

EU climate policy on adaptation to climate change and related financial opportunities for the territories

Dina Silina (DG CLIMA) at

Cohesion Policy in Mountain Areas: how to increase the contribution from mountains and benefits for mountain territories?

7th June 2017

Borschette Centre, Brussels.



Dual challenge

1. We must sharply cut greenhouse gas emissions to prevent unmanageable impacts ('**mitigation**')

2. We must also adapt to climate change to increase society's resilience and manage unavoidable impacts ('**adaptation**')



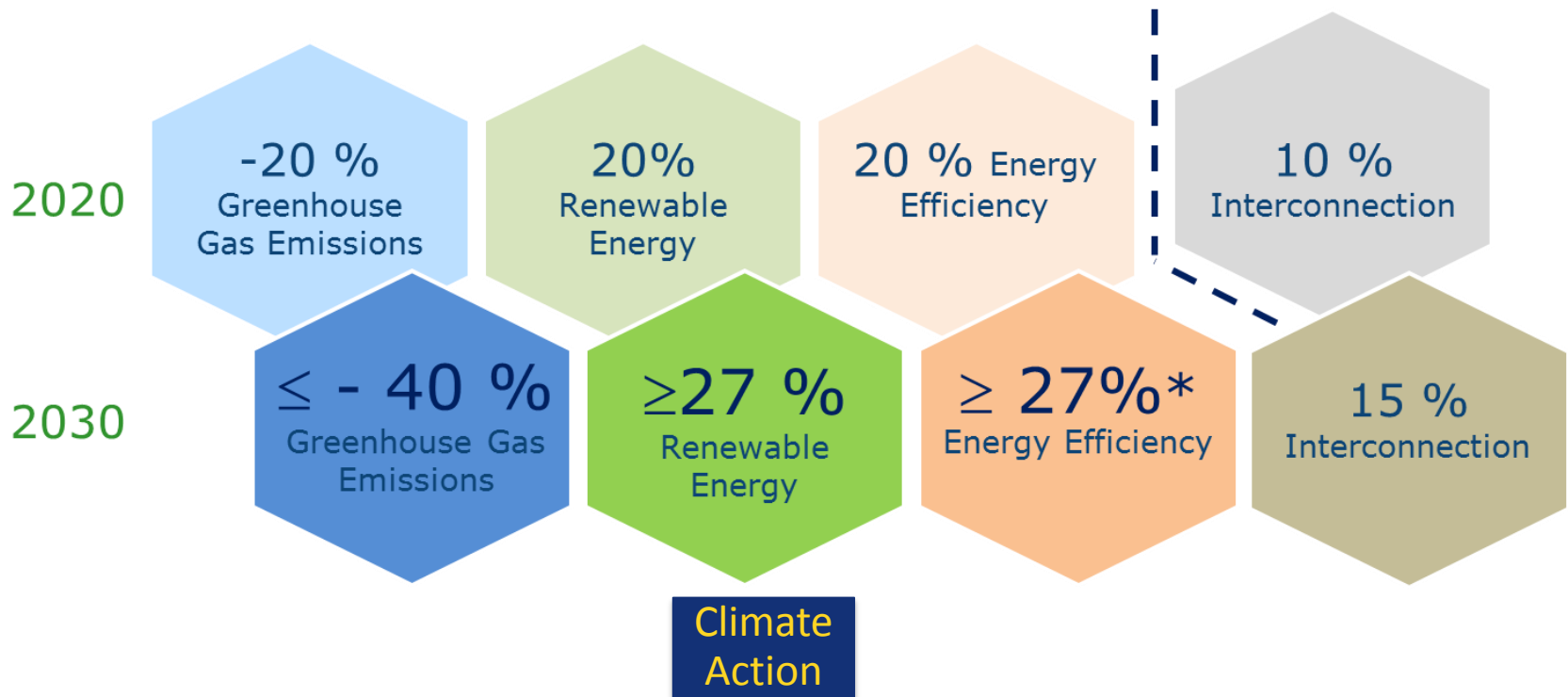
2030 Climate and Energy Package



European Adaptation Strategy (2013)

Complementary and can be mutually reinforcing!

2030 Climate and Energy Framework





Delivering a low-carbon economy across all sectors

- **Emissions Trading System**
- **Effort Sharing Regulation 2021-2030 (COM(2016)482):**
Includes buildings, transport, agriculture (non-CO₂), waste, F-gases, other smaller sectors outside ETS
- **Land use, land use change and forestry (COM/2016/479)**
- **EU Strategy for low-emission mobility (COM/2016/244)**
- **Energy efficiency (COM(2016)761) including buildings (COM/2016/765)**
- **Renewable energy**
- **Energy market and consumers;**
- **Ecodesign; Innovation; Transport**
- **Energy Union governance (COM(2016)759)**



2013 EU Adaptation Strategy

- **EU Adaptation Strategy**: promoting a resilient Europe; 4 years of implementation, broad, challenging, good first steps
 - Working with EU **member states, regional** and **local level action: 23 MS** have a national adaptation strategy; **4 Macro-Regional Strategies** (Baltic Sea, Danube, Alpine and Adriatic and Ionian) implement climate objectives (e.g. Climate Dialogue Platform of the Baltic Sea Region; AG8 of the Alpine Macro-region). **Covenant of Mayors: 600 cities** committed to adaptation action, 200 regional coordinators; **EU Urban Agenda** Partnership on Adaptation;
 - **Mainstreaming** into EU policies and programmes: e.g. environment, water, forestry, agriculture, transport, maritime etc. **20% EU budget for climate action: ESIF** will contribute with 25% to climate objectives; **ETC programmes** - about 20%, strategic orientation – macro-regional strategies. **LIFE** : about €400 million for adaptation projects in 2014-2020;
 - Research and innovative approaches towards **better informed policy – making: knowledge gaps, Horizon 2020; Climate-ADAPT**

• 2017 evaluation year -

Climate
Action

assessing implementation
progress

Territorial climate impacts



Arctic region

- Temperature rise much larger than global average
- Decrease in Arctic sea ice coverage
- Decrease in Greenland ice sheet
- Decrease in permafrost areas
- Increasing risk of biodiversity loss
- Some new opportunities for the exploitation of natural resources and for sea transportation
- Risks to the livelihoods of indigenous peoples

Atlantic region

- Increase in heavy precipitation events
- Increase in river flow
- Increasing risk of river and coastal flooding
- Increasing damage risk from winter storms
- Decrease in energy demand for heating
- Increase in multiple climatic hazards

Mountain regions

- Temperature rise larger than European average
- Decrease in glacier extent and volume
- Upward shift of plant and animal species
- High risk of species extinctions
- Increasing risk of forest pests
- Increasing risk from rock falls and landslides
- Changes in hydropower potential
- Decrease in ski tourism

Coastal zones and regional seas

- Sea level rise
- Increase in sea surface temperatures
- Increase in ocean acidity
- Northward migration of marine species
- Risks and some opportunities for fisheries
- Changes in phytoplankton communities
- Increasing number of marine dead zones
- Increasing risk of water-borne diseases

Boreal region

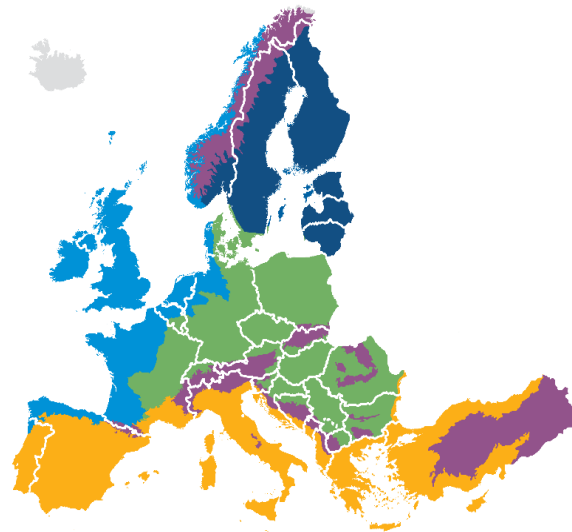
- Increase in heavy precipitation events
- Decrease in snow, lake and river ice cover
- Increase in precipitation and river flows
- Increasing potential for forest growth and increasing risk of forest pests
- Increasing damage risk from winter storms
- Increase in crop yields
- Decrease in energy demand for heating
- Increase in hydropower potential
- Increase in summer tourism

Continental region

- Increase in heat extremes
- Decrease in summer precipitation
- Increasing risk of river floods
- Increasing risk of forest fires
- Decrease in economic value of forests
- Increase in energy demand for cooling

Mediterranean region

- Large increase in heat extremes
- Decrease in precipitation and river flow
- Increasing risk of droughts
- Increasing risk of biodiversity loss
- Increasing risk of forest fires
- Increased competition between different water users
- Increasing water demand for agriculture
- Decrease in crop yields
- Increasing risks for livestock production
- Increase in mortality from heat waves
- Expansion of habitats for southern disease vectors
- Decreasing potential for energy production
- Increase in energy demand for cooling
- Decrease in summer tourism and potential increase in other seasons
- Increase in multiple climatic hazards
- Most economic sectors negatively affected
- High vulnerability to spillover effects of climate change from outside Europe



Mountain regions – particularly vulnerable.

Mountains are providers of key services to the European societies.

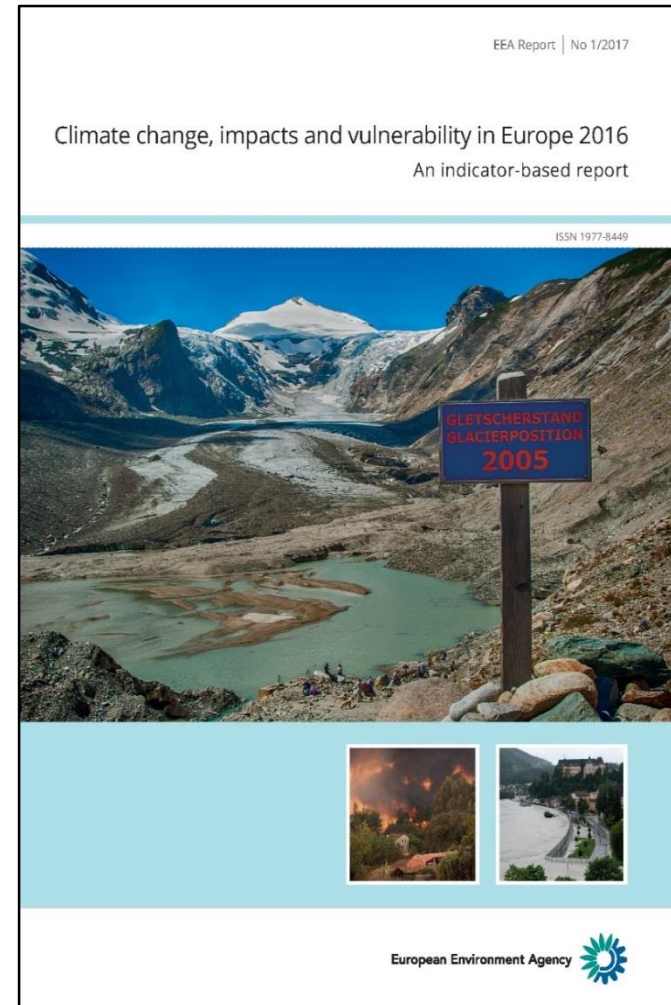
Transboundary co-operation important to address the dangerous impacts of climate change.

2016 EEA report on climate change, impacts and vulnerability



- **Previous reports:** 2004, 2008 and 2012
- All key findings from the 2012 EEA CCIV report remain valid;
- Several long-term climate records have been broken since 2014 (e.g. global and European temperatures, global sea level, Arctic sea ice).
- Evidence of future increases of climatic hazards in European regions has strengthened (e.g. heat waves, droughts, top wind speeds, storm surges)
- Expanded content:
 - Policy context (global, European, transnational, **including mountain regions**, national)
 - Multi-sectoral climate change assessments (European, transnational, **including mountain regions**)

Climate
Action



<https://www.eea.europa.eu/publications/climate-change-impacts-and-vulnerability-2016>

Better informed policy making

Adaptation knowledge gaps are identified in a set of key regions and systems.

Mountain areas recognised as particularly vulnerable and have many needs:

- Development of very high resolution models to capture climate variability of mountains and allow for realistic impacts projections.
- Integrated assessments to address the confluence of several effects of climate change.
- Regional/transboundary VIA research, including spillovers of impacts, is needed in mountains as providers of key services

Ongoing action:

- **Horizon 2020 calls**
- **Copernicus Climate Change Services** (operational in 2018)
- **IPCC work on Special report on Oceans and Cryosphere** to be finalised in September 2019
- **Climate-ADAPT** one stop shop information on adaptation in EU



Funding possibilities

- **EU budget 2014-2020:** 20% climate-relevant expenditure = around €190 bn
- **ESIF: about 25% or more than €114 bn** earmarked for climate action;
- **ETC programmes: about 20% or € 1.8 bn** earmarked for climate action;
- **LIFE fund:** more than €800 million for climate projects in 2014-2020 (split between mitigation and adaptation)
 - *One of the priorities of LIFE funding are regional or cross-border projects focusing on vulnerable areas such as urban, coastal, **mountainous** and islands areas (..).*
 - *Demonstration, pilot, best-practice or governance and information projects awarded through **annual calls***
 - *2017 call is open now till 7 September*
<http://ec.europa.eu/environment/life/funding/life2017/>
- **Natural Capital Financing Facility:** a pilot instrument financing loans and equity for investments contributing to biodiversity and/or climate change adaptation – first operations to be signed in 2017
- **Horizon 2020: 35% of its € 70 billion** budget for climate-related projects implemented through calls
- **European Investment Bank:**  project finance



LIFE Project examples addressing climate risks in mountainous areas

- **LIFE ADAPTAMED** – aims to mitigate the negative effects of climate change of key ecosystem services in Natural Protected Areas, including Mediterranean high mountain range Sierra Nevada nature area.
- Focus on adaptive management measures using ecosystem approach to provide for soil retention, pollination, pastures, T regulation, water, prevention of forest fires, and desertification.
- Results: diversity of protective services; 10% increase in water availability; 1km soil retention structures, 260 biodiversity boxes, extensive tree planting (...)



Project duration: 2015-2020.
Total budget: €5.5 M;
EU contribution: €3.2 M.

LIFE Project examples addressing climate risks in mountainous areas

- **LIFE SUSTAINHUTS** - aims to reduce CO₂ emissions in isolated environments, such as mountain huts, to prevent air pollution, preserve mountainous forests, promote sustainable tourism and introduce environmentally-friendly methods for the production, distribution and use of energy.
- Results: Transformation of 9 mountain huts in 4 countries using RES; CO₂ reduction by 21 tonnes/yr per hut; NO_x reduction by 500kg/yr per hut; reduce energy use by 20% per hut; 3 times less of helicopter flights per year to the huts, saving 350 kg/yr of CO₂ (...)



Project duration: 2015-2020.
Total budget: €2 M;
EU contribution: €1.1 M



ETC programme example addressing climate risks in mountainous areas

- **ALCOTRA 2014 - 2020 INTERREG V-A France - Italy:**
The programme allocates **23% (or about €46 M)** of the total ERDF support to deal with climate change;
- Development of shared climate change adaptation strategies in territorial planning tools and risk prevention measures, to address climate risks, such as **landslides, avalanches, floods and forest fires.**
- The programme will fund such activities as:
 - ✓ *joint cross-border studies, development of common **tools for testing of innovative methods to address specific risks.** For example: integration of monitoring data and networks on landslides, avalanches, floods and earthquakes; use of advanced methods such as drones and satellites to monitor risks.*
 - ✓ *Awareness raising of adaptation issues by communication and training*

The Evaluation of the EU Adaptation Strategy:

- The Strategy foresees that the Commission shall examine in 2017 its actual implementation and achievements.
 - ✓ assesses the relevance, effectiveness, efficiency, coherence and EU added value of the overall Strategy, and
 - ✓ assesses the actual state and progress in the implementation of the 8 actions against what could reasonably expect to have been achieved by end 2016.
- The Roadmap of the evaluation is published:
http://ec.europa.eu/smart-regulation/roadmaps/docs/2016_clima_011_evaluation_adaptation_strategy_en.pdf
- Final report in 2018

The Consultation Process

- Two stakeholders workshops (5 April 2017 and ~October 2017)
- Three-month web based public consultation (~October to January 2018)
- Interviews and surveys with different stakeholders groups (including MS, EU Institutions, NGOs, private sector, local/regional Authorities)
- A Stakeholder Consultation Strategy is published on the DG Climate Action website:
https://ec.europa.eu/clima/policies/adaptation/what_en#tab-0-0

Thank you
for your attention



Directorate-General for Climate Action ("DG CLIMA"):

<http://ec.europa.eu/clima>

EU Strategy on Adaptation to Climate Change:

http://ec.europa.eu/clima/policies/adaptation_en

European Climate Adaptation Platform:

<http://climate-adapt.eea.europa.eu>

Covenant of Mayors for Climate & Energy:

www.covenantofmayors.eu

