

An aerial photograph of a mountain station, likely a ski lift terminal, situated on a snow-covered peak. The station has a circular observation deck and several glass-enclosed buildings. The surrounding landscape is a vast, snow-covered mountain range under a clear sky.

Face the challenge of climate change in the mountains:  
adaptation for future generations

## **EUROMONTANA'S RESPONSE TO THE PUBLIC CONSULTATION ON ADAPTATION FOR FUTURE GENERATIONS**

### **EUROMONTANA'S CONTRIBUTION FOR THE POST-2020 EU STRATEGY ON ADAPTATION TO CLIMATE CHANGE**

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People living in mountain areas are among the most sensitive to the disruptions to the global balance caused by climate change. These 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, by people living in the lowlands. Measures to combat the effects of climate change will not be able to completely prevent these effects, 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 of winter tourism.

Mountains are explicitly mentioned in paragraph 210 of the final declaration “The future we want” of the UN Rio+20 Conference on Sustainable Development: “We recognize that the benefits derived from mountain regions are essential for sustainable development. Mountain ecosystems play a crucial role in providing water resources to a large portion of the world’s population; fragile mountain ecosystems are particularly vulnerable to the adverse impacts of climate change, deforestation and forest degradation,

land use change, land degradation and natural disasters; and mountain glaciers around the world are retreating and getting thinner, with increasing impacts on the environment and human well-being.”

Despite this international recognition of the crucial importance of mountain areas in the adaptation process to climate change, the European Commission does not appear to consider the specificities of mountain territories for its future EU Strategy. If the cooperation of States within the Alpine and Danube macro-regions is a step for adaptation, the European Union must push for an enhanced consideration of mountain needs and opportunities in every Member State.

Euromontana therefore calls upon the European Commission to adopt an ambitious Strategy on Adaptation to Climate Change, which should consider the needs of the most affected territories of the Union.

In particular, Euromontana urges the European Commission to provide mountain communities with the tools for adaptation to climate change, including through EU programmes such as LIFE and Horizon Europe but also by addressing their needs in the various interconnected Green Deal strategies.

## **Action 2 “Provide LIFE funding to support capacity-building and step up adaptation action in Europe”**

Euromontana welcomes the proposed increase by 60% of the total budget of the LIFE programme for 2021-2027. With 61% of this envelope available to finance climate actions, the new LIFE programme will offer more opportunities for local communities to adapt to climate change. Yet, difficult debates continue on the overall Multi-annual Financial Framework for the next programming period. Euromontana therefore calls for an ambitious budget to be made available from 2021 through other programmes and funds such as Horizon Europe, the ESIF (European Structural and Investment Funds), the European Fund for Strategic Investments (EFSI) and the European Energy Efficiency Fund (EEFF).

A large number of Europe’s biodiversity hotspots are entirely or almost exclusively in European mountain areas and the European Environmental Agency predicts that 60% of mountain species will be extinct by 2100. It is therefore crucial to protect the unique flora and fauna of mountain areas in the next programming period. Euromontana calls for the LIFE Environment sub programme to pay specific attention to:

- ▶ The preservation of mountain 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.
- ▶ The appreciation of ecosystem services provided by mountain farmers and forestry owners and managers and better compensation of these ecosystem services, which contribute to the well-being of the entire European population.
- ▶ Ensuring that payment for ecosystem services is used to support the provision of these services.
- ▶ Encouraging successful local initiatives to develop at larger scales and help them to achieve a critical mass.

Moreover, Euromontana calls for the LIFE Climate sub programme to consider the challenges of mountain areas and to offer possibilities for projects on adaptation especially targeting mountain territories. In line with the objectives of the Green Deal, Euromontana calls for:

- ▶ Enhanced energy savings through increased energy efficiency, notably at the local level.
- ▶ The development of the renewable natural energy resources available in mountain regions, in particular through the combined use of different energy resources: hydroelectric installations, small wind turbines, local biomass (especially wood), photovoltaic and solar heat systems.
- Adequate support to mountain communities to develop and capitalise on renewable energy and resources.

## Action 4 “Bridge the knowledge gap”

### Opportunities under Horizon Europe

The protection, conservation and enhancement of the natural capital of Europe’s mountains require 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.

Given the diverse issues in terms of resources and climate in mountain regions and their linkages to global challenges and the well-being of lowland populations, finding solutions is imperative. The Horizon Europe programme must contribute to address topics related to the roles of mountains. A greater focus on these issues within Horizon Europe would constitute a unique possibility to make vital contributions across the mountain ranges of Europe and the world.

Euromontana welcomes the budget increase for the new clusters “food, natural resources” and “climate, energy and mobility”. NEMOR, the European Network for Mountain Research, demonstrated how European mountains can be test-beds for Europe to face global changes, and has developed proposals for research calls which can fit into these two new clusters of Horizon Europe:

- ▶ 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 (e.g. integrated water basin management system which associate in a participative way all stakeholders, namely municipalities, energy suppliers, farmers, the tourist sector etc. in order to develop new governance systems for a shared use of water).
  - Increasing the quality of the ecosystem services that mountains provide to the lowlands (forests, water, biodiversity, cultural heritage, tourism, etc).
  - 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 that aim to close the knowledge gap on climate adaptation between researchers and end-users. Euromontana calls for research and innovation which better target adaptation processes in mountain areas, to propose new paths and tools for end-users to adapt to climate change. Effective communication between researchers and various local stakeholders is key for efficiently using new knowledge; and European networks are valuable links for this purpose. Euromontana would further like to stress the important role of projects for: enabling the mobilisation of actors at all levels, specifically political decision-makers at European, national, regional, and local levels, through a participatory approach; exchanging good practices in climate adaptation across mountain regions in Europe; and awareness-raising among mountain actors, especially young people, of ways to mitigate climate change, including through daily behaviour and activities.

## **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 post-2020 CAP introduces a new delivery model and a mix of compulsory and voluntary environmental and climate measures in Pillars I and II. Euromontana welcomes this new result-based approach, which requires more solid and measurable output, result and impact indicators. Yet, the timing needs to be well considered when designing the objectives and indicators, since some farming practices can only have impacts in the long term and thus cannot be measured on a short-term and yearly basis. Indicators must also take into account 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 national Strategic Plans. Moreover, Euromontana encourages Member States to design appropriate measures for small farmers, who are already providing important and diverse ecosystem services for both mountain and lowland populations.

Euromontana calls for the reinforcement of regional and local short production chains in agriculture, silviculture and the agri-foodstuff industry, in line with the Farm to Fork Strategy. This can help in recognising the specific roles played by mountain agriculture in climate regulation, for instance through carbon sequestration and sustainable farming practices; it can also encourage climate change mitigation by avoiding unnecessary transport of goods and assist in bolstering the maintenance of the added value in regions.

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

Moreover, mountain forests have significant importance for protection against natural hazards and soil erosion, the production of biomass, and carbon storage. They are nonetheless imperilled by longer and more severe periods of drought. Euromontana therefore calls for: conserving and maintaining mountain forests that can capture CO<sub>2</sub>, particularly by planning the regeneration of species in the long term and by reducing natural risks linked to forest fires and insect epidemics, and encouraging the use of wood as a substitute for fossil fuels; improving governance with concerted forest management in terms of production and land policy; and finally, encouraging the use of biomass as a source of energy and as a building material (use of wood in a cascade-system).

### **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, including adaptation to climate change.

Cohesion Policy can enhance adaptation to climate change in mountain areas with Operational Programmes that fully consider the challenges and opportunities of these regions. These programmes must be designed at a more coherent level, for instance by covering an entire Massif as for the OP Massif Central in France, and propose ambitious territorial regional agendas for key sectors in the adaptation process. We have detailed below a set of recommendations for a few important investment areas which could support adaptation to climate change in mountains territories if well considered in Operation Programmes:

#### *Tourism*

Every year, mountains welcome tens of millions of tourists: most notably, the Alps welcome 95 million long-stay tourists and 60 million day-trip visitors. Climate change will continue to affect snowfall, snow cover and ski tourism. It is thus imperative to diversify the touristic offer. Euromontana calls for:

- ▶ ▶ The development of new products and services based on traditional activities, local products, and the unique environments, heritage and culture of mountains in order to create real four-season tourism, decreasing the pressure on mountain environments in winter, encouraging more sustainable tourism practices such as eco-tourism and rural tourism, and attracting new customers such as older adults;
- ▶ ▶ The development of agro-tourism and other synergies between agriculture and tourism to raise awareness about sustainable food production and encourage on-farm sales.

- ▶ ▶ The development of public transport infrastructures and offers, and services to provide information on public transport options enabling to travel to and from destinations and within mountain areas.

### *Sustainable mobility*

It is essential to further develop sustainable transport options, especially in rural mountain areas, to maximise journeys and encourage environmentally friendly mobility in every region. Euromontana calls for:

- ▶ The consideration of rural mobility in the awaited Sustainable and Smart Mobility Strategy. While urban mobility has been addressed in the Urban Mobility Package, the EU still lacks ambition to tackle the issue of sustainable mobility in rural areas.
- ▶ A reflection on the opportunities offered by rail transport to address climate change challenges, for both passengers and freight transportation. The European Commission must encourage the development of solutions, in particular If 2021 is to be the European Year of Rail. A special focus should be given to night trains to link major European cities to tourist centers, as an attractive alternative to short haul flights. Ticketing for public transport must be simplified and harmonised across all European countries and regions.
- ▶ Strengthening basic and applied research on electric vehicles and charging infrastructure; and the implementation of the findings of this research in mountain areas.
- ▶ The implementation by national and regional authorities of ambitious policies to support sustainable transport options (public transport, on-demand transport, electric vehicles) and the development of multi-services in public transport (like transportation of people and goods at the same time) in order to avoid empty vehicles, increase the viability of public transport, and decrease the pressure of transport on climate. A special focus should be put on cross-border commuting, as highlighted e.g. in the Macroregional Strategy for the Alpine Area EUSALP<sup>1</sup>.

### *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 overall carbon footprint while also encouraging the collection of data on climate change. The COVID-19 outbreak demonstrated that rural areas offer a high quality of life and peaceful teleworking environments. The development of remote working and learning in mountain areas can support adaptation to climate change, in particular during major climate disturbances in winter or during pollution peaks in valleys; yet, these practices require investments to ensure the availability of the necessary broadband and ICT. Euromontana calls for:

- ▶ The prioritization of access to high speed broadband (fixed and mobile) 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. This shall also include a reduction of administrative burdens for commuting teleworkers.
- ▶ The development of alert and prevention tools for natural hazards (avalanches, landslides and floods) and the training of staff and local communities on the use of these ICT tools.

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<sup>1</sup> <https://www.alpine-region.eu/projects/arpaf-crossborder>

- ▶ The collection and analysis of climatic data at a more local level.

### *Risk management*

To better adapt to the consequences of climate change in mountain areas, it is essential to further prevent natural risks and improve responses to emergencies. Euromontana calls for:

- ▶ The collection and/or analysis of observed data on climate at a more local level. There are very different reactions on an infra-county scale, especially in mountain areas, with valley floor, rapid altitude variation, changes in prevailing winds for example. This is why the effects of climate change can be experienced in very different ways from a place to another.
- ▶ The use of climate projections which were proved to be compatible with the observed real climate trajectory.
- ▶ The integration of climate change variability into the calculation of prevention measures against natural hazards.
- ▶ The strengthening of territorial resilience through spatial planning and the consideration of future variations due to climate change in spatial planning. The designing of concrete and operational tools which can be used and shared by stakeholders at local and regional levels, including policy makers but also farmers, researchers and civil society organisations.
- ▶ Open access sharing of risk-related data.
- ▶ The promotion of an integrated approach to natural hazards management, for example including forestry, agriculture and tourism activities, and further training of risk experts.

## **Euromontana - the European Association for mountain areas**

Euromontana is the European Association for mountain areas. Founded in 1996, it assembles around 65 organisations (regions, universities, chambers of commerce, of agriculture, development and environmental agencies) from 15 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 among others. Euromontana is also officially supporting the RUMRA (Rural, Mountainous and Remote Areas) & Smart Villages intergroup of the European Parliament.

### **Contact**

**Marie Clotteau**, Director of Euromontana  
2, place du champ de mars, 1050 Brussels  
[www.euromontana.org](http://www.euromontana.org)  
Email: [marie.clotteau@euromontana.org](mailto:marie.clotteau@euromontana.org)  
Phone: +32 2 280 42 83