



## The Apennines Convention and APE - Apennines Park of Europe

Mountains occupy 54 percent of Italy, and as a result mountain-related issues are a priority for this mediterranean country. The Alps and Apennines are high-risk areas from the point of view of environment and hydro-geology, but also in terms of declining populations and the loss of traditions and cultural identity. The south of the country faces problems of depopulation and the onset of desertification due to territorial mismanagement.

Italy has long been engaged in sustainable mountain development, and the International Year of Mountains in 2002 gave impetus to new and existing projects and activities.

On 24 February 2006, a historical event took place as the Italian Apennines mountain range was endowed with a new protection and management instrument following the signing of the Apennines Convention at the political level. The Convention was signed in the city of L'Aquila by representatives from the Ministry of the Environment, the 15 regions concerned - made up of 48 provinces, 2,165 communities, 11 national parks, 41 regional parks, and 52 natural reserves - local authorities, including Mountain Partnership member Unione Nazionale Comuni, Comunità, Enti montani (UNCEM), the Italian Association of Natural Parks, and Legambiente environmental organisation. According to its initiators, the Apennines Convention is the first convention worldwide to focus fully on the role of protected areas.

Read the Apennines Convention at <http://www.parks.it/federparchi/ape/conv.appennini.2006.html>

To learn more about parks and protected areas visit the Federparchi, the Federation of Italian Parks and Reserves, website: [www.parks.it](http://www.parks.it) (in Italian, English, French and German).

Read more about APE - Apennines Park of Europe at [http://www.legambiente.com/documenti/2004/0503\\_areeProtette/APE.php](http://www.legambiente.com/documenti/2004/0503_areeProtette/APE.php) or <http://www.parks.it/federparchi/ape/>

### Legambiente

Antonio Nicoletti  
National Director of Protected Areas and Territory  
Via Salaria 403 - 00199 Rome, Italy

Tel: +39 06 86268354  
Fax: +39 06 86268319

Email: [a.nicoletti@mail.legambiente.com](mailto:a.nicoletti@mail.legambiente.com)  
Web: <http://www.legambiente.com>

## A Challenge for Environmental Continuity in Italian Mountains

Bernardino Romano, Serna Ciabò and Mauro Fabrizio



Urban centre in the Alps (Val di Rabbi - Stelvio National Park). Photo: Bernardino Romano

The Italian mountain areas of the Alps and Apennines make up over half of the national territory. Just over 10 million inhabitants reside here in altitudes higher than 600 meters above sea level with a settlement density of over 60 inhabitants per square kilometres.

These same mountains represent approximately 2,400 km<sup>2</sup> of urban areas, which cover more than 1 percent and are predominately concentrated altitudes in between 600 and 800 metres.

The two mountain chains are full of different characteristics and problems, yet they are similar in other ways. Undoubtedly the economies are much stronger and developed in the territory of the Alps. Here, you find transfrontier mountain chains running from west to east for approximately 700 km with a high presence of summer and winter tourism activities for both national and international visitors (more than 150 million estimated visitors per year), which create high impact on the territory. Moreover, important productions such as energy, agriculture, forestry, zoology, artisan, and industrial originate in the Alps. The spatial proximity to the most important inhabited zones of northern Italy and central Europe guarantee relevant interests and economic flows, which not only nourish economies, but also generate pressure on environmental integrity in many areas that are already seriously compact.



Historical centre and other urbanisation in Apennines (Pacentro e Valle Peligna). Photo: Bernardino Romano

The Apennines is a peninsular mountain chain that runs the length of nearly 1,200 km from northwest to southeast. It conjoins with the Alps at Colle di Cadibona, which is found between the regions of Liguria and Tuscany, and ends in the north of the island of Sicily at Monte Nebrodi and Monte Peloritani. The economic conditions of the Apennines' territories are extremely different from that of the Alps, also due to the inland latitudinal layout. Over the centuries, in the northern sector of the Apennines, more utilisation - particularly agricultural and forestry related - spread due to morphology that is less harsh than that of the central sector. However, this has likewise entailed a major diffusion and density of the infrastructure with a greater parallel to environmental quality.

The Central Apennines, with higher mountains and more tormented orography, has been self-defended throughout the historical eras and, over the last forty years, is now suffering the worst attacks to its natural integrity. The inclusive naturalness diminishes descending towards the south, then recovers again, in the southern regions of Basilicata and Calabria, at high levels of altitude.

Moreover, in south-central areas the economy of mountainous territories of the Apennines strongly faces difficult phenomena that for decades have characterised the zones of South Italy. The mountain creates major logistic problems of accessibility and an endowment of services.

The two Italian mountain systems are therefore two clearly distinct worlds; one on the mountain side for economic conditions and the other a thematic framework. In this sense, there is a level of complexity much higher if you inquire into particular cases, which are often conditioned by local morphology and by historic events.

Yet, instead these two mountain systems make up every comparable reality if you consider the aspect of environmental continuity and the role ecological connectivity that overlay here.

The Alps and the Apennines presently host the majority of flora and fauna species at risk of extinction. They also establish the principal reservoirs for biodiversity in the Mediterranean basin (more than 30,000 species appraised solely in the Alps).

The Italian forest areas generally spread over 70,000 km<sup>2</sup>, 23 percent of the national territory, wherein more than 85 percent are found within the Apennines and the Alps. These forests make up practically all of the spatial connections, across which the Italian ecosystems of key eco-biogeographic importance connect with the other European systems - French, Swiss and Austrian Alps, Pyrenees, Cantabric, Slovenian and Balcanic areas - creating one of the most extensive lines of ecological connection within the European continent. At least potentially this area is capable of guaranteeing future survival of fauna species of great importance such as the bear, wolf and lynx, among many other ungulates, meso-mammals and micro-mammals, amphibians, reptiles and birds.

It is interesting to note that Italian bio-permeable areas, areas not containing phenomena of intense activity concerning settlements (of population or of industrial facilities) include forests covering 180,000 km<sup>2</sup>, or 60 percent of the nation, and are located in approximately 72 percent of mountainous areas.

The total Italian natural reserves and parks cover approximately 70,000 km<sup>2</sup>. Of these, about half are found in Alpine or Apennines mountains, accounting for 20 percent of mountains to be protected.

The same areas practically host the totality of water sources from fluvial water to parts of rivers not extremely polluted. Together all of these represent the custodian of potable water for the entire nation.

The morphological model and settlement interferences are substantially the same for both mountain systems. A series of parallel valley incisions of glacial or fluvial origin and a separate series of orography blocks run the entire length of the longitudinal arch of the mountain chains. Since prehistoric times, in the valleys there has been condense settlement aggression, along with corresponding lines of transition and exchange. In both mountain chains the highest altitude, with the exception of morphologically inaccessible environments and those occupied by ice, have always played substantially productive roles for hunting, vegetable and mineral research, forestation, pastureland and grazing. These characterise could be defined as the "vertical" economy for the mountainous areas.

In various ways, over the course of time this sort of "vertical" economy - more so in the Apennines than within the Alps - has been replaced by another type of economy even more vertical than tourism with the development of winter ski stations and summer activities like trekking and climbing.

Consequently, high altitude settlements have increased notably, both in number and in dimension, and thus there has been an increase in infrastructure connections (roads and sewage systems).

At the same time, there have been large increases even in the "horizontal" economies, which are those linked to low valley territorial resources. These were filled by intensive agricultural areas, urbanisation, factories, industries, dams, layers of infrastructure (highways, motorways, train tracks, electroducts), which for the most part are related to the length of fluvial shafts to the point where the inclinations have been easily permitted.

As a result, a considerable amount of ecological fragmentation has been created between various patches that host the most important mountain ecosystems. Whereas for years you could consider rather diminished actions linked to "vertical" economies for reasons of saturation. However, the same is not

true for actions linked instead to medium and low sectors of the valleys and the plains where there is still a continual increase of soil waste.

The phenomena can be connected within both mountain chains. There is a need to improve accessibility (and, therefore, mobility) between strong urban and productive regions of the country (such as the great floodplains and coastlines) and the highlands in order to maintain even standards of “urban” quality life, as well as to avoid relocation and migration toward cities. In turn, there is an urgency to guarantee limited daily commute times, while providing a medium-high level service endowments.

This sort of territorial selection, which is supported by all political sides, will inevitably bring forth the construction of many infrastructures and, consequently, fragmentation of all the most important mountain areas as well as protected areas where they are situated. In the Alps, the great roadways of mobility are predominately oriented from north to south as means of connection between the metropolitan zones of the Padana area (from or relating to the Po Valley, in north-central Italy) and nearby towns. In the Apennines these are principally laid out from east to west in order to connect important, fast lines of coastal traffic from the Tyrrhenian and the Adriatic Seas. Already in the past, as they will in the future as well, these infrastructures have destroyed habitats and isolated important ecosystems. Most of the time, the majority of them foresee social and economic benefits, which are never effectively realised.

One hypothesis that will be difficult to attain and affirm within the collective Italian culture is linked to the fact that mountain life must not, and should not, become the same as life in metropolitan areas. In addition, the two models of development must hold different positions, with advantages and disadvantages. Yet, at the same time, provide the possibility for individuals to be able to carry out choices based on various qualities without necessarily and unwillingly looking for total homogenisation between realities naturally differentiated.

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PLANECO: <http://www.planeco.org>

ECONET: <http://www.lifeeconet.com>

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Bernardino Romano, lead author of this article, is an Associate Professor of Land Planning at the Università dell’Aquila in Italy and can be reached at [romano@dau.ing.univaq.it](mailto:romano@dau.ing.univaq.it)

## Maintaining Bio-cultural Diversity in the Andes

Sarah-Lan Mathez-Stiefel and Stephan Rist



Andean ritual. Photo: Mathez Stiefel

In the Andes, biodiversity is intimately linked to human activity through a long history of co-evolution between nature and society. Over several millennia, the Andes have witnessed the transformation of their natural ecosystems by the local populations, who have molded them according to their particular worldviews, knowledge, and practices, developing systems to manage biodiversity that include a wide array of ecosystems and climatic zones and the exploitation of various ecological belts. This has enabled them to diversify access to natural resources along the year and domesticate some of the most important crops for humankind, thus leading to extraordinary levels of agrobiodiversity.

BioAndes, a program based in the Andes working with various partners to link scientific and indigenous expertise, focuses on the development of concepts, tools and practices related to the conservation of biodiversity through enhancement of cultural diversity, exploring the possibility of conserving (agro)biodiversity both with and for natural resource users.

The Andes are characterised by very high levels of biodiversity. According to a publication of the Community of Andean Nations (CAN), the five CAN countries - Bolivia, Colombia,