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The general characteristics and main problems of national parks in Turkey

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Protected areas are central to all nature conservation efforts with their key environmental, social, cultural and economic functions throughout the world. The protected forest areas system in Turkey consists of national parks, nature parks, nature monuments, and nature protection areas. Among these, the national parks are the most extensive in terms of the total area. Since the first national park was created in 1958, the number of the parks and other protected areas in the country has gradually expanded. Today, there are 41 national parks covering an area of 898.044 ha. Major problems in managing national parks in Turkey can be classified into the followings: administrative-legislation, planning, lack of resources; stakeholder's participation-local's needs, lack of baseline data and inappropriate uses such as unregulated tourism. In this study, legislation and institutional framework, the extent and distribution of parks according to main criteria for selection, and major problems indicated earlier are critically examined.

Key words: Protected area, national park, management objectives, ecotourism, conservation.

INTRODUCTION

The efforts of international NGOs, researchers and governments, and other initiatives concerned with protected areas have grown rapidly throughout the world, and The World Conservation Union-IUCN's activities are one of the most popular among these efforts. The IUCN management categories system (IUCN, 1994; Dudley, 2008) provides a common international standard for classifying the many different types of protected areas designated in countries around the world, based on primary management objective. There were over 120000 protected areas covering a total of about 21 million sq km of land and sea. While the terrestrial protected areas listed in the World Database on protected areas cover 12.2% of the Earth's land area, marine protected areas currently cover 5.9% of the Earth's territorial seas and only 0.5% of the extraterritorial seas (UNEP-WCMC, 2010).

International criteria and principles concerning national parks are beneficial to every country around the world, but their implementation is very difficult process. National policy for national park and management activities are affected many negative factors in the developing countries such as Turkey with a high level of biodiversity. In such countries, inadequate financial support to protected area management linked to the priorities and difficulties of national economy, poor communities in and around national parks, centralized structure in public administration system, problems in data collection, a lack of contemporary nature conservation policies and approaches, a lack of national land use plan and other planning studies have brought some limitations to moving towards international criteria and principles.

The main aim of this paper is to examine the current situation and major problems affecting Turkey's national parks with management interventions by considering both international approaches and national circumstances and to propose recommendations for solving problems. Also, legislation and institutional framework, the extent and distribution of parks according to main criteria for selection, and major problems indicated earlier are critically examined.

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Table 1. The number and size of Turkey's protected forest areas.

Category	Number of sites	Area covered (ha)	Percentage of total area protected (%)
National parks	41	898.044	87.2
Nature parks	42	80.203	7.8
Nature protection areas	31	46.657	4.5
Nature monuments	105	5.541	0.5
Total	219	1.030.445	100.00

NATIONAL PARKS IN TURKEY

Legislation and administration basis

The legal experience of Turkey on national park and protected areas dates back to 1956 year. The Forest Law No. 6831 enacted in 1956 sub-divided the forests into conservation forests, national parks and production forests in terms of theirs characteristics. The total forest area currently covers 21.2 million ha or 27.2% of the country's total area. Productive (undisturbed or slightly disturbed) natural forests comprise an area of 10.6 million ha, or 50.1% of the country's forests. At present, one of Turkey's forest policy objectives is to benefit from forests in terms of environmental conservation, especially through protected forest areas. Protected area-related issues receive increasing attention in the country's forestry agenda recently.

Similar to international developments, protected areas were created and managed by government action in Turkey. Especially since 1950s, in environmental conser-vation studies in Turkey in-situ and ex-situ conservation activities and projects have been conducted by the public authorities with the support of NGOs. In-situ conservation areas include national parks, nature parks, nature monuments, nature protection areas, gene conservation and management areas, wildlife conservation areas within the forest regime, as well as special environmental conservation regions, natural and cultural sites outside the forested lands. The Forest Law No. 6831 distin-guished national parks from conservation and production forests, with respect to their qualities and functions. The Yozgat Pine Grove National Park declared in 1958 is the first national park of Turkey. Considering the Yellowstone National Park established in 1872, the concept of national parks in Turkey is relatively new.

The National Park Law No. 2873 of 1983 defines protected areas within the forest regime and indicates management, planning and operation activities. The purpose of this law is to establish the principles relating to the selection and designation of national parks, nature parks, natural monuments and nature protection areas of national and international value, and to protect, plan and manage these areas without spoiling their qualities. A national park is defined by this law as "a natural area including, rare natural and cultural values at the national and international level from the scientific and aesthetic aspect, and conservation, relaxation and touristic areas". According to Turkish legislation on protected forest areas, national parks are principally state-owned areas of high natural, historical, archaeological, recreational, scientific and aesthetic values and wood production, settlement, mining, and hunting are not allowed in the boundaries of these areas.

The Ministry of Environment and Forestry is the leading organization of the country for the formulation and implementation of policies and associated legal arrangements concerning the conservation and use of natural resources, especially forests and wetlands. The General Directorate of Nature Protection and National Parks (GDNPNP), currently under the Ministry of Environment and Forestry is responsible for making and implementing decisions and policies, and planning and management on protected areas that enter into the forest regime. The department of national parks attached to the general directorate undertakes the direct management of the country's national parks at the national level. There are also national park offices at the site level to manage individual parks. The GDNPNP' services support the dual mission of the protected forest areas system: visitor enjoyment and conservation of natural-cultural resources.

The extent and main characteristics of national parks

The number of national parks and other protected areas in the country has gradually expanded since the first national park was created in 1958. Today, there are 41 national parks covering an area of 898.044 ha. They cover the largest area among the other protected areas within the forest regime and they account for 87.2 % of the total protected area. In addition to national parks, the protected area system under the forest regime comprises 42 nature parks, 31 nature protection area, and 105 nature monuments (Table 1). The total protected area under the forest regime is 4.86% of the county's total forest area with a total of 1.030.445 ha. In the years between 1994 and 2004, the number of forest protected areas considerably increased; 13 national parks, 10 nature parks, 8 nature protection areas and 100 nature monuments are new declared in this period. Also, Special Environmental Conservation Regions, Ramsar Sites, Natural and Cultural Sites are the protected area categories outside the forested lands in the country.

Among 41 national parks, the Beyşehir Lake National Park, covering 88.750 ha, is the largest area, whereas the smallest area is the Bird Paradise (Kuşcenneti) National Park, with an area of 64 ha. The vast majority of the national parks are located in forested lands; however, there are a few exceptions. For instance, the Munzur Valley, Göreme, Boğazköy- Alacahöyük, and Nemrut Mountain National Parks were established in areas where steppe-type vegetation predominates. They represent mainly culture-oriented resources. On the other hand, the park resources may contain both natural and cultural features affecting for selection as a national park. Some of the parks, such as the Olympos-Beydağları, the Köprülü Canyon, and the Dilek Peninsula-Menderes Delta, consist of not only archeological and historical values, but also a high biodiversity, endemic-native species, and/or geomorphologic features. In accordance with these features, the country's parks also provide different types of recreational opportunities, including beach-based, culture-based and mountain-based activities.

The distribution of 41 national parks, according to their characteristics, which constituted the main criteria for selection of the areas, is shown in Table 2. They range from native Turkish historical and cultural sites to sites containing geomorphologic features, and native plant and animal communities. For all of the national parks, the main criteria for selection were collected into eight groups. Among these groups, the largest number lies within Group 5 consisting 8 areas of geomorphologic features-native plant and animal communities-biodiversity. Groups I, II and IV including the areas characterized by native plant and animal communities, geomorphologic-historical features and recreational importance come second with 6 national parks.

There is an equal distribution of national parks among the geographical regions except eastern and southeastern regions of the country. As it is seen in Figure 1 the big amount of national parks is located in country's western and southern parts. The findings according to the regional distribution of national parks in terms of main selection criteria can be summarized as follows; i) the four parks of Group I locate in the northern part and the rest in the southern part of the country, ii) the parks of Group II, V, VI and VII are situated in different regions, iii) the three parks of Group III are in northwestern and the two of them in the southern part, iv) the parks except one under Group IV take place in the western half of the country, v) the only one representative of Group VIII is in the northern east (Figure 1). These results show that national parks in the same region have different characteristics. In other words national parks with similar characteristics are distributed to different parts of the country. Under these circumstances it is possible to mention that there is a high natural and historical-cultural protection potential in Turkey because of the resource diversity.

Some parks are included international conservation

process. For example, Küre Mountains and Dilek Peninsula National Parks have shown strong commitment to the PAN Parks[†] Foundation and to developing and implementing projects supporting the PAN Parks process (Anon, 2006). Kuşcenneti National Park was awarded an A class diploma, which is given by the European Council to the best protected areas. Boğazköy/ Alacahöyük, Troya, Nemrut Mauntain and Göreme Historical National Parks are included on UNESCO's World Heritage List.

MAIN PROBLEMS AND RECOMMENDATIONS ON TURKEY'S NATIONAL PARKS

Recently some progress has been made with regard to nature conservation in the country. Turkey as a country ratified the Convention on Biodiversity, European Landscape Convention and other many international agreements made commitments regarding the protection of biodiversity and sustainable use of natural resources. In this direction, the important steps taken in the last ten years are as follows: the growth of protected areas in number and extent, the increased efforts toward international cooperation and participation in international agreements, related comments in the last five-year development plan, some legal provisions (like new arrangements on environmental impact assessment, CITES Regulation, Wetlands Regulation, new laws on terrestrial hunting and also game, wildlife and habitat protection), the National Environment Strategy and Action Plan, the National Biodiversity Strategy and Action Plan, the Local Agenda 21 Program and some research projects (such as "Awareness Rising on Wetlands Project", "Bird Sanctuary Project", "Landscape Management, Conservation and Planning Project", "Conservation and Sustainable Utilization of Turkish Wetlands to Protect Biodiversity and Reduce Climate Change", "NATURA 2000 Strategies for Turkey Project", "Strengthening Management of Forest Protected Area Project", "Life, Biodiversity and Natural Resource Management Project-GEF II"). Furthermore, a new law on nature and biodiversity protection is preparing now to re-design the national protected area system. More specifically for forestry, biodiversity conservation through national parks and other protected forest areas is gaining widespread recognition to be a main forest policy objective in the country's related documents published lastly such as National Forestry Program and five-year development plan. However, a comprehensive and effective legislation and administrative capacity has still

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† PAN Parks is the World's first operational, third-party protected area certification system. PAN Parks founded by WWF (World Wide Fund For Nature) in 1997 sets an important benchmark for high standards of management in protected area management. A park becomes certified following verification carried out by a team of independent experts, in accord with PAN Parks Principles, Criteria& Indicators (www.panparks.org/Introduction/Verification, 2006).

Table 2. The distribution of Turkey's national parks according to the main criteria for selection.

The main criteria for selection	The number of the national parks in this group	The national parks included in this group
1. a) Native plant and animal communities b) Recreational significance	6	Yozgat Pine Grove Yedigöller Kovada Lake Ilgaz Mountain Kızıldağ Soğuksu

2.a) Historical and cultural features
   b) Native plant and animal communities
   c) Recreational significance
	6	Karatepe/Aslantaş
		Altındere Valley
		Gelibolu Peninsula
		Olympos/Beydağları
		Sarıkamış Allahuekber Mountain
		Tek Tek Mountains

3. a) Different, native plant and animal communities b) wetland ecosystem	5	Kuşcenneti Sultansazlığı Gala Lake İğneada Longoz Forests Yumurtalık Lagoon

4. a) Geomorphologic features
   b) Native plant and animal communities
   c) Recreational significance
	6	Uludağ
		Spildağı
		Köprülü Canyon
		Kaçkar Mountains
		Küre Mountains
		Dilek Peninsula/Menderes Delta

5. a) Geomorphologic features
   b) Native plant and animal communities
   c) Biodiversity
	8	Termesos/Güllük Mountain
		Marmaris
		Saklıkent
		Aladağlar
		Honaz Mountain
		Karagöl/Sahara
		Kazdağı
		Ağrı Mountain

6. a) Geomorphologic features
   b) Historical and cultural features
   c) Recreational significance
	4	Göreme
		Başkomutan
		Munzur Valley
		Beyşehir Lake

7. a) Historical and cultural features b) Recreational significance	5	Troya Nemrut Mountain Boğazköy/Alacahöyük Altınbeşik Cave Erzurum Nene Hatun

Table 2. Contd.

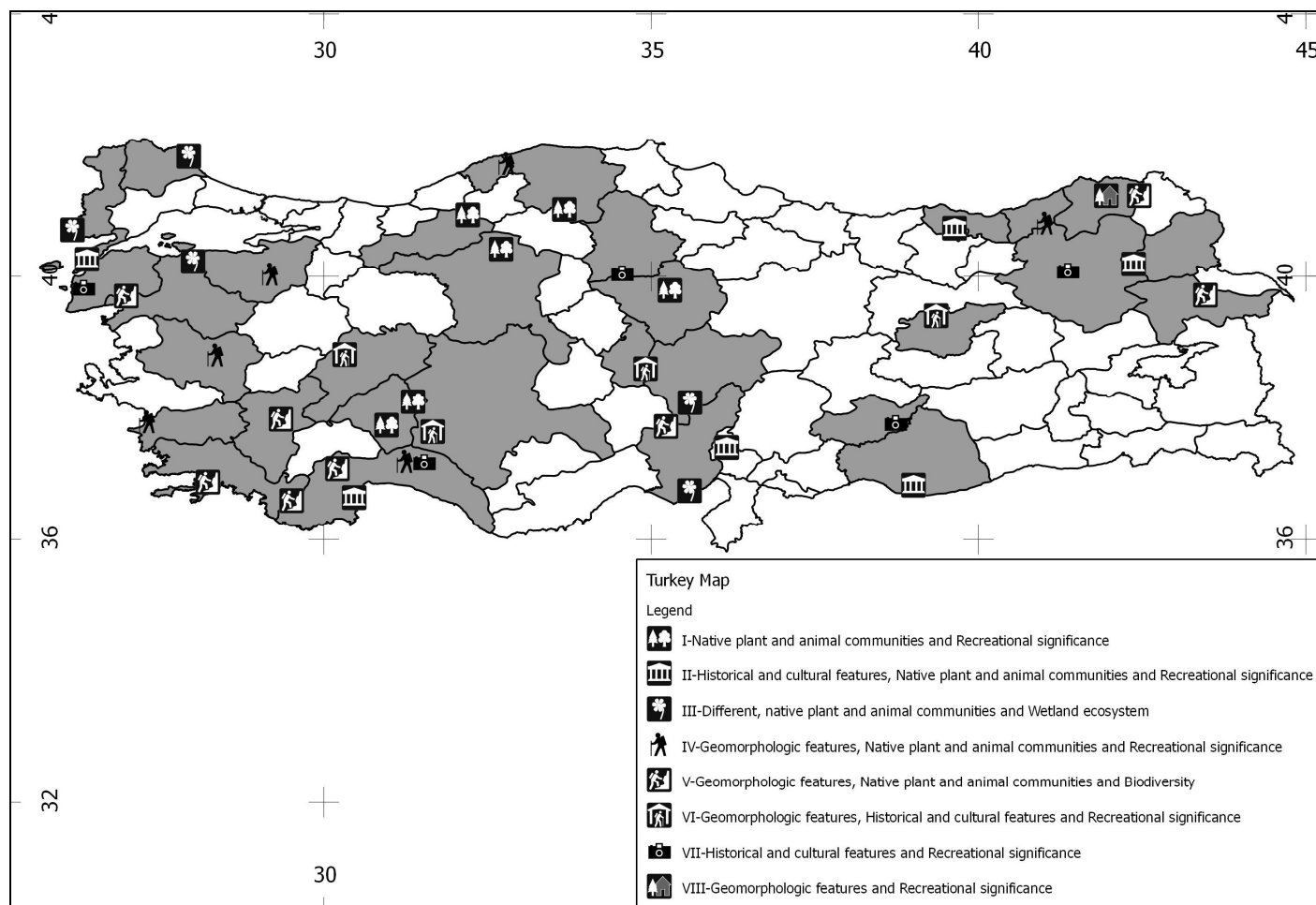|		
8. a) Geomorphologic features b) Recreational significance	1	Hatila Valley
Total	41	

Figure 1. The location of Turkey's national parks in the country map according to the main criteria for selection*; *the map is created by QGIS free software program.

not been constituted in the field of nature protection in Turkey. Especially, a national land-use plan and a national system plan for protected areas have not yet been prepared until today. Thus, land-use conflicts and problems may be seen among the sectors and the key players in relation to protected areas.

In global terms, the Durban Action Plan, a document of the Fifth IUCN World Park Congress in 2003 (IUCN, 2003a) acknowledged the resources required to ensure professional management of protected areas did not meet the requirements, particularly in developing countries. Similarly, many protected areas in Turkey lack effective protection and management. The country's national parks faced a set of problems associated with legislation, management and planning. On the other hand, if a national park remains protected, it can be threatened as a result of isolation through major changes to surrounding land. As a result, the effectiveness of the roles of the national parks may have been blocked and the quality of theirs natural and cultural values can suffer. These problems and the related recommendations can be classified and explained.

Administration and legislation

Apart from the National Park and Forest Law, there are a lot of laws in relation to national parks and other protected areas. In addition, some areas have more than one protected area status (like both national park and natural/cultural sites), thereby causing conflicts of powers and responsibilities among organizations (ÇOB, 2004; ÇOB, 2007). Thus, conflicts may take place in the administration of the area in question, because of the lack of the coordination among the public agencies. On the other hand the same problem is be seen in trans boundary (city border) protected areas, so some challenges on continuity of protection and control activities, integrity of administration can be seen. Generally Turkey has not maintained a sustainable organizational structure on protected area management yet (Akesen, 2005). All statutory agencies should be required to coordinate their activities within the national parks, and the authorized agency must be clearly identified. Parallel to this situation managing all the protected areas (inc. national parks, natural protected areas, nature parks, specially protected environment area etc.) under the same organizational unit is one of the priorities of Ministry of Environment and Forestry (ÇOB, 2010a, b).

Legal arrangements concerned with national parks should be reviewed and amended in order to eliminate the existing conflicts. With regard to legal harmonization, a new framework law on nature protection is needed. The new law should contain detailed provisions in the field of institutional arrangements describing the authority-responsibility relations in addition to items regarding objectives, concepts and management of protected areas and other habitats/species with conservation priorities in the country. Also Aydın Coşkun (2010) expresses the importance of balance of protection and utilization in terms of natural resources legislation which is also significant for protected areas.

On the other hand, staff numbers, staff training and skills, and equipment are inadequate for various management activities in the country's national parks. Conservation measures and managerial activities in each of the parks are conducted by only one forest engineer and a few forest conservation officials at the site level. While the average permanent staff number per protected area in Europe and the Middle East is 41 (WWF, 2004), this number for Turkey's national parks is approximately 5. Similarly, current national documents argue that limited numbers of staff with environmental backgrounds are involved in the on-the-ground management (ÇOB, 2007; ÇOB, 2010b). Staff numbers and staff training should be adequate for the management needs of the sites. The same report also argues that inventory and database for legislative action is insufficient. In this respect, a national inventory study on protected areas' resource qualities and use types should be carried out to ensure suitable database for legislative and managerial studies.

Planning

Some national parks have no management plan yet. The scope and content of the existing plans does not sufficiently meet international standards and local needs. No regular work plan exists and many managerial actions are not monitored against the management plan's targets. In addition, there is not an established schedule and process for updating of the management plan. Nevertheless, in recent years there has been an increase in the number of the area of which management plans are being prepared. Also multi criteria decision making methods should be used in national park planning because of multi-functional structure of these areas.

In addition, a national land-use plan and a national system plan for protected areas have not yet been prepared until today. Thus, land-use conflicts and problems may be seen among the sectors and the key players in relation to national parks. It is needed to develop a national system plan which is linked land use plan for the protected areas, by taking into account international principles and the country's priorities and special conditions. Moreover, demands of potential, or actual, visitors are not generally integrated into Turkish national park system (Sayan and Karagüzel, 2010; Yılmaz et al., 2007). Also, all management activities should be based on the management plan, which is integral part of the national system plan.

On the other hand special projects have been carried out related planning, development, conservation, management and advertisement of some national parks. Gelibolu Peninsula Historical National Park Special Project, Başkomutan Historical National Park Project and Strengthening Forest Protected Area of Küre Mountains Project, Monitoring and Rising Awareness on Wetlands project are the important projects for recent time (ÇOB, 2010c). However most of recent documents express the importance of conducting research projects on planning and other protected area relevant subjects in cooperation with universities and research institutes for positive results (OGM, 2010).

While these problems have been ongoing the strategies regarding declaration of new national parks take place in current documents (ÇOB, 2010b; OGM, 2010). It is aimed to increase the ratio of protected area to country surface from 6 to 10% by 2023 (ÇOB, 2004; ÇOB, 2010a; DPT, 2007). In these national documents the need of reviewing and restructuring the national criterion on announcement of protected areas in harmony with international standards is also mentioned.

Stakeholder's participation-local's needs

Today, participatory approaches to national park and other natural resource management which involve wor-king for, with and through local communities and other stakeholders, is widely accepted (Mowforth and Munt,

1998; Georgehan and Renard, 2002; Chernela et al., 2002; Mitchell et al., 2002; Sawathvong, 2003; Harris et al., 2003; Hiwasaki, 2005; Jones and Burgess, 2005). These approaches acknowledged that local people should be involved in protected area management to increase the fairness of decisions and promote local cooperation. Local management of national parks requires a high intensity of interactions with local governments and agencies, resource user and local community. Additionally, if additional economic oppor-tunities are provided for local people, through especially ecotourism, wildlife resources, hunting tourism and employment in park-related activities and schemes, they can also become a supporter of the area in conservation efforts. In this respect, local management based on stakeholders' participation is becoming increasingly important for the park and local people in achieving strategic nature conservation, development objectives and sustainability. In Turkey, the majority of people living in and around protected areas are poor rural population who are economically dependent on natural resources. There is little or no flow of economic benefits to locals from the existence of the protected areas. Moreover, local people are granted rights for utilization of timber products required for essential subsistence needs in forests excluded from the protected areas network. Once an area is announced as a national park, these people cannot take any subsidize and aid (such as fire wood, round wood) from the forestry authority. The aids given to them are cutting with establishing a new protected area status within the country's forest areas. In addition, the management process does not allow adequate opportunity for locals and other stakeholders (like NGOs, recreational users, research institutions, related public authorities) to participate in the planning and managerial activities.

Special attention should be given to stakeholder participation with education and awareness programs for different target groups including locals, users and students In this context "Ecology-Based Environment Education in National Parks" project was started in 1999 under the coordination of scientific and Technological Research Council of Turkey by collaboration of General Directorate of Nature Protection and National Parks, Ministry of Environment and Forestry (Kurdoğlu et al, 2005; Soykan, 2009). The efforts regarding education-interpretation activities should also be varied and extended.

Lack of resources

Financial sources to national parks allocated by Turkey's general budget are not enough. As stated by James (1999), the WCMC (The World Conservation Monitoring Centre) report including a global review of protected area budgets and staffing found that the global mean protected area budget is $2058 per km^2 in the developed

countries and $157 in the developing countries, on the basis of 1996 US dollars. According to this report, Turkey's protected area budget per km^2 is $683. Also, revenues generated from the any area at site level go straight to the general budget and are not returned for the same area. Finding additional funding sources making important contribution to a national park income should be one of the most important missions of national park managers. In addition, mechanisms providing freely spending authority under the national monitoring should be established at site level.

One of the most known ways for national park to generate financial benefits to national park budget and well-being of local people is from ecotourism. Ecotourism is also an essential part of environmental education, and in this manner, it can generate tourists who would serve as advocates for the conservation of national parks. Rural tourism and ecotourism products have not developed sufficiently in the country. There is little or no contact between the park managers and tour operators using the parks. Information and education on ecotourism for both locals and tourists are inadequate. Furthermore, some parks do not charge admission fees as stated before. It should be researched that the ecotourism potential of national parks and then ecotourism activities should put into national park management plan.

Lack of baseline data

Data collection concerning both visitors and theirs effects on park resources provide timely and relevant information to assist policy-makers and park managers in formulating park policies and implementing effective interventions to reduce and prevent the degradation of the park resour-ces. Such data are used in preparing park management plans and programs to improve its sustainable use over time. Information about visitors and the biophysical features of the park resources is inadequate in Turkey.

On the other hand the "Biodiversity Monitoring Unit" that operates under Ministry of Environment and Forest was established in 2000. This unit set an on-line database (Noah's Ark Biodiversity Database) that can be utilized by interest groups. However the service has to be developed in terms of data resources, personnel and equipment. On the other hand, the inventory, institutional capacities and cooperation between relevant institutions on wildlife is also insufficient (ÇOB, 2004). The other insufficiency on data is related to traditional knowledge. Collecting, recording and utilization of this knowledge should be one of the important components of national protected area management system.

Inappropriate uses such as unregulated tourism

The growing influx of visitors to many national parks throughout the world and its environmental costs are

cited by many researchers as a main threat to the sustainability of those places (Tisdell, 1999; Weaver, 2001; Nepal, 2000; Priskin, 2003; Laiolo, 2003). Similarly, as a result of general tourism policy of Turkey based on mass tourism, tourism and related intensive and unplanned uses often seems to lead to environmental problems in the national parks (Daşdemir, 2005; Kuvan, 2010; Taşeli, 2007). The excessive uses destroy their natural and cultural values. The Tourism Encouragement Law of 1982 provides many incentives for tourism investments in national parks, forests and coasts without any biodiversity conservation or natural resources management plan. Unsustainable tourism development has often been encouraged because of the political pressure to attain short-term economic benefits from mass tourism. For example, mass tourism activities have been conducted in coastal national parks such as the Olympos- Beydağları, the Dilek Peninsula, and the Gelibolu Peninsula. They include many beaches and beach-resort type tourist facilities. Also, a large amount of forest lands converted to tourism-related facilities in winter tourism centers such as the Uludağ National Park. Such activities are not compatible with the national park management objectives. However, the development and exploitation of natural resources and cultural landscapes for the purposes of mass tourism in these areas have affected the national park environment negatively, all the more so as tourism facilities tended to be concentrated in the park boundaries. On the other hand, lack of buffer zones leads to increases in the building of tourism-related facilities and vacation homes in the surrounding areas and this create an additional pressure on the park resources. Therefore, visitor data should be collected at the entrance gate; carrying capacities of the parks should be determined; and buffer zones should be established to prevent external pressures on the park. Accommodation and other tourism facilities should design outside the park in an environmentally- friendly style in harmony with the related area's natural and cultural character.

In this context especially tourism industry needs to be more planned and with conscious attitude towards natural resources utilization. However, there are serious problems in proper monitoring and supplication rules and regulations (Erdoğan and Tosun, 2009).

Conclusions

Protected areas need to be managed by effective institutions, within a supportive policy and legal framework, and by trained professionals with the necessary technical and management skills. Inadequate capacities in these areas severely limit the benefits of protected areas (IUCN, 2003b). There is a growing concern amongst protected area professionals that many protected areas around the world are not achieving the objectives for which they were established (Stolton, 2003).

WWF (2003) concluded that the level of scores on forest protection in Europe was alarmingly low. The average across the 16 surveyed countries (including Turkey) was only 45% in 2000 and 47% in 2003. Similarly, the average of Turkey reflecting general performance regarding protected forest area management was 47% without overall change between the 2000 and 2003 years. To identify the global threats to protected areas and to provide an international consensus on the management of these areas, a wide range of efforts has been realized by IUCN, WWF and others. However, additional research to understand national or/and site-specific strengths and weaknesses of protected area management and the issues that they face is needed. In this respect, this study highlights the current situation and major managerial problems of Turkey's national parks.

Although Turkey has many laws, regulations, programs, governmental and non-governmental organizations on nature conservation, application of these guidelines requires more effective commitment and control. However, the legal arrangements should be reviewed as looking for new management policies for effective and scientific conservation program. Creating monitoring programs and building quantitative databases for conservation efforts will be essential to assess future success in nature conservation studies (Güçlü and Karahan, 2004). Despite the expansion of protected area system in number and extent with some measures to improve the effectiveness of management of the system in Turkey, many protected areas and national parks in the country lack effective protection and management. The national protected area system are not sufficiently integrated into national conservation strategies, development planning, land use and other resource management decision systems outside the boundaries of the protected areas. In terms of national parks, many national parks do not have a management plan and sufficient personnel/ equipment; the resources required to ensure professional and effective management of the parks do not meet the requirements; the coasts and benefits derived from the areas are not equitably shared; stakeholders, especially local communities are not engaged in the planning and management of the parks; and inappropriate land use and activities in and around the parks exist.

To overcome the current problems, Turkish government should pay more attention to the wider socio-economic and environmental benefits of protected areas in their decision-making processes including biodiversity conservation, land-use and funding. The government and protected area authorities should establish more effect-tively managed system of protected areas considering international criteria and national conditions/priorities. It is needed to develop a national system plan, which is linked national land use plan, for the protected areas. Also, all management activities should be based on the management plan, which is integral part of the national system plan. In this context, national park agencies

should have sufficient financial resources, staff and equipment, and they should develop and implement new management plans and legislation involving all stake-holders. Future research and managerial efforts asses-sing the management effectiveness of the national parks with country's other protected areas are needed as a key to highlight problems and to promote better management policies and practices.

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