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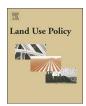
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A critical review of the (potentially) negative impacts of current protected area policies on the nature conservation of forests in Turkey

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ABSTRACT

Together with a better appreciation for the importance of protected areas, efforts for environmental protection have been increasing both at international and national level. However, when changes in policies related to protected areas are evaluated it is observed that in some countries protected areas administrations highlight utilisation rather than conservation. Turkey is also one of those countries which undergo such discussions.

Although there has been no significant increase in the number of protected areas whose protection characteristics are highlighted, there has been an extreme increase in the number of recreation areas and newly established nature parks. In addition, it was found out that significant changes have been made with regards to regulations, administrative approaches, and implementation practices to enable opening of protected areas to non-forestry uses. Moreover, regulations such as the "Resolution for Nature and Biodiversity Conservation Law" are brought forward in this period, which will increase the utilisation of protected areas. Current nature protection policies and administrative approaches that highlight utilisation should be radically changed.

1. Introduction

Protected areas now cover 15.4% of the terrestrial area of the Earth (20.6 million km², including inland waters) (Juffe-Bignoli et al., 2014). They provide shelter for biodiversity, reduce the negative impact of climate change and are considered the cornerstone of nature conservation policy (Arnberger et al., 2012). However, the effectiveness of their management varies significantly within different countries due to their relative social and political worth (Brown et al., 2015).

Even though protected areas, which are "geographical areas that are protected by law and managed for reasons of conservation", have been traditionally allocated for conservation rather than utilisation, recent policy in some countries and regions has meant that they are increasingly being exploited for commercial gain rather than being protected for public interest and human wellbeing (WWF, 2010). Uncontrolled population growth, social and economic uncertainties and environmental deterioration all over the world are making it difficult to follow through the original vision for protected areas. In addition, by favouring short-term resource utilisation over investment in long-term environmental impacts, governments stimulate increased (unsustainable) demand for natural resources (Wright, 1996; Kurdoğlu, 2007). In summary, the pursuit of financial gain from current or potential future protected areas is precluding the protection of these areas and the natural resources within them (Alkan and Korkmaz, 2009).

It is difficult to balance conservation and development goals

(Niedziałkowskia et al., 2014). Both developed and developing countries struggle to strike a balance between the two. Granting timber licenses, concessions and putting-up wood industries in the Philippines significantly contributed to the diminution of the resources over the past 30 years (Villamor, 2006). Climate change, uranium mining and increased groundwater pumping threaten the continued viability of Grand Canyon National Park springs (Muellera et al., 2017). Field usage changes and the demand for wood and non-wood forest products lead to a significant change in the landscape and affect ecological processes, as well as jeopardize the biological diversity of the Ecuador's tropical Andean forest (Cuenca et al., 2016). Ninety per cent of protected areas in Europe are less than 1000 ha in size. It may be argued that the failure to have larger protected areas is an indication of the extent of land use by agricultural areas, roads and railways and urban development in Europe (EEA, 2017a).

Protected area policies in Europe is mostly shaped by the United Nations Convention on Biological Diversity, in addition to the European Union itself. Besides the Europe's own Bern Convention (the Convention on the Conservation of European Wildlife and Natural Habitats), the Ramsar Convention, the World Heritage Convention, UNESCO Man and the Biosphere Programme have all promoted the creation of protected areas (EEA, 2017a). Since 1995, the European Environment Agency's (EEA) European Topic Centre on Nature Conservation in Paris had been collecting information on all protected areas. As part of the Helsinki-process (1993–1995), The Ministerial

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Conference on the Protection of Forests in Europe (MCPFE-Forest Europe) developed the very first Pan-European Indicators for Sustainable Forest Management. For the criterion "C4: Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems", one of the 9 indicators is "4.9: Protected forest"; meaning that countries are required to monitor, assess and report the Protected Forest Areas (PFA) their countries (Frank et al., 2005).

The area of protected forests in Europe increased by around half a million hectares each year between 2000 and 2010. Today, 25.6% of the EU's (EU 28) terrestrial land is protected under Natura 2000 and/or nationally designated areas, half of which is managed for conservation of biodiversity (EEA, 2017b). Protected forest areas make up more than 45% of the Natura 2000 areas, more than 31% of the nationally designated protected areas, and about 12% of the total forest area. Nevertheless, despite the sustained efforts, 80% of forests are still have unfavourable status in terms of the conservation of biodiversity (EEA, 2017c).

The core zones of Northern and Eastern European primary forests and wilderness areas classified as national parks are designated to conserve biological diversity without direct human intervention (MCPFE class 1.1: .No Active Intervention) or with a minimum of human intervention (MCPFE class 1.2: Minimum Intervention). However, 79% of Europe's protected forests are actively managed to conserve biological diversity (MCPFE class 1.3: Conservation Through Active Management). Finally, 15% of the protected forest areas mainly located in Central and Western Europe are designated for the protection of landscapes and specific natural elements (MCPFE class 2: Protection of Landscapes and Specific Natural Elements) (MCPFE, 2003; Frank et al., 2005).

In the 10th Development Plan of Turkey, which covers the years 2014–2018, it has been emphasized that deforestation and deterioration of forests are increasingly threating the world, and that production-based and income-based support mechanisms would be developed to help develop the villages and settlements located in or near the protected areas especially such as national parks, where it is important to strike a balance between the protection and the utilisation of agriculture areas, forests, meadows and forage areas. It has been declared that, especially in protected areas, necessary measures for protecting qualified agricultural areas and forest assets would be taken, and identification, protection, sustainable usage, development, and monitoring of the biodiversity would be ensured. Also in that plan, it has been noted that the percentage of the protected areas increased from 4.99% in 2006–7.24% in 2012 (MD, 2013).

Nevertheless, becoming effective in 2004, National Forestry Programme of Turkey, which covers a period of 20 years between 2004 and 2023, asserts that the current system of protected areas was not established utilising a systematic approach. National Programme emphasizes the need for a thorough evaluation and systematic development of protected areas in order for them to be able to adequately represent the biological diversity and natural assets of the existing forests, the establishment of national criteria that are harmonised with international criteria, and a review and reassessment of current protected area statuses according to the newly established criteria. In addition, the programme aims for the development and implementation of participatory planning and governance systems appropriate for protected areas, and prioritisation of strengthening the rural development activities among local rural communities, which create stress on natural resources in protected areas (COB, 2014).

The Justice and Development Party (AK Party) which has governed Turkey for the past 15 years claims to have made significant progress in the field of forestry and nature conservation. For example, in their election declaration for the general elections in 2015 they claimed to have increased "the number of protected areas from 952 in 2002–1,760 in 2013" and "the percentage coverage of protected areas from a total area of 4.34% in 2002–8.10% in 2014". Furthermore over a 12 year period from 2002 to 2014 "the number of national parks has increased

from 33 to 40 and the number of nature parks from 17 to 192", and "the number of special environmental protection areas from 12 to 16" (Atmiş and Günşen, 2016). However, findings indicate that these ambitious figures do not reflect the truth.

Populist government sources have stated that exploitation of natural resources in recent years (both within and outside protected areas) is permitted as it represents a beneficial "investment". They do not apparently acknowledge that such exploitation is generally damaging to the environment and specifically to protected areas which are being threatened by a shift in political will from one that favours sustainable development of which biodiversity conservation is a critical component to one of exploitation and utilisation (Atmiş and Günşen, 2013; Atmiş and Artar, 2013).

One of the results of such policies is that the organisations that are responsible for the conservation and the management of protected areas are being rendered ineffective. Conservation priorities are being postponed and attempts are being made to remove the obstacles that prevent the unsustainable exploitation of protected areas, either by putting political pressure on bureaucrats or by changing the related regulations. Sekercioğlu et al. (2011a, 2011b) point out that Turkey's rich natural heritage is under assault and protected area management is in a deep crisis due to government policies. Turkey's biodiversity is in imminent danger because of the ongoing damage and destruction to habitats and species; in particular due to hydroelectric power projects, intensification of agriculture, transport infrastructure and urban sprawl. The government is removing any legal obstacles standing in the way, often despite the opposition of local people.

Experts point out that as suitable areas for investment at coastal areas and in city centres begin to run out, due to construction-based growth strategies, commercial activities and investments are starting to impact on inland areas such as forests, protected areas and historical sites (Duru, 2015). As a result of these developments many industrial facilities, settlements, tourism facilities, mines and infrastructure investments are being built on ecosystems such as forests, pastures, and wetlands with no consideration for the generally-accepted principles of best-practice land use planning. As a result, the protected areas are being severely damaged on the grounds of economic development (Kuvan, 2012).

The Environmental Performance Index (EPI) prepared annually by Yale University supports these findings. According to EPI, Turkey's ranking of 49th with a score of 72.8 among 133 countries in 2006 has fallen to 99th with a score of 67.68 among 180 countries in 2016 (Esty et al., 2006; Hsu et al., 2016). According to the same index, when considering the terrestrial protected areas (National Biome Weights) index, Turkey holds barely the 177th place among 180 countries in 2016, with a score of 17.29 (Anon, 2016).

The aim of this study was to provide a critical review of the perspective on protected area management that has prevailed in the recent years in Turkey, which is driven by policies that deliver economic exploitation rather than nature conservation and which has and is resulting in serious damage to Turkey's natural heritage. Assessments of the various sources of impact are made through an analysis of changes that have been made to the policies and the current practice in relation to their implementation, with a specific focus on forest ecosystems.

2. Material and methods

Protected terrestrial areas in Turkey cover almost 5.65 million hectares, which corresponds to 7.24% of the total area (DKMP, 2016). The distribution of the responsibilities and the various levels of decision making authority among different agencies, implemented by a variety of regulations, is complex and results from the historical or natural characteristics of protected areas. As a result and for the sake of clarity, this study only takes into consideration the protected areas within forest zones, which fall under the authority of the Ministry of Forestry and Water Affairs. The General Directorate of Forestry (OGM) and

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