

Ulrike Pröbstl · Veronika Wirth · Birgit H.M. Elands · Simon Bell (Eds.)
**Management of Recreation and Nature Based Tourism
in European Forests**

This book provides for the first time a Europe-wide overview on the state of the art of management of recreation and nature tourism in forests. It describes the current situation and conflicts in the different regions of Europe and provides solutions illustrated by good practise examples. It addresses traditions, differences and similarities in European forests as well as new tasks, goals and strategies. The final discussion provides a profound insight into future trends regarding forest recreation and nature based tourism.



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Chapter 5

Mediterranean Region

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5.1 Introduction

The Mediterranean countries participating in the COST Action E33 are: Cyprus, Greece, Croatia, Portugal, Italy, Serbia and Bosnia-Herzegovina (Fig. 5.1). Geographically, these countries are distributed from the eastern Mediterranean area to the coasts of the Atlantic Ocean. Parts of France, which is treated as one of the central European countries has also parts with Mediterranean character and similar



Fig. 5.1 Countries within the Mediterranean region

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features to the other countries discussed in this chapter. Spain was not part of the Cost Action, so that there is no data available.

A distinctive characteristic of the Mediterranean region is the long and dry summer with maximum temperatures reaching 40–44°C in some countries and the uneven distribution of rainfall during the year. Also, rainfall varies considerably within the same country. For example, in Cyprus the mean rainfall in the central plains is 350 mm, whereas in the high mountains it is 1,000 mm and in Italy rainfall can vary from 500 mm to 3,000 mm.

5.1.1 Vegetation – Forest Cover

Due to the great variations in temperature and rainfall the vegetation cover varies considerably within a single country as well as across the region. Forests comprise both natural woodlands and plantations, the majority being natural forests growing mainly on the hilly and mountainous areas of these countries. The forests located in the plains and flat coastal areas can be locally very important for economic, social and recreation purposes (for example the pinewoods along the Italian, Portuguese and Croatian coastal belt and islands, the cork-oak woods in Portugal or the evergreen oak stands in Italy).

A characteristic of the Mediterranean landscapes is the presence of pre/post-forest shrubby vegetation influenced by various factors (low rainfall pattern, recurrence of fires, land misuse, etc.), mainly dominated by sclerophyllus and evergreen species forming the so-called maquis-like ecosystems. The relative importance of maquis-like vegetation on the total vegetation cover varies greatly between the countries.

Another characteristic is the richness in plant species. For example in Italy there are about 5,400 species, in Greece more than 5,000 species and in Cyprus, with an area of only 9,251 km², there are almost 2,000 plant species. Also endemism is very high due to the variation of altitude, rainfall, geology, (micro)climate, etc. In Italy, for example, there are 712 endemic species.

Generally, high forest is the main variety in all countries, but a considerable part also comprises low forest (maquis) and other wooded land.

5.1.2 Forests and Tourism

The economy of the countries Mediterranean countries depends greatly on tourism and forests play a very important role towards this direction. Picnicking in forests seems to be the most popular type of recreation in all countries, particularly during the summer time (June–September). Thus, all countries put a strong emphasis on the development of picnicking facilities. Hunting is also a very popular activity and forest areas play an important role on this type of recreation. Some countries have also developed infrastructure for special interest recreational or tourism activities in forest areas such as nature trails (the European long distance path E4 and other thematic nature trails), cycling routes, thematic routes (for example wine routes, or religious route such as Byzantine Cyprus).

5.1.3 Forest Threats

A common phenomenon for all Mediterranean countries is the frequency and recurrence of forest and scrub fires, which cause severe damage to the forest and threaten all kinds of recreation facilities. Therefore, the design of certain types of recreation facilities, such as picnic sites or camp sites, needs special skills and knowledge in order to be safe on the one hand and offer recreational pleasure on the other.

In the Mediterranean countries, due to the density of recreation types and numbers of people taking part, nature conservation is in many cases at risk. This is particularly the case in mountainous areas, where the majority of recreation facilities are located; ensuring the conservation of nature is one of the challenges that are faced and its solution is quite difficult and costly.

Furthermore, maintenance of recreation sites and facilities is frequently rather poor and there is criticism from the public. Finally, it can be said that due to the high demand for forest recreation and the available funds, more effort must be made by the various authorities involved in order to offer reasonably good quality recreation facilities.

5.2 Forest Cover, Development and Ownership

5.2.1 Forest Cover

The variation of forest cover among the Mediterranean countries is between 26.7% and 53.4% and the mean is 38.8%. Bosnia, with 53.4% has the highest cover and Serbia, with 26.7% has the lowest forest cover (Fig. 5.2).

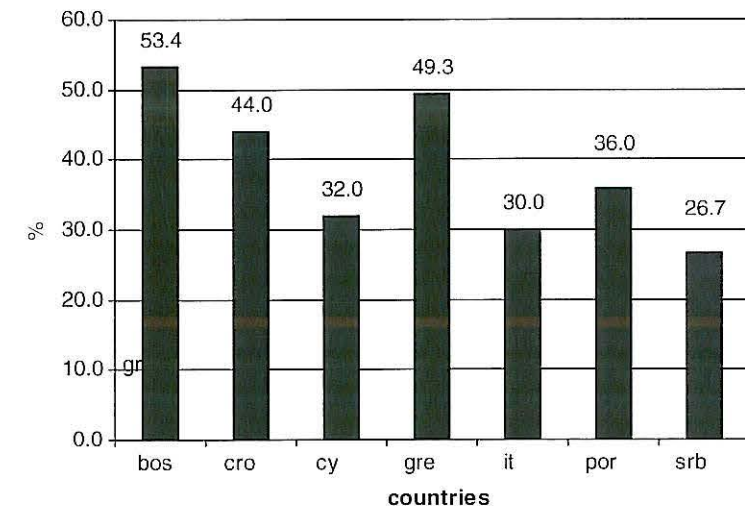


Fig. 5.2 Forest cover (%) in the Mediterranean countries

5.2.2 Distribution of Forests

In most Mediterranean countries, forests are not spread evenly but 2/3 of the population can usually easily reach forests for recreational use. Greece forms an exception: only 1/3 of the population can reach forests easily because the forests are mainly located in mountainous areas which are at a distance from the main population centres.

5.2.3 Forest Ownership

Forest ownership is one of the main factors influencing forest based recreation. As can be seen in Fig. 5.3 in the majority of the Mediterranean countries (Greece, Bosnia, Croatia, Cyprus, Serbia), the forests are generally publicly owned (state and communal) whereas in Portugal over 80% and in Italy 66% of forests are privately owned, although in Cyprus and Serbia there are also quite large proportions of private forest.

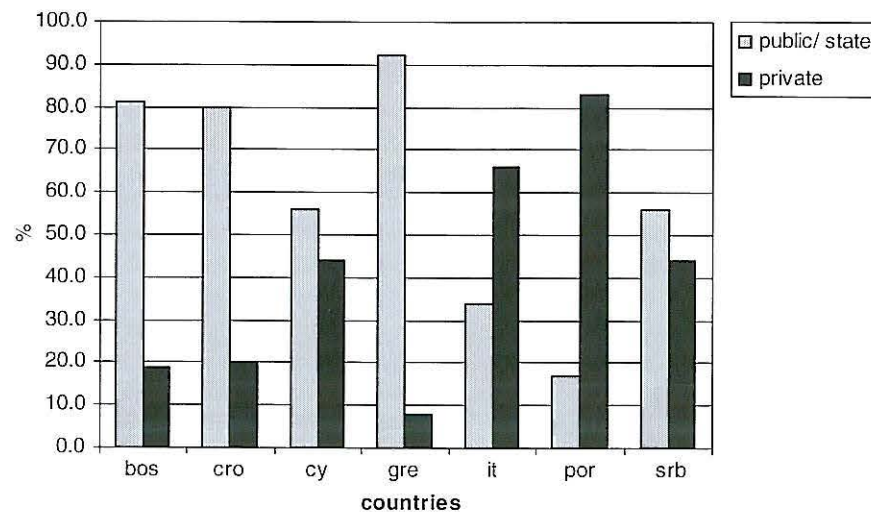


Fig. 5.3 Forest ownership in the Mediterranean countries (%)

5.2.4 Regional Differences

Portugal and Italy also show clear regional differences and, because of the high percentage of private forests, the size of holdings varies widely across the country. For Cyprus, Bosnia and Croatia there are some regional differences regarding the ownership and size of private forests but only in a few areas. For Greece and Serbia there are no differences.

5.3 Legal Background, Public Access and Forest Functions

5.3.1 Legal Background of Public Access

In all the Mediterranean countries legislation enables forest owners to influence public access for recreational uses. In Greece no legislation exists. Table 5.1 shows sectors where restrictions may be implemented in each country. Access is partly restricted in most Mediterranean countries through the use of barriers, limiting visitors' entrance, prevention of access etc. In Greece, Italy and Cyprus, for example, access is restricted under particular circumstances (such as National Parks, Aesthetic Forests, fragile areas) and in any case for vehicle entrance. Restrictions may be implemented during the hunting season in Cyprus, Portugal, Bosnia and Greece. Access on foot is not restricted in any country.

Table 5.1 Existence of legislation to influence public access and other recreational uses

	Bos	Cro	Cy	Gre	It	Por	Srb
Existence of national legislation to influence public access	✓		✓		✓	✓	✓
Restrictions for public access can be applied in:							
• Private forests	✓	✓	✓		✓	✓	
• Public forests			✓	✓	✓		
• State forests	✓	✓	✓	✓	✓		✓
Existence of laws affecting recreational uses:							
• Collection of NTFP's	✓		✓		✓	✓	✓
• Sport activities	✓		✓	✓	✓	✓	
• Other uses	✓		✓	✓		✓	

5.3.2 Forest Functions

The protection of biodiversity, the protection of soil and water, healthy environment and sustainable wood production are some of the forest functions that all countries want to maintain and improve.

The social function of forest recreation is very important for all Mediterranean countries. Firstly, this is because there is an increasing demand for the provision of organized recreational activities which contributes to a better quality of life. It also provides employment for the population of rural areas, since the phenomenon of urbanization is continuous across the region.

Tradition and culture is another aspect which is related to recreation and nature tourism especially in areas which are in or nearby forests. Thus, some countries give great emphasis to sustainable development and focus on special products which are based on a combination of culture and nature, such as rural tourism, nature tourism, cultural tourism etc. For countries which depend economically on tourism it is very important to maintain a good standard of forest recreation, agro-tourism and other associated services.

Generally, in all countries, the management of forests is based on their multi-functional role and their main aim is the provision of non-timber forest products.

5.4 Forest Managers' Education and Tasks Regarding Recreation in Forests

For Cyprus, Italy and Greece planning and management of forest based recreation is considered to be a part of the academic education of foresters. Knowledge of this is improved during their working experience. For the rest of the countries planning and management of forest based recreation is not considered to be part of the basic knowledge and skills of foresters. As is shown in Fig. 5.4, experience plays an important role in forest recreation, planning and design. Also, it is a common situation that all countries lack organized monitoring in the use of recreation facilities and sites as well as monitoring of recreation demand.

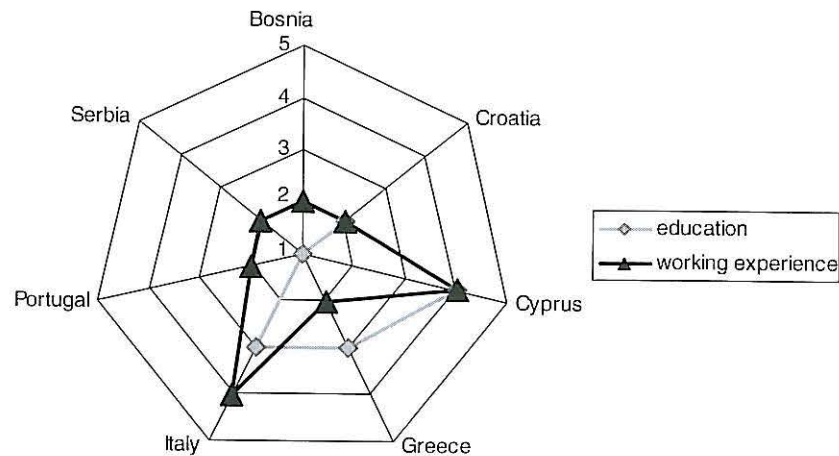


Fig. 5.4: Evaluation of knowledge about planning and management of forest based recreation obtained by education and working experience (1=unsatisfactory, 5=excellent)

Monitoring the use of recreation facilities is carried out in almost all Mediterranean countries in an empirical way. Basically, the authorities involved in looking after the recreation facilities try to satisfy the needs of the users through empirical ways and methods. In most Mediterranean countries the planning, design, establishment and management of forest recreation areas is a major concern of all managers due to the high levels of demand of the public. Most forestry schools (universities, colleges) have now introduced subjects regarding forest recreation, landscape design and many other aspects which have to do with recreation planning, design and management into their teaching syllabus.

5.5 Conflicts

5.5.1 Types of Conflicts

As can be seen in Fig. 5.5, the main conflicts in the different Mediterranean countries are between recreation versus hunting/fishing and recreation versus nature conservation. Forestry use (Italy, Serbia, Bosnia and Croatia) and overcrowding effects (Italy, Cyprus) are also important conflicts for some countries. A remarkable point for all countries of the Mediterranean region is that conflicts between different recreational groups are assessed as being very important.

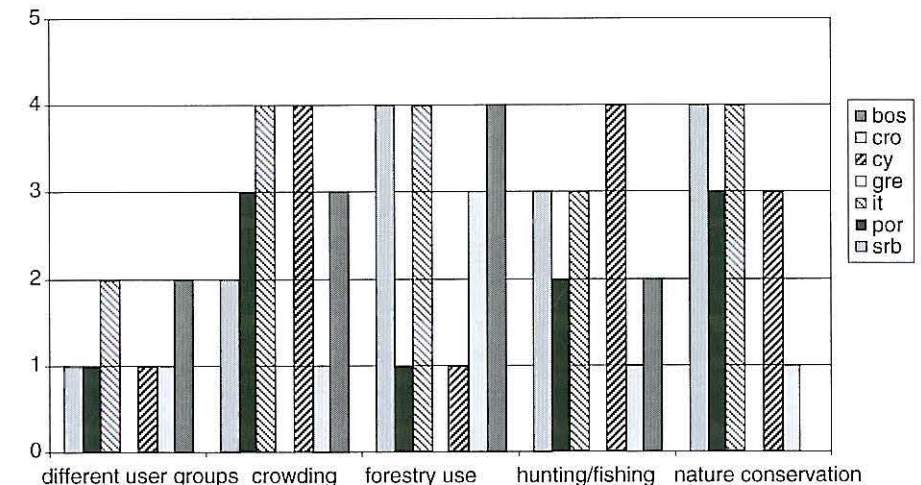


Fig. 5.5 Conflicts levels in the Mediterranean countries (1=not important at all, 5=very important)

5.5.2 Important Activities and Their Conflicts with Nature Interests

Due to the climate, the topography and the presence of high mountains in the Mediterranean countries almost all types of recreation activities, including winter sports (alpine skiing being the most popular) take place and at the same time produce conflicts (see Table 5.2 and Fig. 5.6). Popular activities, such as the collection of berries, mushrooms and other non-timber forest products, are also causing conflicts, the main reason being the competition between people. Popular activities that usually take place in summer, particularly during holidays, such as swimming, fishing, picnicking, camping and motorized sports, may cause overcrowding effects and a lot of conflicts between users but also conflicts with the natural environment and nature conservation.

Table 5.2 Important activities and their conflicts with nature interests

Activities	Importance	Countries
Alpine skiing	2	ALL
Ski touring	1.3	BOS, CRO, IT
Cross-country skiing	1	BOS, CRO, IT
Snowshoeing	1	BOS, CRO, IT
Snowmobiling	1.3	BOS, CRO, IT, SRB
Hiking	1.6	Except CY, GR
Nordic walking	1	BOS, CRO, IT
Orienteering	1	BOS, CRO
Geo-caching	1	BOS, CRO, IT
Climbing	1.2	Except CY, POR
Mountain biking	1.2	Except GR
Cycling	1.4	Except GR, POR
Horse riding	1	BOS, CRO, CY, IT
Horse carriage driving	1	BOS, CRO, IT
Motorized sport	1.8	Except CY, GR
Collecting berries etc	2	Except GR
Camp fires / bbq	1.8	Except CY, GR
Picnicking	2	Except GR
Camping	1.7	Except GR
Wildlife / bird watching	1	BOS, CRO, CY
Fishing	2	Except CY, GR
Canoeing	1	BOS, CRO, IT
Swimming	2	BOS, CRO, IT, SRB
Motorized water sports	1.4	Except CY, GR

Figure 5.6 shows that the most important conflicting activities are alpine skiing (in all countries) probably due to the limited space, picnicking, the collection of non timber forest products and campfires.

5.5.2.1 Impacts and Disturbance of Other Societal Activities on Recreation

The main disturbances affecting forest recreation which cause conflicts and are common between the countries of the Mediterranean region (Table 5.3) are: rubbish dumping, visual problems of damaged forests (such as insect damage, forest fire) and the exploitation of natural resources.

Road construction, traffic, industrial and aircraft noise are also important conflicts for some countries. Timber and fuel wood harvesting is not perceived to be a major conflict in some countries because of the general orientation of forest management towards wood production in parallel with a positive trend of non-wood products. In the case of Italy, the conflicts between forest recreation and the maintenance of coppicing and timber harvesting activities are very often a hot issue in forest management and policy and can cause severe arguments between interest groups. Fire breaks mostly affect Greece, Cyprus, Bosnia and Croatia.

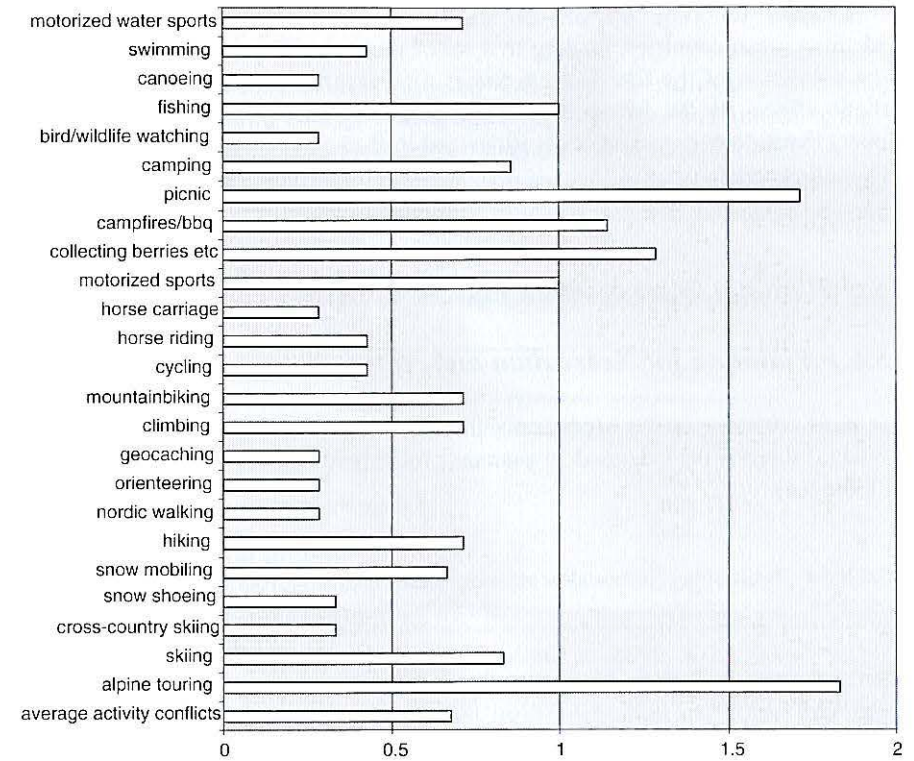


Fig. 5.6 Frequency of conflicts with recreational activities (0=non-existent, 1=rarely, 2=medium, 3=frequently)

Table 5.3 Importance and frequency of disturbance factors on forest based recreation and nature based tourism (importance: 1=low, 3= high, frequency of conflicts: 1= rarely, 3=frequent)

Disturbance	Importance	Frequency of conflicts (only for those countries that observe this conflict)	Countries
Rubbish dumping	2.7	3	All
Visual problems of damaged forests	2.3	2.3	All
Exploitation of natural resources	2.3	2.2	Except GR
Road construction	2	1.5	Except GR
Traffic noise	1.9	1.9	All
Industrial noise	1.8	1.8	POR, CRO, IT, BOS
Aircraft noise	1.8	1.3	CRO, CY, BOS
Large clearcuts	1.8	1.3	POR, CRO, IT, BOS
Fire breaks	1.7	2	All
Other emissions (odor,dust)	1.5	1.2	Except GR
Wind turbines	1.5	1	IT, BOS
Infrastructure for tourism	1.4	1.4	CRO, CY, IT, BOS

Rubbish dumping by private individuals is a "tradition" in almost all Mediterranean countries, leading to a lot of problems. Fire breaks constructed for the protection of the forests from fire is a common practice having adverse aesthetic effects on the forest. Forest fires not only cause visual problems, but in many cases destroy recreation facilities and lead to a need to redesign and re-equip recreation areas.

5.6 Planning, Management and Monitoring

5.6.1 Planning for Recreation and Nature Tourism

In most countries of the Mediterranean region (Croatia, Cyprus, Portugal, Serbia, Bosnia) there is no independent planning for forest recreation and nature tourism (Table 5.4).

Table 5.4 Availability of independent planning (legally required or optional) in the Mediterranean countries

	Bos	Cro	Cy	Gre	It	Por	Srb
Independent planning for recreation and nature tourism in forests	No	No	No	Yes, in special cases	Yes, in special cases	No	No
Legal or optional requirement for forest owners	-	-	-	Optional	Optional	-	-

However, in Cyprus there is a general planning undertaken by the Department of Forests for recreation, particularly during the preparation of development plans for National Forest Parks, which are specific areas where recreation, relaxation, enjoyment and nature study are promoted. Recently, some guidelines were issued by the Department of Forests about recreation under the implementation of the Rural Development Plan. Close cooperation between the Cyprus Tourism Organization, the Forestry Department and other stakeholders has fostered strategic planning and monitoring of forest recreation, rural tourism and nature tourism projects that are in line with the Strategic Tourism Plan which focuses on sustainability.

In the case of Greece and Italy recreational planning is mainly done in special cases. For example in Greece there is a demand, from local organizations and by visitors of the forests found near cities, to provide recreational opportunities. These groups of people exercise political pressure on the government and some times this leads to regional differences in the treatment of the public regarding forest based recreation and nature tourism.

5.6.2 Planning Steps

Although there is a long tradition in using the forest for recreation, particularly during summer, planning based on social and ecological aspects is something that is ignored by most Mediterranean countries, except Greece and Italy. From Table 5.5 it can be seen that most countries understand planning to be only what the planners and managers think and it is based on empirical methods rather than modern scientific approaches.

Table 5.5 Steps that are undertaken for planning forest recreation at regular intervals in the Mediterranean countries

Steps in planning forest recreation	Countries
Inventory of ecological conditions	GRE, IT, SRB
Inventory of social conditions	GRE, IT, SRB
Analysis of conflicts	GRE, IT
Definition of vision and goals	GRE, IT
Participation in the definition of goals	GRE, IT
Definition of standards	-
Deduction of measures	GRE, IT
Participation in the deduction of measures	GRE, IT
Monitoring	-

There is also some public participation in the definition of visions and goals by actors such as land owners, local residents, interest groups and organizations, community representatives etc. Monitoring of such areas is carried out at irregular intervals and there are guidelines issued by some forestry services which direct the planning and management of forest recreation.

No country has developed any tool or method of monitoring recreation demand or the expectations of visitors of forest recreation. In Greece, Italy and Serbia, monitoring is carried out at irregular intervals (whenever necessary). In Cyprus monitoring is at the very first stage of development.

It seems that in all countries the supply of recreation facilities is reactive to local demand or opportunities seen by local staff and is based on the experiences of the local officers. Forest recreation planning in private forests seems to be of no concern in any Mediterranean country.

5.6.3 Overall Evaluation of Recreation and Tourism in Planning and Monitoring

Each country was asked to evaluate the integration of forest-based recreation and nature tourism in the planning and monitoring of the country's forests. From this current state of the Mediterranean countries is assessed as being below average. This is a result of several weaknesses in the majority of the countries, leading to weaknesses in fulfilling the demand for good quality recreation opportunities and to the inadequate planning, monitoring, legal support and education of management personnel.

5.7 Recreational Infrastructure

5.7.1 Supply of Basic and Additional Infrastructure

In urban and rural areas the supply of basic infrastructure is assessed as either/both good or very good in all the Mediterranean countries (Fig. 5.7a). On the other hand, the supply in remote areas is considered to be satisfactory (good) only in Cyprus, Portugal and Italy. The provision of access is generally good in all countries except Croatia where is somewhat lower than satisfactory. It is surprising that countries with a long tradition and a high level of demand for forest recreation have not developed proper mechanisms for the supply of reasonably good infrastructure for recreation.

Greece, Cyprus and Italy evaluate the supply of additional infrastructure in urban and rural areas as good or very good (Fig. 5.7b). This is mostly because the attractive locations (high mountains, coasts and dense forests), in combination with hot and dry summers lead local people to prefer such areas for recreation. Also, the large number of local and foreign tourists, especially during the summertime, increases

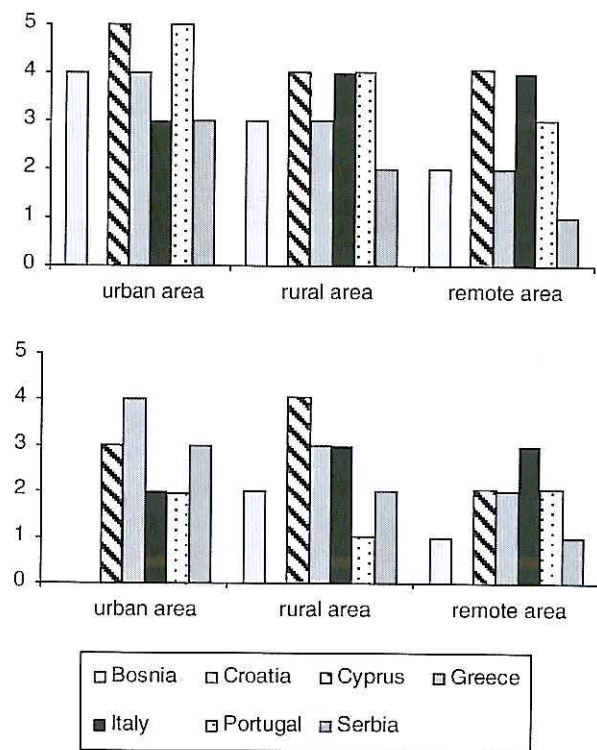


Fig. 5.7 Supply of basic infrastructure (left figure, a) and additional infrastructure (right figure, b) (no bar = non-existent, 1=unsatisfactory, 5=very good)

the pressure on these sites (leading to overcrowding), so that forest owners and managers are forced to supply more facilities in these areas in order to meet the demand and to protect vulnerable areas. Croatia assessed the supply of additional infrastructure in urban areas as also being good but at the same time being poor in rural areas. Portugal reports the supply of additional infrastructure as being poor in urban and unsatisfactory in rural areas. The explanation for this is that the majority of forest resources (83%) are in private ownership.

The supply of additional infrastructure in remote areas is assessed as being poor to unsatisfactory for the majority of the countries. In the case of Italy, the fairly good state of additional infrastructure in remote areas is very linked to the longstanding tradition of nature tourism (trekking and climbing) as well as skiing in quite remote mountain regions

5.7.2 Additional Facilities

From Fig. 5.8 it appears that there is a significant gap between remote and urban areas in terms of the additional facilities. However, the gap between urban and rural

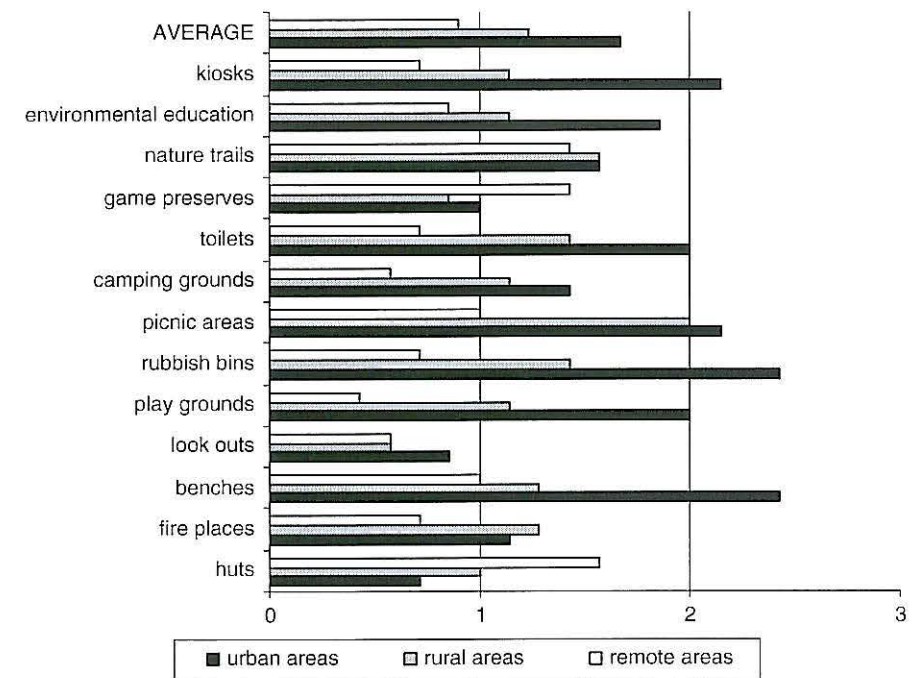


Fig. 5.8 Occurrence of additional infrastructure in urban, rural and remote areas in the Mediterranean countries (0=non-existent, 1=rarely, 2=reasonable, 3=frequently)

areas is not as great and almost all Mediterranean countries emphasise the supply of satisfactory number and type of facilities in the areas used for recreation. Kiosks, toilets, picnic areas, rubbish bins, play grounds and benches are all facilities which are supplied in quite large numbers and it seems that they generally meet the requirements of the public.

5.7.3 Quality of Infrastructure

Good quality equates to good original design, regular renovations, maintenance, checking of safety features and adaptation of designs over the years.

The quality of infrastructure particularly in the rural and remote areas is unsatisfactory in all Mediterranean countries, except Cyprus (Fig. 5.9). Some countries such as Croatia, Cyprus and Greece, keep a very good standard in urban areas, where people from the cities visit and use these recreation facilities. It also appears that in most countries there is a lack of resources for the proper maintenance of recreation facilities. Likewise, the maintenance, the quality and the proper design of recreation facilities is of low priority to many forest managers.

In the case of Cyprus, the infrastructure for forest recreation is funded, managed and maintained mainly by the Forestry Department. This fact leads to good results in terms of the quality of infrastructure and makes management easier. This is mainly explained by the fact that Cyprus is very small in size, when compared to the other countries. In the case of the other Mediterranean countries, the lack of a central service to evaluate and look after the quality of recreation infrastructure is the main reason for the unsatisfactory conditions of the facilities.

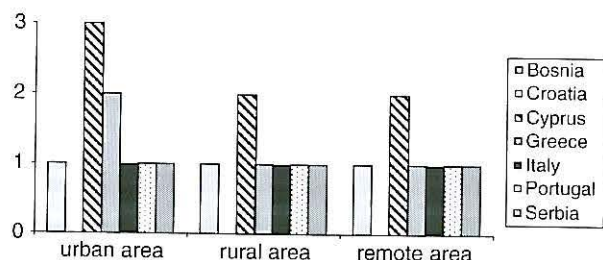


Fig. 5.9 Quality of infrastructure for recreation and nature-based tourism (no bar = non-existent, 1=unsatisfactory, 3=excellent)

5.8 Approaches to Visitor Management

The most common actions for the management of visitors are: restrictive management actions, soft management actions and facilitating management actions. The following figures and tables show the frequency and occurrence of use of different types of management actions in the Mediterranean countries in urban, rural and remote areas and the level of acceptance of these actions by the public.

Management actions are intended to protect and maintain recreational infrastructure and services in order to be attractive to the public and to protect the environment from risks as a result of human mistakes and carelessness. They are also intended to help people towards an understanding of nature and its importance in their life. The various management actions are classified into intensive management actions (regulations, prohibitions), soft management actions (infrastructure, signposting) and guiding and educational management actions (education – training, guiding) (see Fig. (see Fig. 5.10 and Table 5.6).

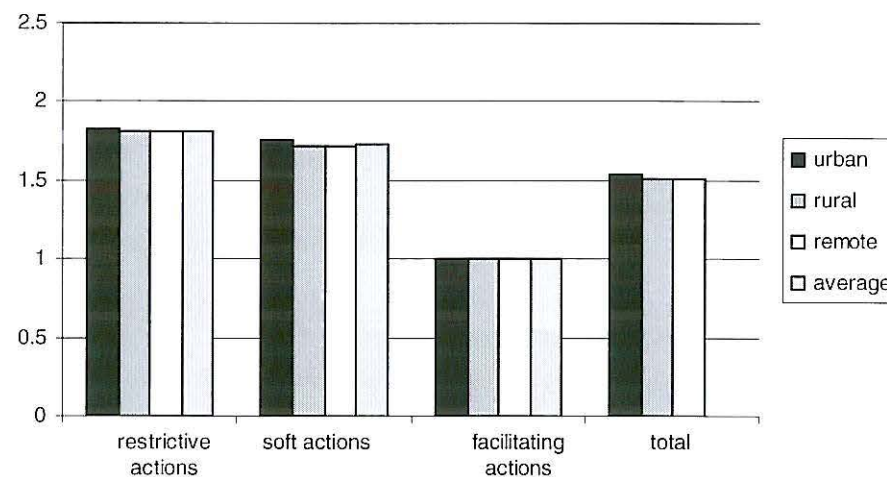


Fig. 5.10 Occurrence of management actions in the Mediterranean region, in general and in urban, rural and remote areas (0=non-existent, 1=rarely, 2=regularly, 3=frequently)

5.8.1 Restrictive Management Actions

It appears that all the countries use intensive management actions as tools to protect nature and the recreation facilities from improper use by visitors. Although these actions are generally of a prohibitive nature, they have a relatively high degree of acceptance by the public (Table 5.7). This shows a degree of maturity on the part of the public and also that the management (administration) is generally doing a good job in the provision of publicity and information. The most frequent intensive management actions are rules and regulations, prohibitions and the marking of protected areas and taboo zones. Certain rules and regulations (such as the lighting of fires) and prohibitions (such as restricting entrance to fragile areas or hunting in certain areas) are not popular in all Mediterranean countries.

Table 5.6 Occurrence of management actions (1=rarely, 3=frequently)

Management actions	Countries	Occurrence of management actions		
		Urban areas	Rural areas	Remote areas
<i>Restrictive management actions</i>				
Rules and regulations	All	2.6	2	1.7
Prohibitions	All	2.3	2.1	1.9
Entrance fee	All	1.7	1.8	1.7
Marking protected areas and tabu zones	All except Gr	2	2	2.2
Barriers and fences	All	1.7	1.9	1.3
Limiting visitors entrance	All	1.5	1.6	1.4
<i>Soft management actions</i>				
New attractive infrastructure	All	2	2	1.6
New infrastructure for environmental education	All except Gr	1.7	1.7	1.5
Signposting for visitors to act in responsible way	All	1.9	1.7	1.7
Ranger systems	All except Gr, Por	1	1.2	1
<i>Facilitating management actions</i>				
Guiding visitors by thematic tours	All except Gr, Cy	1.3	1.3	1.5
Providing special training for user groups	All except Gr, Cy	1.8	1.5	1.8
Providing special training for commercial providers	All except Gr, Cy	1.4	1.6	1.6

Table 5.7 The level of acceptance in the Mediterranean region for the various management actions (high ≥ 2.5 , medium > 1.5 and < 2.5 , low ≤ 1.5)

Acceptance by the public	Restrictive management actions	Soft management actions	Facilitating management actions
High		Attractive infrastructure Educational infrastructure	
Medium	Rules and regulations Prohibitions Entrance fee Marking protected areas/tabuzones Barriers and fences Limiting visitors' entrance	Signposting responsible visitor behaviour	Guiding thematic tours Guiding ranger systems Training special user groups Training commercial providers
Low			

5.8.2 Soft Management Actions

The installation of new attractive infrastructure, the proper signposting and the infrastructure for environmental education are management tools which are used

to a high degree by all countries (see Fig. 5.10). People are very willing to accept the new infrastructure as well as the proper signposting in urban and rural areas, but they are not so demanding of them in remote areas. The use of a ranger system is also accepted well by people but it is very limited in its use, the explanation for that being the high cost of employing rangers to guide people and to look after recreation sites and structures.

5.8.3 Facilitating Management Actions

These management actions seem to have low or medium importance for the managers (see Fig. 5.10). The main reason is probably the extra efforts and additional personnel needed to implement such actions.

5.9 Future Trends and Challenges

5.9.1 Trends and Challenges

The main trends and challenges for the Mediterranean region can be summarized as follows:

- There is an increasing demand for forest recreation from the local population as well as from the many tourists visiting these countries.
- In order to succeed in the competitive world tourism arena, most countries are developing sustainable and unique products by capitalizing on the utilization and promotion of and at the same time preservation of their forests and other nature assets.
- The trend is for nature tourism to progressively increase over this decade, as people are becoming more environmentally conscious and wish to explore the unique natural attractions of various destinations.
- Environmental education seems to be given inadequate emphasis by the competent authorities and this creates problems in the information given to the public on the one hand and the proper education of the responsible persons for the design and implementation of forest recreation on the other hand.
- The improvement and upgrading of recreational infrastructure is one of the weaknesses of almost all countries. There is a changing demand in all Mediterranean countries regarding both the quality of recreation facilities and the variety of recreation opportunities. Policy makers should give much more attention to this and consider making more funds and personnel available for this.
- The monitoring of and research into recreational demand is almost non-existent. More emphasis on this is needed in order to improve the recreation standards and to satisfy the recreation demands.

5.9.2 Specialities in the Region

Due to the great number of tourists visiting recreation opportunities and facilities, the climatic conditions prevailing in the region and some other characteristics, there is a number of specialities which make forest recreation in the Mediterranean countries more vulnerable:

- Forest fire is a common phenomenon during the summer when recreation demand is at its peak. This threat endangers the existence of forest areas devoted to recreation, causes damage to or destruction of recreation infrastructure and endangers the lives of visitors.
- The impact of recreation on the landscape is quite high and many areas suffer locally as a result of visitor pressure. Pollution through littering, for example, is also a problem which needs a lot of effort to solve.
- Forest recreation and hunting are two popular activities, particularly in the mountainous areas in the region. These two activities are not compatible in certain cases. It appears that policies and legislation still need to be improved in order to cope with this problem.
- The design for forest recreation is basically in the hands of the governments through the forest services of each country. The local authorities deal mainly with the provision of local parks. The resulting lack of coordination or cooperation results, in many cases, in poor recreation opportunities and facilities in particular locations.
- In Greece overgrazing creates special problems for forest recreation.