS

The FORRISK project brought together 12 public partners from Portugal, Spain, France, and the UK to examine the risks (pests and pathogens, forest fires, wind damage, increased temperatures) forests are facing because of climate change. Activities included growing species beyond their natural range, comparing current forestry practices with other climate change adaptation techniques, and setting up a data collection system and database to monitor forest growth, health, and biological cycles. The project produced a risk analysis, modelling tools, and decision support tools for forest managers. Forests are at risk, but with proper collaboration between the public and private sector, funding, research, and management, these risks can be mitigated.

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For more information

To find out more about the impacts of climate change on European mountains and discover our collection of best practices of adaptation and mitigation, please visit: <https://www.euromontana.org/en/working-themes/environment-and-climate-change/>

Euromontana - the European Association for mountain areas

Euromontana is the European Association for mountain areas. Founded in 1996, it assembles around 70 organisations (regions, universities, chambers of commerce, of agriculture, development and environmental agencies) from around 17 European countries in and out of the EU. Dedicated to the improvement of the quality of life of mountain people, Euromontana is working on different themes of crucial importance for mountain areas, such as cohesion policy, rural development, climate change, innovation, mountain products, tourism, agriculture and forestry, transport, youth... Euromontana is also officially supporting the RUMRA (Rural, Mountainous and Remote Areas) intergroup of the European Parliament.

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