

Full Length Research Paper

Are national parks under legal protection or legal degradation? An analysis of national parks and the impact of economic investment in those areas regarding current Turkish national park legislation

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The purpose of this study is to investigate the role of legislation in national parks protection and management in Turkey. As an introduction a brief summary of the development and legal basis of national parks are given. The national park system as a nature conservation method is introduced, as well as the development of national park system in Turkey is summarized. The legal basis, institutional structure and management of national parks are discussed. Also a case study including Nemrut Dağı National Park, Uludağ National Park, and Kaz Dağları (Ida Mountain) National Park, is presented with respect to nature protection and economic development dilemma. The outcomes of the case study was analysed. Then, a series of conclusions are reached and some recommendations relevant to protection-economic development trade off are made.

Key words: Forests, protected areas, national parks, Turkey, legislation, management, planning.

INTRODUCTION

Nature protection has a long history going back to ancient Greece. In old Greek legends it was told that Mother Earth, Demeter, had taken some measures to protect remarkable Oak trees. Gilgames legend talks about, one of the most prominent and three thousand years old legend of Sumerians in the Middle East, King Gilgames of Uruk and Enkidu's killing Ranger Humbala who was assigned to protecting God Enlil's Cedar Forests (Çağlar, 2004). Exploitation and destruction of natural resources have a background as old as world history. Paralel to that, necessary protection measures taken has also a long history. In ancient Rome, about 2000 years ago, several measures aiming at protecting orchards and other fruit trees were taken. In 1343 in Dortmund, Germany, afforesting agricultural lands and pastures were regulated by legislative provisions. Similarly, special protection measures taken to protect wild birds like eagle, hawk and heron, in England in 1250 deserve to be mentioned here (Taze, 2008). The idea of putting a

particular area having scenic beauty, landscape, flora, fauna and recreational opportunity under protection status was born in medieval Holland. In 1576 Orange Prince and Lahey Mayor reached an agreement to protect Lahey Forests as keeping its natural characteristics. However, a systematic protection and codification efforts, creating national parks, reserved areas and establishing institutional structures of nature protection and international cooperations were originated mainly from 19th century (Yücel and Babuş, 2005). On the other hand, several nature protection efforts were launched in the USA in late 19th century. Thousands of acres of areas were put under protection as scenic rivers, national trail roads, nature parks, naural monuments, etc. Consequently, all those efforts were combined under a single concept called "National Parks". In this sense, it is apparent that the idea of "National Park" is an American invention symbolized by the creation of Yellowstone National Park by Congress. Such a progress marked the beginnig of a

worldwide movement that has spread to more than 100 countries as of 2006 (National Park Service, 2006). Parallel to the above development, several efforts have been made and similar approaches have been pursued to protect natural resources in Turkey. However, initially, the referred protection measures had aimed to protect woodlands from sup-pling woody materials to Dockyards, Arsenals and Shipwreck, reflecting conservationist philosophy. In other words, several destructive activities were prohibited in upper Goldenhorn Basin in Istanbul, aiming to prevent water resources from erosion and siltation, which reflected also the same philosophy that natural resources would be protected for public interests. Likewise, several Ordinances, Firmans, Decrees and the like were enacted and put into practice to protect those resources. In contrast, although all those efforts reflect a particular protection philosophy and purpose, they are not considered as a systematized protection systems. The idea of systematized protection system can be traced back to 1930's, at which the first Forest Code of 1937 was enacted. That law had an article provisioning to reserve a particular forestland as a "protection forest" to ameliorate the reserved areas itself and to prevent public roads, river banks etc. from wind erosion, siltation and land slides. According to article 43 of the referred Forest Code, "protection forest" is defined as "forested areas whose protection is required for protecting landslides and surface washing; forestlands functioning as air cleaning agent for settlement areas, preventing railroads, highways and farmlands from avalanches and flooding; forestlands reserved for national security prevention are classified as protection forests. However, the concept "national park" was entered into Forest Code of 1956, No: 6831 for the first time, as a superior concept including all types of protected areas, which accounts for 18 types of protected area categories regarding current national park legislation. Then, in 1983, a new law called the Law of National Parks of 1983, No.2873 was entered into practice, providing the classification, declaration, protection, planning and investment issues in all national parks. Akesen (1978). Although the role of legislation could be protective rather than investment prone, it is an apparent issue that the referred laws and regulations must follow a path securing both protection and sustainability of the national parks and investment opportunities. Which means that a balance between protection and economic development is to be provided by law. However, in some national parks, like the ones investigated in this study, legislative provisions open a path as much as it can for all types of investments in national parks. In this sense, the law becomes the one securing economic investments rather than protecting the referred parks. In this study, how a national park legislation makes all investments legal by law and lead those areas malfunctioning and mismanagement and thus altering its legal protection status from national park to mining areas, petroleum drilling and

tourism center.

THE PHILOSOPHY BEHIND NATIONAL PARK MANAGEMENT

In general two main philosophies exist for natural resources management throughout history: the one is conservationisms and the other is preservationisms. Conservationism is an idea that recognizes "wise use" of natural resources. According to Gifford Pinchot, the most prominent inspirer of the conservationism, the term conservation means wise use of natural resources in brief. He was the first person drafting forest management plans for the purpose of providing the greatest good of the greater number for the long run (Hays, 1959). This philosophy considers natural resources as a source of raw materials for economic development. Since conservationists became aware of the scarcity of natural resources first, they perceived that those resources had to be used wisely. This means that we, as human beings, must use natural resources depending on economic and scientific methods. We can use natural resources, but we cannot exploit them. Theoretically, conservationism never let people exploit natural resources.

According to Dryzek (1997), the main concept of conservation movement was the rational use of natural resources as an input. This movement did not want to preserve environment for aesthetic concerns, scenic beauty, and recreational reasons, or for human health. Instead, this movement sought only to ensure those resources such as minerals, timber, and fish that had to be used reasonably and wisely. Consequently, there would be huge amount of natural resources to provide raw materials for growing industrial economy. Conservation movement means to seek to limit the types of exchange value uses. In other words, natural resources have a limited usage fields only to be an input in production process. And not any other usage field or exchange value exists other than economic concerns. In order to provide enough commodity to industry, we should prevent those resources from such destructions as erosion, siltation, water pollution, and clear cutting. "Conservation movement seems to be consistent with the logic of treadmill by insuring a steady supply of a particular natural resources, albeit placing limits on the speed of the treadmill" (Schnaiberg and Gould, 1994, p. 144).

John Muir who worked with Gifford Pinchot in early conservation movement years to support and establish federal forest reserves led to founding the Sierra Club in 1892 to promote recreation, scenic beauty, and aesthetics in a primeval setting of nonuse. Since Pinchot failed to recognize the importance of recreational use, he tried to manage National Parks as a timberland to harvest raw materials for industry. Muir fought against that idea which wanted to control and properly utilize the national parks. He strictly opposed utilitarian ideas and spent all efforts

to leave all national parks as unexploited. This strong utilitarian view to natural resources led the conservation movement to split into two main ideas, conservation versus preservation, in which preservation movement was developed depending on that argument. In contrast to conservation movement, preservation movement means "to seek to isolate parts of the ecosystems and protect them from any exchange-value use in social production systems" (Schnaiberg and Gould, 1994, p. 144). Preservationists tend to protect ecosystem as a whole from any raw material withdrawals and additions. The nature should remain however as it is. This movement denies any economic activity in a particular area. These two ideas about environmental conservation fought against each other in several environmental issues. For example; in 1913 Congress permitted San Francisco city to build a reservoir for water supply in Hetchy Hetchy valley in Yosemite National Park. That issue even further split the conservation movement. Pinchot helped to construct the dam, while Muir opposed it. Both approaches have found applicable grounds in the fields of nature protection and management. Even further, all other nature protection philosophies such as national parks, nature parks, natural monuments, wilder-ness etc., have emerged from those two and regarded as subclasses of them. Having considered altruistic benefits and protection values of natural resources other than their economic and monetary values nature conser-vationists spent several efforts along with keen politicians reserving particular areas in their pristine and natural conditions. Therefore, the above two philosophies have emerged as two sides of a mirror (Gunes, 2004). Thus, national parks have emerged as the reflection of the above two main nature protection philosophies. Follow-ingly, each of the protected area categories worldwide appeared as a subcategory of both philosophies. Like-wise, "National Parks are managed by beginning with Yellowstone, the idea of a national park was an American invention of historic consequences. The areas that now make up the national park system, and those that will be added in years to come, are cumulative expressions of a single national heritage. The National Park Service must manage park resources and values in such manner and by such means as will leave them unimpaired for the enjoyment of future gen-erations"(National Park Service, 2006, p. 19). "The world's first national park -Yellowstone - was created in 1872, at which time Congress set aside more than one million acres as "a public park or pleasuring ground for the benefit and enjoyment of the people." The legislation assigned control of the new park to the Secretary of the Interior, who would be responsible for issuing regulations to provide for the "preservation, from injury or spoliation, of all timber, mineral deposits, natural curiosities, or wonders, within the park, and their retention in their natural condition." Other park management functions were to include the development of visitor accommodations, the construction of roads and bridle

trails, the removal of trespassers, and protection "against the wanton destruction of the fish and game found within the park" (National Park Service, 2006, referring 16 United States Code 21-22).

Beyond that, population increment, industrial development and public demands for natural resources, recreation, spending leisure time etc. have totally influenced the ways and methods of natural resource management. Ultimately, due to the above reasons, it has been essential to integrate human being and nature with respect to creating a new life style in conformity with sustaining natural resources. Starting from Sevilla convention, the first step to creation of a new life style for both human and natural assets other than human being, new areas have been reserved for maintaining such a new life style. At this, a new function was added to the management functions of such protected areas as biosphere reserve, specially protected areas and national parks.

In other words, in such areas man and nature have been faced with each other and has created a harmonious civilisation with nature. Therefore, management planning of those areas have consisted of both protection of pristine natural conditions and economic investments in the referred areas. Beyond that, another thoughts supporting conservationist philosophy arises and justifies reserving protected areas. This thought is that in many instances human interests might be in conformity with flora and fauna, which means both human and nonhuman creatures might benefit from each other even support each other through some ways. For example, some bird species can survive within agricultural lands feeding themselves with crop residues. Great Bustard lives in agricultural lands in Eastern Anatolia not harming any farmer and just fostering themselves with crop residues and unharvested yields. Such an example can be extended towards several other wild plant and animal species.

In the end, it is a reality that in such areas as mentioned above both economic investments and nature protection efforts can compete with each other. Such an effort have also been supported by the declaration of Barcelona convention for creating specially protected areas in Mediterranean Sea Region including 14 countries. On the other hand, some plant and animal species are obliged to survive in areas further than human settlements. Thus, areas like wildlife development areas, strict nature reserves and wildlife protection areas have been reserved for such a pro-tection efforts. Thus, in such areas economic deve-lopment activities have not been allowed, reflecting preservationists nature protection philosophy. Thus, protected areas like national parks, specially protected areas and biosphere reserves should be managed by considering natural pristine conditions of those resources. However, as long as harming the pristine values of national parks, other management functions should also be regarded. In contrast, protected

areas like strict nature reserves, wildlife protection areas, natural monuments etc. should be managed by considering only preservationist philosophy.

THE DEVELOPMENT OF NATIONAL PARKS IN TURKEY

Having occupied the Anatolian Peninsula, Turkey is surrounded by three seas from three sides. And having had an altitude above 1000 m and much steppe and mountainous geography the country offers quite diversified local climates within short distances for both flora and fauna. Such a rich and different climate conditions have created habitats of thousands of plant and animal species. Turkey has about 120,000 invertebrate, 472 fish, 426 bird, 8 turtle, 49 lizard, 36 snake, 20 frog and 120 mammal species. Turkey is also one of the richest flora centres of the world, with approximately 10,000 different types of plant species with an endemism ratio of 30% (Coşkun, 2003). As a comparison all Europe has about 12,000 plant species; whereas in Turkey about 10,000 plant species, which of them about 3000 are endemic for Turkey (Geobilim.com). In addition, Turkey is quite rich about animal species as well. About 155 mammals, 454 bird species, 93 reptiles, 20 amphibians, and 472 fish species exist in Anatolian Peninsula (National Biodiversity Action Plan, 2001).

Of course having a rich plant and animal species makes the people hopeful for future generation. However, sustaining those resources is another critical issue to be considered. Over the years several efforts for nature protection have been spent and so many protection measures have been taken dealing with plant and animal species. And, not any systematic step were taken until mid 1960's.

During 1950's the idea of nature protection under the concept of National Park had been discussed in literature and upon the inspiration of the idea of "national park" emerged in the United States having a worldwide influence and making worldwide movement that has subsequently spread to almost all countries. Which means some natural areas should be managed under the concept of National Parks in accordance with preservationist philosophy, but also considered other management functions of the areas like fishing, recreation and other usages reflecting also conservationist philosophy. National park is a much broader concept that represents a nature protection system, which covers several types of protected areas. As shown in Table 1. Among them nature parks, natural monuments, biosphere reserves, national parks, specially protected areas, wildlife development areas, gen protection areas, seed orchards, Ramsar areas and protection forests are the most prominent ones. The concept "national parks" is the one that consists all those areas and reflects a protected area system.

Legal basis for national parks

As referred above, the first protection measure reserving a particular area, which is called "protection forest" was provisioned in article 43 of the first Forest Code and kept in the same measures in the article 23 of the following Forest Code of 1956, No: 6831. To the same Forest Code Gen Protection Areas and Seed Orchards have been declared and put under legal protection. At present 54 protection forests covering 365,987 ha areas; 193 Gen Protection Areas covering 27735 ha. areas and 338 Seed Orchards occupying 46086 ha. areas have been declared (Yalınkılıç, Yenilmez Arpa, 2005; Dikyar and Kırış, 2005). Followingly, the concept "national park" was provisioned by article 25 of the latter law for the first time in 1956 (İnal, 1949). According to the article 25 of the Forest Code, national park is defined as "forest areas having special protection values are reserved and declared as national parks for scientific researches, protecting natural resources, maintaining landscape values, public demands for recreation and leisure time and tourism activities. Later on, in 1983, the referred article of Forest Code was amended by putting new types of protected area categories which are "nature parks", "natural monuments" and "strict nature reserves". In the same year, the Law of National Parks, No: 2873, was enacted and put into practice. According to the new law, in addition to the concept of "national parks", the concept of "nature parks", "natural monuments" and "strict nature reserves" were provisioned by the same law. At present, 36 National Parks covering 808.172 ha; 34 Strict Natural Reserve covering 81.861 ha. areas; 102 Natural Monuments covering 5285 ha. areas; 17 Nature Parks covering covering 69.505 ha. areas have been reserved (Yalınkılıç, Yenilmez Arpa, 2005).

In the same year, the Law of Protecting Cultural and Natural Assets was entered into practice. To the said law several natural assets have been declared as "natural sites" and put under legal protection. As of today about 900 natural sites were declared but data are not available about their areas. During the following years, several other types of protected areas have been declared according to special laws as mentioned below:

In the year 2003 new Terrestrial Hunting Law was entered into practice amending the old Hunting Law of 1937, No: 3167. The new Law brought new types of protected areas which are Wildlife Protection Areas, Wildlife Development areas and Wildlife Reintroduction Areas. As of today 1,665,899 ha wildlife protection areas and 686,835 ha wildlife reintroduction areas have been declared and put under legal protection status (Dikyar and Kırış, 2005). According to Ramsar Convention that Turkey is a Party, wetlands for waterfowl habitats have been declared as Ramsar Sites. As of today 9 Ramsar Areas have been declared for protection of waterfowl habitats and about 159,300 ha wetlands have been put

Table 1. Protected areas in Turkey (Oriented from Dikyar and Kiriş, 2005).

Status	Number	Ha.
National parks	36	808.172
Nature parks	17	69.505
Natural monuments	102	5.285
Strict nature reserves	34	81.861
Wildlife protection areas	109	1.665.899
Wildlife reintroduction areas	168	686.835
Protection forests	54	365.987
Seed orchards	338	46.086
Gen protection areas	193	27.735
Specially protected areas	14	1.083.935
Ramsar areas	9	159.300
Biosphere reserves	1	25.000
Natural sites	890	na
Total	1075	5.024.900 (6.4%)

Table 2. Usage types and threats in study areas.

National park	Nemrut Dağı	Kaz Dağı	Uludağ
Declaration date	1988	1994	1961
Areas (Ha)	13850	23000 (21300)	12345
Prominent characteristics	Open air museum, historical places for Commagena Kingdom, habitat for several plant and animal species	Rich for biodiversity, gold mining, historical, cultural and legendary places, habitat for several plant and animal species	Habitats for ample plant and animal species, recreation, tourism, representing all plant zones varying from maquies in mountain skirts to alpin zone in the highest altitude
Usage types	Recreation, forestry, oil extraction, agriculture,	Recreation, forestry, gold mining extraction, agriculture, grazing	Recreation, winter sports center, skii resorts.
Threats	Oil extraction	Gold mining	Mass tourism and winter sports
Oil extraction areas			
Mining areas		About 60 mining companies are active in the area	
Mass tourism areas			20 Mass tourism facilities occupies the area
Side effects of threats	Surface and underground water pollution, habitat destruction	Surface and underground water pollution, habitat destruction	Habitat destruction, garbage and exceeding carrying capacity
Legal status	Under protection and licensed oil extraction	Under protection and licensed gold mining extraction	Under protection and licensed tourism resorts
Planning completed	Ok	Ok	Ok

under protection. Parallel to the former convention, regarding Barcelona Convention that Turkey is a Party, a special Decree was entered into practice. To the Decree 14 Specially Protected Areas occupying 1,083,935 ha. areas have been declared. Ultimately, in the year 2005 the first Bio-sphere Reserve Area has been declared occupying 25,000 ha areas (Dikyar and Kiriş, 2005).

As shown in Table 2 of which some of them are open for human activities and economic developments (like national parks, wildlife development areas and nature parks), whereas the others are left for their natural conditions without any investment activities (like Strict Nature Reserves, Gen Protection Areas, Natural Monuments). In other words, in protected areas whether both

nature protection purposes and economic development activities might compete each other or not is under discussion for several years. Therefore, the rest of the study, although having considered legal, will focus on the analysis of economic development and investments in national parks.

Institutional structure of the national parks

In Turkey all national parks have been managed and protected by the Ministry of Environment and Forestry regarding the Law of National Parks of 1983 (Erkuran, 2001). Under the said Ministry, General Directorate of Nature Protection and National Parks is authorized to manage and protect all national parks in Turkey. The rights and responsibilities of the Ministry are provisioned by the Organic Law of the Ministry of 2003, No: 4856. To the law, declarations, management, protection, planning, law enforcement, investment activities, issuing necessary investment permits and licenses, developing natural assets of those areas are delegated to the Ministry. Under the Ministry of Environment and Forestry, General Directorate of Nature Protection and National Parks is authorized and held responsible to carry out all relevant works about national parks. On the other hand, specially protected areas established regarding Barcelona Convention are put under the care and control of the the Head of Specially Protected Areas, an institution under the said Ministry. According to Organic Decree of Specially Protected Areas, the Head of Specially Protected Areas is authorized to declare the areas, to make management planning, to take necessary protection measures, to create solutions for environmental problems, to make housing planning and to make investment decisions and issue necessary permits and licenses within the areas (Taze, 2008).

Besides the Ministry of Environment and Forestry, another ministry, Ministry of Culture and Tourism, is authorized to deal with all issues about cultural and natural sites and assets. According to article 10 of the Law of Protecting Cultural and Natural Assets of 1983, No: 2863, the Ministry is authorized to take all necessary protection measures and to control and inspect those cultural and natural assets. To the Law, natural sites, historical and archeological sites shall be managed, inspected and protected by the said Ministry. Figure 1 shows institutions structure of national parks and responsible authorities according to each protection status (Taze, 2008).

The management of national parks in Turkey

In Turkey, national parks have been managed for nature protection at first hand reflecting preservationist philosophy. As referred above, this philosophy reflects the idea that protected areas should be reserved solely for

the sake of plant and animal species. For example, gen protection areas, seed orchards, strict nature re-serves, natural monuments and wildlife protection areas are reserved and managed for only nature protection. Not any human intervention and economic development are allowed within those areas. However, some of them like nature parks and national parks have been managed for not only nature conservation but also other park management functions. Of course as its name implies national parks should be managed by considering all national interests. At this point a dilemma arises between ecology and economy. And legal provisions steer authorized institution toward either of the two direction and put the said institution under pressure from both public and investors.

Current legislation reflects both the idea of conservationism and preservationism. Which that some provisions prohibits all destructive human activities and interventions, whereas some provisions allow economic investments and development in national parks. Within this context, national parks in Turkey have been managed by considering the law of national parks. According to the article 3 of the law, a park development plan shall be prepared by the Ministry of Environment and Forestry by considering natural conditions, protection efforts and investment potential of the areas. However, as of today only 36 of the National Parks have been planned and managed by those plans (Ministry of Environment and Forestry, 2008). In the referred plan, settlement areas, construction areas and other development zones are specified. Even further, upon declaration of some parts of the national parks as tourism center, the Ministry of

Culture and Tourism is authorized to make management decisions and issuing investment permits for tourism investment and resort constructions. However, this does not mean that all other functions of the parks are ignored. According to article 13 of the Law of National Park, development, protection and sustainability of natural assets (forest resources, maquis and bushy areas) are essential in accordance with management plans and protection measures provisioned by the Law. Grazing, hunting and harvesting within national parks shall be allowed in accordance with the said plans prepared by considering protection of natural environment and ecosystem protection principles. Article 14 of the law talks about prohibited activities in national parks. To the article the following activities shall be prohibited in the areas covered by the Law of National Parks:

- Disturbing the natural and ecological balance and the natural ecosystem.
- Destroying wildlife.
- Any intervention that either causes or could cause a change in or loss of the special features of the area, and any soil, water or air pollution or other activities or procedures that create similar environmental problems.
- Hunting or cutting of grasses or production of forestry

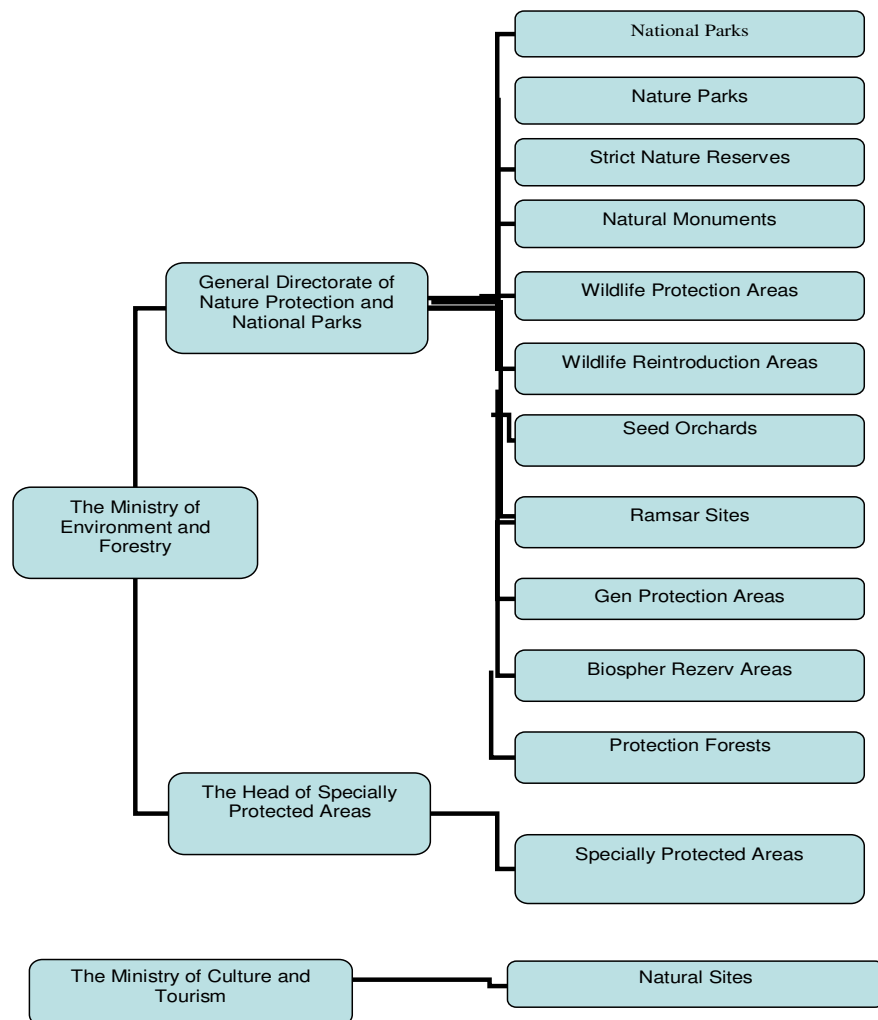


Figure 1. Institutional structure of national parks in Turkey (Oriented from Taze, 2008).

products of any kind that could upset the balance of the nature.

- Construction or operation of any buildings or facilities of any kind without a specific and undisputed and in terms of public benefit, apart from the facilities specified in approved plan sor required by the defence system deemed necessary by the General Staff, and any housing construction outside of already existing areas of settlement.

At this point a question arises; which management function will be of interest. Shall we allow economic investments within the parks or ignore it as a whole?. The answer of such a question is not a surprise in general and not any provision in National Parks Law allows economic investments within parks having a potential threats for natural assets. But, three particular laws (The Mining Law of 1985, No: 3213; The Law of Tourism Encouragement of 1982, No: 2634; The Law of Petroleum of 1954, No: 6326) covering the referred two specific economic

sectors have a priority for implementation within Parks and allow economic investments by considering interests of investors at first then nature protection.

Those sectors are tourism and mining (petroleum and mining operations). Tourism is much common in the parks located in southern Turkey and mountaneous areas like Uludağ national park; whereas petroleum is quite common in Nemrut mountain national park, and mining is quite common in Kaz Daglari (Ida Mountain) national park. Article 7 of the National Paks Law allows public institutions carrying out all types of projects and investments in accordance with park development plan within national and nature parks. Regarding this provision, several projects having public interests, like infrastructure, roads, pipelines, sewage systems, etc. have been carried out so far. Parallel to this provision, article 8 of the Law states that real persons or juristic persons are issued tourism investment permits by the Ministry of Environment and Forestry for a 49 years time period in accordance with park development plan as long as having



Photo 1. Nemrut Dağı National Park.

public interests.

Similarly, oil extraction and mining are two other activities threatening national parks. According to article 11 of the Law of National Parks, within the boundaries of national parks, in accordance with Mining Law and Petroleum Law, mining and oil search and extraction license and privileges reserving the provisions of the Law of Protecting Culture and Natural Assets of 1983, No:2863, can be issued by the Cabinet.

Beyond that, article 7 of the above Mining Law authorizes the Cabinet to specify under what circumstances mining search and extraction are allowed within national parks and the law was amended regarding Constitutional court decision (Coşkun, 2009). Likewise, article 45 of the Law of Petroleum allows all areas of the Country open for oil search and extraction. In addition to the above two laws articles 4 of the Law of Tourism Encouragement allows specifying tourism center, areas and regions by the Cabinet. And within the declared areas, including national parks, the Ministry of Tourism is authorized to issue tourism investment licenses and permits. To verify the above hypothesis a case study explained below has been carried out in three national parks. Research question, as the title of the article implies, applied to this study is: Are National Parks under legal protection or legal degradation?

CASE STUDY

A study is designated in three selected areas in which three most prominent usage types have been threatening ecosystem of those areas. They are mining, petroleum extraction and building construction for tourism activities. Although all activities are legal, they disharmonise the balance between protection and economic development.

Methodology of the study

To conduct the study, initially literature is reviewed about national parks. Then, three study areas have been selected. Simply because, the most prominent threats for those national parks are

mass tourism activities, petroleum and mining activities. They have been peaked in those national parks which are Nemrut Dagi National Park, Kaz Daglari (Ida Mountain) National Park and Uludag National Park. Data about the impact of those activities and occupied areas have been collected by both visiting the Parks and telephone interview with Park managers. To collect relevant data about mining activities a field trip was taken to Ida Mountain National Park. Several gold mining activities and their impacts on the Parks have been observed and also several photos (Photos 1, 2, 3, 4 and 5) have been taken to justify main assertion of the study. Then, the data are analysed by considering the national park management functions, plans and sustainability of those areas.

Study areas

To Conduct the study three national parks are selected, which are Nemrut Dagi National Park, Kaz Daglari (Ida Mountain) National Park and Uludağ National Park. Nemrut Dagi national park is declared in 1988 by the government. Having occupied 13.850 ha. areas of pristine lands the national park is located in Southeastern Turkey, in Adiyaman Province (<http://www.milliparklar.gov.tr/mpd/mp/millipark.asp>). The highest point of the park is the zenith of Nemrut Mountain and measuring 2206 m. The Park's topography is very steep, mountaneous and unevenly scattered plains (Figure 2). Of the 13.850 ha. of the area 4377 ha. (which accounts for 31.6% of the total park area) is covered by forest vegetations. The Park's main natural values are historical monuments of Commagena Kingdom, King Sculptures, rock formations like cliffs, canyons and valleys, caverns, flora and fauna and scenic beauties (Sirel et al., 2005). Land usage types in the park is forestry, agriculture, tourism and oil extractions. Of them oil study. Then, the data are analysed by considering the national extraction occupies a particular place in terms of negative impacts on natural values of the Park.

Kaz Daglari national park is established in 1994 by the government. The park is located in Western Turkey, within the boundary of Balıkesir and Canakkale Provinces. Having occupied 21.300 ha. of areas the Park has a special place in nature protection (The Ministry of Environment and Forestry, 2008). Essential nature protection values of the Park are genetic reserve areas (Ozel et al. 2005), cultural values (Arı, 2006; Santur, 2006; Sanay, 2006; Aytaç, 2006; Arı, 2006), historical and mythologic (Gümüş, 2006) and archeological values (Başaran, 2006; Polat, 2006), flora (Adak et al., 2006) and fauna species and scenic beauties for recreation and tourism (Cengiz et al., 2006). Main activities in the Park are agriculture, forestry, tourism, fcultural festivals and mining. Of them gold mining is the most prominent activity with respect to side effect on the Park and an ongoing quarrel on the dilemma of protection development balance in the Park.



Photo 2. Kazdağları (Ida Mountain) national park.



Photo 3. Uludağ National Park

Uludağ National Park is the third study area selected for conducting this study. The Park is located in Western Turkey, Marmara Region, within the boundary of Bursa Province. Uludağ National Park is declared in 1961 by the General Directorate of Forestry. Having covered 11.338 ha. of areas the Park has substantial amount and diversified flora and fauna species, tourism resorts and scenic beauties. Essential activities in the Park are tourism, particularly winter sports and recreation, spending leisure time for both people live in Bursa and Istanbul. However, due to large tourism facilities, hotels and winter sport resorts the Park has been under investment pressure threatening its natural beauties, flora and fauna species and other natural resources.

Economic investments versus conservation

The above economic investments have been the most prominent threats for national parks protection. Of them oil search and extraction activities have been threats, Nemrut Mountain National Park, occupying 13850 ha. and located in Adiyaman District in South-eastern Turkey. According to Sirel et al. (2005) Turkish Petroleum Joint Stock Company has been searching oil reserves within or adjacent to the park since 1987. Having occupied 2321 ha. Extraction areas of the park, oil investment poses a significant threat for the park. Such a threat is directed primarily to surface and underground water resources. In some cases pipelines might be broken



Photo 4. Gold Mining in Kazdaglari National Park.



Photo 5. Mass Tourism Activities in Uludağ National Park.

out flooding larger areas of the Park and pollutes the environment. In addition, mud-pit wells threaten the soils and underground water levels as well via percolating water storages. Some parts of the National Park have a substantial amount of oil reserves. Since 1971 several oil searching activities have been taken place within the park's boundary. Since 1987 the referred activity expanded around 2321 ha. of the park. In the year 2000 about 24 oil wells were opened and it was decreased to 13 wells in the year 2005. Mining is another major threat for Kaz Daglari (Ida Mountain) National Park in Western Turkey. Having located Canakkale and Balikesir Districts in Aegean Region of the Country, the National Park occupies 23,000 ha. Within the Park's boundary several mining reserves, like

gold, coal, various limestones reserves, leads, zinc, iron, and marbles, have been found. As of today about 60 mining companies have made investments in the area (Records of Local Forestry Branches of Kazdağları). Side effects of such mining activities are water pollution and poisoning, soil poisoning, mine residues, threatening habitats of cites species like clear cutting forest vegetation and leaving barren lands. Mass tourism is another significant threat for national parks. In Turkey both national parks and tourist attractive areas have been competing. Which means that wherever a special area exists for nature protection, tourism investors have been demanding for the same areas for constructing tourism facilities and holiday resorts. Since such pristine and

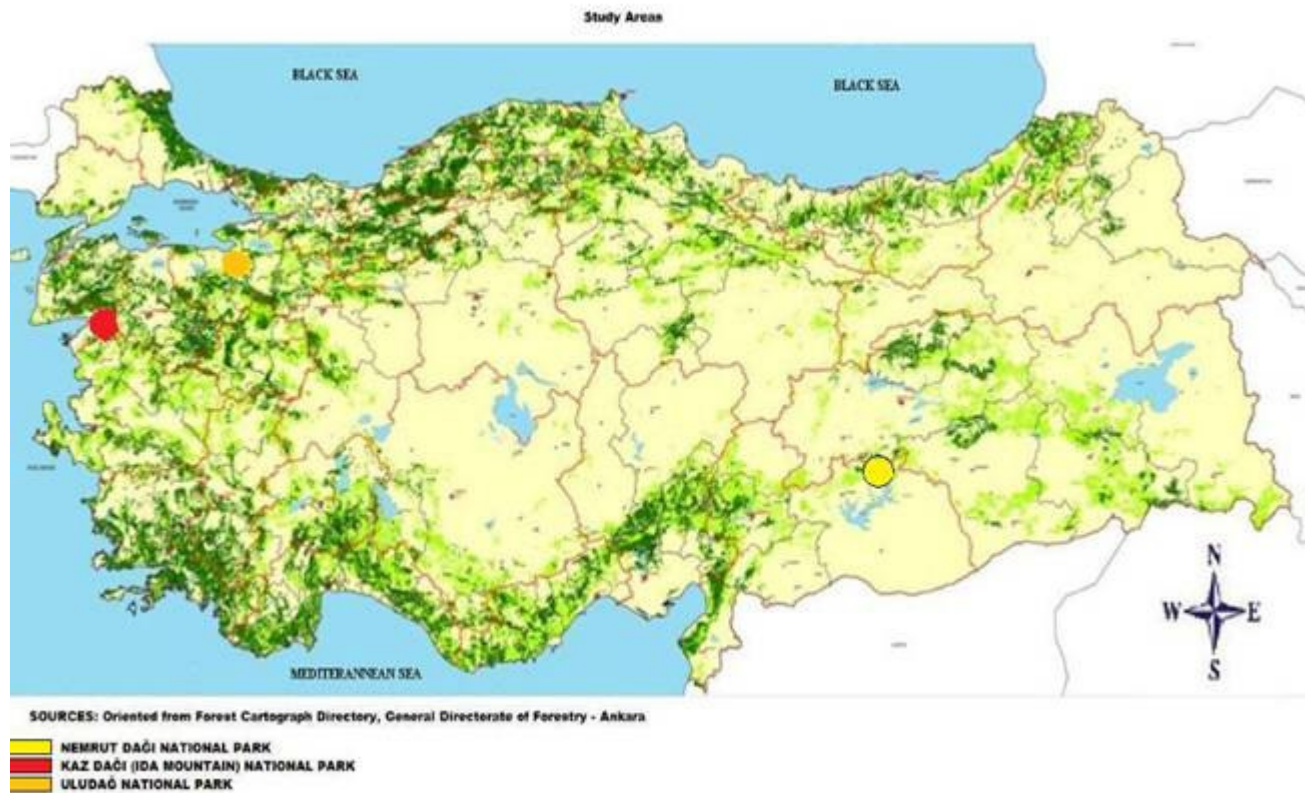


Figure 2. Map of the study areas (Oriented from forest cartography directory, general directorate of forestry).

naturally valuable areas have been declared as national parks, tourism investors and tour guides have been demanding for mass tourism activities. At this point an irreversible conflict arises between nature conservationists and economic investors. Since current legislation offers an opportunity to such investors, all such demands are legal. However, this does not fit well for conservation purposes of the area. For example, in Uludağ National Park, located in Bursa Province in Marmara Region and occupying 12345 ha. of land, several hotels and motels used to be located within park boundary thereby threatening pristine values of the park. However, people, NGO's and other interest groups have objected such a mass tourism facilities within the area. As of today about 45 ha. areas of the Park have been occupied by tourism facilities. However, since the above tourism facilities are winter resorts and daily recreation facilities, the influenced areas are far beyond the referred 45 ha. Even more, side effects of those activities have spread through water resources and habitats of plant and animal species, a great many areas of the park have been badly influenced by those facilities.

ANALYSES

As referred above, National Parks have been managed regarding legal status, management plans and ecological principles of the park and seeking for investment opportunities is to be considered as well. When looking at the national park legislation, it is quite obvious to see that provisions addressing both ecological dimension and economic dimension of the National Parks are essential. However, when making an analysis at an individual park basis, each area has its own characteristics that dominates over the

others. For example, Nemrut Dağı National Park has historical characteristics having the sculptures of the Kings of Commagena Kingdom; while in Kazdağları National Park cultural aspects and folkloric characteristics of the area has the highest priority. Similarly, vegetation zones of flora is remarkable seen in the Park starting from maquies in the mountain skirts to alpine zone at the peak.

Economic investments for each area, although each usage type is different, pose threats for the each Park. Such a threat is oil extraction in Nemrut Dağı and mining (particularly gold mining) in Kazdağları National Park; while it is construction for tourism activities in Uludağ National Park. An interesting point in here is that all those activities referred above are legal and subject to official permission, while ecological aspects of those areas dictates just reverse treatment for each of them. Which that the one is legal does not mean that it is ecologically sound and allowable. At this point let us turn back to the same question: ecology or economy? Or is there a possibility to find a balance between the two that can be compete each other.

RESULTS AND DISCUSSION

National parks have both economic and ecologic potential and both have been competing each other. Legal basis for better national park management is essential. However, rules and principles for such a management should be reflected in such legal provisions. Otherwise, a legal degradations and mismanagement of those parks are inevitable. Conservationist and preservationist

philosophy have increasingly had an impact on national park management and always reflected in national park legislation. But a balance between the two must be considered. Which that in some areas of the national parks conservationist philosophy is more pursued; whereas in the rest of the parks preservationist philosophy is to be considered first.

Before declaring a particular area as a national park, a prior investigation and inventory work should be conducted. And thus essential characteristics of the area and protection value are to be compared with the area's economic development potential. Having had such an inventory and investigation a better management decision might be made, whether the referred area is declared or not. Of course energy sources like oils are crucially important for Turkey, like all countries. If any such natural resources exist within any national park area, it is inevitable that oil extractions have priority. But this does not mean that the referred areas are left for its own destiny. In such areas more developed and environmentally sound and friendly technologies may be used to minimise potential side effects. In Nemrut Dağı National Park, such a well developed and advanced technology could be used regardless of its cost to investors. Mining in Kaz Dağları National Park reflects another threats for the national park, although its is legal. However, a better solution could be available. Which means that mining reserves could be taken out of park's boundary at first hand. If not, a more developed mining, particularly gold mining, technology is to be used, although it is more expensive than current technology. Mass tourism facilities in Uludağ National Park is the one that a better solution is available. Because the park is used for winter resort, an ecotourism approach can be pursued and not any mass tourism facilities are allowed. Of course such a restriction diminishes profits of the investors. But, when a dilemma between mass tourism and park protection occurs, ecotourism or physically small facilities are to be considered enough and mass tourism should not be allowed.

REFERENCES

- Adak MS, Birsin MA, Özgen M (2006). Importance with Regard to Plant Genetic Resources of Ida and the Region, in The Second Ida Mountain National Symposium, Çanakkale. pp. 277-287.
- Akesen A (1978). Türkiye'de Ulusal Parkların Açık Hava Rekreasyonu Yönünden Nitelikleri ve Sorunları (Örnek: Uludağ Ulusal Parkı), Çelikcilt Matbaası, İstanbul. pp. 2484, 262.
- Arı Y (2006). Human Problems in National Park: The Impact of Nature Protection on Local Cultures, in The Second Ida Mountain National Symposium, Çanakkale. pp. 230-233.
- Arı Y (2006). Evaluation of Cılbak Rituals in Terms of Sustainable Use at Kazdağları National Park, in The Second Ida Mountain National Symposium, Çanakkale. pp. 381-388.
- Aytaç A (2006). Dragon Design on Carpets of Çanakkale Ida (Kazdağları) Mountains and Konya Region, in The Second Ida Mountain National Symposium, Çanakkale. pp. 371-380.
- Başaran C (2006). The Gold of Ida (Kazdağları), in The Second Ida Mountain National Symposium, Çanakkale. pp. 249-258.
- Cengiz EÖ, Kelkit A, Gönüz A (2006). Investigation of the Environmental Sentiveness of Tourism Facilities in the Ida Mountains, in The Second Ida Mountain National Symposium, Çanakkale. pp. 415-425.
- Coşkun AA (2003). Efforts in Turkey for Compliance to Cites, *Reciel*, 12: 3.
- Coşkun AA (2009). "Law Victory" of Miners', *Orman ve Av*, Temmuz sayısı. Ankara.
- Çağlar Y (2004). "Sivil Toplum Kuruluşları Doğa Korumacılığı Alanında Neleri, Nasıl Yapmalı ve Yapmamalı", Ankara.
- Dikyar R, Kırıs R (2005). Management Planning in Protected Areas, in Protected Areas Symposium, Isparta, Turkey, pp. 569-578
- Dikyar, R. ve Kiriş (2005). Korunan Alanlardaki Amenajman Planları, Korunan Doğal Alanlar Sempozyumu, 8-10 Eylül, Isparta, Sözlü Bildiriler Kitabı: pp. 569-585.
- Dryzek JS (1997). The Politics of the Earth: Environmental Discourses. Oxford University Press Inc. New York.
- Erkuran M (2001). Consultant Report on Forest Legislation in Turkey, Food and Agriculture Organisation (FAO) of the United Nations: Assistance for the Preparation of a National Forestry Programme for Turkey, TCP/TUR/0066(6)
- Gümüş EO (2006). The Examination of the Mythological Heroes who were Supposed to Live in Kazdağı from the Theatral Point of View, in The Second Ida Mountain National Symposium, Çanakkale. pp. 230-233.
- Gunes Y (2004). Conservation and Preservation Movement and Their Influences on Environmental Legislation in the USA,
- Hays SP (1959). Conservation and the Gospel of Efficiency: The Progressive Conservation Movement, Harvard University Press, Cambridge, Massachusetts. pp. 1890-1920,
- Inal S (1949). Tabiatı Koruma Karşısında Biz ve Ormancılığımız, T.C. Tarım Bakanlığı, OGM Yayını, Özel Sayı'ya atfen.
- Ministry of Environment and Forestry (2008). Booklet of National Parks, Ankara.
- National Biodiversity Action Plan for Turkey (2001). Ankara.
- National Park Service (2006). Management Policies, The Guide to Managing the National Park System.
- OGM (General directorate of forestry) 2006. Orman Varlığımız, Ankara.
- Özel N, Gül A, Akkaş E, Doğan B (2006). Gen Protection and Management Areas in Ida Mountain and Management Planning Approach, in The Second Ida Mountain National Symposium, Çanakkale. pp. 198-215.
- Polat G (2006). Antandros, in The Second Ida Mountain National Symposium, Çanakkale. pp. 259-266.
- Sanay F (2006). The Traces of who Live and Get Lived Their Cultures in Ida Mountains (Traditional Dressing cultures in Turkmens), in The Second Ida Mountain National Symposium, Çanakkale. pp. 369-370.
- Santur MC (2006). Marriage in Çanakkale and Balıkesir Tahtacı Societies, in The Second Ida Mountain National Symposium, Çanakkale. pp. 361-368.
- Schnaiberg A, Gould KA (1994). Environment and Society: The Enduring Conflict. St. Martin's Press. New York.
- Sirel B, Yucel M, Konaklı N, Sandal G (2005). Human Impact on Nemrut Mountain National Park, in Protected Areas Symposium, Isparta, Turkey, pp. 183-192.
- Taze F (2008). A Legal Analyses on Protected Areas in Turkey, Unpublished Master Thesis, University of İstanbul.
- Taze F (2008). Korunan alanların hukuksal statüsü üzerinde hukuksal incelemeler, Yüksek Lisans Tezi, İstanbul Üniversitesi Fen Bilimleri Enstitüsü, İstanbul.
- Yalınkılıç MK, Yenilmez Arpa N (2005). Current Laws, Institutions and Status Relevant to Nature Protection Efforts in Turkey, in Protected Areas Symposium, Isparta, Turkey, pp. 3-13.
- Yücel M, Babuş D (2005). "Doğa Korumanın Tarihçesi ve Türkiye'deki Gelişmeler", Doğu Akdeniz Ormancılık Araştırma Müdürlüğü DOA Dergisi (J. DOA), sayı, Antalya, p. 11.
- www.geobilim.com/2008/09/05/Anadolunun-biyolojik-cesitliliği (06.01.2009)
- <http://www.milliparklar.gov.tr/mpd/mp/millipark.asp>(27.02.2009)
- Zivnuska JA (1971). Conservation for Whom ? *Am. For.*, 77: 8-42.