



# Environmental Connectivity: Protected Areas in the Mediterranean Context

26-28 September 2002 Malaga, Spain





#### First Announcement and Registration

## ENVIRONMENTAL CONNECTIVITY: PROTECTED AREAS THE MEDITERRANEAN CONTEXT

#### Organized by

UICN Mediterranean Office. Consejería de Medio Ambiente. Junta de Andalucía

With the collaboration

Fundación ANDANATURA

26-28 September 2002- Málaga, Spain

#### Aim of the meeting

The aim of the meeting is to improve the Mediterranean contribution to the World Park Congress 2003 in relation to the Workshop Stream Linkages in the Landscape/Seascape

#### **Objectives**

- ? To identify the experiences extrapolatables in the mediterranean context.
- ? To identify opportunities and limitations for improving connectivity models in a Mediterranean the landscape.
- ? To identify the planning and management mecanisms and instruments for improving the environmental connectivity and synergies in differents scales.





#### **Preliminary Programme**

Thursday,	26	Septemb	er 2002
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8:45	Registration
9:00	Inauguration

Excma. Sra. Consejera de Medio Ambiente de la Junta de Andalucía, Dña. Fuensanta Coves Botella.

## 9:15 Welcome

- ? Jamie Skinner, Director de IUCN-CCM
- ? Hermelindo Castro, Director General RENP y SA. Consejería de Medio Ambiente
- ? Mohamed Sulayem, IUCN-WCPA
- ? Roger Crofts, IUCN-WCPA

#### 9: 30 Connectivity as an environmental evidence

- ? Why the connectivity is a stream in WPC-2003?.. Roger Crofts/ Sulayem, UICN-WCPA.
- ? The Mediterranean overview in the Durban context. Pedro Rosabal, UICN\_CMAP.
- ? Experiencias Transnacionales en conectividad: ¿Cúal es la contribución específica de una red?. Marc Roekaerts, Red Esmeralda.
- ? The ecological base of connectivity. Francisco Díaz Pineda, Universidad Complutense de Madrid.
- ? Connectivity and protected area networks: from the theoretic models to management practices. José Vicente De Lucio, Universidad de Alcalá de Henares.

11:30	Coffee break
11:45 - 14:00	Discussion
14:00 - 15:30	Discussion
15:45	Mediterranean experiences

- ? Landscape design and planning in the Mediterranean with reference to connectivity. Examples from Italy. Gloria Pungetti, European Coordinator Life EECONET.
- ? Implementing connectivity to the regional systems of protected areas. Santiago García Fernández-Velilla, Gestión ambiental V.R., Navarra





Environmental Govern (Spain).

- ? The experience in networks. G.B.M. Pedroli, General Secretary of Landscape Europe.
- ? Green corridor Guadiamar. José Mª Arenas Cabello. Consejería de Medio Ambiente. Junta de Andalucía.
- ? The Andalucia connectivity net: RENPA. Fernando Molina Vázquez, Consejería de Medio Ambiente. Junta de Andalucía.
- ? Experiences from the French Mediterranean Region. Jacque Baudry. Directeur Reserche INRA.France.
- ? Experiences from Moroccan protected areas. Ibrahim Haddane. UICN. Marruecos
- ? SCI's as a tool for reaching connectivity. Pedro Aguilera, Universidad de Almería.
- ? The Challege of the connectivity in the marine world. Hentati. Tunez.
- ? International finance programmes in PAs. Mesut Camiloglu. Directorate General National Parks.Turkie.

18:45-19:30 Discussion and final of open session.

#### Friday, 27 September 2002

09:30 - 14.00	Workshop 1: <b>Keys for the connectivity in the mediterranean context</b> (chairman:Carlos Montes, Universidad Autónoma de Madrid).
14,00 - 15,30	Lunch.
15.30 - 18:30	Workshop 2: The UICN Mediterranean contribution to Durban (chairman: Jamie Skinner, UICN-CCM Director)

18:30	Conclusions
19:00	Closure

#### Sábado, 28 de Septiembre 2002

Excursion to a protected area related to connectivity: Sierra de las Nieves, Natural Park and Biosphere Reserve.





#### **General Information**

#### **PARTICIPATION**

- Thursday, 26 September 2002: Open Session
- Friday, 27 September 2002: Workshop for 30 participants where the territorial criteria will be the mediterranean balance.

The participants can be organisations, entities and civil service in relationship with direct management in PAs, IUCN members, PAs trainers with experience in mediterranean networks or connectivity experiences.

#### Products:

CD-Rom with the conclusions and communications for the Multi- Workshop will be held in Murcia: March-2003.

It will be the presentation of one book about Connectivity supported by Cons ejería de Medio Ambiente and Gonzalez Bernaldez Foundation.

#### IUCN/WCPA Spain members meeting

A meeting of IUCN/WCPA Spain members will take place parallel to the conference. Information and invitations to that meeting will be sent separately to the spanish members.

Thursday, 26 September 2002 19:30 IUCN/WCPA Spain members meeting

#### Working language

All sessions and workshops will be held in English and Spanish (also French if technical availability).

#### Location of the Meeting

Centro de Cooperación del Mediterráneo de UICN. Parque Tecnológico de Andalucía. Málaga. Sede Social.





#### **PARTICIPANTS**

Name	Surname	Country
Maurilio	Cipparone	Italia
Giuliano	Tallone	Italia
Gloria	Pungetti	Italia
Jacques	Baudry	Francia
Brahim	Haddane	Marruecos
Khaled	Irani	Jordania
Suade	Arancli	Turquía
Nizam	Savas	Turquía
Mohamed Adel	Hentati	Túnez
Faisal	Abu Izzedim	Líbano
Abdelhafid	chalabi	Argelia
Marc	Roekaerts	Bélgica
Bas	Pedroli	Holanda
Jose	Vicente de Lucio	España
Francisco	Díaz Pineda	España
Santiago	García	España
Jose M <sup>a</sup>	Arenas	España
Hermelindo	Castro Nogueira	España
Marta	Múgica de la Guerra	España
Juan Manuel	Garay Zabala	España
Fernando	Molina	España
Jaime	Rodríguez Martinez	España
Josep	Melero Bellmunt	España
Carles	Castell Puig	España
Francisca	Baraza Martinez	España
Rafael	Hidalgo	España
Carlos	Montes	España
Jamie	Skinner	UICN
Pedro	Rosabal	UICN
Andrej	Sovinc	UICN
Andrés	Alcantara	UICN





## **Conclusions**





## Workshop Conclusions. Draft Version<sup>1</sup>. October the 4<sup>th</sup> 2002

# Environmental connectivity: protected areas in the Mediterranean region.

Málaga 26-28 de septiembre 2002

As a part of the meeting convened under the title of *Environmental connectivity:* protected areas in the Mediterranean region and held in Málaga between September the 26th and the 28<sup>th</sup>, 2002, two different work sessions took place on *Ecological Connectivity* and *Social Connectivity*, whose purpose it was to review key matters related to the connectivity process in the Mediterranean basin's protected areas.

The objectives of these workshops did focus on the problems limiting and fostering connectivity within the Mediterranean basin, on the detection of study cases, and on the proposal of guidelines and actions to be further discussed in the context of the Murcia meeting (March, 2003), whose goal is the development of the bases for an Action Plan for the Mediterranean protected areas as a contribution to WPC 2003

Both workshops took as a starting point certain elements which were identified as relevant during the presentations and discussions carried out in the first working day of the meeting, and were structured according to the following agenda:

- ? General overview
- ? Gaps
- ? Study cases
- ? Proposals

In the discussion the following main aspects of connectivity were dealt with:

1. Standardization of concepts





- 2. Its relationship to ecological corridors
- 3. Its relationship to territory
- 4. Critical issues affecting it
- 5. Research
- 6. Its relationship to the social dimension
- 7. Its relationship to the Mediterranean's social and cultural context
- 8. Legal and institutional framework
- 9. Participation by the civil society, the local population and the private sector
- 10. Opportunities for and restrictions facing the development of new connectivity related initiatives

The meeting came to the conclusion that the priority was to adequately clarify the theoretical and conceptual framework that defines the existing relationship among protected areas, connectivity and corridors in the Mediterranean context. This definition should be based on the specific features of the Mediterranean region, of an ecological, a social and a cultural nature, and not on concepts "imported" from other ecological regions that do not match the characteristics of the cultural landscapes predominating in the Mediterranean coastal countries. In this regard, the definition of connectivity as applied to the Mediterranean countries must take two main issues into consideration, which are the determining factors of their uniqueness: an heterogeneous and complex cultural component and fluctuating seasonal dynamics.

The terms *connectivity* and *fragmentation* are frequently used in the region in such a way as to be interchangeable, which fact does create some confusion with regard to their application. It is, therefore, necessary to clarify that connectivity, which must be the goal to be reached, does involve the keeping of the interconnection among and the dynamics of the species, the ecological processes and the ecosystems as well as the functions and services that they provide, whereas corridors are only one of the options that can be used to guarantee connectivity.

<sup>&</sup>lt;sup>1</sup> This draft document has been elaborated by M<sup>a</sup> Rosario García Mora and Pedro Rosabal. Carlos Montes, Jamie Skinner, Francisco Díaz Pineda, Jacques Baudry, Gloria Pungetti, Jose V. De Lucio, Hermelindo Castro, Fernando Molina and Andrés Alcántara have also contributed.





It is also necessary to assess the use of the *fragmentation* concept within the Mediterranean context, and to contrast it with the use that *fragmentation* has had in other ecological regions and ecosystems throughout the world, specially when applied to tropical forests. The use of the *fragmentation* concept will depend on the renewal rate of the natural systems on which any kind of human activity has an effect. In systems having high renewal rates, fragmentation should not be regarded as a factor limiting connectivity.

In the case of the Mediterranean region, *fragmentation* has created a landscape mosaic, being the outcome of a gradual process of use of natural resources throughout the millennia, which has determined the emergence of the current cultural landscapes. It is, therefore, possible to assume that in the Mediterranean region, this type of *fragmentation* may, in certain cases, foster the development of connectivity - related initiatives. However, and even though this may be valid in territories in which cultural landscapes prevail, other actions are currently taking place – linked, in the main, with the development of road networks, urban areas and intensive agriculture – which are creating highly negative - impact fragmentations of the biodiversity, as well as of the region's natural and cultural resources.

It is necessary to define fragmentation within the ecological environment of the Mediterranean, as well as its relationship to both the scale factor and the cultural factor. It is also imperative to define the fragmentation threshold for the keeping of the Mediterranean cultural landscapes, and the conceptual difference between fragmentation and patch diversity in the landscape. In the Mediterranean region, landscape heterogeneity is linked to cultural heterogeneity. This diversity of man - made landscapes cannot be deemed to be akin to the concept of fragmentation, since in the Mediterranean cultural landscapes it is necessary to maintain traditional or environmentally acceptable uses for the persistence of their values and their uniqueness.

As a result of it all, it is necessary to conceptually define the terms "connectivity" and "corridors" as applicable to the context of the Mediterranean ecological region, as well as to put forward a proposal in the forthcoming WPC 2003 for the conceptual framework, both theoretical and practical, for the development of





connectivity initiatives at different scales to be clarified. Likewise, it is necessary to suggest in the next World Park Congress the development of a typology of corridors and connectivity options which may match primary conservation objectives, in the same manner as it already exists for the management categories of protected areas.

The concept of ecological corridor should be restricted to those landscape elements that, even though they perform a secondary social function, have as their main objective to promote the displacement of species or the maintenance of ecological processes.

In the framework of the landscape's territorial structure, corridors must be designed having as their focal point the development of conservation networks and systems, as well as the rational use of the natural and cultural resources of the ecological region. These two concepts, networks and systems, tend to be used without distinction. However, in the regional context, the term *network* must be used to refer to the design of protected areas and corridors which are representative of the existing ecological regions, whereas the term *system* must incorporate the legal framework and the institutional and administrative structures that guarantee the management of networks. Therefore, the development of networks of protected areas doesn't guarantee connectivity within the Mediterranean region; rather, connectivity should entail the keeping of the territorial structure by taking into consideration the physical phenomena that take place in the territory, the superimposed ecological processes and, in parallel, the social and economic structure. Accordingly, connectivity is essential for the conservation of the system but not for that of the network.

In the design of networks of protected areas, it is important to define the chief management objective and to identify the key processes that determine the ecological and social linkages in the landscape.

It is possible to distinguish two main approaches to the concept of corridors - the classical conservationist and the proactive one - it being necessary to specify in advance the concept of ecological corridor to be implemented and the required work scales for each specific connectivity problem.





Corridors are a basic tool for improving connectivity, and, in the context of the Mediterranean ecological region, corridors not only perform an ecological function but also a cultural one. Together with their cultural function, and from an ecological point of view, it is necessarily to aim at the design of multifunctional corridors, and to associate these functions with specific objectives.

On the other hand, in addition to traditional linear corridors - continuous and discontinuous - it is important to bear in mind the role being played by protected areas as biological corridors in the context of the territory, acting at the same time as refuge for and source of species. In the same way, and in the context of the Mediterranean basin, in which a cultural landscape prevails being characterised by a complex matrix of land uses, it is important to promote the use of the small natural and semi - natural patches remaining in the landscape as elements fostering connectivity (steeping stones). Important though it is for the connectivity in the Mediterranean region to better use habitat fragments as necessary complements for the development of continuous linear corridors between protected areas, the loss of the economic function of these connectivity elements remaining in the landscape, poses a threat to their persistence and, therefore, to that of the connectivity as well.

On the other hand, it is important to highlight the role played by rivers and banks as one of the most relevant connectivity options. Not only at the level of basin but also between the landscape and the seascape within the Mediterranean context.

In the framework of the actions needed for enhancing connectivity in the Mediterranean, it is necessary to deal with the ecological regionalization of the territory and to define at different scales the different processes we wish to preserve. For that purpose, it is essential to map the territory by dividing it into ecological units, including as theme layers the spatial and temporal scales of the different processes affecting connectivity. The establishment is also basic of work scales in connectivity at different levels. At a first level the work scale may be determined by the objective of connectivity (i.e. species or processes). At a second level, scales may be determined by social and/or





environmental issues limiting connectivity. And at a third level it may be determined by the specific measures laid down for achieving connectivity.

Both in marine and in terrestrial environments, it is necessary to prevent the invasion by alien species as well as by diseases deriving from the establishment of ecological corridors.

Corridors defined by geophysical processes in the linking of biological regions are of major relevance within the marine environment. The establishment is also needed of biological corridors for the protection of the natural ways for the migration of the species from nursing to feeding areas, by distinguishing between corridors intended for benthonic and for pelagic species. The improvement of the availability of marine ecological charts, as a basic tool for the devising of connectivity strategies within this environment must become a short - term objective.

As a rule, there are intersections between ecological and administrative regions. However, functional connectivity processes demand the opening of administrative borders to ecological processes. In fact, it is necessarily to deal with ecological connectivity in the general context of the territory, and, accordingly, to deal with an integrated approach to the different networks - natural and man – made - coexisting in the landscape. To reach this objective the horizontality is essential of the conservation policies as well as the integration of the connectivity objectives into the whole of the sectorial policies.

Protected areas must play a key role in the context of ecological networks - they must constitute main nuclei thereof as well as living observatories of good conservation practices - and, therefore, the character of networks including the protected areas, can become a fundamental tool for the environmental planning and management.

Connectivity in the Mediterranean landscape does require, accordingly, the enlargement of the concept of protected areas beyond their administrative boundaries, as well as the integration of the latter into the landscape context. It is therefore necessary to move forward towards integrating landscape ecology, territorial regulation and nature





conservation, and identifying the different elements of the territory which promote coexistence between conservation and development.

Legal instruments incorporating territorial regulation and nature conservation could become one of the most important tools in the promotion of connectivity in the Mediterranean. Ideally, the planning and the management of ecological networks should be extended to include the context of the territory. However, the existence is verified of problems when it comes to establishing links among local populations, public bodies, the different sectors and political priorities. In this regard, it is a priority to evolve towards a management system based on participation, in which different interest groups, local populations and authorities and experts be taken into consideration as essential partners to guarantee the persistence of sustainable actions and activities in the territory.

Functional connectivity in the Mediterranean ecological region requires an approach ranging from local to global and the parallel establishment of ecological and administrative networks and interest groups. Territorial planning into which environmental connectivity objectives are integrated could be a relevant tool for the achievement of such functionality.

On the other hand, when it comes to defining and managing the ecological connectivity in the Mediterranean landscape, taking the agricultural matrix into consideration becomes basic In the scope of this ecological region, traditional agriculture keeps structures which are important for connectivity. Connectivity can be enhanced by maintaining or installing linear elements (e.g. hedgerows) or by using crops or cropping techniques that facilitate the movement of the fauna. It is, therefore, important to boost active conservation by encouraging good practices - traditional or otherwise - in the rural environment and sustainable agricultural policies. The agricultural parks of Milan (Italy) and Barcelona (Spain) have initially been put forward as examples of good practices in this context,.

Among the factors limiting ecological connectivity in the Mediterranean environment, the lack of intersectorial integration and coordination stands out. Other





relevant limiting issues within the eco-region are the consequence of the following matters:

- ? The abandonment of the rural milieu.
- ? The concentration of agricultural plots, with the resulting removal of landscape linear elements that may act as ecological corridors.
- ? The transformation of traditional agricultural production processes.
- ? The development of artificial networks and elements that act as barriers to biological and ecological processes (e.g. transport and communications infrastructures, the expansion of the urban fabric, infrastructures for the regulation of rivers, breakwaters, etc.).

The fact must be stressed that a major part of the actions limiting connectivity are being financed by public funds and that it is, therefore, necessary to exert pressure on the governments with a view to promoting a shift towards sustainable sectorial policies.

Among the relevant factors for the maintenance or the improvement of the connectivity within the scope of the ecological region, the launch was highlighted of experiences or processes intended for the development of natural protected area networks in certain Mediterranean locations; the existence of agricultural subsidies aimed at maintaining the heterogeneity of the agricultural matrix and the financial benefits that may derive from the keeping of interstices in the agricultural landscape. The need was stated to foster the exchange of information concerning connectivity experiences at the level of the Mediterranean basin, and to develop the capability to work in conjunction.

From the standpoint of the comprehension of ecological connectivity in the Mediterranean region, the theoretical concepts are well known on which the idea of connectivity is based, both related to physical phenomena and to ecological processes. Having said that, as regards the conservation of nature and the management of the territory, scarce information is available concerning the applicability of the





aforementioned concepts. Such is the case of the models of species displacement forecast, the operation of the ecosystems or the scale phenomena.

The essential objectives of connectivity research must of necessity envisage aspects such as the following:

- ? The assessment of the operation of the ropes or dividing lines, the riparian structures, the agricultural and cultural structures (hedgerows, space reticles, etc.).
- ? The better knowledge and assessment of the importance, concerning connectivity, of processes such as slope flows, the recharge and discharge of aquifers, the dynamics of estuaries and deltas, the coastal land and marine dynamics.
- ? The going in depth into the consolidated legal instruments used in the management, the importance being acknowledged of drawing inspiration from laws and regulations, many of which are quite old, which have kept in existence cultural processes dispensing with borders, such as the transhumance, the management of communal land and other forms of law of custom.
- ? The unification of parameters and indicators so that the assessment be made possible of biological phenomena related to corridors as well as to physical phenomena and ecological processes. Among these parameters the ones binding together the social and economical structure within the landscape are included.
- ? The formalization of concepts such as heterogeneity, complexity, permeability and scale. And, likewise, that of those concerning the applicability of the concepts of ecological soundness and integrity in wild systems and in those subjected to the action of man.
- ? The systematic analysis of the financial assessment of the restoration actions and the performance of the management plans. It is also advisable to analyse the efficaciousness of the instruments aimed at providing the sectorial





policies with an environmental dimension (cohesion funds, structural funds, etc.)

? The survey, from a connectivity point of view, of the generic effects of the global change (evolution of the use of the land, desertification, the change in the social and economical structures, the warming of the atmosphere, etc.).

On the other hand, the marine environment, whose knowledge depends to a great extent on taking the physical connectivity into consideration, provides us with a unique opportunity to analyse the effects of the alterations at different scales (e.g.: The global warming or local, man - made, alterations).

With regard to the analysis of the social dimension in the planning and management of connectivity - related initiatives, the conclusion was reached that social participation and shared management ought to be aspects inherent in the said initiatives.

The social dimension must be linked with the analysis of the connectivity's direct and indirect benefits. As far as protected areas are concerned, such benefits can be easily assessed by taking as a starting point the analysis of the direct exploitation of forestal resources (be they timber - yielding or not), hunting and fishing, as well as the analysis of the benefits deriving from tourism, recreation, public - use activities and research, among other. However, it is necessary to asses and to convey, both to society at large and to the managers, the benefits being obtained, or that can be obtained, by dealing with connectivity - related initiatives.

Within the Mediterranean basin there is a large diversity of situations when specific cases of local population and institutions joining in conservation - related tasks are taken into consideration. It is therefore necessary, with a view to developing the bases for the implementation of connectivity models suitable for the Mediterranean uniqueness, to identify and to define the socio - cultural context of the ecological region.

In some coastal countries, joint cooperation, coordination and action initiatives are being developed, at different territorial levels or scales, by different bodies or





institutions, public as well as private, concerning the development and implementation of nature conservation projects. Nonetheless, in other countries in the same region, a less participative approach still prevails to the planning and the making of decisions on conservation and sustainable development - related actions. Such differences, as well as their practical repercussions, have to be properly identified and defined as a basis for the development of strategies or actions aiming at boosting new connectivity - related initiatives in the region. Within such a context, the putting forward has been suggested, as an example, in the coming World Park Congress, of the experience linked with the preparation by Europark - España of the *Action Plan for Spain's natural protected areas*.

The participation by the local population must be a leading principle in the connectivity - related activities. In this regard, the participation must be put as an uninterrupted process, from the design and planning stage to the day - to - day management of natural and cultural resources of the area under consideration.

On the other hand, social participation, if it is going to be effective, must be based on unhindered communication, on the search for consensus and on the development of agreements reflecting the commitments having been reached and the responsibilities of and contributions by the different agents involved. The level of social involvement in the connectivity - related initiatives shall increase as the benefits deriving from the efficacious management of the protected areas and the biological corridors can be proven. It is necessary to achieve the involvement in these initiatives not only of the local population, but also of those non - locally based social sectors using the rural environment and the protected areas for purposes of leisure and recreation. In that regard, urban population can play a fundamental role in support of these connectivity - related initiatives and in the fostering of the same among a wide spectrum of civil society.

Although in the context of the Euro - Mediterranean countries there are regulations and mechanisms that facilitate the participation of the population in matters related to the conservation and the management of nature, such provisions are not always abided by or respected at a local level. It is necessary, as a result, to develop





mechanisms adapted to the natural and socio - cultural peculiarities of each specific area. The effectiveness of the said mechanisms will increase insofar as they be locally devised, discussed, agreed and implemented.

The participation of the private sector in the connectivity - related initiatives is of the essence of the Mediterranean region, since, by way of example, in the structure of the property of the land, many agents and institutions do play a part in its planning and use, specially with regard to the agricultural sector. It is important that initiatives be encouraged in the region aimed for the protection of resources within the framework of initiatives related to connectivity and territorial planning. Even though this concept has been basically developed in the United States, it would be necessary to define and to develop implementation models adapted to the Mediterranean, being focused on the development of connectivity - related initiatives. In this regard, there are already some experiences that can be assessed and systematized, such as the project of the Lower Llobregat Agricultural Park, sponsored by the Barcelona Provincial Council, and the Milan Agricultural Park, sponsored by the Milan metropolitan government. In both cases the landowners have brought about a multiple and participative use of the territory, by providing it with a triple function: agricultural, ecological (by means of the development of corridors) and recreational.

Many of the aspects linked with the participation by the local population and the private sector in connectivity - related initiatives, are themselves related to matters of governability. Accordingly, these must be debated in greater depth in the workshop due to be held in Murcia (March of 2003) in which governability issues and new ways to jointly work in the management of protected areas are to be dealt with. In this regard it is necessary to go in depth into the debate of relevant matters concerning governability and ecological connectivity in the Mediterranean. Questions such as who is managing the biological corridors; whose is the institutional duty of developing the said corridors; and which capabilities, both institutional and at the level of the managers of protected areas, are required for the development of such initiatives, are in need of an in - depth analysis.





It is necessary to include the appraisal of governability matters in the development of ecological connectivity processes in the Governability Workshop Stream to take place in the Durban Congress.

The existence of structures and projects such as EUROPARC, EECONET, the IUCN World Protected Areas Commission and the Emerald Network, provides an important chance to promote new connectivity - related initiatives in the region and to facilitate the analysis, systematization and exchange of experiences, both at a regional level and among the specialists who take part in the management of connectivity projects.

These regional structures must reorient their actions towards the achievement of actual practical results which can prove the environmental and socio - economic benefits created by the connectivity - related initiatives. In this regard, the absence of an objective analysis of the repercussions of these initiatives, as well as the lack of any identification of experiences that could be extrapolated to other countries in the region are some of the main obstacles. It has been suggested that this could be the subject matter of a publication that could make a contribution to the debates due to take place in the Durban Congress.

The necessary legal and institutional framework related to connectivity is highly heterogeneous in the different countries belonging to the Mediterranean basin; it is, therefore, necessary to carry out an in - depth regional analysis that makes it possible to direct future actions in this field.

The regional analysis of the legal and institutional framework for the development of connectivity - related initiatives must include not only the existence of institutional regulations and mechanisms, but also their effectiveness. Such an analysis will make it possible to identify weaknesses and voids requiring, respectively, to be strengthened and filled with a view to promoting the effective planning and management of the connectivity - related initiatives, both current and contemplated. In this regard, the main restrictions are to be found in the difficulty in incorporating the protected areas and the ecological corridors into the framework of other sectorial policies, such as those linked





with agriculture, fishing and the development of infrastructures. It is, therefore, necessary in the Mediterranean environment to improve existing relations among institutions and, at the same time, to develop supra - sectorial coordination mechanisms.

Within the framework of the institutional context, it is essential to identify in an objective way those sectors having a greater impact on the conservation of biodiversity. In the countries belonging to the Northern Mediterranean basin, agriculture is one of the most important sectors in this regard. Nowadays, subsidies and financial assistance granted by the European Union to the agricultural sector are fostering an intensive agriculture system, which constitutes one of the man - made actions having the most negative impact on the conservation of landscapes and the biodiversity. It is necessary to redirect the impact of the said agrarian subsidies on the connectivity by promoting new projects linking the conservation of biodiversity with agricultural development. In this regard, the IUCN can play an important role when it comes to reversing this trend, by taking this type of discussion beyond the boundaries of the institutions being specialised in the conservation of nature, such as, for example, to the level of the European Union and the World Trade Organization, within the framework of the coming World Park Congress.

In the context of certain countries belonging to the Northern Mediterranean basin, the existence of a Common Agricultural Policy and that of initiatives such as the LEADER projects, could well support the future development of connectivity - related initiatives. However, for that to come about it is necessary that the environmental sector join the discussion and the implementation of these actions as a main player. In this regard, there are OECD analyses concerning the inappropriate use of the subsidies linked with such initiatives which could become the basis for the development of proposals on how to better channel the use of such funds towards connectivity - related initiatives, and making it possible for the territories to perform not only its productive function but its conservational one as well.

Many countries in the region have made major efforts since the Caracas Congress (1992) with regard to the betterment of the plans for the management of protected areas and the processes intended for the devising and management thereof.





The high level of quality achieved in some of these plans for the management as developed in Mediterranean protected areas provides an opportunity, as a technical and methodological basis, for the devising and management of ecological corridors. It is necessary to improve the way such successful experiences are being shared by the different countries in the Mediterranean basin.

The growing development of tourism in the region constitutes both an opportunity and a restriction for the connectivity processes. On the one hand, and on the basis of fostering the support of the tourism industry to the development of connectivity - related initiatives, it is possible to take advantage of the growing interest in rural and landscape tourism for the promotion such initiatives as may provide an answer to the demands of new offers and itineraries. On the other hand, the traditional development of tourism continues to create strong impacts of an environmental and, in many cases, of a socio – economic nature. The concentration of touristical development in coastal areas does also give rise to strong pressures being exerted on the marine and coastal resources of the said areas as well as on water resources. There is an increasing social sensibility to environmental issues, which also represents an opportunity to promote new connectivity - related initiatives, provided that these can be conveyed to the population in an understandable manner and complemented with specific examples showing their benefits.

Another relevant restriction facing the implementation of connectivity - related initiatives is the inappropriate availability of financial resources making it possible the enlargement of institutional capabilities, the strengthening of the technical skills of the professionals taking part in the management of the protected areas and the birth of a new generation of professionals in charge of consolidating the management of biological corridors and other connectivity - related initiatives over the next few years. In this regard, it is no less necessary that the Durban Congress carry out an in - detail analysis, within the Workshop Stream on Training, of the capabilities required for the development of connectivity - related initiatives, as well as of such novel alternatives and options as may make it possible to financially support local, national and regional training and drilling programmes.