



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

THE ALPINE
CONVENTION
FOR THE
PROTECTION
AND
SUSTAINABLE
DEVELOPMENT
OF A CROSS-BORDER
REGION

italian delegation
alpine convention



MEDITERRANEAN MOUNTAINS

CLIMATE CHANGE, LANDSCAPE AND BIODIVERSITY

A partnership for enhancing Sustainable Mountain development in the Mediterranean



ISBN: 9788890499555





MEDITERRANEAN MOUNTAINS

CLIMATE CHANGE, LANDSCAPE AND BIODIVERSITY

A partnership for enhancing Sustainable Mountain development in the Mediterranean





The aim of this Report is to summarise the content of the workshop “Mediterranean Mountains: climate change, landscape and biodiversity”, organized by the Italian delegation* of the Alpine Convention and held at the Bio Mediterranean Cluster on 4th September 2015. The Workshop’s intent was to encourage sharing of experience and strengthening and expanding networking and cooperation among regional stakeholders in the Mediterranean on the governance of mountain territories.

Representatives from the countries included in the EXPO Bio-Mediterranean Cluster and from other Mediterranean countries and international organisations took part in three thematic working tables to discuss local initiatives for mitigation and adaptation to climate change, sustainable tourism and landscape and innovative methods for managing and valuing biodiversity and agro-biodiversity in Mediterranean mountain areas.

As a follow-up of the meeting a workshop was held the 12 of November 2015 in Ventimiglia (Liguria Region) involving experts to present projects and best practice on sustainable development in Mediterranean mountains, the final chapter of this report is devoted to the projects presented in Ventimiglia.

Coordinator of the project:

Paolo Angelini, Head of the Italian Delegation to the Alpine Convention Italian Ministry for Environment Land and Sea

Edited by:

EURAC Research Rome Office, Luca Cetara, Marcello Emma, Maria Teresa Idone, Raffaele Vergnani.

Conclusions by:

Barbara Degani, Undersecretary of State - Italian Ministry of the Environment Land and Sea.

Thanks to the experts that coordinated the work of the three thematic working tables:

Climate Change: **Antonio Bannarin Denti** - Lombardy foundation for the environment, **Francesco Musco** - University of Venice “IUAV”.

Landscape and Tourism:

Massimo Sargolini - University of Camerino; **Cristina Mottironi** - Bocconi University Milan.

Biodiversity:

Aurelio Angelini - University of Palermo; **Filippo Favilli** - Eurac Research.

Proofreading: **INTRALP**

Graphic design: **Art&Design** - Roma

* On the basis of the decision ACXIII/A2 of the XIII Alpine Conference that encouraged the contracting Parties to continue and strengthen the cooperation with the Carpathian Convention and other mountain region.



As UNEP/Mediterranean Action Plan-Barcelona Convention Secretariat we gladly welcomed the invitation of the Italian Ministry of the Environment, Land and Sea to take part in the conference “A network for Mediterranean Mountains: Common Visions and Projects for the Sustainable Development of Mountain Areas in the Mediterranean region”, which represented an important opportunity to explore possible cooperation linkages in the field of Sustainable Mountain Development and the marine and coastal areas of the Mediterranean region.

In the south east Mediterranean mountains are almost everywhere along the coast. This interpenetration of sea and mountains has significant consequences: few large plains, little good agricultural lands, ports and harbors tightly embed between sea and rock and broad fluvial basins. But the very close interaction between sea and mountains is not only a matter of physical and geographical issues, as it has permeated the history and diverse cultural identities around the Mediterranean basin and, most important, the social and the economic development of the people living in this region.

The Barcelona Convention for the protection of the marine environment and the coastal region of the Mediterranean is the major regional legally binding agreement signed by all the Mediterranean coastal countries and the European Union. For forty years the Convention has provided a framework for the development of environmental policies, for the formulation and implementation of programs and measures and for monitoring and assessment of the environment in the Mediterranean.

The Barcelona Convention is the only regional sea convention which has developed and adopted, in 2008, a Protocol on Integrated Coastal Zone Management (ICZM), enhancing the governance of coastal zones through a dynamic process for their sustainable management and use.

The Protocol addresses the fragility of coastal ecosystems and landscapes, the diversity of activities, their interactions and their impacts on both the marine and land areas. The well-being of populations and the economic availability of many activities in coastal zone depend on the environmental states of this areas and as such the protocol is applicable on mountainous coastal zones as it addresses interconnection with mountains further in land regarding their effects on coastal areas.

In addition, at their 19th Ordinary Meeting (Athens, Greece, February 2016) the Contracting Parties of the Barcelona Convention endorsed a Regional Climate Change Adaptation Framework for the Mediterranean Marine and Coastal Areas that explores strategic options and offers a strategic approach to increase the resilience of the Mediterranean marine and coastal natural and socio-economic systems in the region. In combination with the ICZM Protocol this is a key tool to address the interlinkages between mountains and coastal and marine environment in relation to vulnerability and responses to climate change.

In September 2015, our Heads of State and Governments approved the ambitious 2030 Agenda for Sustainable Development and one of its defining character is the universality of its nature and the recognition of the need for integrated approaches to achieve the Sustainable Development Goals.

Following the mandate of our Contracting Parties we have also developed, in synchrony, a Mediterranean strategy on sustainable development approved by Governments of the Mediterranean in February 2016. This document provides crucial guidelines for a meaningful translation of the 2030 agenda at the Mediterranean level and will help to explore along with all partner active on mountain issues possible avenues to achieve its goals, in a way that is beneficial for marine and coastal areas closely linked to mountains.

In this spirit, we look forward to our continuing cooperation with the Italian Ministry of Environment, Land and Sea and all other actors in the field of environmental protection and sustainable development of the Mediterranean region.

Gaetano Leone

UNEP -Barcelona Convention Secretariat

Coordinator of the Unit for Mediterranean Action Plan



t was with great pleasure that I took part on behalf of the Government of the Republic of Serbia in the meeting on Mediterranean Mountains held in November 2015 in Ventimiglia.

It was an important occasion for networking and discussing about the prospects of sustainable development in the Mediterranean region and I want to thank the promoters for considering Serbia a significant partner that you want to share your experience with. Italy, as an experienced member of the EU and an active participant in the implementation of international conventions, has often served as a role model to Serbia in reaching the standards of modern society.

The success achieved by Italy in environmental protection in general is an important guide to Serbia on its development path.

Of course, Serbia is a committed partner in all the efforts to protect the natural resources of our planet and ensure the sustainability of nature, which we are all a part of.

Ahead of Paris Meeting COP 21, Serbia adopted and submitted INDCS in June. Being among the first ten countries in the world to do so, Serbia demonstrated political support to the global process of combating climate change.

Nature knows no borders – especially when it comes to animal migration and spread of plant species. The cooperation in their monitoring, as well as in conducting activities in support of natural processes, is necessary and unavoidable.

Thus, developing joint initiatives to improve natural processes is a real contribution to the implementation of the environmental dimension of sustainable development.

In this exchange of experience, special attention has been dedicated to the measures of adaptation to climate change and management of floods that both Italy and Serbia have recently experienced. Once again, the observation of similar events in separate countries reminds us that nature knows no borders and that cooperation in environmental fields can help strengthen resilience also in distinct geographical regions.

With the aim of learning from the better but also to give our contribution to the process that is ongoing in the Mediterranean, I would like to thank once again the promoting institutions, and Italy in particular, for recognising Serbia as a valuable partner in the area of sustainable development of mountain areas in the Mediterranean region.

Stana Bozovic

*Undersecretary of State for the Environment
Republic of Serbia*

The action against the abandonment of the uplands is one of the main challenges for the mountain areas of the Mediterranean region. For this reason, and to ensure an interconnection between the protection and enhancement aspects of the Mediterranean ecosystems and biodiversity, we welcomed the invitation of the Italian Delegation of the Alpine Convention to host at the Biomediterranean Cluster the meeting dedicated to the “Mediterranean Mountains”.

During the six months of EXPO in Milan, and through Administrations, Organizations and Operators of the ten participating countries, the Cluster has been committed in strengthening cooperation and enhancement of the Mediterranean resources, launching the project for a “Biomediterranean Charter” based on three main axes: the first, dedicated to the promotion of the Mediterranean Diet; the second, related to fishing, marine resources and sea coast; and finally the third, dedicated to the topic of Mediterranean Mountains. Despite the statements of intent, the Charter wants to represent the Mediterranean heritage, and particularly of the countries that participated in the Biomediterranean Cluster in the context of EXPO theme “Feeding the Planet Energy for Life”, highlighting the global reach of biodiversity and food traditions heritage of the Mediterranean region.

The Charter was drawn up by collecting the best ideas and the main reflections of experts and researchers involved in the many activities of the Cluster, also thanks to the group of students and professors of the “IULM University”. The Biomediterranean Charter was then sent to all the Cluster’s country leaders and became a useful platform for developing cooperation projects for the Mediterranean region. In the process of construction and definition of the contributions of the Charter, a significant contribution was provided by the works of the three discussion tables held during the meeting of 4 September on the topic of Mediterranean Mountains and reported in this document. The main conclusions of the experts involved have been taken out of these works. In fact, thanks to the contributions of the participants in the meeting and the scientific and professional value of the discussions proposed within the Cluster, the Charter has been enriched with useful information about the Mediterranean Mountains, based on the awareness of that the Mediterranean landscapes are the result of the encounter between the sea, the mountains and the human history that, in the absence of plains and then to easily cultivable soils, has made them safe and arable.

The terraced agricultural landscapes in Mediterranean Europe are considered not only the most representative cultural landscapes, they are the result of the encounter between the natural character and the human’s creative power and talent and the result of the slow evolution of the relationship between nature and culture. They are the outcome of a collective project that measured the need to produce implementing available native resources and environmental characters.

In a complex and intercultural context as that proposed by the Biomediterranean Cluster, the representation of this collective project and the reflections on the value of mountain resources, closely linked with those of the sea coast, are perfectly integrated. The reflections in this document and then in the Charter itself are focused on the future and on strategic planning of effective actions respectful of the peculiar history and the specific value of the Mediterranean Mountains and of the entire basin.

Indeed, within the terraced system of mountain farming there are different habitats, that can create favorable conditions for the development and the conservation of biodiversity. It is therefore essential to continue working for their protection and conservation, also in a view of sustainable development. I therefore wish that these and other initiatives can continue to ensure the strengthening of cooperation networks among Institutions, Organizations and Communities of the Mediterranean region.

Dario Cartabellotta

Commissioner of the Biomediterranean Cluster

Liguria has a unique link to the Mediterranean mountains. The strict bond between mountains and the sea certainly is a distinctive feature of our Region that has been strongly influencing the culture, economy and society in Liguria over the centuries. We have thus taken with genuine interest the opportunity to work together with other institutions for developing a planning approach for enhancing sustainable development in mountain areas and are glad to participate in shaping initiatives such as the one of the “Mountains of the Mediterranean”, as launched by the Italian Ministry for the Environment Land and Sea – Delegation to the Alpine Convention and UNEP-ROE Vienna Office acting as the Secretariat of the Carpathian Convention.

This type of joint activities certainly contributes to strengthen the cooperation between central and local institutions as well as with stakeholders from the civil society, all being committed to the protection and sustainable development of the Mediterranean mountains.

We believe in the opportunities offered by cross-border cooperation and our regional government has recently engaged directly in a transboundary project which involves not only the Ligurian Alps, but also some Alpine areas in Piemonte as well as the French PACA Region – which all together represent the area denominated as the “Alps of the Mediterranean”.

The project has been also presented in the framework of a wider “Network of Mediterranean Mountains” as a good practice aimed at designing a strategy for the nomination of the “Alps of the Mediterranean” as a site suitable to be added in the UNESCO World Heritage List, but also as a source of clues for other actions aimed at conserving and enhancing this geographical area.

Sharing ideas and good practices with the Alpine Convention – being the first international treaty for the sustainable development of a transboundary mountain area, will certainly bring about huge benefits to our Region in terms of new experience.

We hope that the project dedicated to the “Mountains of the Mediterranean” launched at EXPO Milano 2015 and continued in Ventimiglia, to which this report refers to, may go on in the years to come, based on the sound commitment of all the involved stakeholders, and with the aim of developing suitable tools for a multi-level governance of green economy and in enhancing Mediterranean biodiversity and landscape.

Giacomo Giampedrone
Liguria Region, Councillor for the
Environment

Protecting and developing mountain areas is a fundamental challenge for the Mediterranean region, whose mountains have been for centuries a major economic and cultural resource, also for the development of coastal areas. From an environmental perspective, it is certain that the attractiveness of this region, its sustainable development and the protection of biodiversity in the Mediterranean also require care of its mountain regions.

In the Apennines, we are very interested in being involved in this mountain partnership process for the development of Mediterranean Mountains. A comparison with the European and international situation is necessary for the development of the Apennine region, and it is an opportunity to assert our belonging to Europe. At least in scientific terms, the Apennines are as much a macro-region in Southern Europe as other macro-regions in the Alpine area.

Abruzzo is an extraordinary biological laboratory for the preservation of nature and ecosystems. Its largely mountainous nature, almost Alpine in appearance, has affected the culture, traditions and way of life of its inhabitants.

Because of all this, the protection and sustainable development of the mountain environment remain priorities for Abruzzo and we are happy to proactively promote an international network for the sustainable development of “Mediterranean Mountains”.

I believe that the factors described during the meeting we had in September last year in EXPO, and that are presented here, can be an interesting starting point to develop a discussion on a potential partnership between mountain institutions on major and topical issues such as adaptation to climate change and mitigation of its effects or the development of sustainable tourism.

My hope is that this process of partnership with the Alpine Convention, UNEP and all institutional partners that were also involved in the Bio-Mediterranean cluster that hosted us at EXPO, can continue so that we can achieve fruitful results

Mario Mazzocca
Undersecretary to the Presidency of the
Abruzzo Region
with powers for the Environment

INDEX

Mediterranean Mountains a path for developing international cooperation and a common vision	9
From the Carpathians and the Dinaric Arc Mountains to the Adriatic and Mediterranean sea	12
EU Funds Programming Period 2014-2020: opportunities for Mediterranean mountains-Focus on territorial cohesion and environment	13
Topic 1: Climate change in Mediterranean mountains	18
Topic 2: Tourism and Landscape in Mediterranean mountains	27
Topic 3: Biodiversity and agro biodiversity in Mediterranean mountains	34
Projects and Best practices of trans boundary cooperation in the Mediterranean, output from the meeting “A network for Mediterranean Mountains: Common Visions and Projects for the Sustainable Development of Mountain Areas in the Mediterranean region”, Ventimiglia 12-13 November 2015	43
Conclusion: The commitment of the Italian Ministry for environment in sharing experiences for the sustainable development of mountain areas and the Mediterranean region	50
Appendix A “The Sarnano charter”	53
Appendix B “The Biomediterranean charter”	57

Mediterranean Mountains: a path for developing international cooperation and a common vision

Paolo Angelini*

The Mediterranean mountain area covers about 1.7 million km².

The Mediterranean Basin is one of the world's richest places in terms of animal and plant diversity. In particular, remarkable is the diversity of its plants – about 25,000 species are native to the region, more than half of which are endemic and can be found nowhere else on earth. This has led to the Mediterranean being recognized as one of the first 25 Global Biodiversity Hotspots (Myers et al. 2000). Regional assessments also confirm the high diversity and endemism of Mediterranean plants and animals and underline the severe threats that these species face (IUCN 2008).

Even though the Mediterranean environment is known to provide local populations with basic goods, services and vital and scarce resources such as water as well as with important ecosystem services, such as the carbon sequestration provided by forests, a comprehensive assessment of them is not yet available.

Nevertheless, the Mediterranean Mountains have unique characteristics which have scarcely been considered in detail and would deserve to be addressed by specific policy actions. Firstly, mountains – including the Mediterranean ones – are considered as *early indicators of climate change*¹ and a vulnerable environment to the physical, economic and social effects of climate change². Moreover, there are also cultural motives to care about them since they store unique historical and cultural-religious values and heritage, and retain traditional systems and approaches to managing territorial and natural resources (e.g. in farming, craftsmanship and the food industry). On the basis of their aesthetic, symbolic and recreational significance, they hold some economic potential to attract visitors from Europe and worldwide by



participating in supporting local tourist development, that in this region is mainly linked to the Sea and projected to reach 500 million of international tourist arrivals by 2030, according to UNWTO (2013)³.

In mountain areas, international cooperation for sustainable development can play a major role both for increasing regional political cohesion and delivering concrete actions through project implementation, as the long experience has shown in the Alps and the Carpathians, the only two mountain ranges in the world covered by international regional treaties for the sustainable development of ecologically fragile transboundary mountain areas.

In the Mediterranean, a number of joint initiatives aimed at the conservation and enhancement of natural and cultural resources of mountain areas have already been delivered – a sample of which is reported in this publication. The projects and actions gathered here highlight the added value that a trans-national approach can bring to regional and local policymaking, by promoting the exchange of experiences between different regions and organizations particularly working in the fields of nature conservation and sustainable development.

Map of the Mediterranean mountain ranges
Source: Gria-Arendal
www.grida.no

* Italian Ministry for Environment Land and Sea – Head of the Italian Delegation to the Alpine Convention

1. See: *Proceedings of the International Conference "Mountains as early indicators of climate change", 17-18 April 2008, Padua, Italy.*

2. Source: *Mediterranean Mountains in a changing world - Guidelines for developing action Plans – (IUCN -IMELS 2008)*

3. In term of visits, the Working Group Transport of the Alpine Convention estimated that 95 million long-stay tourists and 60 million day-trip visitors visit the Alps every year (Alpine Convention, 2008) covering foreign and endogenous tourism.

4. On the basis of paragraphs about mountains (# 210-212) in the Declaration of Rio + 20, States were invited to “strengthen cooperative action with effective involvement and sharing of experiences of all relevant stakeholders, by strengthening existing agreements (...) and centres of excellence for sustainable mountain development, as well as exploring (...) new agreements, as appropriate” (# 211). It also referred to the need for “international support for sustainable mountain development in developing countries” (# 212).

5. Resolution 3039 calls on “national, regional and local institutions to promote national and - where appropriate - transnational action plans for each of the major mountain ranges of the Mediterranean for the preservation and improvement of the state of their biological richness, the landscape and cultural diversity.” the work of the Congress in Bangkok was attended by numerous non-governmental organizations and institutional bodies, among them the Italian Ministry of Environment.

6. S Among the main actions of cooperation between the Alps and Carpathians, the presentation of the guidelines for local adaptation to climate change and a joint statement on the value of mountain forests in the context of the COP 20 on Climate Change in Lima should be mentioned.

7. See decision ACXIII / A2 – Alpine Conference (Turin, 21 November 2014).

The international community has repeatedly encouraged regional cooperation between mountain areas through several formal documents often endowed with a significant political endorsement, such as the final Declaration of the Rio + 20 Conference “The future we want” (2012) which recognized the importance of regional cooperation in the mountain regions as a way for achieving “Sustainable Mountain Development” (SMD). These paragraphs, specifically dedicated to mountains and included in the outcome document of the Conference, can work as the foundations for future actions of regional cooperation for the mountains including both the strengthening of existing institutions (such as the Alpine and Carpathian Conventions) and the support to new agreements and partnerships⁴.

A few international declarations and voluntary initiatives specifically dedicated to enhancing cooperation for sustainable development of the Mediterranean Mountains have been adopted in the past; particularly worth mentioning is the Resolution 3.039 “The Partnership for the Mountains of the Mediterranean” adopted in 2004 in Bangkok by the World Conservation Congress, promoted by the International Union for Conservation of Nature-IUCN⁵.

A concrete example of strengthened international cooperation involving these mountain regions can be mentioned. Recently, the Italian Ministry for the Environment, Land and Sea, during the Italian Presidency of the Alpine Convention (2013-2014), in cooperation with the United Nations Environment Programme (UNEP) ROE Vienna -Secretariat of the Carpathian Convention, has been working to reinforce and extend the cooperation between the Alps and the Carpathians.

This collaboration facilitated the creation of a “Task Force” on International Mountain Cooperation which promoted collaboration among several actors involved in mountain regions for dealing with some primary environmental challenges, such as ecological connectivity, climate change (adaptation strategies, plans and guidelines at the appropriate territorial level), and the development and management of mountain forests⁶.

The Conferences of the Parties of the two Treaties (the COP4 of the Carpathian Convention - Mikulov, September 2014- and the XIII Alpine Conference of the Alpine Convention - Turin, November 2014) welcomed this commitment toward international cooperation in the field of local adaptation to climate change, encouraging their Parties to continue and strengthen collaboration with other mountain areas in Europe and worldwide⁷.

For capitalizing on these valuable experiences, the Italian Delegation of the Alpine Convention, in cooperation with UNEP Vienna – SCC and the Bio Mediterranean Cluster at EXPO 2015, promoted actions to set up a “Roadmap” for Mediterranean Mountains in order to involve Institutions, research bodies and representatives of civil society and to create and reinforce partnerships in the field of sustainable mountain development (SMD). Identifying a consistent strategy for sustainable development of Mediterranean mountain areas is clearly a major challenge that cannot be addressed without adopting a multi-level and multi-sectorial perspective and the broad participation of regional and global stakeholders.

The contributions collected in this report do not refer solely to Mediterranean regions. Some promising experiences in the field of

Figure 1. Percentage of mountainous land within Mediterranean Countries (Data from Fé d’ostiani, 2004 and UNEP, 2002).

MEDITERRANEUM COUNTRIES	% of mountainous area within a country				
	0-10	10-25	25-50	50-75	75-100
Andorra, Bosnia & Herzegovina, Italy, Lebanon, Macedonia, Montenegro					
Albania, Greece, Morocco, Serbia, Slovenia, Turkey, Palestinian Territories					
Croatia, Cyprus, Israel, Portugal, Spain					
Algeria, France, Jordan, Syria, Tunisia					
Egypt, Libya, Malta					

sustainable management of mountain areas inside and outside the Mediterranean area can be applicable also in this region, assuming the surrounding conditions are similar and consistent. To this purpose, experiences have been presented from the Alps, the Carpathians and other mountain regions such as the “Charter of Sarnano” (2014)⁸ on the importance of the Apennines as a European mountain range or the IUCN Resolution mentioned earlier.

The intended purpose of the workshop “Mediterranean Mountains: Climate Change, Landscape and Biodiversity. A partnership for enhancing Sustainable Mountain Development in the Mediterranean” was to be the first step in the Roadmap.

The meeting’s main aims were basically to foster sharing of experiences in the fields of natural resource management and climate change policies in the Mediterranean, in order to strengthen and expand cooperation between stakeholders and enhance and develop appropriate tools for a multi-level governance of Green Economy in the region, particularly in the sensitive fields of local adaptation to climate change, sustainable tourism and landscape enhancement, biodiversity and agro- biodiversity.

Moreover, the discussions held in Milano has helped to draft a “Bio-Mediterranean Charter”, promoted by the Bio Mediterranean Cluster of EXPO 2015, aimed to identify and share priorities for sustainable development of the Mediterranean countries and to discuss the contribution that this geographical area could offer to the outcomes of EXPO 2015 and its main theme: “Feeding the Planet, Energy for Life”. The debate that developed in the first meeting supplied a knowledge-base and sections for the mountains chapter of the Charter prepared by the countries participating in the EXPO Biomediterranean Cluster⁹.

To successfully meet the major environmental and development challenges in such a wide and diversified region it is essential to develop sound skills in the field of science, policy design and implementation and, last but not least, a proficiency in accessing international funding, in line with the strategic priorities of the European Union for smart, sustainable and inclusive growth.

On these premises we see much room for fostering and improving international cooperation in this strategic and delicate region by using all the suitable cooperation and financial instruments at hand.

8. See Appendix A “The Sarnano charter”.

9. See Appendix B “The Biomediterranean charter”.



From the Carpathians and the Dinaric Arc Mountains to the Adriatic and Mediterranean Sea

Pier Carlo Sandei*

* UNEP Vienna
-Secretariat of the
Carpathian Convention

The United Nations Environment Programme (UNEP) is the voice and conscience for the environment in the United Nations system and plays several institutional roles within Europe and the Mediterranean area in regards to environmental protection and especially Sustainable Mountain Development (SMD). In 2001 UNEP was tasked by Ukraine to facilitate an intergovernmental consultation process among the Carpathian countries with the aim of drafting an international convention for the Carpathian mountains. Since 2004, the UNEP Regional Office for Europe, Vienna office, has been hosting the Secretariat of the Carpathian Convention (SCC), a best practice example of a successful regional governance mechanism to promote conservation and sustainable development in the Carpathian region.

With regards to Sustainable Mountain Development, the UNEP Vienna Office is also operative in south-eastern Europe, participating in various programmes and delivering several projects on climate change adaptation, biodiversity protection and sustainable land management in the frame of the Global Environment Facility (GEF) and the EU programmes, with a precise focus on the Dinaric Alps.

UNEP also acts as permanent observer to the Alpine Convention and directly supports the implementation of the Alpine-Carpathian partnership, a strong cooperation in the field of Sustainable Mountain Development and International Mountain Cooperation.

The intergovernmental consultation process for the creation of the Carpathian Convention and the establishment of its Secretariat has been inspired and supported by several alpine countries, such as Austria, Italy, Lichtenstein and Switzerland, and by the European Academy of Bolzano (EURAC). The Alpine and Carpathian conventions are the only two regional

conventions on the protection of the mountain environment and its sustainable development and are considered as a best practices in the field of International Mountain Cooperation.

Together with the Italian Presidency of the Alpine Convention (2013-2014), UNEP Vienna – SCC contributed to the establishment of the Task Force on International Mountain Cooperation, a platform aiming to encourage and simplify cooperation patterns among mountain stakeholders in support of mountain related issues.

Over the last three years, the work of the Task Force has brought together several actors and institutions from all over the world, including representatives from the Andes, Balkans, the Caucasus and Central Asia.

Following the experiences gained through the Task Force, UNEP Vienna SCC supports cooperation and synergies with several Mediterranean actors such as the Pyrenees, the Apennines and its Sarnano Charter, and the network of Mediterranean Emblematic Mountains.

In 2015 the Barcelona Convention on the Protection of the Mediterranean Sea Against Pollution celebrated its fortieth anniversary. UNEP, as hosting institution of the Mediterranean Action Plan Secretariat in Athens, is further committed to protect the Mediterranean area and work for supporting its sustainable development.

Together with the Italian Ministry of Environment, UNEP Vienna – SCC will continue to support cooperation in the Mediterranean region by identifying relevant national and local stakeholders to be involved in the process of creating synergies and will continue to share experiences on Sustainable Mountain Development on important topics such as adaptation to climate change, biodiversity protection and sustainable tourism development.

EU Funds Programming Period 2014-2020: opportunities for Mediterranean mountains - Focus on territorial cohesion⁹ and environment

Giacomo Luciani*

EU legislation and the related implementing documents concerning the cohesion and environmental/climate change policies related to funds acknowledge the need to take into account the specificities of mountain areas, boosting territorial cohesion and enhancing environmental protection within these regions.

An important legal basis for the above mentioned reference to mountain areas is in Article 174 of the Treaty on the Functioning of the European Union (primary EU law)¹⁰, which states that: "...the Union shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions. Among the regions concerned, particular attention shall be paid to rural areas, areas affected by industrial transition, and regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and island, cross-border and mountain regions."

Concerning the EU cohesion policy 2014-2020, specific references to mountain areas are included in Article 121 of the Common Provisions Regulation (CPR)¹¹, which states that "The co-financing rate from the Funds to a priority axis may be modulated to take account of...the coverage of areas with severe and permanent natural or demographic handicaps defined as follows...mountainous areas as defined by the national legislation of the Member State" and in Article 10 of the European Regional Development Fund (ERDF) Regulation¹², which states that "In operational programmes co-financed by the ERDF, covering areas with severe and permanent natural or demographic handicaps as referred to in point 4 of Article 121 of Regulation (EU) No 1303/2013, particular attention shall be paid to addressing the specific difficulties of those areas."

* European Commission, DG Environment, Unit D.1

9. For further information on territorial cohesion, see: http://ec.europa.eu/regional_policy/en/policy/what/territorial-cohesion/

10. Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (Official Journal C 326, 26/10/2012 P. 0001 – 0390)

11. REGULATION (EU) No 1303/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 December 2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and setting out general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006

12. REGULATION (EU) No 1301/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 17 December 2013 on the European Regional Development Fund and on specific provisions concerning the Investment for growth and jobs goal and repealing Regulation (EC) No 1080/2006



13. REGULATION (EU) No 1293/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007

14. COMMISSION IMPLEMENTING DECISION of 19 March 2014 on the adoption of the LIFE multiannual work programme for 2014-17 – ANNEX LIFE MULTIANNNUAL WORK PROGRAMME FOR 2014-17

15. See Art. 19.7 LIFE Regulation (REGULATION (EU) No 1293/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the establishment of a Programme for the Environment and Climate Action (LIFE) and repealing Regulation (EC) No 614/2007): “The Commission shall have special regard to transnational projects where transnational cooperation is essential to guarantee environmental protection and climate objectives, and shall endeavour to ensure that at least 15 % of the budgetary resources dedicated to projects are allocated to transnational projects”. The programme foresees additional points to transnational projects if conditions listed above are fulfilled.

16. It can be possible if: the Coordinating Beneficiary is established in the EU; the activity is necessary to achieve Union environmental or climate objectives; the activity is necessary to ensure the effectiveness of interventions carried out in the Member States’ territories to which the Treaties apply

17. These topics are covered as follows:
• Climate Change: Sub – programme for Climate Change (both Adaptation and Mitigation plus Information and Governance)
• Biodiversity: Sub-programme for the Environment – Priority Area Nature and Biodiversity

18. All the Programmes mentioned have been adopted (Balkan – MED and Adriatic – Ionian were not adopted at the time when the presentation was made)

Concerning the EU environmental/climate change policy related funds, the LIFE Programme 2014 2020¹³ (the EU Programme for the Environment and Climate Action: <http://ec.europa.eu/environment/life/index.htm>) makes explicit reference to mountain areas. For example, on the basis of the LIFE multiannual work programme for 2014-2017¹⁴ “current and future EU policy could be supported by applications addressing the following areas (...): Support for implementation of adaptation strategies. This would include vulnerability assessments at regional or cross-border levels focusing on highly vulnerable areas as identified in the EU Adaptation Strategy such as urban, coastal, mountainous and islands areas, marine ecosystems, drought-prone areas or river-basins (...)”

The main reasons why the LIFE Programme 2014-2020 represents a potential source of financing at EU level for cooperation in the Mediterranean mountains within the environmental and climate change fields, and in particular within the topics discussed at the Workshop, are indicated in the table below, together with additional information on the Programme,;

Table 1 the EU LIFE Programme 2014-2020

Main reasons for its relevance for cooperation in the Mediterranean mountains	General features	Projects types, budget and funding rates
<p>Transnationality is an added value¹⁵</p> <p>Non-EU countries can participate (under conditions)¹⁶</p> <p>Focus on climate change and biodiversity (including Natura 2000 network)¹⁷</p>	<p>Applicants: SME, NGO, public administrations active in the field of environment and climate protection</p> <p>Emphasis on replicability/transferability, long-term sustainability, and an EU added value of the project results</p> <p>Not focussed on research (Horizon2020)</p> <p>No large infrastructure; not focussed on rural or regional development (agricultural, structural funds)</p> <p>Support and monitoring: From Contracting Authority (EASME or Commission) and external monitoring team</p>	<p>Projects</p> <p>Traditional (Pilot, Demonstration, Best practice, Information, awareness and dissemination incl. governance), Integrated/Technical assistance, Preparatory, Capacity Building projects</p> <p>Budget 2014-2020</p> <p>TOTAL: 3,456.70 Euros</p> <p>Sub – Programme Environment: 2,592.50 Euros</p> <p>Sub – Programme Climate Action: 8,642.20 Euros</p> <p>Funding rates:</p> <p>max. until 2017 - 60% of eligible costs for all except priority species/habitats (75%) and capacity building (100% of eligible costs)</p>

Concerning the EU cohesion policy for funding instruments that could be used for the implementation of projects aiming at strengthening cooperation and at achieving sustainable development in the Mediterranean mountains, the very important ones are those related to the EU cohesion policy European Territorial Cooperation objective, the Interreg Programmes (http://ec.europa.eu/regional_policy/it/policy/cooperation/european-territorial/).

These Programmes are a pillar of territorial cohesion and some of them are specifically targeted on (part of) the Mediterranean, including Mediterranean mountains, and include specific objectives in the fields of climate change, sustainable tourism and biodiversity/mountain farming¹⁸.

Interreg MED 2014 - 2020

Cooperation Area



Source:

www.interreg-med.eu

Participating countries: France, Croatia, Cyprus, Italy, Greece, Malta, Portugal, Slovenia, Spain, United Kingdom- Gibraltar, Albania, Bosnia and Herzegovina, Montenegro

Budget: around 233 Million Euros (85% co-financing)

For further information:

<http://interreg-med.eu/en/home>

Among the objectives of the Interreg MED programme, the following ones deserve a specific mention as they specifically refer to the topics discussed at the Workshop:

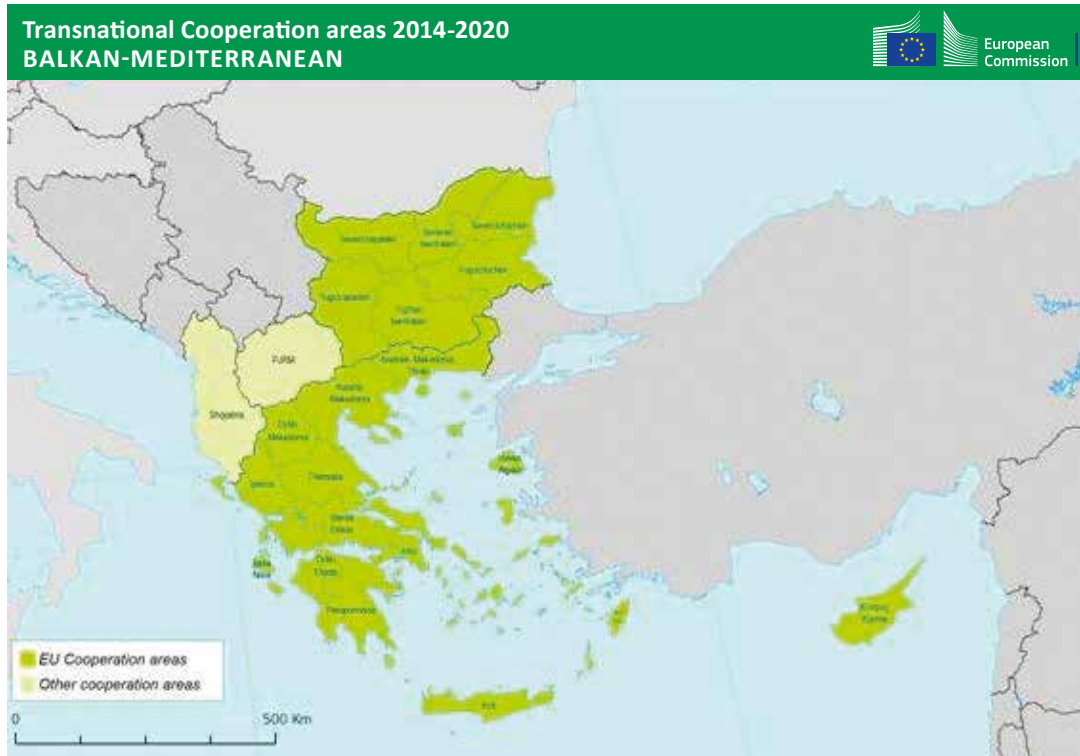
SO 2.3: To increase capacity to use **existing low carbon transport systems** and multimodal connections among them

SO 3.2: To **maintain biodiversity** and natural ecosystems through strengthening the management and networking of protected areas

SO 4.1: To support the process of developing multilateral coordination frameworks and strengthening the existing ones in the Mediterranean for joint responses to common challenges

Interreg VB Balkan MED

Source:
www.interreg.gr



Participating countries: Greece, Bulgaria, Cyprus, Albania, FYRoM

Budget: around 39.7 million Euros (85% co-financing)

For further information:
<http://www.interreg.gr/en/news/multilateral-cooperation-programmes/balkan-mediterranean.html>

Specific Objectives (SOs) relevant for the topics discussed at the Workshop:

SO 2.1: Biodiversity: taking on the transnational challenge by promoting ecological connectivity and integration of transnational ecosystems

SO 2.2: Sustainable territories: fostering transnational cooperation for resource efficiency and resilience to climate change

Interreg VB Adriatic Ionian



Source:
www.adriatic-ionian.eu

Participating countries: Italy, Croatia, Greece, Slovenia, Albania, Bosnia and Herzegovina, Montenegro and Serbia

Budget: around 99.1 million Euros (85% co-financing)

For further information:
http://www.southeast-europe.net/en/about_see/adriaticionianprogramme

Specific Objectives relevant for the topics discussed at the Workshop:

SO 2.1: Promote the sustainable enhancement and preservation of natural and cultural heritage as growth assets in the Adriatic-Ionian area (sustainable tourism)

SO 2.2: Enhance the capacity in transnationally tackling environmental vulnerability, fragmentation, and the safeguarding of ecosystem services in the Adriatic Ionian area (biodiversity)

Still in the field of territorial cohesion, the EU Strategy for the Adriatic and Ionian Region

(EUSAIR)¹⁹ is relevant to cooperation in Mediterranean mountains since it also covers mountain areas (including the Dinaric Alps and a part of the Balkans) and one of its main objectives is to concentrate and combine available funds (mostly from the EU) on actions and/or projects which are strategic for and have an impact on the entire macro-region.

The Strategy covers all the topics which are discussed at the Workshop. Some examples of actions and projects listed in the Action Plan of the Strategy in these fields are indicated below:

Nature, Biodiversity, Climate Change: Development of joint management plans for cross-border habitats and ecosystems (in order also to strengthen ecosystem resilience in preparation for the potential impacts of climate change) including in Natura 2000 sites

Agro-biodiversity: Awareness-raising activities on implementation and financial aspects of environmentally-friendly farming practices (e.g. organic farming, agro-environmental measures) complementing restoration and preservation of biodiversity

Sustainable Tourism: Expanding the tourist season to all year round.

19. The Strategy was endorsed by the European Council in October 2015 and is under implementation. Participating countries are: Italy, Croatia, Greece, Slovenia, Albania, Bosnia and Herzegovina, Montenegro, Serbia. For further information: <http://www.adriatic-ionian.eu/>

Climate Change in the Mediterranean Mountains²⁰

Framework

20. Experts and stakeholder involved in the working table that contributed to the draft of this chapter: Antonio Ballarin Denti -Lombardy Foundation for the Environment; Francesco Musco, University of Venice "IUAV"; Dario Cartabellotta -Bio Mediterranean Cluster; Mario Mazzocca, Iris Flacco -Abruzzo Region; Anna Giorgi -UNIMONT and Euromontana; Adriana May Lombardy Region -Alpine Space Programme; Filippo Montalbetti UNEP Vienna; Rolando Pozzani consultant and free lancer; Graziano Rossi, University of Pavia; Konstantinos Zapounidis, Pieriki Anaptixiaki S.A.-O.L.A.-Local Development Agency; Antonio Ziantoni -Adige River Authority Basin.

The Mediterranean is recognised as one of the areas most vulnerable to the effects of climate change compared to the European average. Over the next decades, the Mediterranean is expected to increase aridity and have higher temperatures than all other parts of Europe. This climate exacerbation could generate negative consequences for the environment and ecosystems in the region, as well as for human settlements, regional economic activity and quality of life for citizens (EEA 2010; Eurobarometer 2008), for example by increasing the shortage of water – already an inherent characteristic of the Mediterranean climate.

Nonetheless, the Mediterranean region has proved excellent at adopting some of the EU directives and measures for climate change adaptation and mitigation (also local i.e. the adaptation plans fostered by some cities and regions), and there are also favourable conditions to move towards a “low carbon economy”.

Mountain territories also in the Mediterranean area have unique features that deserve specific approaches. The experience of the “Guidelines for adaptation to climate change in the Alps” (already presented at the UNFCCC COP20 in Lima and in the area of the Carpathian Convention) could provide a starting point for the development of similar approaches for other mountainous areas, in line with the main European guidelines, becoming a useful tool for local policy makers.

Table 2: Regional challenges

Challenge	Description
Mitigation. Make Renewable Energy Sources (RES) more competitive and environment-friendly	<p>Mitigation of Climate Change (CC) within the 2°C temperature increase requires an almost complete conversion to RES by 2050 and a constant improvement of energy-efficient technologies.</p> <p>RES and high-efficiency technologies need to be chosen according to their economic competitiveness (in comparison with traditional fossil sources) and environmental constraints (land morphology, available natural resources, nature conservation, landscape aesthetics etc).</p>
Mitigation. Towards quasi-zero carbon tourism and transport	<p>Mediterranean (MED) mountain regions rely on tourism and need easy access to remote areas as well as ways of transit toward coastal regions across surrounding mountains.</p> <p>Both sectors (tourism and transport) are energy- and pollution-intensive and they accordingly have to rely on clean RES and strongly reduce the emission of air and water pollutants.</p>
Adaptation: prevention and mitigation of natural risks (landslides, floods, droughts, wild fires)	<p>MED mountains are susceptible to forest fires and vulnerable to hydro-geological risks (floods, landslides, infrastructure damages). All these hazards will be increased by the predicted rise of temperature and changes in precipitation pattern.</p> <p>Local CC adaptation strategies should be properly devised to counteract specific pressures by CC in the present century.</p>
Adaptation: water management and quality control of water resources	<p>MED mountains provide basic water-based ecosystem services (in energy, agriculture and tourism sectors).</p> <p>Water management and quality-assurance policies have to be redrawn by considering the specific features of mountains and predicted CC trends.</p>
Adaptation: a different and more attractive tourism in a changing climate	<p>Winter tourism will be heavily affected by the predicted CC in terms of less snow and higher temperatures. Also summer tourism will be influenced by prolonged drought periods and water scarcity. On the other hand, MED mountains will be accessible for longer periods and they can provide a wider variety of recreation during most of the year.</p> <p>Tourism services and resorts have to adapt to the new environmental conditions as well as to a different and more demanding local economy and the local communities should be more integrated with new forms of tourism activities.</p>

21. Produced during the 2013-2014 period, under the coordination of the Ministry of Environment in the context of the Italian Presidency of the Alpine Convention and approved by Decision B3/ACXIII of the thirteenth Conference of the Parties of the Alpine Convention. For the short version of the guidelines: http://www.minambiente.it/sites/default/files/archivio_immagini/Lima/Guidelines%20for%20Climate%20Change%20Adaptation%20at%20the%20local%20level%20in%20the%20Alps_.pdf

Table 3: Instruments and experience

Challenge (from Table 2)	Available tools or knowledge-base	Main characteristics
Mitigation. RES more competitive and environment-friendly	EU Climate-Energy policies (time horizons: 2020- 2030-2050) UNFCCC resolutions and documents. NGOs' recommendations and good practices. Energy Protocol of the Alpine Convention.	Sound and shared scientific knowledge increasingly available. Economic incentives and policy support. Short- medium and long-term commitments. Opportunities of cooperation and exchange of good practices.
Mitigation. Towards quasi-zero carbon tourism and transport	EU White Paper: "Roadmap to a single European Transport Area - Towards a competitive and resource efficient transport system" (2011). Transport and Tourism Protocols of the Alpine Convention. Euromontana: Background Paper on Sustainable Mountain Tourism (2011).	Medium (2030) and long-term (2050) targets, development perspectives, technology review, environmental performance criteria.
Adaptation: prevention and mitigation of natural risks (landslides, floods, droughts, wild fires)	EU adaptation strategy (2013). Adopted National and Regional Adaptation strategies. Natural Hazards Platform of the Alpine Convention (PLANALP).	Widespread and reliable scientific/technical literature on natural risk assessment. Methodology, economic analyses governance and monitoring criteria.
Adaptation: water management and quality control of water resources.	EU Water Framework Directive 2000/60/EC. EU Flood Directive 2007/60/EC Alpine Convention: Protocol on Energy, Water Management Platform	Targets and policies transferable (with caution and ensuring harmonization) to MED mountain areas. Recommendations by AC on hydropower plants.
Adaptation: a new and more diversified tourism in a changing climate	Alpine Convention: Tourism Protocol and Working Group on sustainable tourism.	Guide-lines, stakeholder selection, connection between green economy and environment-friendly tourism.

Table 4: Stakeholders

Challenge or instrument (from Table 2 and 3)	Influenced Stakeholders	Influential Stakeholders	Motivation
Mitigation. RES more competitive and environment-friendly	Local communities and households. Local energy markets, green economy producers and consumers.	Research institutions; high-tech energy industry; national and regional governments; environmental institutional and NG organizations.	Mitigation is based on top-down policies that are influenced by central authorities and interest groups and affect local economic and social actors.
Mitigation. Towards quasi-zero carbon tourism and transport	Tourism operators and corporations. Automotive and oil industry. Consumers and commuters associations.	EU, national and regional policy-makers; innovative car-makers; research bodies.	Same as above.
Adaptation: prevention and mitigation of natural risks (landslides, floods, droughts, wild fires)	Local communities and municipal governments; insurance companies; farmers and forest management companies; biomass production line.	National and regional governments; water management and river/basin authorities.	In water management there is no clear distinction between “active” and “passive” stakeholders, and consequently cooperation may prevail over conflicts.
Adaptation: water management and quality control of water resources.	Hydropower companies; agricultural planners and farmers; tourism operators. Waterworks planners and managers.	Targets and policies transferable (with caution and ensuring harmonization) to MED mountain areas. Recommendations by AC on hydropower plants.	In water management there is no clear distinction between “active” and “passive” stakeholders, and consequently cooperation may prevail over conflicts.
Adaptation: a new and more diversified tourism in a changing climate	Tourism corporations and operators. Local communities, municipal authorities	Regional and local governments. Environmental pressure groups.	Demand for new forms of tourism by consumers and social pressure groups can play a major role in tourism innovation.

Discussion

There can be seen significant differences in the philosophies for mitigating and adapting to climate change. While mitigation should ideally aim at inducing a change in the economy of a territory and its development directions in order to preserve the environment, adaptation should focus on bringing about changes in the environment in order to allow for sustainable economic development. It has been generally noted that the population has a reasonable awareness of mitigation and low-carbon policies, but that the general public, local administrations and the private sector have less information and understanding about adaptation and the need for adaptation actions and investment: these are the groups who will probably need to play a central role in implementing adaptation actions if cost-effectiveness is sought.

Climate change and its effects have already been taken into account by sub-national (regional and local) governments and public administrations in the Mediterranean region. This refers to both adaptation and mitigation, for which actions have been taken by governments and institutions, often voluntarily and using the EU framework and initiatives (e.g. the Covenant of Mayors on low-carbon urban/local policies and, more recently, MayorAdapt).

Challenges and motivations

- A potentially successful approach for adapting the Mediterranean region to climate change has emerged in the discussion (based on the experience developed by national, regional and local institutions), that can be summarised in the following features:

1. having a sub-national scope (often NUTS 2);
2. being based on extensive, cross-sector studies that have been carried out on adaptation needs across the main environmental and economic sectors of the territories involved;
3. providing valuable technical contents based on data collection / building scenarios;
4. having a significant political meaning for

the regional governments involved;

5. constituting the basis for future administrative decision-making patterns in the regions and being the basis for formal adaptation strategies and plans (e.g. in Italy: Regions of Abruzzo and Lombardy);
6. having involved stakeholders based on at least a simple stakeholder selection and analysis methodology;
7. having been developed in strict cooperation with national adaptation strategies and plans with continuous contacts and sharing of information.

- Urgencies determined by the occurrence of extreme events and natural disasters have been responsible for accelerating adaptation processes, even if imperfectly. Similarly, binding legal and political commitments on natural hazards (e.g. hydro-geological risks) have historically proved to be able to speed up the development of adaptation plans and the implementation process of adaptation measures (e.g. the “Italia Sicura” Decree and related measures) at local level, consistently with, and in application of national measures (National Adaptation Strategy to Climate Change in Italy – SNACC) and increase awareness of how fragile regional living environments are to climate change, also by involving local authorities and municipalities (e.g. involvement and interest of the Covenant of Mayors and Mayor Adapt initiatives have been achieved in Abruzzo, Italy).
- Making local stakeholders perceive and be aware of climate change risk requires appropriate, “ad hoc” communication tools and techniques. The goal of adaptation and risk management should be to increase the understanding of complex phenomena by specific stakeholder groups in order to encourage sustainability and, primarily, economic resilience. Introducing and informing about the adequate instruments for risk prevention and management is necessary to increase the resilience of institutions and stakeholder groups and prepare them for challenging events. These stakeholders can be mobilised with voluntary instruments such as the so-called “river contracts” usually covering a river basin area (e.g. such an approach has been proposed for a test in the trans-boundary

Alpine-Mediterranean river basin of the Roia/Roja river, across the France-Italian border).

- The economic sustainability of adaptation measures and actions has become a central issue for public intervention in this field. Many adaptation policies involve significant infrastructural planning, require implementation measures and demand major expenditures and financial coverage (e.g. integrated measures including operation & maintenance of infrastructures, the target to support the sustainability of a regional economy, planning approaches including hydro-geological risk appraisal often following extreme events and damage from natural hazards²²). The implementation of these actions and the use of advanced techniques (e.g. GIS multi-layer/thematic mapping) have dramatically increased over the last 20 years the quality of regional and local planning as well as the reliability of infrastructures and constructions at local level. There has been a sharp increase in the professionalism of project developers, businesses and scientific competencies and applied research results supplied by Universities that have qualified skilled enterprises for international markets. Knowledge about risk management and infrastructure development has been built up internationally, especially in some sectors: building and construction, maintenance of critical infrastructures in extreme situations, etc. The economic potential of the sector (a type of green and resilient regional and local economy that aims at building territorial resilience) has also been gathered by the business sector that has been participating by means of business associations and councils to draft guidelines on planning of infrastructures to create a better working environment for professionals in the field.
- There is the opportunity to agree on common standards for widening and fine-tuning existing networks and tested methods for collecting information (also by setting up shared technical “Protocols”) and data on the territory concerning climate change and its impacts on specific environmental domains (in particular: ecological connectivity, the shift and dynamics of ecological networks, etc., as happens with the GLORIA-Network²³). The development of guidelines and/or

manuals setting up standardised rules for data gathering in specific domains would support harmonisation of regional data and would make it possible to aggregate figures collected locally at a regional scale – in line with the scope of administrative units and the attached legal responsibilities.

- Adaptation to climate change is, to a large extent, a private issue: individual initiatives can be cost-effective methods of adaptation to climate change, significantly reducing the exposure to risk of properties, businesses and individuals. Encouraging private and business adaptation is likely to be a tough but priority challenge for public policy since it will be able to improve efficiency and reduce public expenditure on adaptation and be a long-term remedy. Ongoing voluntary initiatives aim at including adaptation in environmental management systems of companies (e.g. by developing new ISO standards²⁴ focussing specifically on adaptation to climate change) and specific insurance schemes and contracts to be offered by private insurance companies covering production processes and properties against climate-induced risks, as long as at least some basic adaptation and/or protection measures are undertaken by citizens and businesses. Some interesting examples exist in the field of insurance contracts, and climate-risk assessment methods have been occasionally experimented.
- Introducing a “Green Fiscal Reform” in national tax systems is a topic of debate in Europe and beyond. A gradual shift of the tax burden from income over to the use of natural and environmental resources and the earmarking of the financial resources collected for climate change adaptation (partially required and practised by the EU and national governments with ETS revenues) can be seen as a long-term target shared by many European governments. However it is still unclear which new instruments would be more effective in collecting, earmarking and re-distributing tax revenues to citizens, enterprises and territories. Leaving aside the necessary role of the national Ministries and politics, collecting together good practices and examples of fiscal instruments and policies as well as an assessment of their cost-effectiveness and expected benefits for new methods of climate change mitigation and

22. In Italy, the acknowledgement of the damage and problems suffered after the 1987 floods occurred in Valtellina (North-West of Lombardy region, Italy) led to introducing a wider territorial risk assessment and mapping at regional level.

23. GLORIA (<http://www.gloria.ac.at/>) is a long-term, global observation network for the comparative study of climate change impacts on mountain biodiversity, specifically plants. There are 42 GLORIA target regions worldwide. Observations focus on Alpine environments and vegetation in Europe and beyond. It involves 18 countries across Europe and many in the Mediterranean region.

24. The “International Standard Organisation – ISO” (<http://www.iso.org/iso/home.html>) is a voluntary initiative of companies and organisations from around the world that set agreed standards for environmental certification and management in organisational contexts. It is a typical example of a voluntary initiative for safety and environmental quality management.

25. *Coordination of local authorities (municipalities) undertaking climate change mitigation and adaptation initiatives has been implemented by the regional governments (e.g. Regione Abruzzo in Italy) for sharing good practices and experience gained in climate change mitigation, increased energy efficiency and sustainability solutions.*

adaptation actions in the Mediterranean region would require significant attention.

- Introducing sound methods for an effective governance of climate change both concerning mitigation and adaptation is a primary challenge in the Mediterranean region and for the responsible government authorities. A variety of governance methods and initiatives have become common enough in the field of climate change due to the success achieved by the Covenant of Mayors and Mayors Adapt EU-driven initiatives – voluntary actions undertaken by local governments and administrations (i.e. municipalities and communities). However, the CO₂ reduction and energy efficiency (CoM) and the adaptation targets (MA) sought by these voluntarily cooperating local actors can directly contribute to the achievement of regional governments' climate targets²⁵ which are, at least in part, supported by EU funds managed by regional governments (ERDF, ESF, EU-Common Agricultural Policy-CAP, etc.) and can be invested in local actions whose effectiveness can be demonstrated – following the examples of some regional governments in the Mediterranean region (e.g. Emilia-Romagna and Abruzzo in Italy). There is a significant room for improving the cooperation among different levels of governments and with the private sectors and other stakeholders (NGOs, the civil society, etc.) aiming at fostering cost-effective strategies to address climate change: e.g. by means of innovative institutional and legal measures and new contracts for multi-stakeholder and multilevel partnerships involving the public and private sectors such as public-private-partnerships (PPPs) for project financing, multi-partnership agreements, etc.

Instruments available and their potential for transfer and sharing in the Mediterranean Region:

- National climate change adaptation strategies and plans (see EEA – EU, UNFCCC database, e.g. SNACC in Italy, etc.)
- Climate Change Regional Adaptation Strategies and/or Plans (e.g. Lombardy, Abruzzo, etc.)

- EU knowledge platforms on climate change mitigation and adaptation (e.g. EEA Climate-ADAPT)
- Guidelines on climate change adaptation at local level in the Alps (Alpine Convention, 2014)
- Results of international projects in mountain regions at least partially included in the Mediterranean Region (e.g. Alps: Alpine Space Programme; Pyrenees, Balkans, Carpathians: South East Europe – SEE, Central Europe – CE, etc.) and the wider Mediterranean area (including extended cooperation with North-Africa, Middle Eastern countries, etc.)
- UNFCCC / IPCC thematic and technical reports, papers, publications
- Guidelines on planning of infrastructures (e.g. in Regione Lombardia, Italy)
- Contracts and innovative solutions (Private Public Partnerships, River contracts, also at cross-border level, European Groups of Territorial Cooperation (EGTC), etc.)
- Voluntary instruments for individual organisations and businesses (e.g. ISO standards, WBCSD voluntary standards, etc.)

Main Stakeholders to be involved:

- National administrations and Ministries responsible for national adaptation strategies to climate change
- Regional administrations responsible for regional adaptation strategies and planning
- Local institutions (municipalities, local governments, communities)
- Business sector: SMEs, corporations, business associations, International Standard Organisation-ISO, etc.
- International organisations: EC, UNEP
- NGOs: WWF, IUCN, WBCSD, etc.

Governance of climate change in the Mediterranean Region

The existing EU Macro-regional Strategies relating to the Mediterranean area include the Adriatic-Ionian (EUSAIR) and, to a lesser extent, the Alpine strategy (EUSALP). Climate change is a topic of inquiry for both of them.

EUSAIR encourages a horizontal approach highlighting interdependence between its four pillars and refers to climate change mitigation and adaptation as an example of across the board issues having an impact on transport, energy, tourism, and other policies (which in turn also have an impact on climate change). Therefore the strategy calls for the involvement of bodies and institutions representing other policy fields than the ones specifically reported in the Pillars.

EUSALP recognises climate change as being one of the environmental, economic and social challenges shared by all regions. It mentions its relationship with the energy sector and its development in the region, defining it as a threat to mountain water reserves in the long run. Of the specific actions in the EUSALP Action Plan, climate change is considered the one that aims to preserve and give value to natural resources, including water and cultural resources (Action 6). However, a specific EUSALP action (Action 8) aims to improve risk management and to better manage climate change, including the prevention of major natural risks. Here climate change is dealt with as a risk factor since it is able to cause additional pressure and challenges in terms of availability of resources and threats to population. The Alps are considered hotspots for climate change that may serve as a reference area for the whole of Europe. These circumstances are stated to need comprehensive, multi-level actions. Conducting a vulnerability assessment across the region and its environmental and economic sectors as well as developing a regional adaptation strategy consistent with national and EU adaptation strategies and plans are both mentioned as a regional priority.

Moreover, governance is one of the priorities identified by the EU LIFE Programme during the programming periods of 2014-2017 and 2018-2020 for addressing climate change policies and their coordination. LIFE Climate Action supports projects

in the development of innovative ways to respond to the challenges of climate change in Europe, by implementing low-carbon and adaptation technologies and new methods and approaches, promoted by various stakeholders (public authorities, non-governmental organisations and private actors like SMEs). The programme focuses in particular on three priority areas: mitigation, adaptation and governance of climate change.

Multi-level governance in the field of climate change can shape cooperation at state-regional-local level in the implementation of adaptation strategies consistent with national strategies and plans. It has been suggested that adaptation tends to take place at local level and is to some extent implemented by individual actors and organisations (private adaptation). Thus a significant involvement of local governments, citizens and the private sector is highly recommendable. Sensitisation of local communities and training to be prepared for major events can be achieved by using the Covenant of Mayors/Mayors Adapt initiative at local level on the initiative and under the coordination of regional governments. A similar approach has been followed by the Abruzzo regional government in Italy, by involving local communities before extreme events take place – and show the still significant vulnerability of the territory and potential for increasing resilience.

The basic unit for a European governance of climate change should be the smallest portion of territory subject to administrative power, which has to be analysed in line with the EU “vertical subsidiarity” principle i.e. local governments that are tasked with decision-making powers have to be involved in climate change policies. However multi-level governance and coordination are essential actions to ensure a proper implementation of climate change policies. Identifying organisational and management options and methods to ensure an effective governance of climate change is a task that needs to be developed, and existing instruments such as “voluntary program agreements” and “private-public-partnerships” (PPPs) need to be tested and assessed, and should be coupled with dynamic and flexible rules allowing the application of the same multilevel cooperative approach also concerning monitoring climate change and evaluating policy effectiveness and efficiency.

Sources and links

- Alpine Convention www.alpconv.org
- Covenant of Mayors http://www.covenantofmayors.eu/index_en.html
- EEA Climate-ADAPT <http://climate-adapt.eea.europa.eu/>
- EUSAIR <http://www.adriatic-ionian.eu/>
- EUSALP <http://www.alpine-region.eu/index.html>
- GLORIA-GLOBAL OBSERVATION RESEARCH INITIATIVE IN ALPINE ENVIRONMENTS <http://www.gloria.ac.at/>
- Guidelines for local adaptation to climate change in the Alps http://www.minambiente.it/sites/default/files/archivio_immagini/Lima/Guidelines%20for%20Climate%20Change%20Adaptation%20at%20the%20local%20level%20in%20the%20Alps_.pdf
- ISO – International Standard Organisation <http://www.iso.org/iso/home.html>
- Life Climate Action EU http://ec.europa.eu/clima/policies/budget/life/index_en.htm
- Mayors Adapt <http://mayors-adapt.eu/>
- National Climate Change Adaptation Strategy in Italy (Strategia Nazionale di Adattamento ai Cambiamenti Climatici – SNACC) <http://www.minambiente.it/notizie/strategia-nazionale-di-adattamento-ai-cambiamenti-climatici-0>

*A footpath in the Italian
Dolomites
(Photo: ©R. Vergnani)*



Tourism and landscape in Mediterranean mountains²⁶

Framework

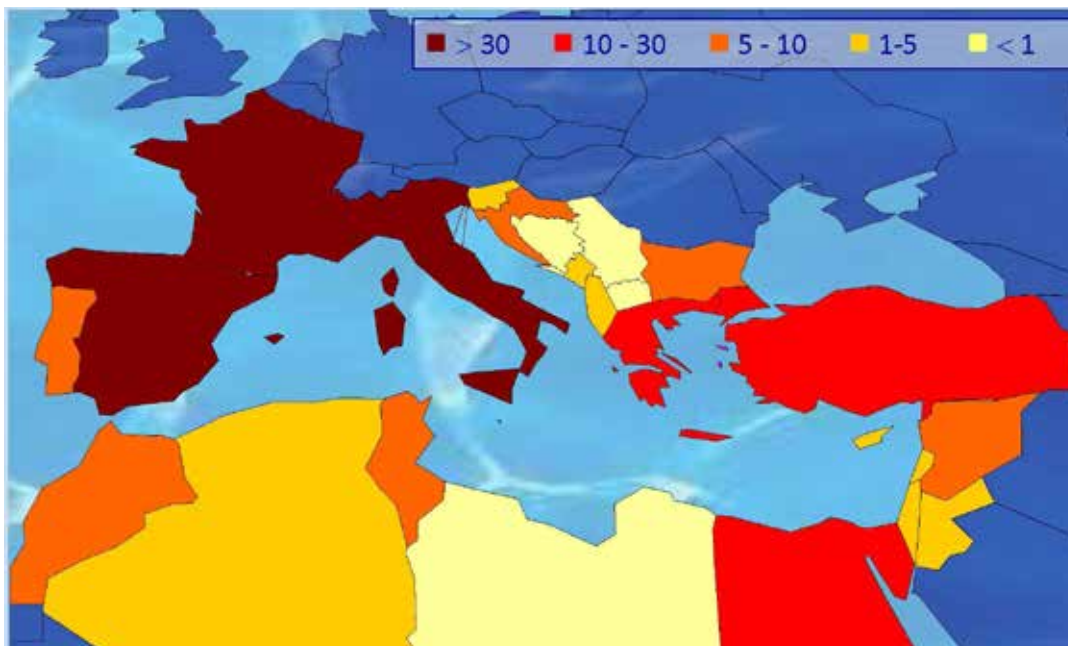
The Mediterranean region is one of the largest areas for attracting tourists in Europe and worldwide. According to a recent analysis conducted by the World Tourism Organization (WTO), it attracts about 18% of the entire global tourist flow. In mountain areas, the tourism sector is a driver of economic growth, its development can help local inhabitants to protect the territory and, if managed according to sustainability principles, it can support the preservation of the landscape and environmental resources in line with some of the grounding principles of the “green economy”. In this respect, the unique environment of the inland Mediterranean areas can become a meeting place for peoples, cultures and models of sustainable tourist development. Under the Italian Presidency of the Alpine Convention

(2013-2014), a Task Force of international experts worked on sustainable tourism by seeking to define inter alia criteria of sustainability for the tourist sector in the Alps²⁷, on the basis both of the 4th Report of the State of the Alps- which focused on tourism (2011-2012)- and of the main challenges they identified for mature and minor mountain destinations.

Participants at the Working Table mainly came from Italian regional administrations (Lombardy, Valle d’Aosta and Liguria regions), and also international experts from Bosnia-Herzegovina, Bulgaria, Greece and Icomos-Italy. The discussion was chaired by Prof. Massimo Sargolini (University of Camerino) and Prof. Cristina Mottironi (Bocconi University of Milan).

26. Experts and stakeholder involved in the working table that contributed to the draft of this chapter: Massimo Sargolini University of Camerino; Cristina Mottironi Bocconi University Milan; Samir Bajrovic- EIA, NGO BiH; Miriam Bisagni – Piacecibosano; Oscar Del Barba CAI Italian Alpine Club; Marta D’Eugenio ITACA; Roberto Gaudio - CERVIM, Centre for Research, Envir. Sust. and Advancement of Mountain Viticulture; Atanas Krantchev -Local Action Group - Razlog, Bulgaria; Marco Lameri -Administration of Alzano Lombardo; Andrea Macchiavelli - University of Bergamo and Gruppo Clas; Yapeng Ou ICOMOS Italy; Luisa Pedrazzini Lombardy Region; Fethi Silajdzic - Director of Cener, NGO BiH.

27. http://www.alpconv.org/en/organization/presidency/taskforce/SustainableTourismTF/Documents/TF_Sustainable%20Turism.pdf?AspxAutoDetectCookieSupport=1



International tourism in the Mediterranean area (Source: World Tourism Organization, 2011)

Main challenges for Mediterranean mountains (tourism and landscape)

The main challenges for the region under inquiry were reported as a project in order to stimulate discussion and introduce new ideas and perceptions from the participants in the workshop who were invited to build on these first inputs.

Table 5: Regional challenges

Challenge	Description
1) Combating migration from inner mountain areas, retaining human settlements in marginal areas, improvement of general services (especially “ecosystem services”), management of hydro-geological risk	Most of the inner areas are poor and are prone to a depopulation risk. The natural attractiveness of these sites does not offset the lack or paucity of essential services for a good quality of life. The challenge is to achieve a cost-effective management of services (esp. health, mobility, education), introduce methods for enhancing and using ecosystem services, and maintain and increase the population, actions which mean that the general hydro-geological equilibrium can be better controlled and risk reduced.
2) improving accessibility to encourage broader tourism not concentrated in just a few destinations	Moving from a limited number of destinations with a high concentration of users to a widespread use of resources distributed across a network requires that physical and virtual accessibility be improved, also by means of sustainable mobility models appropriate to the fragility of the sites.
3) enhancement of nature and culture destinations and their landscape	Enhancing natural and cultural elements of mountain areas should consider the landscape where they lie aiming at reviving and re-planning, if needed, the local territorial relationships
4) development of links between tourism, farming and ground environmental matrices in strict cooperation with new local communities	New EU farming policies for mountains introduce an interpretation of farming where quality products and new types of tourism coexist. Agriculture is also expected to increase biodiversity. Local communities have to be involved in the process with appropriate means since they may help ensure a successful transition.
5) management of protected areas to improve the attractiveness and sustainable use of resources (resource-efficiency)	Many PA localise in the mountains (12% in Italy). Their attractiveness could be increased by more careful management of local natural and cultural resources. Mountain PAs – more than other settlement areas – require programs and plans that are currently not present or not sufficiently developed.

Tools and current situation

Once the challenges have been identified it is worthwhile determining whether actions have been undertaken to tackle them and tools developed that could be used elsewhere, refined or re-arranged (taking note of the specific regional features of the different parts of the Mediterranean basin). New research is often not needed, but careful adjustments of existing frameworks, approaches and practice-oriented tools may be the key to success. Examples can come even from remote regions – but may prove effective also in the area under inquiry.

Table 6: Instruments and experience

Challenge (from Table 5)	Available tools or knowledge	Details
1) Combating migration from inner mountain areas, retaining human settlements in marginal areas, improvement of general services (especially “ecosystem services”), management of hydro-geological risk	From available data (in Italy: Istat) there are the dimensions and types of demographic movements, but an estimate of immigration is more difficult to find. Some countries have developed strategies for providing services in inner areas. Some EU funds are also orientated towards less developed inner areas.	From available data (in Italy: Istat) there are the dimensions and types of demographic movements, but an estimate of immigration is more difficult to find. Some countries have developed strategies for providing services in inner areas. Some EU funds are also orientated towards less developed inner areas.
2) improving accessibility to encourage broader tourism not concentrated in just a few destinations	EU, national and regional policies exist for accessibility to mountain areas (see: Macro-regional strategies). Research and international cooperation projects have delivered accessibility models that can be adjusted for other locations and ends (e.g.. A2M SEE, ...)	National and macro-regional transport policies often do not fit with mountain areas where the crossing of fast with “slow” tracks could be essential for the success of tourist strategies.
3) enhancement of nature and culture destinations and their landscape	Policies aimed at enhancing natural & cultural heritage and the landscape can be found almost everywhere in Europe. However there are significant regional differences that deserve to be considered.	There is often very little interest in existing policies for the relationship between cultural/natural heritage and resources and the surrounding landscape
4) development of links between tourism, farming and ground environmental matrices in strict cooperation with new local communities	EU CAP and the related regional rural development plans show the strong link between tourism, farming and natural ecosystems.	Implementing the ideal contents of CAP is more difficult than expected and applications are still scarce. Mountain people are also very hard to involve.
5) management of protected areas to improve the attractiveness and sustainable use of resources (resource-efficiency)	National laws govern PAs in various EU countries, ruling the management bodies of each site.	Often there is an open conflict between PA managers and territorial governments and other governance actors.

Stakeholder Analysis and Mapping

The stakeholders most influenced by each challenge or tool as well as the most influential stakeholders regarding those same challenges and tools are reported below. Institutional and governmental competences for each topic/challenge are reported; social groups and organisations holding adequate competences and tools to tackle the identified challenges; social groups and organisations most vulnerable to the threats and open to opportunities; and short reasons for the selection have been collected as an input for group discussion. The adequacy of this first screening could be an option for discussion and a guide for identifying new stakeholder groups to be involved in the Mediterranean mountain framework.

Table 7: Stakeholders

Challenge (from Table 5 & 6)	Influenced Stakeholders	Influential Stakeholders
1) Combating migration from inner mountain areas, retaining human settlements in marginal areas, improvement of general services (especially "ecosystem services"), management of hydro-geological risk	Farmers associations, tourist development agencies, tour operators, public transportation companies, private and business sector, etc.	New farming entrepreneurs, new tourist and hotel entrepreneurs, etc.
2) improving accessibility to encourage broader tourism not concentrated in just a few destinations	Local public transport companies, local governments	Ministry of Transport, Ministry of Welfare, Ministry of Economic Development
3) enhancement of nature and culture destinations and their landscape	NGOs for landscape protection and enhancement, innovative businesses, business associations	Local and regional governments
4) development of links between tourism, farming and ground environmental matrices in strict cooperation with new local communities	Farmers associations, environmental NGOs, tourist NGOs and associations	EU, national government bodies, regional governments
5) management of protected areas to improve the attractiveness and sustainable use of resources (resource-efficiency)	Environmental NGOs, innovative entrepreneurs in different sectors	Local governments, regional bodies, national ministries

Challenges

According to UNWTO, sustainable tourism can be defined as “tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities”. Sustainable tourism is widely seen and recognized as an accessible “engine of economic growth” which, without excessively heavy investment, can help a country, or a well-defined region, to generate foreign exchange. To pursue this overall objective, during the joint discussion, a comprehensive list of issues and current critical issues particularly affecting the Mediterranean was discussed.

Accessibility

The topic of accessibility and its improvement was extensively debated at the Table. From the assumption that without travel there is no tourism, it follows that the concept of sustainable tourism is closely linked to a concept of sustainable mobility- in particular to accessibility. A tourist destination is defined by its ability to provide: a) appropriate visitor access into a specific location (i.e. a village, a city, a site or a specific attraction) and b) dispersal of visitors throughout the destination.

Territories benefit from tourism to different extents.

There is a need for a more balanced tourism across a territorial unit, whose aim is to improve the accessibility to a network of sites and to support an outspread tourism, not concentrated in a limited number of destinations (the so-called “hotspots”).

Tourism needs connectivity among destinations and attractions, which can be ensured by means of proper access routes and transport options. Connectivity can influence a visitor’s initial destination choice, length of stay and overall satisfaction. A transition towards more sustainable modes of transport, and accessibility planning has become a statutory requirement of local authorities (i.e. mainly municipalities).

In recent years, research and international cooperation projects have delivered accessibility models providing a wide set of information on different categories of costs and benefits of alternative solutions (recorded

by environmental, ecological, social, economic and landscape indicators tailored to specific territorial features), that can be adjusted and applied to other locations and ends, as a means to support policymaking and private decisions²⁸.

Additionally, connectivity increasingly means also digital connectivity. Effective digital strategies critically support tourism development and tourism flows in all the phases of the tourism experience: choice, visit, return²⁹.

Relationship between coastal and inner (mountain) areas

Along the Mediterranean, a great proportion of coastal areas have seen a progressive development of resorts and extensive urban conglomerates during the 20th century. Generally these zones are characterized by considerable tourist intensity. Some of the coastal Mediterranean destinations and sub-regions are known worldwide as well-defined “brands” (Costa Brava, Cote d’Azur, Riviera Romagnola, Croatian and Greek islands, etc.). Thus, an unbalanced development is often visible in the coastal region, in terms of population, economic activities and job opportunities, if compared to inner- and often hilly – areas.

In recent years, attention towards more “authentic” and preserved forms of tourism has been more and more sought after by tourists. Reasons behind such choices may vary: the presence of protected areas with valuable natural assets, notable cultural and/or religious sightseeing (e.g. monasteries, churches, etc.), small and picturesque rural villages, etc.

Therefore, the opportunity seems to exist of re-orientating the Mediterranean tourist offer towards a wider range of activities. Regional governments and the main stakeholders should play an important role in promoting these new tourist packages.

As an example, Liguria Region was mentioned as an interesting regional case, where the demand from visitors for complementary tourism is growing. However, there are currently difficulties in establishing a fruitful dialogue between all the stakeholders involved and to elaborate innovative ideas and proposals to channel and facilitate visitor stays in inner areas.

28. *The Access2Mountain project (South-East Europe Programme 2007/2013), the AlpNet project (Alpine Space Programme 2007/2013) and the TISAR project.*

29. *The option of developing a Digital Agenda for the Alps has been analysed in a report dedicated to the “Alpine Digital Agenda” by a Task Force established by the Italian Presidency of the Alpine Convention 2013-2014 which delivered a thematic publication: <http://www.alpconv.org/en/organization/presidency/taskforce/digitalagendatf/default.html>*

30. According to the European Environmental Agency (2006), between 25% and 50% of the habitats protected by the Natura 2000 network in southern Europe depend on low intensity agricultural practices for their maintenance.

31. In particular, it clearly promotes (art.3) the protection, management and planning of European landscapes and organises European co-operation on landscape issues, and recommends (art.5-6) the integration of landscape into regional, town planning, cultural, environmental, agricultural, social and economic policies.

Local stakeholders should be effectively supported by research and data about new trends in tourism demand to evaluate the type of projects and actions to be undertaken to leverage on new requests coming from the market and the new segments on the tourism scene. While it has proven difficult to get traditional mass coastal tourists to visit inner areas, specific niches and targets have to be addressed.

The 'Valle delle Abazie' case (promoted by the Italian Abruzzo Region, the association ITACA and the Municipalities of the 'Medio Vomano' Valley) was reported as a virtuous example of connection between coastal and inner areas that leverages on a specific segment (religious and spiritual tourism).

Overcoming seasonality

A large section of the most popular tourist destinations in the Mediterranean mountains are visited by tourists in well-defined periods of the year. This is the case with the winter season, especially for ski-resorts in the Alps and Pyrenees, and with the summer season, for hiking, biking and other outdoor activities. However, a high concentration of tourists in such short timeframes constitutes a major cause for phenomena of local congestion and environmental pressures, such as noise, pollution, water shortages, etc. In addition, it poses threats on economic sustainability and returns on investments in the sector. In order to address these pressures, a possible solution is to develop more sustainable and widespread forms of tourism that may more deeply involve the local population and stakeholders and be economically sustainable throughout the year.

The Razlov area, a mountainous region in south-western Bulgaria, was cited as an example of an extended area with notable natural assets (for instance, three different mountain chains and two national Parks), that is affected by seasonality problems that local authorities and stakeholders are tackling by increasingly integrating various attractions and products. Serbia was also mentioned as a country with a great potential to further develop tourism in its mountain areas, covering around 70% of the whole national territory.

The importance of landscape management and protection

Sustainable tourism strongly depends on the

quality of the environment and has to fit the carrying capacities (environmental, cultural, social, economic, etc.) of the affected areas. In an effort to prevent unsustainable mountain tourism development from undermining its natural and cultural assets, legislators have already placed a few regulatory restrictions on mountain tourism. However, a long-term conservation of highly diverse natural and cultural Mediterranean mountain landscapes depends on the adoption of a proactive and wider approach, which might be based on the maintenance, restoration and innovation of the low-intensity rural development practices and cultures on which the landscapes themselves depend³⁰.

In addition to their more classical agricultural use, cultural and natural landscapes are estimated to have a great value as a recreational space for people. Tourism and ecotourism that have developed in these sites offer the population new economic opportunities, including income generation – that can be used for investing in the preservation of the natural resource base, or natural capital.

For this purpose, the European Landscape Convention (2000) is to be considered as the main legal reference since it provides the relevant policy guidance about landscape protection and enhancement³¹.

Diversifying the tourism offer and experiences

Wine and food, handicraft, sustainable farming, health and wellness are just some examples of economic activities which can – partially or fully – employ local population and promote specific features and “know-how” of a given territory. In fact, they often represent an alternative to other economic activities and a more stable source of income for local inhabitants, allowing them to give value to and further spread high-quality local products. The European Commission is paying particular attention – by opening specific calls for proposals- to innovative ideas applicable to thematic tourism products. Their aim is to strengthen transnational cooperation in the field of sustainable tourism, to encourage greater involvement for small and micro-enterprises, and local authorities, and to stimulate competitiveness in the European tourism sector.

Main Stakeholders to be involved:

- National administrations and Ministries responsible for tourism, nature conservation and landscape protection
- Regional administrations responsible for tourism and spatial planning
- Local institutions (municipalities, local governments, communities), local public transport companies, local and regional Tourist Boards/associations
- Universities, research centres, schools
- Business sector: SMEs, corporations, business associations, hospitality sector, farmers, International Standard Organisation-ISO, etc.
- International organisations: European Commission, WTO, UNEP, ICOMOS, UNESCO
- NGOs: WWF, IUCN-Med, FAI (Fondo Ambiente Italiano), etc.

Sources and links

- Duffy R. (2002), *A trip too far: ecotourism, politics and exploitation*. Earthscan, London
- Weinberg A., Bellows S., Esker D., (2002) *Sustaining ecotourism: insight and implications from two successful studies*. *Society and Natural Resources* 15 (4)
- C.J. Barrow (2006), *Environmental Management for sustainable development – 2nd edition*, London and New York, Routledge Taylor & Francis Group
- Regato, Pedro and Salman, Rami (2008). *Mediterranean Mountains in a Changing World: Guidelines for developing action plans*. Malaga, Spain: IUCN Centre for Mediterranean Cooperation.
- Council of Europe (2000), *European Landscape Convention*, 20 October 2000, Florence (Italy)
- UNEP and UNWTO, (2005) *Making Tourism More Sustainable- A Guide for Policy Makers*.
- UNCCD, *Benefits of sustainable land management*
- *Fourth Report on the State of the Alps of the Alpine Convention*
- *Report on Sustainable Tourism in the Alps* issued by the Task Force “Sustainable Tourism” of the Alpine Convention
- European Commission (2007), *Agenda for a sustainable and competitive European tourism*

Biodiversity and agro-biodiversity in Mediterranean Mountains ³²

Framework

32. Experts and stakeholder involved in the working table that contributed to the draft of this chapter: Aurelio Angelini University of Palermo; Filippo Favilli Eurac Research; Graziano Martini Barzolari -consultant; Paola Carnevale Liguria Region, Andrea Costa -Regional Council of Liguria Region; Sabino Demeo Lombardy Region; Vita Di Blasi Italian Ministry of Environment; Giacomo Luciani DG Environment European Commission; Daniela Masotti ERSAF; Riccardo Santolini University of Urbino, ECOMAN srl; Milena Tagliapietra Consultant; Simona Vrevc - Permanent Secretariat of the Alpine Convention.

Apennines: foothills in the Province of Bologna (Photo: ©R. Vergnani)

The wide biodiversity of the Mediterranean region represents an important heritage for the Planet and it deserves to be protected and fostered. In this respect, several initiatives have been undertaken and promoted by international organizations for the conservation of biodiversity and agro-biodiversity in the Mediterranean. These initiatives are an important asset for the promotion of economic productivity and social value of environmental resources.

Ecological but also social and economic challenges have intensified due to systemic shocks, such as climate change, and to the economic crisis and its consequent restrictive effects on public finances dedicated to nature conservation. Enhancing biodiversity can be a strategic option for supporting the quality of life of citizens and generating regional economic welfare from still unexploited ecological resources.

Moreover, since the year of EXPO 2015, the topic of food sustainability has gained wider attention among the national and international decision makers.

In fact, mountain farming, especially if done in a sustainable way, can contribute to the protection of the territory and the environment, particularly by preventing hydro-geological risk and promoting the conservation of biological diversity. The enhancement of local stakeholders' networks including government agencies and the private sector to promote the exchange of good practices and innovative experiences for the conservation of agro-biodiversity and the enhancement of mountain products is a strategic objective at various administrative levels.

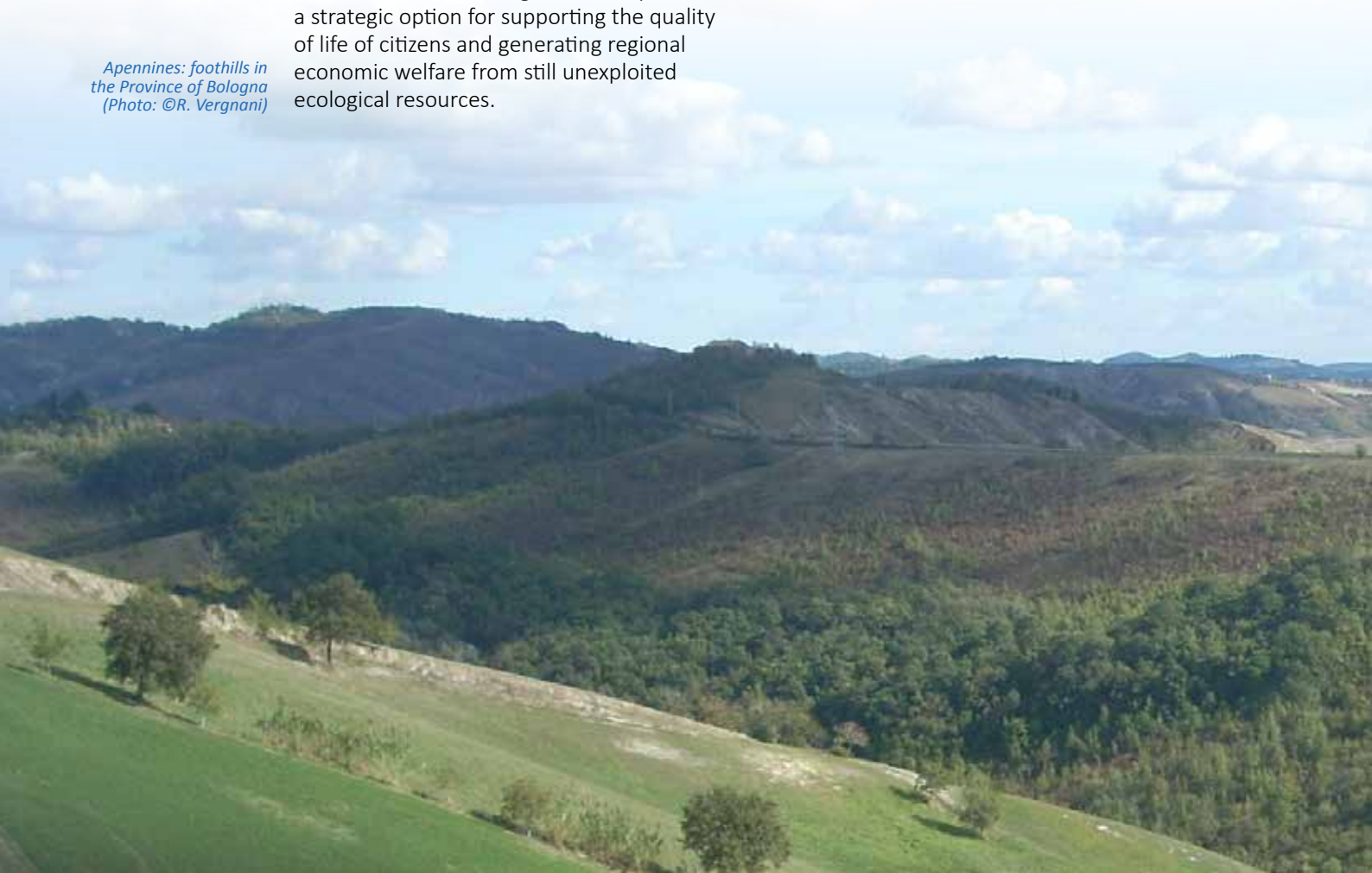


Table 8: Challenges

Challenge	Description
Ecological connectivity and habitat fragmentation	Obstacles still interposed to the development of a Mediterranean ecological network. Available projects, methodologies and experiences to be shared. Benefits brought by ecological connectivity and reduction of habitat fragmentation to biodiversity and the human society. Opportunity for limiting/avoiding human-wildlife conflicts.
Enhancing and management of mountain landscapes in order to “feed the planet”	Role of mountain and family farming in the conservation of biodiversity and for food sustainability. The impact of natural hazards in mountain areas and the issue of water management for food production.
Climate change	Approaches to cope with the phenomenon of “desertification” with mentions about water scarcity and prevention of natural hazards. Potential and ecological / farming measures for reducing greenhouse gases. Potential for re-using agricultural waste for bio-energy production. Opportunities for using climate change in farming and related activities (environmental, social, economic benefits). Need for change and options for change.
Sustainable tourism, biodiversity and agriculture	Potential to join economic, environmental needs, management of territories and protection of local cultures in the tourist offer. New opportunities and models for win-win solutions in environmental, landscape and economic terms.
Protected Areas and Biodiversity	Role of protected areas for the conservation of natural capital. Developments beyond the classical view of protected areas: room for improvement. Role of protected areas in the climate change adaptation and contrast of desertification. Potentials coming from the enlargement of pre-park (regional development) areas dedicated to agriculture and hydrological rearrangement.



Table 9: Instruments and experience

Challenge (from Table 8)	Available tools or knowledge	Details
Ecological connectivity and habitat fragmentation	National/local strategies for ecological connectivity International platforms GIS methodologies. Wildlife management Conflict resolution techniques Public participation and community-based ecosystem services management	Necessary adaptation to local characteristics
Enhancement and management of mountain landscapes in order to “feed the planet”	Stakeholder dialogue and participation Trans boundary cooperation	Mountain specificity with necessary adaptation to local characteristics
Climate change	National and European framework Local instruments to mitigate and adapt to climate change	Necessary adaptation to local characteristics
Sustainable tourism, biodiversity and agriculture	Stakeholder dialogue and participation Trans boundary cooperation Wildlife and landscape management	Necessary adaptation to local characteristics
Protected Areas and Biodiversity	National and European framework for protected areas and biodiversity protection Stakeholder dialogue and participation Trans boundary cooperation	Necessary adaptation to local characteristics

Table 10: Stakeholders

Challenge or instrument (from Table 8 and 9)	Influenced Stakeholders	Influential Stakeholders	Motivation
Ecological connectivity and habitat	Farmers	Research	Define a new concept for human-wildlife
Fragmentation	Public opinion, Tourists offices	Hunters Administrations Public opinion Protected areas managers Foresters Road managers	Explore socioeconomic benefits of an ecological connected landscape Define a mountain strategy for reduction / avoidance of human-wildlife conflicts and to improve coexistence
Enhancement and management of mountain landscapes in order to “feed the planet”	Hunters	Farmers, Administrators	Promote local products and traditions Increase local market Prevent the impact of natural hazards
Climate change	Tourists offices, Farmers Foresters, Energy providers	Targets and policies transferable (with caution and ensuring harmonization) to MED mountain areas. Recommendations by AC on hydropower plants.	In water management there is no clear distinction between “active” and “passive” stakeholders, and consequently cooperation may prevail over conflicts.
Sustainable tourism, biodiversity and agriculture	Farmers, Hunters Hotels and tourists providers	Tourist offices, Farmers Road managers Protected areas managers	Integration of biodiversity and agriculture in the tourist product. Opening of new opportunities in sustainable tourism. Social and economic analysis of new touristic approaches
Protected Areas and Biodiversity	Protected areas managers Public opinion	Protected areas managers Public opinion Administrators	Increase of environmental awareness Shift from “Nature protection” to “Nature integration”

Discussion

The Biodiversity and Agro-Biodiversity Table has seen the participation of 14 experts coming from regional administrations, research centres, universities, local and international entities. The additional presence of the Deputy Secretary of the Alpine Convention has given the opportunity to the experts to take note of the experience and the analysis done in the Alpine context concerning management of agricultural resources and mountain agriculture.

Most of the participants brought their experience developed in the agricultural and forestry fields and proved much more concerned by problems and challenges faced by the public sector. Thus, the contents of this paper miss a more deep analysis of the private sector's point of view. Starting from local experience, the group tried to define potential approaches, synergies and strategies for overcoming threats and limits in the management of biodiversity and considered the agricultural sector as a potential driver for a sustainable approach to deal with Mediterranean biodiversity.

The challenges listed and the proposals forwarded to address them aim at widening the dialogue among different Mediterranean countries and regions- though they are far from providing a complete analysis of the regional needs and the envisaged responses.

Primary challenges for the conservation and enhancing of Mediterranean biodiversity in mountain areas

Depopulation of the Mountain

The depopulation of the high altitude territories is still one of the main challenges also for the mountainous regions of the Mediterranean.

The only partial fulfilment of the rural development plans

This is one of the major causes for the unfavourable conditions to retaining young generations in the highest portions of the territories. Additional causes can be found in the absence of long-term political strategic planning (which does not allow the overcoming of the physical isolation of these areas and their improvement), in the continuous reduction of financial

opportunities and support, and in the difficulties in promoting public participation and stakeholder dialogues on the relevant ecological and agricultural topics.

This emergency is present in territories of both the Alps and the Apennines and creates the conditions for agricultural degradation, favouring the advance of forests and the increase human-wildlife conflicts. Experts from all the Italian regions gathered at the Table (Liguria, Veneto, Lombardy and Sicily), on the basis of their experience in the Alpine and Mediterranean environment, have qualified the problem with rural development plans as "extremely relevant". Continuous efforts have been made across the region aiming to define policies, projects and strategies to both keep people from leaving inner and mountainous territories and also to protect agro-rural activities and local biodiversity.

The major challenges that have been identified consist of: 1) bringing back people to live in the mountains by increasing their quality of life in these areas, and 2) finding the most appropriate solutions and instruments (i.e. EU planning policies) to safeguard the healthiness of the local environment.

Fragmentation of agricultural resources

All the experts have emphasised that the fragmentation and the lack of coherence in the allocation of financial resources in the agricultural sector only permits "emergency actions" rather than contributing to developing a broad-based strategy with local stakeholders. There are many projects in the primary sector, but a clear, integrating strategy that may relate the single projects and situations with a long-term spatial planning vision is still lacking.

Many resources have been used to respond to recent catastrophic events (mainly: floods and landslides), but these actions were only reparatory and did not aim at increasing the resilience of the agricultural sector and at the integration of agricultural policies and actions with biodiversity protection targets. The exiting tools – such as the Agricultural Development Plans – have often not delivered the results expected: as a consequence the current prevailing strategies could need to be re-examined as well as control systems and indicators used for assessing the fair and effective use of public funds.

Missing/low ecological awareness

The discussion focused on the low (and in many cases, inexistent) ecological awareness among citizens and institutions. Despite the fact that all the participating territories hosting NATURA 2000 sites have been damaged by exceptional weather events like floods and landslides, and have used public money to face these emergencies, politics and the public opinion (in some case companies and policy makers) still show small concern for the importance of agricultural and ecological services and their role for the conservation and sustainable development of mountain areas.

The low environmental awareness and public participation concerning the topic of ecosystem services, their processes and the functions they perform, does not contribute to significantly innovate and tailor policies and funding towards aims such as the conservation of landscapes, the promotion of extensive agriculture, and the introduction of integrative/participative management systems that can highlight the socioeconomic potentials of sustainable farming and biodiversity conservation.

Natura 2000 network

The Natura 2000 network is still unknown to the public and many local stakeholders, who do not see it as a potential source of ecological and socioeconomic welfare. This lack of knowledge and information, together with the lack of funding and management plans for Natura 2000 sites, often creates a big standoff at the local administrative level that appears to vacillate between the adherence to the national biodiversity strategy and the concrete actions to be undertaken on the ground. In this field, the prevailing impression is that there are too many single and unconnected projects, neither supported by a strong political endorsement nor include in an integrated inter-regional and/or trans-national development strategy.

Spatial planning

Spatial planning should be the main executive instrument for habitat and biodiversity conservation strategies. However, in Italy, the plans are highly fragmented and often limited to the municipality level. The necessary steps for the promotion of ecological connectivity do not derive from the development of coordinated and integrated strategies among different regions: this makes building the

structural and functional ecological network, and the necessary biodiversity conservation actions, almost unattainable.

Fragmentation of competencies

The fragmentation of competencies in the field of biodiversity conservation, together with the continuous administrative staff turnover, do not allow to frame and carry on long-term strategies that should identify and gather a network of actors that could work in synergy to concretise significant actions.

The available instruments to face the challenges highlighted

Some types of “multi-stakeholder partnerships” have been formally recognised or set up in national legislation involving regional and local stakeholders in governance actions for local development, as it is the case in Italy with the National Law No.662/1996 introducing the so-called “Programmazione Negoziata”. These types of cooperation tools have the potential to acknowledge the situation of a territory and formulate development proposals to be shared within a participatory process. In order to avoid the duplication of available instruments and the interpretation of environmental compatibility appraisal as a formal procedure, it is essential that management approaches include more than a fragmented list of actors and actions. A strong technical-scientific direction behind these procedures is needed. The appraisal should result in a review of the existing situations and their interconnections aimed to stimulate a continuous face-off and dialogue among the interested stakeholders. Such a process would have the potential to fit positively in the different situations identified, coordinate and integrate projects, topics, stakeholders and finally the actions implemented for achieving the objectives of strengthening ecological networks and enhancing biodiversity protection, and stimulating a common path of environmental and cultural growth.

Moreover the need was felt to define common actions for monitoring the effectiveness of the implementation strategies of legislation and directives at all levels (from the EU to the national and regional ones) and comparing newer approaches to the successes or failures achieved in the past with different strategic options.

Stakeholders to be involved in the design and implementation of the sector actions in the field

- Administrations and inter-sector entities from different fields: environmental protection, agriculture, protected areas, culture and protection of the territory, trade, enterprises
- Territorial administrations: councils, metropolitan domains, mountain communities, regions
- Basin authorities
- Protected areas: all levels – from local to national parks
- Citizens' associations: environmental, agricultural and trade associations
- Services: infrastructures and related services (highways, energy managers, etc)
- Private entities with economic capacities and/or agreed upon the utilization of territories (research centres, hospitals, sport associations etc.)
- Research centres, universities with multi-sector competencies (planning, hydrological safeguard, landscape, biodiversity, legal, social etc.)
- Farmers
- Shepherds
- Private citizens, especially young generations

It is highly recommended to assume the positions of diverse stakeholders in view of the definition of the regional funding priority axis, by means of a series of meetings, workshops and consultations with research centres, associations, businesses, technical and scientific institutions in order to orient policies and the use of available resources to meet the real needs of the territories.

Proposals for the development of an integrated and shared vision for the Mediterranean Area

The territory has to be considered as a system

It is highly important to have plans, long-term strategies, programs and actions that can overcome the municipal administrative borders and be unhooked from the duration

of a political mandate. At the same time, these strategies and policies need to work not only in case of emergencies but also for a long-term integration of neighbouring territories on themes of common interest. This requires developing an integrated and coordinated planning that can include, to different extents, numerous actors coming from the governmental and non-governmental domain, the citizens' associations and stakeholders. Especially when biodiversity, conservation of biological and extensive agriculture and of local products are concerned, the territory should not be seen only as deserving political actions, but needing immediate integrated actions that can persist in the long-run. It is then fundamental to interpret processes as composite and not only precise and simple. Integrated actions have to include a bottom-up phase, where the different stakeholders are involved in different ways and on different issues, backed by a strong scientific background. Governance processes to be set up should be inspired by the real problems of the territory and should aim at overcoming a management approach based on emergency-management.

Awareness and participative planning

Public awareness, multi-stakeholder integration and participative planning for a correct interpretation of the ecological functions, biodiversity and agro-biodiversity protection are highly recommended. It is moreover fundamental to highlight the responsibilities of decision makers and private and public institutions on the implementation of strategies aimed at achieving conservation objectives in the field of biodiversity and focused on consolidating public involvement and overcoming the fragmentation of different lobbies and interest groups.

Reflecting on local scale economies

Too often, the global economic system does not allow the agro-rural producers to be competitive in the market and acknowledge the efforts and costs for a correct territorial conservation. This situation particularly affects those farmers who are committed to sustainable agricultural practices that are necessary for the protection of local crops and biodiversity.

It is therefore important that the rural system forecasts additional activities to sustain

biological-conservative assets, through the support to sustainable, part-time biological agriculture.

Open up agricultural supporting funding to conservation and enforcement of biodiversity actions

Experts have agreed on the need to make the (limited) agricultural available funding also accessible to biodiversity conservation actions that are compatible with the agro-economic system. Moreover, they have underlined the importance of emphasising actions and projects that can correctly consider these aspects in the granting process, and of the enhancement of actual funding utilization. Additionally, it can be useful to explore more the potentials offered by European funding, particularly the opportunity to address the LEADER funds on Natura 2000 sites management too.

Promote circular local economies systems

It is necessary to protect and promote small local economic systems in order to spread the benefits to the entire supply chain, at the same time enforcing actions aimed at the maintenance of biodiversity, agro-biodiversity, floristic and faunal heritage of the products, and emphasising their importance for the cultural territorial identity.

Protected areas management plans as governance documents

Protected areas play a fundamental role for local economies and for the protection of biological, cultural and agricultural diversity. Nonetheless, the management plans are often only adjustment or conformity documents, and do not allow a complete expression of the real potential of these areas. It is therefore fundamental to clearly define these plans, involving local stakeholders on the basis of the real necessities they highlight, in order to identify the worth strategies, and make the protected areas able to influence a favourable use of financial resources and of the territory for supporting biodiversity and making the local economy work properly.

Recognize and measure the ecological functions

Following the experiences of the experts from

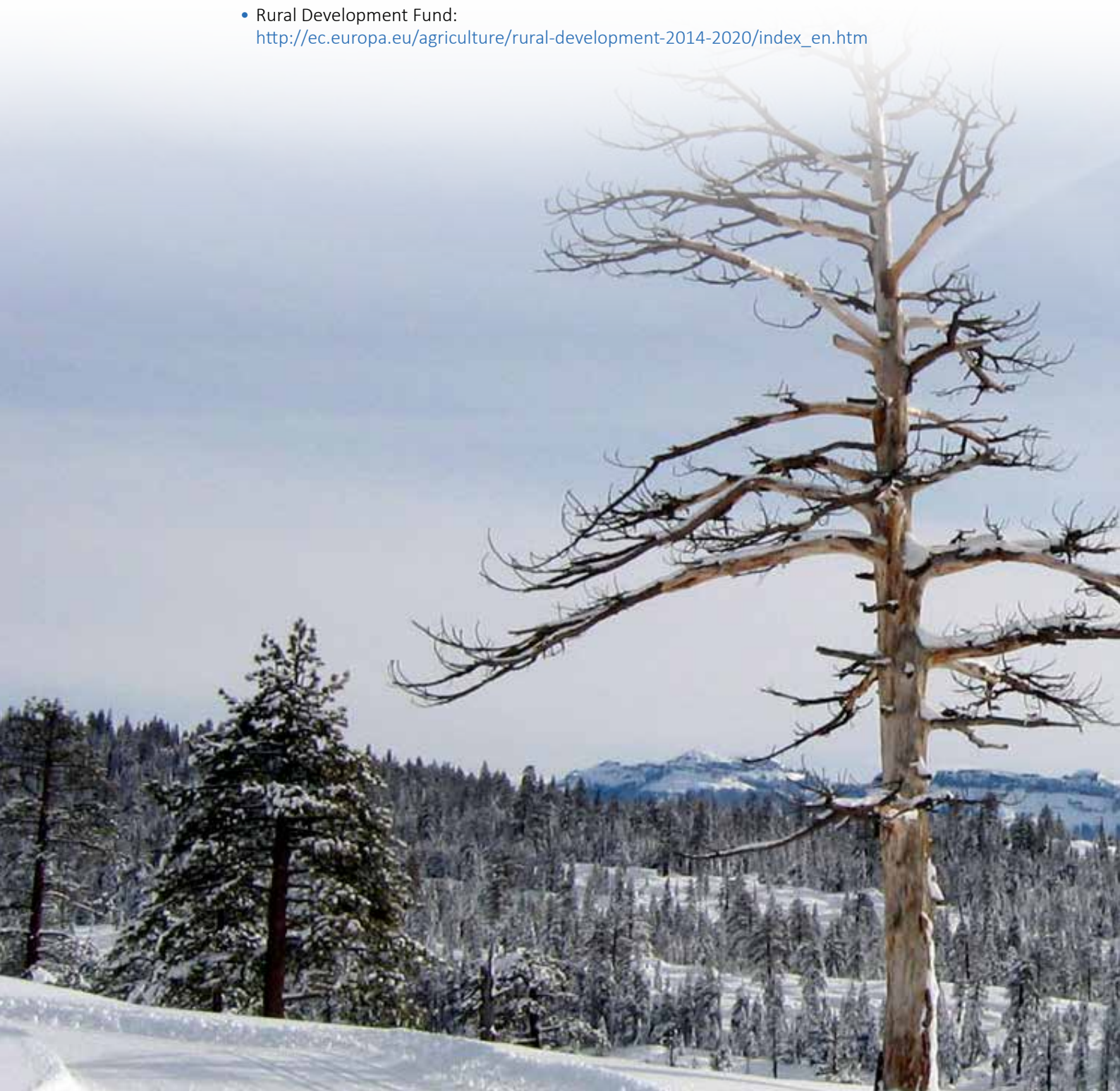
different regions represented at the Table, the necessity was underlined to recognize the actions directed at the protection of biodiversity (bound to points 4 and 5) and measure their ecological functions accordingly. The experts highlighted that most of the stakeholders and the general public still have a superficial knowledge of ecosystem services and their socioeconomic potentials. The measure and assessment of the ecological, social and economic value of ecosystem services are fundamental for acknowledging their importance and allow their consideration as contributing to wider systemic objectives and overcoming separated sector competencies.

Learn from past mistakes

The problems highlighted, and the proposals put forward, aim to stimulate an honest analysis, which should take into consideration the past mistakes and allow for the review of the policies and strategies that have not delivered the expected results. Only through a proper involvement of competent institutions and stakeholders and a correct strategy for sharing information, is it possible to modify the plans and strategies in order to integrate the particular aspects proposed by the end-users of the actions planned, without running the risk of losing political consensus. Strategies are not univocal, and since there is not, de facto, a single solution to the same problems, it is fundamental to open the discussion to as many as possible interested actors and promote inter – municipal – regional and – country exchanges. The themes that emerged for the Mediterranean Region are very similar to those that the Alpine Convention is facing, putting the basis for potential cooperation between the two different geographical domains. It is important to recognise the actions and policies that did work in the past, those that only partially worked and those that did not, by analysing the causes and effects they created. In the end, it is indispensable to connect and capitalise on all the existing opportunities, opening a constructive dialogue that should involve all the interested territories. There is a need to stimulate a strong will to learn from past mistakes and a commitment to not repeat them, by rectifying the non-performing actions, without the fear of impinging upon the economic interests of certain lobbies.

Sources and links

- Convention on Biological Diversity (CBD):
<https://www.cbd.int>
- LEADER FUNDS:
<https://enrd.ec.europa.eu/en/leader>
- NATURA 2000 Network:
http://ec.europa.eu/environment/nature/natura2000/index_en.htm
- Alpine Convention, Platform Ecological Network:
<http://www.alpconv.org/en/organization/groups/wgecologicalnetwork/default.html>
- NATURA 2000 in the Mediterranean Region:
<http://ec.europa.eu/environment/nature/info/pubs/docs/biogeos/Mediterranean.pdf>
- Rural Development Fund:
http://ec.europa.eu/agriculture/rural-development-2014-2020/index_en.htm



Projects and Best practices of trans boundary cooperation in the Mediterranean, output from the meeting “A network for Mediterranean Mountains: Common Visions and Projects for the Sustainable Development of Mountain Areas in the Mediterranean region”, Ventimiglia 12-13 November 2015

Following the meeting held in Milan, another workshop was held in November in Ventimiglia (Liguria, Italy) to keep discussing the opportunities and themes on which to invest in order to foster the sustainable development of the Mediterranean Mountains

The meeting ***A network for Mediterranean Mountains: Common Visions and Projects for the Sustainable Development of Mountain Areas in the Mediterranean region***, involving several stakeholders that participated in the working tables, aimed to analyse the results of the meeting of Milan and present some good practices and projects, being launched or already completed by a selection of institutions and bodies operating in the Mediterranean region.

In the pages that follow the main projects presented during the meeting are presented in short: the boxes can help to understand which type of actions have been already carried out by both institutional and private actors in several fields of transboundary cooperation deemed as relevant for the sustainable development of the Mediterranean region.

In Ventimiglia, projects were presented concerning some topics in particular, that included the ones of sustainable tourism, climate change adaptation and mitigation, water management and biodiversity. The efforts of institutions, research bodies and other organisations confirm the importance of international cooperation as a means to reach useful results that can support a path of sustainable development in the mountainous territories ensuring at the same time the conservation of their ecosystems and natural capital, and the well-being of the people living in these areas.



SEARCH: Social, Ecological & Agricultural Resilience in the Face of Climate Change. A case study from Morocco

Prof Lahcen Taiqui, University of Tetouan - Eng Henk Zingstra, CDI-Wageningen UR

BACKGROUND

SEARCH is a three-year regional project working in five countries (Egypt, Morocco, Jordan, Palestine and Lebanon), funded by the European Union, to develop and pilot a resilience framework for local action planning capacities and methodologies aimed to increase climate change resilience through joint learning, planning and testing by stakeholders through demonstration sites.

Starting from the assumption that “resilience is the ability to cope, address and overcome adverse effects from climate change”, the SEARCH project demonstrates how local communities can successfully engage with and overcome the negative impacts of climate change. Instead of looking for solutions to specific environmental problems, SEARCH concentrates on giving the local communities and other stakeholders the skills and knowledge they need to assess the impact of climate change on a day-to-day basis. It also and foremost helps them develop a realistic vision for the future that may assist them in increasing their resilience towards climate change. SEARCH brings stakeholders from all backgrounds together into roundtable discussions in order to achieve a complete participatory approach and raise awareness from the end user up to the Ministry level. The project is implemented in a context where the pressure on natural resources has grown sharply as a result of the impact of climate change and other emerging factors such as: increase in population, per-capita demand and competing demands for agriculture, industry and others. Agriculture and water resources have traditionally been managed in a highly centralized manner, which has failed to integrate ecosystem management and land use management in light of the consequences of climate change impacts. The views of the end users – primarily women – are therefore seldom sought.

OBJECTIVES

The project aims at achieving the following main objectives:

- Increasing the knowledge & capacity of the local community concerning climate change adaptation planning and tools
- Using joint participatory approaches to plan for climate change adaptation locally and regionally
- Decreasing climate change vulnerability in local communities through positive models on the ground
- Developing practical toolkits and guides that contribute to developing regional and national strategies for climate change adaptation, poverty reduction and economic growth.

CASE OF STUDY NORTH WEST MOROCCO

North West (NW) Morocco shows a traditional Mediterranean landscape which natural features are similar to those of the Northern side of the Mediterranean Sea. Due to its natural diversity and cultural richness, this region forms the African part of the Intercontinental Biosphere Reserve of the Mediterranean. Nevertheless, human features are characterized by important human density, weak development and high pressure on natural resources. Study area is a watershed with 20 km of longitude and altitudes ranging between 100 and 1600 meters. It has been selected for the purpose of SEARCH Project (EU, 2010-2014) with key stakeholders in Tangier region (MoA, MoF, MoW).

Understanding socio-ecological system history and dynamics

A geodatabase was established. Analysis of landscape structure and dynamics and review of scientific documentation and studies was carried out. The spatial units of socio-ecological system are hamlets evolving from an agro-forest state to an agricultural state depending on physical conditions and human population increase. In these mountainous area, landscape is threatened by desertification when there is no forest cover due to precipitation inten-

sity and subsequent erosion, landslides and flash floods. Downscaling of Global Circulation Models (GCM) to local scale is important to assess future vulnerability. Nevertheless, in actual high vulnerability, participative tools, like CRISTAL and CVCA, were crucial to evaluate adaptive capacity.

Vulnerability Assessment

Low indices of social development, weak local institutions and underestimation of traditional ecological knowledge need a great public effort to reduce actual vulnerability. At watershed level, shared vision between municipalities was conservation of natural resources as a basis of socio-economic development. This vision was refined after vulnerability assessment to integrate partial visions of local communities. Strategies at local communities and watershed levels were identified through scenario building workshops. Two pilot projects were identified by participatory prioritization and implemented to complete a first planning cycle: rainwater harvesting and aromatic herbs domestication. The first one was to respond to drying up of water sources in summer. The second was to reduce pressure on threatened natural species and improve income sources for women.

Resilience assessment

A qualitative model for resilience assessment was developed and applied during assessment and after implementation of pilot actions. It was useful for learning and raising awareness about the resilience/sustainability relationship. This model is currently under development and test in other contexts.

INVOLVED COUNTRIES:

Egypt, Jordan, Lebanon Morocco, Palestine

MORE INFO:

www.iucn.org/regions/west-asia/our-work/water-climate-change-programme/search

NILE BASIN COUNTRIES FROM BILATERAL TO MULTILATERAL COOPERATION

Eng Mohamed El Khazragy – Egyptian Ministry of Water resources and irrigation

BACKGROUND

The Nile River is, by most accounts, the longest river in the world (From Lake Victoria to the Mediterranean Sea, the length of the Nile is 5584 km. From its remotest headstream, the Ruvyironza River in Burundi, the river is 6695 km long). It drains a basin area of about 3 million km², home to some 238 million people, while roughly 411 million live within the eleven riparian countries: a figure that is expected to double every 25 years. It hosts an extreme diversified ecosystem. The highest point in the Nile basin is Mount Stanley, Rwenzori Mountains, Uganda (5,110 m), while the lowest point the Qattara Depression, Egypt (–133 m). Although the Nile is the longest river in the world, its runoff potential is small. The average runoff coefficient of the basin is around 4% (NBI, 2012a); 30% of the basin's rainfall get lost before being used for any purpose because of evaporation. The mean maximum rainfall is 2093 mm/yr in Gore, Ethiopia, while the minimum is 0 mm/yr at Lake Nasser, Egypt (NBI, 2012a).

International cooperation in the Nile Basin started as a series of bilateral agreements since the beginning of the 20th century. As an example of bilateral cooperation, Sudan and Egypt signed an "Agreement for the utilization of the shared waters of the Nile River" in November 1959. Later, countries of the Nile Basin have been engaged in regional cooperative activities over the past 30 years: "HYDROMET", 1967-1993; "TECCONILE", 1993-1999; and "NBI", 1998-ongoing.

OBJECTIVES

The challenges faced by the Nile Basin countries are the same challenges typically found in Africa. In particular, today the Basin is characterized by some challenges that grow with increasing population, urbanization, and industrialization, that include the following ones:

- Poverty (A part of them are among the world's poorest with annual per capita incomes of less than \$250),
- Instability,
- Environmental degradation,
- Declining land resources and productivity
- Frequent natural disasters.

THE NILE BASIN INITIATIVE

The Nile Basin Initiative (NBI) aims to achieve sustainable socio-economic development through equitable utilization of, and benefit from the water resources of the Nile Basin and promote a sustainable development of the Nile River area, which may help alleviate poverty by providing enhanced food, power, and water security. The main instrument used to address such a composite and delicate situation is the Nile Basin Initiative (NBI) that is made up of the components that follow:

- a Joint Multipurpose Programme (JMP: 2005 to date)
- an Institutional Strengthening Project (ISP: 2010-2012)
- a Cooperative Framework Agreement (CFA)
- a Water Security Facility

Main Features of NBI

- Socio-economic and Benefits Sharing
- Confidence-Building and Stakeholder Involvement
- Efficient Water Use and Drainage
- Water Resources Planning & Management
- Regional Power Trade
- Nile Transboundary Environmental Action
- Applied Training

In particular, the "Joint Multipurpose Programme" (JMP) received its mandate at the ENCOM 19th Meeting in Alexandria (2005) providing for initiating efforts to "identify and prepare a major initial project, within a broader multipurpose program, to demonstrate the benefits of a cooperative approach to the management and development of the Eastern Nile".

INVOLVED COUNTRIES:

Egypt, Burundi, Rwanda, the DR of Congo, Tanzania, Kenya, Uganda, Ethiopia, Eritrea, Sudan

MORE INFO:

www.nilebasin.org

THE IMPROWARE PROJECT: MANAGEMENT AND WATER PROTECTION IN THE MEDITERRANEAN AREAS

Andrea De Angelis – Italian Ministry for the Environment Land and Sea

BACKGROUND

Improware is a pilot project aimed at promoting efficient water management, including non-conventional water resources, on the two demonstration sites of Nubariya Wadi El-Naturn (Egypt) and Korba (Tunisia). Improware investigates specific methodologies for reusing waste waters to recharge coastal aquifers suffering from saltwater intrusion with the goal of comparing the two sites approaches, summarizing their best practices and “state of the art” implementation. The project also aims at providing the governments of Tunisia and Egypt with technical and policy guidelines in relation to waste water reuse and export the experiences gained to other ENPI Mediterranean countries. The project was funded within the Sustainable Water Management (SWIM) Programme.

OBJECTIVES

The project overall aim is to demonstrate and promote environmentally sustainable water management policies and practices in Egypt and Tunisia, challenging the deterioration of aquifers caused by saltwater intrusion due to over-exploitation and climate change. This will ultimately support the agricultural and economic activities of the local rural communities in the demonstration sites.

The specific objectives of the demonstration activities are:

- To enhance the recharge of coastal aquifers by injecting treated wastewater of appropriate quality levels achieved via treatment plants, including constructed wetlands;
- To contrast the overexploitation of potable groundwater and increase water availability for local communities, addressing the saltwater intrusion;
- To disseminate the practices and lessons learnt during the project in the Egypt and Tunisia, using extensively a full participatory approach aiming to a wide stakeholder engagement.

The demonstration activities are expected:

- To develop cost-effective, environmental-friendly, easily-replicable methodologies to treat waste water and reuse for aquifers’ recharge as “pilot” models in Egypt and Tunisia;
- To promote the transfer of Knowledge to other ENPI countries;
- To build-up institutional and technical capacities at sub-regional and regional levels;
- To increase regional co-operation in the area of sustainable and integrated water management.

IMPROWARE ultimately contributes to the empowerment of decision-makers and society at large in the Mediterranean in:

- tackling increasing demand for water resources;
- adapting to climate changes;
- acting against desertification.

INVOLVED COUNTRIES:

Italy, Egypt, Tunisia

MORE INFO:

www.improware.eu

LESSONS FROM THE ACCESS2MOUNTAIN PROJECT (South East Europe Programme)

Prof. Massimo Sargolini, University of Camerino

BACKGROUND

Sustainable tourism represents a major challenge for today's rural and urban environments – particularly in mountain regions such as the Alps and the Carpathians. Underdeveloped and insufficient sustainable transport facilities, paired with growing motorization, create significant negative ecological impacts. The growing number of privately owned cars introduces dependency on this mode of transport. Impacts of alternative transport modes and their combinations should be acknowledged and made available to policy makers in order to provide them with the means for a sound assessment of the environmental, social and economic impacts of alternative mobility solutions.

OBJECTIVES

The project aims at improving the accessibility of some pilot regions in the Carpathians and the Eastern Alps. The project has developed a flexible Decision Support System to provide policy makers with consistent information on the impacts of mobility aiming at fostering sustainable mobility and transport in ecologically sensitive areas.

The overall objective of the project is to increase sustainable accessibility and connections to, between and within sensitive mountain regions, which should benefit all users. Specific objectives include:

- Raising knowledge and awareness of, and developing capacities for mountain mobility challenges, as well as designing soft mobility schemes in mountain regions, on different levels

- Developing soft tourist mobility in sensitive pilot regions through competitive small railways and intermodal transport, mainly aimed at tourist development
- Strengthening peripheral regions through innovative tourist offers, increased accessibility, new investment
- Improving the quality of the environment, reducing greenhouse gases and polluting emissions from transport in sensitive areas
- Strengthening policy dialogue at transnational and EU level, developing novel policies for the Carpathians, strengthening the strategies
- Collection of best practices in railway operations and multi-modal transport in tourist regions
- Studies on the feasibility of intermodal routes, possible new offers and ticketing services, new integrated transport-tourist packages in model-regions
- Development of soft mobility measures and first steps towards their implementation
- Development of communication strategies, marketing and awareness raising activities for sustainable tourist & mobility offers
- -Policy support for the definition of a Protocol on Transport to the Carpathian Convention

The project envisages a 4-steps process:

1. Analysis of the current transport system based on the landscape characteristics of the model regions and evaluation of the conflicts between landscape characteristics and transport modes
2. Definition of guidelines and orientations (through alternative scenarios) for the construction of strategic visions related to the re-organization of the transport system
3. Identification of different project proposals for improving the transport system
4. Evaluation of the different proposals, in order to define the more sustainable solutions.

The following outputs have been delivered over the three-years project development period:

INVOLVED COUNTRIES:

Italy, Austria, Serbia, Romania, Ukraine, Hungary

MORE INFO:

www.access2mountain.eu

THE EMBLEMATIC MEDITERRANEAN MOUNTAIN NETWORK

Atanas Krantchev – Local Action Group Razlog

BACKGROUND

The Mediterranean Sea, known as birthplace of many civilisations, is surrounded by three continents and can be seen as a “sea among lands”. Mountain peaks rise sparsely as the backdrop of these heavily populated coastal lands; since most ancient times, they have guided seamen to reach their port safe and sound.

These landscapes, stretching from sea to mountains, are one of the common features of these Mediterranean areas. Shaped by men and by a unique climate, shared by people from a great diversity of cultures, these areas take on an emblematic and even sacred dimension.

Following this, the Canigó Grand Site de France and the LAG Terres Romanes (local action group), supported by the LEADER European Programme, launched in 2013 the idea of creating a “Network of Mediterranean Emblematic Mountains”.

The Network brings together site managers and developers who face similar challenges (managing risks linked to tourism pressure, preserving diverse environments, developing sustainable tourist destinations, adapting to global warming); it will become a place for members to exchange and to participate in shared projects of flexible sizes and involving different groups.

The partners of this project belong to five European countries: Bulgaria, France, Greece, Italy and Spain. Their ambition is to create robust foundations for a network to welcome new partners between now and 2020. In the long term, they wish to integrate new members from the Southern Mediterranean bounds, also from outside the European Union.

OBJECTIVES

- creation of a platform to share experience, know-how and models of organization for these territories with strong potential for tourism and a responsibility to preserve their fragile and precious ecosystems,
- preparation of a written charter for the Mediterranean Emblematic Mountains,
- creation of some common communication tools to present the emblematic sites,
- continuation of technical exchanges related to the management of issues linked to the attractiveness and vulnerability of these sites (inter-sites workshops).

INVOLVED COUNTRIES:

Bulgaria, France, Greece, Italy, Spain

MORE INFO:

<http://www.mig-razlog.org/embmed/en/кои-сме-ние/>

ALPS OF THE MEDITERRANEAN: UNESCO WORLD HERITAGE NOMINATION

Gaetano Schena, Director of the office for Sustainable development, Parks and Biodiversity, Liguria Region

BACKGROUND

The government of Liguria Region, in collaboration with several French and Italian institutional partners (8 co-candidates), has supported the nomination within the UNESCO World Heritage List (WHL) as a cross-border site of the two Parks of the Maritime Alps and the Mercantour, on the border between Italy and France.

The cross-border territory involved has been formally referred to as the “Alps of the Mediterranean” and it hosts signs of an exceptional geological history, biodiversity and ecological processes. The “Outstanding Universal Value” of the Mediterranean Alps, required for a UNESCO WHL candidacy, is based on the local geology and biological and ecological processes, and biodiversity.

The area has seen the succession of three major orogenic events spread over more than 400 million years (formation of the Variscan and Alpine chains and opening of the Mediterranean), and today traces to such an extraordinary geological past are recognisable.

The unusual topography of the site is characterised by strong altitudinal and climatic contrasts, that are the foundation of the development of unique biological and ecological processes, including adaptation and migration of species as a consequence of climate change, genetic evolution in the refuge areas, endemisms and paleo-endemisms. Therefore, the one that is found there it is an unusual non-standard biodiversity.

Due to their exceptional character, the Mediterranean Alps can therefore be qualified as a candidate site on the basis of three out of the criteria defined by UNESCO: geology (criterion VIII), biological and ecological processes (criterion IX) and biodiversity (criterion X). In relation to these three criteria, the main “features” identified for the proposed site are the following:

- Geology (criterion VIII): the site presents well-representative el-

ements of the sequence of geological events occurred from 400 million years (phase Variscan subduction) up to current (reverse phase to the Ligurian-Provençal margin);

- Biological and ecological processes (criterion IX): the site hosts mountain lakes, especially neo-endemic and paleo-endemic flora (Saxifrage with multiples flowers (Saxifraga florulenta), Bérard thistle (Berardia subacaulis), fauna endemic species (Ibex (Capra ibex), Bearded Vulture (Gypaetus barbatus), the European wolf (Canis lupus lupus), salamander Strinati (Hydromantes strinati) bats and insects)
- Biodiversity (criterion X): the site is a transept of succession North-South characterised by a wealth of environments and by exceptional biodiversity, full gradient of plant communities ranging from typically Mediterranean habitats to Alpine formations, passing through hilly and mountain formations, including a dozen natural habitats of priority interest, recorded in the EU « Habitats » Directive. In particular, the site is a floral area of interest of international importance, (2718 taxa: 2269 species and 449 infraspecific taxa), as well as one of the main endemism centres in Europe for the large number of endemic species (a hundred or so flora and fifty or so fauna) – i.e. the site hosts a cross-border biodiversity hotspot.

The application has also been supported by other transnational projects launched in the same territory, as the Alcotra ADM Progress project, aimed to integrate knowledge and develop collaboration across the border in order to introduce effective tools of analysis of biodiversity and supporting the management of Natura 2000 sites and Network.

OBJECTIVES

The nomination for UNESCO World Heritage Site is a commitment aimed at recognizing the value of a territory to the highest international prestige. Inscribing the “Alps of the Mediter-

anean” site in the UNESCO WHL means ensuring the transmission of its extraordinary peculiarities to the future generations, by means of suitable conservation and management strategies.

Actions

2002: Registration of Mercantour and Maritime parks in the French UNESCO WHL tentative list as a mixed site, already based on the extraordinary natural and cultural diversity, but without a precise reference to the criteria (the site was not mentioned in the Italian list, being Italy supporting at that time the nomination of the whole Alps).

2006: Establishment of the Working Group UNESCO of the Alpine Convention, as a tool for governing the “upstreaming” process of selecting and harmonizing nominations of sites localized in the the Alps. The area is listed as a potential site for both cultural and natural aspects

December 2010: Workshop in Bern on UNESCO WHL natural sites, wherein the area is selected according the criteria of biodiversity (IX, X) with medium priority, and it is required to carry out a study and a comparative analysis

September 2012: Meeting with all the involved stakeholders, presentation and proposed accession to the tentative list

December 2012: All the parties involved in the nomination procedure adopt a resolution for membership

January 2013: Transmission to the two Ministries of Environment of France and Italy of the request for inscription in the tentative list for UNESCO WHL sites

April 2013: Registration to the tentative Italian and French UNESCO WHL nomination lists

INVOLVED COUNTRIES: France, Italy

MORE INFO: <http://parconaturale-alpiliguri.it/le-alpi-del-mediterraneo-candidate-a-patrimonio-del-lumana/>

Conclusion: the commitment of the Italian Ministry for environment in sharing experiences for the sustainable development of mountain areas and the Mediterranean region

Barbara Degani*

* Italian Undersecretary of State for the Environment

33. Albania, Algeria, Egypt, Greece, Lebanon, Malta, Montenegro, San Marino, Serbia and Tunisia.
<http://www.expo2015.org/it/esplora/cluster/bio-mediterraneo>

34. For the Mediterranean Action Plan history and scope see: <http://www.unepmap.org/index.php?module=content2&catid=001001>

35. See <http://ufmsecretariat.org>

36. See Decision ACXIII/A2 of the XIII Alpine Conference, 21th of November 2014

This initiative, launched by the Italian Ministry of Environment in partnership with UNEP, for the “Mediterranean Mountains” is intended to reinforce the commitment for international cooperation toward the protection and the sustainable development of the territories surrounding that sea.

In this respect, since its organization, the meeting held in EXPO Milan has seen a fruitful and strategic cooperation between important subjects and institutions that operate in the Mediterranean area: the Biomediterranean Cluster participated by Mediterranean countries³³ that represented at EXPO 2015 the importance of the Mediterranean diet and culture, UNEP Vienna with which the successful cooperation for the coordination of activities between the conventions of the Alps and the Carpathians continues, the European Commission and the other European institutions that never miss their necessary and important contribution to the debate and, of course, all other countries and regions that attended the meeting with their necessary and helpful institutional presence.

The Mediterranean can be considered as a vital core of relations between Europe and its neighbours in Africa and the Middle East, what the Romans called the “Mare Nostrum”. It can and must no more be a centre of emerging conflict among the countries surrounding it, but a place for cooperation, also in the field of environment’s protection and enhancement.

European Countries have been promoting cooperation and solidarity in the Mediterranean for many years, from the Barcelona process for a euro-Mediterranean partnership, inspired by the UNP-MAP Mediterranean Action Plan³⁴, the first regional program for the protection of the

maritime environment, up to the European initiative of the Union for the Mediterranean, launched³⁵ in 2008 to strengthen, through a high level of cooperation, integration and regional cohesion in the Mediterranean through concrete initiatives in the fields of environment, education, energy and economic development.

Today, 40 years after the Barcelona Protocol, there is a need to recognize the role of the internal areas of the Mediterranean region, areas where mountains are also “border” between countries and, in a proper environmental and promotion of the quality life point of view, they provide important ecosystem services, which are essential for the well-being of the surrounding territories.

To recognize mountains as a “good”, to enhance them and promote local public or private initiatives for their protection and development is a globally recognized need that the Italian Government and the Ministry of Environment intend to foster, in a way inspired by the principles of territorial cohesion of the European Union.

We already planned this meeting for Mediterranean Mountains during the Thirteenth Conference of the Parties of the Alpine Convention in Turin, during which, taking advantage of the occasion of the simultaneous Italian Presidency of the European Union and of the Alpine Convention, we identified the great opportunity to focus on the solid model of the Alpine Convention³⁶ - the first international treaty worldwide for the sustainable development of a mountainous border region- to boost cooperation in new mountain areas, as already successfully happens in the Carpathians.

In this respect, we have always looked with

particular interest at the Mediterranean, given the strategic role that the region plays in the global crisis faced by Italy and its international partners and considering the potential opportunities that the European Union could offer to its member states and partners around the Mediterranean.

On the basis of the objectives contained in the Agenda "Europe 2020", which promotes the strategic orientation of national, European and international investments towards smart, inclusive and sustainable growth, such as Italy for example, we strongly supported the commitment of the European Union to the macro-regional Adriatic-Ionic Strategy as a tool for enhancing cooperation in the Mediterranean area, and we are now supporting the process toward the Alpine macro-regional strategy, which will be established by the next European Council in December.

A Mediterranean partnership will certainly contribute to foster initiatives for the sustainable development of areas such as these for adaptation to climate change, such as watershed management in mountain regions where the coastal areas often coexist with an endemic shortage of water resources, especially in dry seasons; or to the natural hazards and soil erosion and their management and prevention and harm reduction. But also initiatives that deeply involve all actors of civil society, for example the reduction and management of greenhouse gas emissions, which have great potential for local and private actions in the regional climate policy; or to the green and sustainable tourism in the mountain areas, the development of which can help to diversify the offer and encourage the growth of the sector by attracting a growing number of tourists aware and respectful of the environment in areas of high scenic value with great potential for the economy and employment in the region. Not least, since

this is the year of EXPO, we could not forget the quality of the environment, biodiversity and their potential in economic, agricultural and landscaping for the Mediterranean.

In this context, the Ministry of Environment would play a supporting role and "capacity building" in the Mediterranean region by promoting, also at an inter-governmental level, actions to support the implementation of the priorities of sustainable development endorsed by the macro-regional strategies such as the Adriatic-Ionic and the Alpine, identifying opportunities for the development of the territory with regional and local governments, in order to ensure "sustainable growth" of the Mediterranean.

As for Italy, we will therefore provide all the experience gained in the field of international cooperation for internal and mountain areas, from the Alps and Carpathians, to share the most significant results with other Mediterranean countries, as in the case of the guidelines for the local adaptation to climate change that we presented in Lima last December to the Conference of Parties to the United Nations Framework Convention on Climate Change.

It is strategic to continue in this direction by cultivating and expanding the relations between Mediterranean Institutions and to consolidate partnerships to share ideas and projects for the sustainable development of mountain areas in the Mediterranean. Italy will continue to play a leading role for these initiatives toward a strategy of "governance" for the Mountains and the Mediterranean region, and I am sure that the many institutions, representatives of the countries and cultures of the Mediterranean will join us in this regional cooperation process, which I hope will lead to new alliances and concrete results.

APPENDICES



Dear Madame, Dear Sir,

following the international Conference “**The Alpine Convention and the Carpathian Convention: sharing the experiences. The Apennines, a European mountain range**” held on the 23th and 24th April 2014 in Sarnano (MC) and supported by the Italian Presidency of the Alpine Convention in the framework of the its activities of mountain cooperation, a debate on mountain cooperation for the Apennine area, as outcome of the Conference itself, it has been initiated.

The work sessions of the Conference, thanks to the contribution of many experts which since long time analyse the Apennines from different points of view, have allowed to make the **first step to the recognition of the Apennines as a European mountain ridge**, linking it to more well-known international mountain chains such as the alps and the Carpathians.

The first step was to overcome the Apennines’ view of a suffering peninsula – particularly making reference to events such as earthquakes and landslides – and to consider the Apennines as an integrated part of a more significant and attractive European mountain system. It has been build an idea of the Apennines even closer to the Alps and the European mountains, as we may imagine a symbolic “T” shape, or rather a sort of “π” shape, holding together the Apennines with the Alps, the Carpathians and the Dinaric Alps: a suitable image for a European perspective.

Starting from these premises, and aiming at collect all the expressions of interest shown by scholars and administrator dealing with the Apennines and the governance of the Apennine areas, a first document – that has been renamed “**The Sarnano Charter**” (s. ATTACHED) – which includes the purposes emerged during the Conference it was drafted.

Therefore, considering that this initiative has been already supported by the main experts involved into the Sarnano Conference, we would like to share with all of you the contents and the objectives of the Charter – which is still open to further submissions – and we kindly invite to spread the initiative to those who may have an interest to cooperate in this project for the Apennines.

We hope that this initiative may find your interest and it may contribute to build a stronger debate on mountain cooperation for the Apennines.

Best regards.

Paolo Angelini

President of the Permanent Committee of the Alpine Convention

Italian Ministry for the Environment Land and Sea

DG SEC - Department for Sustainable Development, Energy and Climate

Massimo Sargolini

Professor of Town and Regional Planning
Director of Master in “Parks and landscape”

University of Camerino

School of Architecture and Design “Eduardo Vittoria”



The Sarnano Charter

The Apennines, an European mountain range

Preamble

On the occasion of the International Conference “*The Alpine Convention and the Carpathian Convention: sharing the experiences. The Apennines, a European mountain range*”, scholars, researchers and experts on mountain issues met aiming at describing, interpreting and defining the first steps to make the Apennines become a cooperation project which may enhance active management on the territory and share experiences with an European look and approach.

Talking about the Apennines is, in fact, already talking about Europe. From the geological and geomorphological point of view, the Apennines are the inner heart of Europe, an “offshoot” of the Alps which join with the Northern Apennine area (that can also be defined as “metro-apennines”, i.e. the Tuscan-Ligurian-Lombard-Emilian area). Then, as regard at the biotic aspects, the Apennines are not only a part of Europe, but they also incorporate Europe as a whole since, given their size and the different climatic influences, they host all the EU vegetation patterns, which penetrates in the Mediterranean region, with a very interesting spread of biodiversity.

However, also the vision has emerged of an Apennine often affected by **urban sprawls phenomena** which are sometimes difficult to interpret from a spatial and functional point of view, and that do not refer to the codified urban paradigms used by planners. Those urbanization processes cause also the **homogenization and the abandonment of the territory**, as already occurred in rural areas, contributing to the **loss of biodiversity**.

The phenomenon of abandonment goes together with the **loss of identity** and reduced safeguard of the territory from the local communities, which live in mountain regions as well as in the valleys, and participate in ensuring the **functionality of the mountain system**.

The risk is to transform into islands some landscapes and resources causing the loss of a functionality that, if well managed, guarantees the **resilience of landscapes** and provides a quantifiable economic value. According to this approach, which keeps together **the natural resources and cultural historical heritage**, it is possible to build a sustainable development path for the Apennines based on the quality of the resources of mountain landscapes, where innovation and local entrepreneurship can play an important role.

Moreover, to deal with these challenges, it is necessary to develop **new forms of attractiveness for the Apennines**. **Accessibility** is a theme deserving a special attention and suitable to test the new possibilities, both in terms of physical and virtual networks, which emerged thanks to recent innovation in the field of sustainable mobility being aware of the landscape values, and in the field of virtual connections such as the **Digital Agenda** that allows to see the mountain as an increasingly interconnected region. It Also the role of sustainable tourism should be mentioned and the added value of the combination of nature/culture values, leading to new forms of slow tourism and generating new economies for the inner and mountainous areas.

Finally, concerning the **planning perspective**, some **strategic indications** with respect to ordinary management of the Apennine territory have emerged, that look for the complementarity of historical-cultural heritage and natural resources. In this framework, the landscape may become the main focus of development projects of the Apennines, triggering conservation and active management processes able to provide solutions particularly in the current European economic trends.

Purposes

Aiming at fostering a continuous debate on the Italian Apennine context based on an integrated approach, even in view of the new challenges and objectives borne in Europe, the following remarks could be the basis for an action plan for the Apennines as a European mountain range:

- the Apennines are a European mountain range showing geological, botanical, ecological, territorial continuity;
- the comparison to the European context and mountain cooperation at the international level is both a need and an opportunity for the development of the Apennines, aiming at asserting their European dimension. The Apennines are, in fact, already a macro-region of southern Europe, like other EU macro-regions such as the Alps;
- the efforts and the initiatives already emerged in the past have recognized the complexity and richness of the Apennines and showed the willingness to establish a dialogue between institutions, organizations and associations, to promote coordinated and shared actions for sustainable development in the Apennines;
- the skills and experience already existing in the Apennine area within institutions, research bodies and local authorities, both under the scientific and policy perspective, represent a fundamental basis for the construction of actions and policies for mountain development in the Apennines;
- administrative gaps and significant barriers that still exist for the implementation of an integrated strategic approach, and in particular the difficulties that policies meet in looking at the Apennine's unity and complexity, must be overcome;
- the social characteristics of inner region and the challenges that characterize the context of the Apennines show the need to address them according to an integrated strategic approach;
- the existence and availability of management tools and bodies working for the integrated management of European mountains, such as the Alps, Carpathians, Dinaric Alps, Pyrenees, represent a significant point of departure to inspire an action program aimed to reach an inter-regional agreement for the sustainable development of the Apennines.

In light of these considerations, some strategic recommendations emerged:

- the possibility of those who have experience in the field of partnerships and mountain cooperation, such as the Alpine Convention and the Carpathian Convention, to provide their expertise to the development of a feasible hypothesis of governance for the Apennines;
- the possibility of using information, data sets and existing tools, developed also within European programmes, in order to develop a scientific basis that could support an integrated strategic approach;
- the possibility to involve institutions and local authorities and to start a fruitful dialogue on inter-regional cooperation through the sharing of knowledge and testing of successful governance tools and good practices.

Therefore, it is proposed and it is expected:

- that the Presidency of the Alpine Convention, with the support of the Carpathian Convention, set up a first concrete concept of mountain cooperation for the Apennines, on the basis of experiences gained in their respective territories;
- that the research centers that work in the Alps and the Apennines, coordinate themselves to initiate the drafting of a report on the state of the Apennines, and that this activity may be carried out by the Inter-university Research Centre "Planning and Government of Environment and Landscape" (University of Camerino- Sant'Anna School of Advanced Studies of Pisa) and

with the support and involvement of centers of excellence for mountain issue such as Eurac, CURSA and other institutions interested in contributing with their studies on mountains and Apennines;

- that the Apennine Regions initiate some actions of confrontation and dialogue concerning the Apennines contexts and that the Marche Region could be the promoter of an initial exploratory phase with the other interested local authorities in the Apennines;
- that the Italian ESPON Contact Point, as Italian representative and intermediary between the ESPON programme and the local authorities and stakeholders which are the beneficiaries of the programme, may facilitate the access and use of existing ESPON data sets and tools, so that the local and regional administrations and other institutions interested can use them to design policies and specific measures for the Apennines;
- that a further meeting could be organized, to be held approximately in October 2014 in conjunction with the Italian semester of European Presidency, in order to present the results obtained in this exploratory phase, and to identify the next steps to set up an effective mountain cooperation for the Apennines.

For this purpose and at the conclusion of the statement above, all those who are interested in this initiative are invited to express their interest and to subscribe the intentions and contents of "The Sarnano Charter".

Rome, 24th of April, 2014

Experts that have already signed the document

Flavio Corradini (Dean at University of Camerino)

Massimo Sargolini (University of Camerino, Inter-university Research Centre "Planning and Government of Environment and Landscape")

Paolo Angelini (Italian Presidency of the Alpine Convention)

Frits Schlingemann (UNEP Wien senior adviser, former director of UNEP's Regional Office for Europe)

Oscar Del Barba (CAI Technical Secretary for the Environment)

Sergio Savoia (European Alpine Programme Director, WWF international)

Maura Malaspina (Councilor for Agriculture and Environment, Marche Region)

Maria Prezioso (ESPON Italian Contact Point, University of Rome "Tor Vergata")

Marco Frey (Sant'Anna School of Advanced Studies of Pisa – Institute of Management, Inter-university Research Centre "Planning and Government of Environment and Landscape")

Giuseppe Dematteis (Polytechnic University of Turin, Dislivelli Association)

Roberto Gambino (European Centre for Documentation on the planning of the Natural Parks (CED. PPN))

Carlo Blasi (University of Rome "La Sapienza")

Piergiorgio Bellagamba (University of Camerino)

Michele Talia (University of Camerino)

Riccardo Santolini (University of Urbino)

Giuseppe Scarascia (University of Tuscia, University Consortium CURSA)

Federica Alcozer (University of Genoa)

REPUBBLICA ITALIANA



REGIONE SICILIA

Assessorato Regionale dell'Agricoltura dello Sviluppo
Rurale e della Pesca MediterraneaResponsabile Unico della Regione Sicilia
Cluster Bio-Mediterraneo
Expo Milano 2015

EXPO Milan 2015

Biomediterranean Charter

On behalf of the Administrations, the Organizers and the Workers from all the different Countries, who are joined together in the Biomediterranean Cluster and are now participating in EXPO Milano 2015, the Directorates-General of every Pavilion, after pondering the experiences shared while the Biomediterranean Cluster was being planned and built, think it is essential to keep the cooperation alive by introducing the BIOMEDITERRANEAN CHARTER as a formal symbol of sharing and working together on future projects and activities.

Considering that:

- A Memorandum of Understanding for the creation of the Permanent Biomediterranean Cluster was signed in EXPO Milan 2015 on 19th September 2015. The Memorandum's aim is to promote and support the sustainable development, which is focused on making the most of every region's personal identity, of their typical agri-food productions, of their sustainable energies, of their cultural and touristic heritage, and on reinforcing the political, economic, social and cultural relationship among their inhabitants;
 - The Biomediterranean Cluster's Mediterranean Countries in EXPO Milan 2015 play a strategic role in the development of sustainable alimentary systems and in promoting the Mediterranean Diet. However different from one another, they are all essential in order to promote the culture of their different areas, since they handle important economic and social resources, as well as facilities, abilities and investments;
1. The creation of a permanent cooperation instrument between relevant Mediterranean institutions has now been acknowledged as essential, as it would help fulfilling common tasks in sustainable local development, which is itself focused on local identities;
 2. Considering the Treaty which establishes the European Community, and the (CE) guideline n. 1082/2006 ruled by the European Parliament and Council on 5th July 2006, pertaining to an European Group of Local Cooperation (GECT), as well as the (CE) guidelines n. 1080/2006 ruled by the European Parliament and Council on 5th July 2006 and n. 1083/2006 ruled by the European Council on 11th July 2006;



Official Partner

Via degli Emiri n. 45 90135 - Palermo
Tel (+39) 0917079639 Fax (+39) 0917079731
E_mail: biomediterraneo@regione.sicilia.itwww.siciliabiomediterraneo.com twitter @siciliabiomed
Facebook Sicilia Cluster BioMediterraneo

3. The GECT (European Group of Local Cooperation) might be an adequate instrument to guarantee that the Biomediterranean Cluster is awarded a permanent nature, since it has been created to facilitate and promote a cooperation that knows no borders of Countries and Regions among its members.
4. The Countries participating in the Cluster are signatories to an Agreement whose aim is to tightly cooperate in making the Biomediterranean Cluster a permanent structure;
5. The family-run farms and the small businessmen (especially female producers and entrepreneurs) play a significant role in food supply for the Mediterranean Area, in preserving the local customs and the sustainable and fair production systems;
6. The community, the private sector and the small and medium industry play a major role in food supply and social, economic and cultural development by producing experiences, abilities and innovation, and by promoting projects to raise local awareness and try to include the weakest population groups;
7. The Mediterranean Countries participating in the Biomediterranean Cluster in Expo Milan 2015 will contribute to getting the *Aims of Sustainable Development* up and running and will participate in the projects regarding the negotiations for the *United Nations Framework Convention on Climate Change* (UNFCCC) for the *Zero Hunger Challenge*.
8. Based on what the **Human Development Report 2011** established, “to safeguard the future of the planet and the right of future generations everywhere to live healthy and fulfilling lives. This is the great development challenge of the 21st century. Understanding the links between environmental sustainability and equity is critical if we are to expand human freedoms for current and future generations”.
9. According to what is established by the **Milan Charter of Expo Milan 2015**:
 - food has a strong social and cultural value, and should never be used as an instrument of political or economic pressure;
 - the planet’s resources should be managed in an equitable, rational and efficient manner, so that they are not excessively exploited or used to benefit some people at the expense of others;
 - investment in natural resources, particularly in land, should be regulated, so as to ensure and maintain access to these resources for local communities, as well as access to their sustainable use;
 - sound management of water resources, namely management that takes account of the relationship between water, food and energy, is fundamental to ensure the right to food for all;
 - food plays an important role in defining each person’s identity and is a cultural component that describes and gives value to a territory and its inhabitants;
 - farmers, livestock keepers and fishers all play a crucial role in nutrition; they have equal rights and duties in their work, whether they are small-scale enterprises or large-scale businesses; we are all inter-related and all responsible as guardians of the Earth, for protecting territory and its environmental value;
 - correct dietary education from childhood is crucial for a healthy lifestyle and a better quality of life;
 - knowledge and practical experience of both traditional and advanced production methods is critical to the efficiency of agricultural systems, from family farms to industrial farms;
 - the seas play a fundamental role in ensuring the equilibrium of the planet and therefore require supranational policies; an integral, healthy marine ecosystem is crucial for collective well-being, not least because fisheries provide jobs for millions of people and for many, fish offers the only source of high quality nutrients;

REPUBBLICA ITALIANA



REGIONE SICILIA

Assessorato Regionale dell'Agricoltura dello Sviluppo
Rurale e della Pesca MediterraneaResponsabile Unico della Regione Sicilia
Cluster Bio-Mediterraneo
Expo Milano 2015**Considering that:**

- It has been an extraordinary opportunity for the Countries of the Cluster to take part in Expo Milan 2015 as it has made it possible to create new development strategies and to innovate politics regarding healthy nutrition.
- Creating synergies among the Mediterranean Countries, especially those taking part in the Cluster, is now essential for the sustainable development of the area, for the competitiveness of its products on every market, and to preserve the local identities, traditions, and healthy dietary habits.
- To defend and support the transmission of knowledge about production and processing from generation to generation, is the first step for the promotion of cultural heritage, food and values of the Mediterranean;.
- To appreciate women workers keepers of traditions, cooperative spirit and entrepreneurship, it means to respect the tradition, to facilitate innovation and to promote ethnic integration thanks to artistic expressions and also from the assimilation of new sustainable cultures with eating habits too.

Chapter dedicated to fishing, marine resources and coasts.**Assuming that:**

- To ensure the sustainable fishing in the Mediterranean as a key objective not only for the future of the sector in seaside countries, but also and especially to guarantee the cultural heritage to future generations;
- It is appropriate to place sea and fishing as an instrument of local development, actively cooperating to provide management models regulated and shared.
- Fishing is a productive and ancestral men's activity that in the Mediterranean area has contributed from the beginning, to the supply of the people encouraging also the creation of coastal settlements.
- Fishing, through its vast cultural reflexes ethno-anthropological, culinary, and social, it is an essential intangible heritage, for all the countries of the Mediterranean.
- Fishing is now threatened by over-exploitation of Mediterranean fish resources that together with IUU effects, climate change and human pressure, it is now due to impoverishment of 70% of the fish resources with dramatic repercussions on the economy and on the employment of the whole industry.

Considering that:

- Fishing is a value shared between the Mediterranean countries that have undertake to protect fish resources and values of the fishery in the principle of cooperation, solidarity and sustainability.
- The resources of the sea are overused: more than 30% of the catch subject to trade is exploited over its capacity to regenerate;



Official Partner



Via degli Emiri n. 45 90135 - Palermo
Tel (+39) 0917079639 Fax (+39) 0917079731
E_mail: biomediterraneo@regione.sicilia.it
www.siciliabiomediterraneo.com twitter @siciliabiomed
Facebook Sicilia Cluster BioMediterraneo

- The majority of Mediterranean fish resources are transnational and they require management policies shared by the countries involved;
- Treats to the marine environment and biodiversity should be tackled through a joint effort on basin scale related not only to fishing, but also to all human activities on the coast and extended until the close hinterland.
- Human life is an absolute value that never and under no circumstances can be questioned. Its protection is the duty of all countries and of all seamen whose commitment has to be up to guarantee it and to don't represent no threats.
- With the EU Regulation n.8 of the 20 of May 2014- European Maritime and Fisheries entered into united strategy of the Partnership 2014-2020. (App. 2- EU Regulation no. 508-2014) has launched a new common fishing policy with the main objective to make fishing environmentally, economically and socially sustainable and to initiate a policy of "decentralized governance" bringing decision-making closer to the local fishing areas;

We are committed:

- In order to let the Mediterranean be a sea of peace and communion among people ensuring ethical trade and cultural exchanges, but also the health, the safety of sailors, fishermen and migrants, that more than ever, for any reason, must be jeopardized.
- To promote and communicate local traditions of fishing, to keep the oldest techniques and integrate their special features, as far as possible, with the technological and scientific innovations, to spread and preserve old traditions and local identities with cultural heritage values related to them;
- To apply the precautionary principle in fishing activities (Precautionary approach to fishery-FAO 1995) and all human activities at sea including mining and shipping.
- To respect the biodiversity by protecting species and habitats protected and endangered identified by international conventions (Barcelona Convention, Berne Convention, Bonn Convention, Convention on Biological Diversity, ACCOBAMS, CITES), respecting juveniles of marine species and their nursery areas, minimizing the incidental catch of species and biological reject, by diversifying the activities of massive catches of species and promoting consumption.
- To prevent, mitigate or counter the Marine Hazard with a focus on waste in the sea, the threat of marine species not indigenous to IUUF.
- A limit food fraud favoring the traceability of fish products, the transparency of the processes of fishing and marketing;
- To foster international cooperation for the realization of projects of development of new fishing techniques and for the preservation of the traditional ones; and for the establishment of procedures for fishing and the use of fishing resources in compliance with the requirements of preserving biodiversity;
- To promote and carry out new projects of education and about the awareness of consumers for sustainable consumption of fish stocks, and for the use of marine and coastal resources while protecting biodiversity and for its protection, as well as to enhance and disseminate successful projects (best practices) already made in the Mediterranean context; promoting projects awareness scientifically valid and approved by recognized Research Centers and Universities from their respective countries;
- To encourage the development of training programs in schools and universities to facilitate the development of knowledge in the field of fish and sea entrepreneurship, as well as in the communication process and consumer awareness;
- To implement the scientific research on the subject of respecting biodiversity marine, conservation of coastal areas and the processes of marketing, communication and consumption of fish resources and to cooperate with other signatory countries and the Mediterranean to facilitate and implement public funding and private initiatives in the field of university research and technological development.

REPUBBLICA ITALIANA



REGIONE SICILIA

Assessorato Regionale dell'Agricoltura dello Sviluppo
Rurale e della Pesca MediterraneaResponsabile Unico della Regione Sicilia
Cluster Bio-Mediterraneo
Expo Milano 2015

- To facilitate the dissemination of the results of scientific research to be endorsed by the institutions and used and disseminated for effective nutrition education and for the spread of the Mediterranean diet;
- To promote the dissemination of good practices and models of effective management and sustainable facilitating knowledge in the Mediterranean territories and local communities to ensure the availability to consumers of the healthy, safe and quality of the products.
- Maintaining the productivity of the fish stocks to maximize long-term performance;
- To promote solutions of responsible, sustainable and ethical Aquaculture, diverse and respectful of the health of fish products;
- To facilitate design activities of promotion of the identity and local traditions such as the Mediterranean Itineraries of Taste, meaning grouping of territories of the Mediterranean who wish to do the traditions and cuisine of production and their respective local culinary traditions, a distinctive element, qualifying the tourist attractiveness of the respective territories.
- To promote actions for the increase in the value of the 'fish products' through institutional and territorial marketing activities in order to promote the growth and overall development of the sectors involved.
- To promote the coordination between departments, sectors at national, regional and local levels in the Mediterranean Area favouring the inclusion of a food policy consistent with a sustainable approach and respectful of biodiversity exploitation of fish resources and coastal areas;
- To promote consistency between policies and programs concerning local and territorial fisheries and coasts and the regional, national and international.
- To involve all sectors of the fishery (including local authorities, technical experts and academics, civil society, women's entrepreneurship, the small farmers and the private sector) for the development, implementation and evaluation of policies, programs and initiatives in the field of fisheries.

Section devoted to the Mediterranean Diet

Noting that:

- November 16, 2010 in Nairobi (Kenya), UNESCO registered the Mediterranean Diet on the list of Intangible Cultural Heritage of Humanity, adding it to other intangible assets, crediting not only the food and nutritional characteristics of a vast territory as that of the populations of Mediterranean, but also recognizing the value of a lifestyle characterized by a balanced contamination of nature and culture, culinary traditions and manufacturing processes;
- UNESCO registered the Mediterranean Diet, defining it as "a set of skills, knowledge, rituals, symbols and traditions ranging from the landscape to the table. In the Mediterranean, everything involving crops, fisheries, animal breeding, preservation, processing, preparation and, in particular,

REGIONE SICILIANA
Assessorato Agricoltura
Sviluppo Rurale e Pesca
Mediterranea

MILANO 2015

Via degli Emiri n. 45 90135 - Palermo
Tel (+39) 0917079639 Fax (+39) 0917079731
E_mail: biomediterraneo@regione.sicilia.itwww.siciliabiomediterraneo.com twitter @siciliabiomed
Facebook Sicilia Cluster BioMediterraneo

sharing and food consumption (...) Its uniqueness, determined by climatic and geographical characteristics of the Mediterranean, make it a way of life praised as part of cultural spaces, events and gatherings that the undisputed protagonist. These spaces and events become a receptacle of gestures in recognition and mutual respect, hospitality, the good-neighborly relations, the conviviality, the intergenerational transmission and intercultural dialogue. They offer an opportunity to share the present and shape the future. In doing so, these communities rebuild their sense of identity, belonging and continuity, which puts them in a position to recognize this factor the same way as an essential element of intangible cultural heritage they have in common “ ;

- The Mediterranean Diet as required by UNESCO declaration, refers, therefore, to better nutrition and a specific way of life and eating habits of the peoples from the Mediterranean basin, consolidated over the centuries and remained almost unchanged over time and space.
- The Mediterranean Diet as required by UNESCO declaration refers to a style characterized by the food consumption of specific food groups, such as grains, legumes, vegetables, fruits and nuts, olive oil, consumption moderate fish, white meat, dairy, eggs, and that also considers necessary the consumption of red meat and wine, even if in limited quantities compared to the diets of other areas of the world.
- In the last years, there has been registered in the all Mediterranean area an increasing attention in the population, in the media and in different public institutional sectors in the problems of proper nutrition, considered as a priority for physical and mental wellness and essential for the prevention of various diseases, especially cancer;
- More and more the scientific literature underlines and demonstrates the central role of the Mediterranean Diet thanks to its health benefits, its preventive function against various diseases and the value of respect for tradition and healthy lifestyles, as reported UNESCO declaration in which “Well Intangible Heritage of Humanity respecting its nutritional and holistic lifestyle meanings.

Considering that:

- There is an urgent needed to promote and protect the Mediterranean Diet, according to the principles established by UNESCO, through the involvement of the Cluster BioMediterraneo countries, but also of the local authorities, institutions, research centres and civil society, respecting national and international regulations;
- It is necessary to propose the feeding model of the Mediterranean Diet and the Mediterranean lifestyle, spreading in the world population used to use it as a nutritional reference, but taking into account the respective food cultures, culinary traditions, specificities of agricultural production and the fisheries sector, the techniques of food preparation, habits and eating behaviours of each people;
- THE UNESCO, through the Operational Guidelines of the Convention for the Safeguarding of the Intangible Cultural Heritage and the Guidelines for the use of the name and emblem, identifying behaviors for the promotion and enhancement of the intangible cultural heritage lists and enrolled in the prestigious even then the Mediterranean diet;
- The UNESCO, through the Operational Guidelines of the Convention for the Safeguarding of the Intangible Cultural Heritage and the Guidelines for the use of the name and emblem, identifying behaviors for the promotion and enhancement of the intangible cultural heritage lists and enrolled in the prestigious even then the Mediterranean Diet;
- The signatory countries, with the inscription of the Mediterranean Diet in the Representative List of the Intangible Cultural Heritage, have assumed the obligations of the safeguard element in the international arena, through measures also shared with the communities related to it, in implementation of the UNESCO Convention for the safeguarding of Intangible Cultural Heritage, ratified by the State with Italian Law of 13 December 2007, 167;
- The Mediterranean Diet is the testimony of the strong junction of the Mediterranean peoples, their territories and their ways of living;
- The main features of the Mediterranean Diet are the amount of time spent at the table and the many rituals of conviviality.

REPUBBLICA ITALIANA



REGIONE SICILIA

Assessorato Regionale dell'Agricoltura dello Sviluppo
Rurale e della Pesca MediterraneaResponsabile Unico della Regione Sicilia
Cluster Bio-Mediterraneo
Expo Milano 2015

- The Mediterranean Diet not only offers health benefits, but it guarantees and preserves agricultural biodiversity because the traditional systems of farming and fishing, processing and consumption are perfectly in line with the sustainability criteria.
- Create value to the Mediterranean Diet means giving global vision to local excellences of the Mediterranean;
- Take care and spread the Mediterranean Diet means meet the needs of the peoples of the Mediterranean intangible or the aesthetic, cultural, economic, emotional and social;
- Food is one of the cultural elements that helps to preserve the uniqueness of the Mediterranean;
- Food is not simply the act of eating, but it refers to many aspects of social and cultural life;

We are committed to:

- promote the awareness and the promotion of the Mediterranean Diet in the countries participating in the initiative, in collaboration with the respective public Institutions in the fields of nutrition, health, agriculture and fishing.
- promote and protect the Mediterranean Diet in the population and in particular by involving the younger generation, to raise awareness on the importance of ensuring the transfer of the shared cultural heritage of the Mediterranean Diet and to promote it with techniques of change in food consumption behavior, scientifically validated.
- promote worldwide the knowledge about the specific characteristics and healthy values of the Mediterranean Diet and to encourage the use of its food model, especially in countries with advanced economies, through relevant programs in the fields of education, health, communication, with a particular focus on schools, universities, service centers, markets, workplaces and media.
- develop or review policies and food programs in favor of a sustainable food system, fair and healthy, ensuring the allocation of economic, social and cultural resources.
- develop guidelines in favor of the Mediterranean Diet, according to the specific territorial differences for the nutrition, in order to inform consumers, operators in the field of territory planning, food service providers, retailers and operators in the field of food production and processing, promoting communication campaigns and training, preferably with the engagement of notable research centers and universities.
- promote, encourage and support the organization in the territory of activities and initiatives in the field of culture, nutrition education, sustainable development and respect for biodiversity, in order to recognize the quality and safety of nutrition and traditional productions, closely associated to the Mediterranean Diet.
- adapt the standards and regulations in order to ensure the access to the Mediterranean Diet in public facilities such as schools, hospitals, workplaces, universities and food service and restaurant and, as far as possible, in the big private distribution, wholesale distribution and markets.
- promote combined actions between the food industry, the field of scientific research and the



Official Partner

Via degli Emiri n. 45 90135 - Palermo
Tel (+39) 0917079639 Fax (+39) 0917079731
E_mail: biomediterraneo@regione.sicilia.itwww.siciliabiomediterraneo.com twitter @siciliabiomed
Facebook Sicilia Cluster BioMediterraneo

health sector in order to implement strategies focused on people in favor of the healthy and socially inclusive Mediterranean lifestyles.

- study and promote regulatory and voluntary instruments for the promotion and enhancement of the Mediterranean Diet with the engagement of private and public companies.
- tackle the non-communicable diseases associated with inadequate diets, obesity and overweight, to respect the principles of the Mediterranean Diet by encouraging the consumption of fruits, vegetables and unprocessed food and promoting physical activity and the social patterns of Mediterranean food consumption.
- assess, review and/or strengthen food control systems through a system of standards, local and territorial regulations in the food safety respecting the Mediterranean Diet principles in order to ensure that producers and suppliers in the food chain operate in a responsible way, sustainable and in compliance with the Mediterranean Diet, in order to reduce the barriers to entry of small and medium enterprises (especially family, youth and women businesses) that are the ambassadors of the Mediterranean Diet.
- support as far as possible the short supply circuits, producer organizations, networks and platforms from manufacturer to consumer and other market systems capable of enhancing the principles and values of the Mediterranean Diet.
- recognize the fundamental role of the academic research, centers and/or Institutes as a tool of knowledge, able to give scientific evidence to the value of the Mediterranean Diet in the various dimensions that characterize it.
- promote projects and regulations against the counterfeit practices of the Mediterranean products and/or the distorted use of the UNESCO recognition of the Mediterranean Diet only for commercial purposes, according to the rules laid down by the Convention for the Safeguarding of the Intangible Cultural Heritage of UNESCO (2003) about marketing elements registered in the Lists of Intangible Cultural Heritage.

Section dedicate to the Mediterranean Mountains

Noting that:

- The mountainous lands of the Mediterranean are still abandoned and this is a challenge for the Mediterranean peoples.
- The partial implementation of the rural policies, the lack of a long-term policy planning able to overcome and enhance the isolation of these areas, the reduction of the funding and the difficulty of creating synergies among all stakeholders, aren't useful to the permanence of the new generations in the higher portions of the territory.

Considering that:

- Most Mediterranean landscapes are the result of the meeting between the sea, mountains and human history, that in the absence of plains and therefore easily cultivated, had made safe and arable.
- Fragmentation of resources for agriculture and mountainous areas and their partial integration, allows targeted interventions for the management of "emergencies" sacrificing the most effective strategies for long-term development.
- The agricultural landscapes in terraces are seen in Mediterranean Europe not only the most representative cultural landscapes, but also among those at greatest risk, because most affected by the costs of maintenance and agronomic due to the small size of the units and the difficulty of cultivation access and mobility
- Concerns about the disappearance and degradation of agricultural landscapes terraced are based on environmental, cultural, economic and social reasons.
- The agricultural landscapes in terraces are the result of the meeting between the natural envi-

REPUBBLICA ITALIANA



REGIONE SICILIA

Assessorato Regionale dell'Agricoltura dello Sviluppo
Rurale e della Pesca Mediterranea

Responsabile Unico della Regione Sicilia
Cluster Bio-Mediterraneo
Expo Milano 2015



ronment and the creative power and ingenuity of man, the slow evolution of the relationship between nature and culture, of a collective project that spanned the need to produce with native resources available and with the characters of the environment;

- In a system of terraced culture mountain are found different which can create favourable conditions for the development and conservation of biodiversity.
- As noted by the work carried out during the workshop organized by the Ministry of Environment, with the participation of the Italian Delegation of the Alpine Convention on "The Mountains of the Mediterranean: climate change, biodiversity and landscape. Some food for thought" took place on Sept. 4, 2015 at the Cluster of Bio Mediterranean at EXPO Milano 2015,
- Climate change become an issue of central importance for the Mediterranean region
- Interconnection between landscape management and sustainable development is essential to preserve the quality of the area and improve the quality of life, considered in their capacity as elements of attractiveness for tourism demand;
- The protection and enhancement of biodiversity of the Mediterranean region shows the importance of having plans, long-term strategies, programs and actions that go beyond the municipal administrative boundary and being released by the duration of the political mandate;
- It's necessary to protect and promote small local economies, in order to bring benefits to all the pieces of the "supply chain", and strengthening at the same time, maintaining the heritage of biodiversity and agro biodiversity of flora and fauna of the products, enhancing their importance to the cultural identity of the territories

Undertake:

- To respect and protect agricultural landscapes in terraces both monumentality and for the presence and ordering of connection between contrasting elements determine the aesthetic identity of the territories;
- To promote and encourage the development of an integrated planning and coordinated able to include all actors of government and non-citizens' associations, companies and stakeholders to respect biodiversity and the preservation and promotion of organic farming production of local products through integrated, readily available and persistent over the long term.
- To promote public awareness on the role of community planning and for a correct interpretation of the protection of biodiversity and agro-biodiversity.
- To protect and promote small local economy systems, respecting, at the same time, the maintenance of biodiversity, agro-biodiversity and flora and fauna of products, emphasizing their importance for the local cultural identity.
- To increase the value of the role of protected areas in order to use better the financial resources of the territory and for the respect of biodiversity and local economies.



REGIONE SICILIANA
Assessorato Agricoltura
Sviluppo Rurale e Pesca
Mediterranea



MILANO 2015

Via degli Emiri n. 45 90135 - Palermo
Tel (+39) 0917079639 Fax (+39) 0917079731
E_mail: biomediterraneo@regione.sicilia.it

www.siciliabiomediterraneo.com twitter @siciliabiomed
Facebook Sicilia Cluster BioMediterraneo

- To facilitate the transmission of knowledge to the protections of dry stone terraces in mountain areas, because it is a thermal reserve thanks to the heat accumulated in the stones it promotes the condensation of night atmosphere;
- To create and promote actions and projects aimed at restocking the mountainous inland areas identifying solutions that will safeguard the territory respecting biodiversity,
- To encourage greater environmental awareness and local participation in respect of ecological processes, ecosystem services and their functions in order to influence the policies and funding projects to activities aimed at protecting the landscape, to extensive farming and the development of models of integrated and participatory;
- To foster monitoring moments of the effectiveness of implementation strategies of the resources from the EU and \ or Mediterranean Area out national and regional;
- To support projects and actions in the Mediterranean area for the development of measures to protect biodiversity which is compatible with the agro economic and mountain system;
- To protect and promote small local economy systems, in order to make benefits to all the pieces of the “supply chain”, and strengthening at the same time, maintaining the heritage of biodiversity and agro biodiversity of flora and fauna emphasizing their importance for the cultural identity of the territories;

The nature of this Charter of Bio Mediterranean is voluntary. Its purpose is to strengthen the cooperation of the countries in the cluster BioMediterraneo, to integrate other Mediterranean countries in order to offer a variety of strategies that can facilitate the development of more sustainable food systems, respecting the principles of the Mediterranean Diet, through the adoption of the articles in this paper, born with the experience carried out in Cluster Bio Mediterranean from May 1 to October 31, 2015 on the occasion of Expo Milano 2015 “Feeding the Planet, Energy for Life.

This agreement protocol is made by two originals examples, it shall enter into force on the day of signing by the legal representatives of the Parties and is valid for three years.

The present Memorandum of Understanding is constituted of two original copies, it shall enter into force on the day of signature by the legal representatives of the Parties and will be valid for three years.

Either Party may withdraw from this Protocol after the issuance, by post, by registered letter A / R to be sent three months before withdrawal.

Either Party may withdraw from this Memorandum after submission to the other Party, by registered letter, to be sent three months before withdrawal.

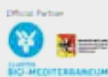
According to as mentioned before, Members of the Mediterranean Bio Cluster is committed to use all the resources and tools at their disposal to enforce the dictates of the Charter of BioMediterraneo and to promote the content of this Chart between the operators and stakeholders and promote them with those who may have a significant role in its application.



MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE

THE
ALPINE
CONVENTION
IS THE FIRST
INTERNATIONAL
TREATY
FOR THE PROTECTION
AND PROMOTION
OF THE DEVELOPMENT
OF A CROSS-BORDER
MOUNTAINOUS
REGION

italian delegation
alpine convention



REGIONE LIGURIA



REGIONE ABRUZZO



alpineconvention convention alpine
convenzione delle alpi alps alps convention
www.alpscon.org



