

## Assessments of Certification Systems in Forestry and Sustainable Ecotourism

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### Abstract

Certification is a concept that generally expresses the confirmation that a product, service or process has been made as specified in the rules. There are certification systems developed for different utilization processes from agriculture to fishing, tourism to health, forestry to natural resource management. Certification for ecotourism is a fairly new phenomenon. In this study, it is aimed to investigate the application of the main certification systems applied at national and international level in terms of ecotourism activities in protected areas. For this purpose, Green Star, Blue Flag, White Star, Greening Hotels, Halal Tourism Certificate, Safe Tourism Certificate etc. national certification systems with Green Globe 21, Costa Rica Certification Program, National Ecotourism Accreditation Program, New Zealand Certification Program, Europark, PanParks, Green Key, Travelife, Breeam and Leed, ISO 14001etc. international certification systems will be briefly introduced and the adaptation possibilities of each system to ecotourism will be examined.

**Key Words:** Certification, Protected Areas, Sustainable Ecotourism, Forestry

## Ormanlıkta ve Sürdürülebilir Ekoturizmde Sertifikasyon Sistemleri ile İlgili Değerlendirmeler

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### Özet

Sertifikalandırma, bir ürün, hizmet veya sürecin, kurallarda belirtildiği gibi yapıldığının teyit edilmesini ifade eden genel bir kavramdır. Tarımdan balıkçılığa, turizmden sağlığa, ormancılıktan doğal kaynak yönetimine kadar farklı faydalanma süreçlerine yönelik geliştirilen sertifikasyon sistemleri bulunmaktadır. Ekoturizme yönelik sertifikalandırma ise oldukça yeni bir olgudur. Bu çalışmada, ulusal ve uluslararası düzeyde uygulanan başlıca sertifikasyon sistemlerinin korunan alanlarda yürütülen ekoturizm faaliyetleri açısından uygulanma imkanlarının araştırılması amaçlanmıştır. Bu amaçla; Yeşil Yıldız, Mavi Bayrak, Beyaz Yıldız, Yeşillenen Oteller, Helal Turizm Sertifikası, Güvenli Turizm Sertifikası vb. ulusal sertifika sistemleri ile Green Globe 21, Costa Rika Sertifikasyon Sistemi, Avustralya Doğa ve Ekoturizm Akreditasyon Programı ve EkoRehber Programı, Yeni Zelanda Sertifikasyon Sistemi, Europark, PanParks, Yeşil Anahtar, Travelife, Breeam ve Leed, ISO 14001 vb. uluslararası sertifikasyon sistemleri kısaca tanımlanmış ve her bir sistemin ekoturizme uyarlanma imkanları irdelenmiştir.

**Anahtar Kelimeler:** Sertifikasyon, Korunan Alanlar, Sürdürülebilir Ekoturizm, Ormanlık

## 1. INTRODUCTION

The process of extensive industrialization, which started with the Industrial Revolution, and urbanization and demographic problems triggered by this process have led to the fast deterioration of the balance in nature and destruction of nature. Therefore, approaches based on the use of natural areas with rich ecosystems and biodiversity for a longer term have emerged, and sustainability consciousness has developed (Tıraş, 2012; Karaçor, 2020).

Furthermore, protection and sustainability studies have become more important due to the change in the needs of visitors in the tourism sector, which is one of the sectors where the relationship between nature and cultural environment is experienced the most intensively (Karaçor, 2020).

Accordingly, in line with the principle of sustainability in tourism, management practices attaching importance to ecologic, cultural, social and economic development and adopting the operability of a national or international environmental management system in the subjects of transportation, institutional reliability, visitor capacity of the destination, waste management, efficiency in energy and water use, biodiversity and activity diversity have started to be considered. This consideration has resulted in the concept of certification (Mensah, 2006; Mair & Jago, 2010).

Certification is a system that approaches the environmental problems of a touristic facility, which applies on the basis of voluntariness, or service in general, and follows these problems and evaluates success according to pre-defined environmental principles and guidelines. In short, certification is a process in which the compliance of a service or management system with the specified conditions is confirmed by third parties through a written guarantee (Morgan, 1999; Honey and Rome, 2001; Maclaren, 2002; Bien, 2007). Therefore, the certification process acts as a management tool that institutions, non-governmental organizations and enterprises seek to implement the principles of sustainable development in the tourism sector (Çevirgen, 2003). A certified touristic facility or service has a logo, symbol, or slogan. Certification serves as an important tool both in terms of better management of forests in forestry and ensuring that forestry activities are carried out in accordance with the principles of sustainable development, as well as in terms of improving the natural environment in tourism and increasing the motivation of touristic facilities or services.

In addition, certification ensures that better quality services can be provided to visitors, reduce the operating costs of the facilities and provide marketing advantages to enterprises. Certification enables government and public to support certification efforts to protect businesses' market niches and also helps reduce poverty in rural areas (Bien, 2007; Haaland & Ass, 2010).

Worldwide, certification systems are needed in order to get rid of the damage caused by mass tourism on natural resources and support, promote and apply the sustainability of tourism; these systems reach the relevant segments and receive more demand over time.

Ecotourism is a type of tourism, and nowadays, ecotourism activities and the certification of the protected areas, where these activities are carried out extensively, have also started to appear in the agenda as much as the sustainability and certification of tourism activities in general.

The first supportive and regulatory activities related to certification are the Efforts of the United Nations to develop sustainable tourism through the Sustainable Tourism Development Program of the World Tourism Organization (WTO) (Çevirgen, 2003).

Protected areas are the areas under different management statuses such as national parks and natural parks, which are allocated for the production of non-materialistic services and benefits in order to ensure the sustainable protection of biological diversity and natural and cultural resources. Thanks to the certification of protected areas, both the benefits from the certification of tourism will be achieved, and contribution and support will be provided to the sustainability of the management of natural resources, especially forests.

Thanks to the certification of ecotourism activities, significant benefits will occur in ensuring sustainability, protecting the natural environment, raising standards for ecotourism and marketing related areas (Çevirgen, 2003).

Nowadays, the most important issues in the tourism sector are certification and eco-brands. In this study, by focusing on primary national and international tourism certification systems and global sustainable tourism criteria, the status of implementation of these systems and criteria for ecotourism activities in the protected areas will be investigated.

### **1.1.Certification Practices in Protected Areas**

Certification systems in tourism activities in protected areas are used as instruments to inspect and improve the negative aspects of tourism in protected areas. In the certifications of the protected areas, there are five different approaches, which are as follows (Dudley, 2004):

- Certification of all the protected areas in a region or country,
- Certification of the certain management types of the protected areas (for example, private protected areas or protected areas managed by the society),
- Certification of the areas protected for a special purpose (like tourism),
- Certification of the procedures carried out in predominantly protected areas (like the certificate of ecotourism operators),
- Certification of the procedures which can be carried out in protected areas but also outside them (like good management of forests and organic agriculture).

There are many certification systems developed at the national and international levels regarding the tourism sector and protected areas. Especially due to the diversity of tourism, studies on the first certification systems were initiated in eco-tourism and rural tourism types (Erdogan, 2020). Therefore, certification systems are examined under three headings: mass tourism certification systems, sustainable tourism certification systems, and ecotourism certification systems (Honey & Rome, 2001).

#### **1.1.1. Mass Tourism Certification Systems**

Mass tourism certification systems generally include the certification of largescale businesses or hotel chains and take precautions to meet the needs of these businesses. Thanks to mass tourism certification systems, related businesses provide advantages in cost-saving, technical assistance and continuous improvements. However, encountering problems such as the inability to give an adequate response to the interests and expectations of visitors since misleading and incomplete information is given to visitors or visitors are ignored in these certification systems, and following policies deprived of environmental sensitivity have caused mass certification systems to lose their importance and led to a search for new certification systems (Honey & Rome, 2001).

#### **1.1.2. Sustainable Tourism Certification Systems**

Sustainable tourism certification systems include the certification of small and medium-scale businesses in natural areas or nearby areas, and they aim at fulfilling the needs of these businesses as well as visitors and local communities. Sustainable tourism certification systems are relatively more expensive and may experience incompetency in funding and the practice of marketing activities; sometimes, local communities and NGOs feel excluded and do not support the relevant activities. Thus, in sustainable tourism certification systems, businesses that deal with certification could not be recognized adequately. Accordingly, in sustainable tourism certification systems, there is structuring that brings sustainability to the forefront on the basis of the experiences from mass tourism certification systems. However, it has been observed that no sufficient response could be given to the interests and expectations of all the segments with respect to the field, and policies with environmental sensitivity are inadequate and could not be developed completely (Honey & Rome, 2001).

### **1.1.3. Ecotourism Certification Systems**

As in sustainable tourism certification systems, ecotourism certification systems generally include the certification of small and medium-scale businesses nearby natural areas and in protected areas. Businesses in ecotourism certification systems are based on certification for enabling the sustainability of tourism activities in the relevant area, the protection of the area, and local people in these areas to obtain income from ecotourism activities. With ecotourism certification systems, policies supporting environmental protection and sustainable development can easily be developed. In this respect, ecotourism certification systems can easily be recognized by all the countries (Honey & Rome, 2001). Hence, thanks to ecotourism certification systems, a separation can be made about which type of tourism is considered to carry out tourism activities in a protected area, and it is enabled to protect the conceptual integrity of these activities.

However, deficiencies may be faced in the sources of funding, audits and reward systems. Accordingly, problems may be experienced in the fulfillment of some of the needs of the business in ecotourism certification systems (Honey & Rome, 2001).

## **1.2. A Perspective on Certification Systems in Terms of Protected Areas in Turkey**

In the special commission reports for tourism of the eighth, ninth, and tenth development plans in Turkey, there are some actions regarding the need for switching to the certification system to increase the service quality in tourism, turning the certification system into a key topic, and the popularization of the certification system in the objectives of increasing the efficiency in the existing capital stock for the realization of the approach based on improvement in the tourism sector and sectoral growth (DPT, 2001; DPT, 2007; Ministry of Development, 2014).

It has even been observed that the first example of the certification system in Turkey was a practice initiated by the Ministry of Culture and Tourism in 1993, aiming at creating environmental consciousness in businesses and contributing to the protection of the environment. In this practice, successful businesses were awarded an "Environmentally Friendly Organization Certificate and Plaque" (Official Gazette, 2020).

Considering mass tourism, sustainable tourism and ecotourism activities and certification systems for these activities, it can be said that the most appropriate tourism activity for the protected areas in Turkey is ecotourism, and the most appropriate certification system for the protected areas is ecotourism certification systems (Daşdemir & Güngör, 2005).

### **1.2.1. National Certification Programs**

There are various documents given to tourism businesses by the Ministry of Culture and Tourism in Turkey. These documents are particularly important in respect of creating a positive image in the perception of visitors who support the sustainable practices of businesses and creating a positive effect on the purchasing behavior of visitors (Şanlıöz Özgen et al., 2016).

The criteria of the national documents are prepared in compliance with the criteria given on an international scale. In this respect, studies are carried out for the integration of the national and international ones. Thus, it is possible for a business that has obtained a national certificate to obtain an international certificate with some additions and arrangements (Şanlıöz Özgen et al., 2016).

There are many national certification systems implemented in Turkey. Under this heading, the main systems, the Green Star, Blue Flag, White Star, Greening Hotels, Halal Tourism, and Safe Tourism certification systems will be introduced.

#### **1.2.1.1. Green Star**

Green Star is a certification system applied for accommodation facilities in order to protect the environment, develop environmental consciousness, encourage and promote positive contributions to

the environment by touristic facilities within the scope of sustainable tourism (URL-1, 2020). This system entered into force with the notice numbered 2008/3 published in the Official Gazette, dated 22.09.2008 and numbered 27005. The Ministry of Culture and Tourism is the executive of the Green Star certification system. With the Green Star certification system, a type of "Environmental Label" is given to environmentally sensitive accommodation facilities within the scope of sustainable tourism (Official Gazette, 2020). In the Green Star certification system, a scoring system was developed by considering international criteria and developments. In this scoring system, there are scores regarding the determination of an environmental policy and action plan of touristic facilities, a special authority to implement the action plan at the facility, training the personnel for environmental consciousness to be increased by the facility and to formulate the environmental measures and action plan, the existence of an environmentally sensitive wastewater plan, protective maintenance and periodic repair of all the installments, equipment, and fittings, and recording them, collection of data on water and energy consumption of facilities, and monitoring of chemical substances and waste amounts (Şanlıöz Özgen et al., 2016).

#### **1.2.1.2.Blue Flag**

Blue Flag is an international eco-labeling program given to qualified beaches and marinas within the context of sustainable tourism (URL-2, 2020). This program was developed in France in 1985 and started to be implemented by the Turkey Environment Education Foundation in 1993. Although Blue Flag is essentially described as an environmental award for sustainable tourism, it is extremely important for sustainable tourism since it signifies an international standard, and its implementation area is coasts and marinas (Şanlıöz Özgen et al., 2016).

#### **1.2.1.3.White Star**

White Star is a certification system, which started to be implemented by the Turkish Hoteliers Federation (TUROFED) in 2008, for controlling the amount of the consumed water, electricity, energy, chemicals and solid wastes in businesses, minimizing the possible damage to the environment and natural resources, and enabling visitors to take part in this environmental sensitivity without compromising the comfort of visitors so that environmental disasters faced by the world can be prevented, and accommodation businesses can have a better, sustainable structure, within the scope of sustainable tourism (Yıldız, 2012).

#### **1.2.1.4.Greening Hotels**

The Greening Hotels project is a social responsibility campaign just like "White Star," and it is a certification system that was initiated by the cooperation of TUROB and Bureau Veritas for the participants of the 5th World Water Forum in 2009. It aims and promotes increasing the awareness of businesses in the tourism sector of sustainability and the sensitivity of accommodation facilities to the environment (Hüseyinli and Esen, 2018). In this certification system, the energy management of hotels, water-saving, increasing indoor air quality, and waste reduction/recycling issues are addressed (URL-3, 2020).

#### **1.2.1.5.Halal Tourism Certificate**

The Halal Tourism Certificate is a certification system that appeared with the change of Islamic hotels, which emerged in 1996, and responds to the requests and demands of visitors in Turkey. The Halal Tourism Certificate involves not only the compliance of food and beverages with Islam but also all the efforts required for a comfortable and reliable holiday, beginning from the arrival of visitors to the business until they leave the business (Pamukçu, 2017).

#### **1.2.1.6.Safe Tourism Certificate**

The Safe Tourism Certificate is a health certificate prepared with the contributions of the Ministries of Tourism, Health, Transport and Internal Affairs due to the COVID-19 pandemic. It includes the arrival of both domestic and international visitors, who will have a holiday in Turkey, and welcoming them, and all the measures to be taken during and after the journey (URL-4, 2020).

### **1.2.2. International Certification Systems**

There are various documents given in tourism by international certification systems like the documents in national certification systems. Under this heading, the Green Globe 21, Australian Nature and Ecotourism Accreditation Program and Eco Guide Program (NEAP), Costa Rica Certification System, New Zealand Certification System, Europark (PAN European Protected Areas Network), PanParks, Green Key, Travelife, Breeam and Leed and ISO 14001 (Environmental Management System) certification systems, which are the primary documents, will be introduced.

#### **1.2.2.1.Green Globe 21**

Green Globe 21 is an internationally valid independent auditing organization that was developed in line with the decisions made at the UN Rio Summit in 1992 and provides certification, education, training, marketing and consultancy services on mass tourism and sustainable tourism in 83 countries worldwide (URL-5, 2020).

Green Globe 21 provides certificates on sustainable tourism for airports, caravan parks, car rental, golf courses, meeting, congress and ceremony centers, exhibition halls, hotels, marinas, railways and protected areas across the world (Honey and Rome, 2001).

Furthermore, the Green Globe 21 certification subjects include energy, water, electricity-saving, solid waste management, employee rights, local workforce and contribution to the regional economy, etc. (Green Globe, 2020).

With the Green Globe 21 certificate, successful businesses can monitor whether their activities are carried out in a sustainable manner and detect situations that cause problems in their businesses beforehand. Thus, Green Globe 21 helps with the elimination of problems in the region through the adoption of improved standards while contributing to the protection of the relevant region (Buckley, 2002; Şişik, 2012).

The standards related to Green Globe 21 are based on the Global Sustainable Tourism criteria defined by GSTC, Basic Criteria of the Sustainable Tourism Certification Network of the Americas, Agenda 21 sustainable development principles, and ISO 9001/14001/19011 (International Standardization Organization) studies. In this document, criteria are gathered under four main headings: sustainable management, social/economic, cultural heritage, and environment (Green Globe, 2020).

#### **1.2.2.2.Costa Rica Certification System**

The Costa Rica Certification System was developed by Rodolfo Lizano in 1996 and granted its first certificate in 1998. The Costa Rica Certification System is geographically limited to Costa Rica, together with 6 Central American countries. In the Costa Rica certification system, there are criteria gathered in 4 groups in total as physical and biological environment, infrastructure and services, visitors, and socio-economic environment (Honey and Rome, 2001).

This certification system was initially respected a lot, but it was significantly criticized since it exhibited behaviors in support of mass tourism and led to environmental disasters in the geographical areas it covered in years when global tourism escalated (Honey & Rome, 2001).

#### **1.2.2.3.Australian Nature and Ecotourism Accreditation Program and EcoGuide Program**

The Australian Nature and Ecotourism Accreditation Program and EcoGuide Program (NEAP) is a foundation that gives certificates for ecotourism and sustainable tourism covering the geography of Australia, and it started to be planned in 1993 and granted its first certificate in 1997. The audits in this program are held by the Australian Ecotourism Union. In this certification system, accommodation places, tours and tour actions are controlled. In its sub-program, the EcoGuide program, tour guides are audited (Honey & Rome, 2001).

#### **1.2.2.4. New Zealand Certification System**

The New Zealand Certification System grants certificates in mass tourism, sustainable tourism, and ecotourism and renders services in education, training, marketing, and consultancy. The New Zealand Certification System is geographically limited to New Zealand. This certification system grants certificates in mass tourism and sustainable tourism, and especially ecotourism for establishments such as hotels, holiday parks, shopping malls, tour operators, etc. in the geographical area it covers. In this certification system, training is given on focusing on the natural area, safety and legality, environmental sustainability, contribution to protecting nature, working with local communities, cultural element, customer satisfaction, and environmentally responsible marketing (Honey & Rome, 2001).

#### **1.2.2.5. Europark (PAN Europe's Protected Areas Network)**

Europark grants certificates in sustainable tourism and renders education, training, marketing, and consultancy services. The geographic area of the Europark certification system is limited to the protected areas of the countries in Europe. This certification system is an international certification system providing training on having a vision for the sustainable development of the relevant park, ensuring collaboration in park management, creation of a joint work program, collaboration in the management of protected areas, observation of natural values and changes of parks, communication between protected areas, and joint projects and funding (Daşdemir & Güngör, 2005).

#### **1.2.2.6. PanParks**

PanParks is a non-profit making independent foundation established by the Worldwide Fund for Nature (WWF) and the Netherlands Tourism Association (Molecaten) in 1997 to protect and develop natural areas (URL-6, 2020). PanParks grants certificates in ecotourism in the protected areas of the countries in Europe. In this certification system, training is given on sustaining the natural values in protected areas, creating the habitat management, visitor management, development of sustainable tourism, park management, and collaboration between sponsors and NGOs. The audit of the businesses that have been granted a PanParks certificate is performed by independent auditors. This certification system has a self-sufficient fund and funds its businesses via licensing (Honey & Rome, 2001).

#### **1.2.2.7. Green Key**

Green Key is a non-profit making, nongovernmental and independent eco-labeling system prepared by the International Foundation for Environmental Education (FEE), which is an independent organization. Green Key started in Denmark in 1994, combined with the French Green Key Program in 1998, and has spread over 20 countries nowadays. It has been applied in Turkey since 2011, and its activities are carried on by the Turkish Foundation for Environmental Education (Greenkey, 2020a). The Green Key certificate is an international system applied to camping areas, holiday houses, and restaurants, mainly including accommodation businesses, and supports the activities for the protection of the natural environment with a rewarding system with basic objectives such as protecting the environment by recording energy and water consumption and ensuring saving, economic management, obtaining advantages in marketing, strengthening tourism, education raising consciousness on consumption and increasing recognizability. The Green Key certificate is of great significance in terms of not only management but also marketing (Gökdeniz, 2017; Greenkey, 2020b).

#### **1.2.2.8. Travelife**

Travelife is an initiative, which was founded in 2007 with the support of ECEAT Projects, a non-profit making Dutch organization, to promote sustainability in tourism in cooperation with the Travel Organization of the UK, Travel Organization of the Netherlands, Leeds Metropolitan University, and Lund University, to promote sustainable practices in tourism. Travelife covers travel companies and

accommodation businesses based on the central role of tour operators and travel agencies in the tourism supply chain (URL-7, 2020).

Travelife is a certification system that measures both the environmentally sensitive arrangements in accommodation facilities and the social security rights, working hours and salary scales of employees, education they have received on the environment, whether the products used in the service have been bought from domestic manufacturers, and how much benefit is provided to the domestic economy (Travelife, 2020).

#### **1.2.2.9. Breeam and Leed**

It is an environmental evaluation method developed by the Structural Research Institute in the UK and put into effect in 1990. The Breeam method is one of the principles of the green building evaluation system. The Breeam method consists of 10 criteria such as environmental evaluation system, management-water, transportation energy, waste-health and comfort-materials pollution, land use and ecology-innovation, and it grades buildings according to its own scoring system (Erdede et al., 2014).

Leed is an environmentally friendly building system that was developed by the American Green Building Council in 1998, is based on voluntariness, promotes green competition, suggests a completely environmentally friendly building design, tries to raise the awareness of people and determines the performance frame of sustainable buildings. Briefly, it is expressed as the system of rewarding new and existing buildings. The aim of the Leed system, which is the most preferred environmentally friendly building certificate in the world and Turkey, is to reveal structures that will minimize the environmental damage during the construction and utilization of the building design (Baştanoğlu, 2017).

#### **1.2.2.10. ISO 14001 (Environmental Management System)**

The first preparation of the ISO 14001 Environmental Management System is based on the principles and decisions in the Rio Agreement realized in Rio in 1992. Then, a technical committee consisting of the representatives of approximately 50 countries was established by ISO in 1993 to prepare the international environmental management standards, and this system was published and entered into force in September 1996. The application of the ISO 14001 standard is still based on voluntariness (URL-8, 2020).

ISO 14001 is one of the environmental management system certification systems created to reduce the direct or indirect damage of businesses to the environment in a controlled way and even prevent them completely (URL-9, 2020). ISO 14001 determines the environmental factors from the manufacturing process of products until customers' access to them and tries to ensure that these factors constitute a protective system for the natural environment (Başaran, 2009). To sum up, ISO 14001 should be considered as the determination of the standards that could bring operational, managerial and competitional superiority to businesses to improve the satisfaction of shareholders and relationships in businesses on the basis of sustainable development, value addition and quality (Küçük, 2009).

ISO 14001, which is represented by TSE in Turkey, pays attention to all the environmental topics regarding air pollution, water and sewage problems, efficient use of resources, waste management, soil pollution, climate change, and adaptation (ISO, 2020).

### **1.2.3. The Relationship Between Global Sustainable Tourism Criteria and Certification**

Sustainable tourism is of extremely critical importance in terms of answering how the trust of the visitor in the sustainable system applied, effects of the practices on marketing and incorrect implementations can be measured and evaluated. The Global Sustainable Tourism Criteria, on the other hand, provide an opportunity for everyone to understand sustainable tourism in a clearer way (Şanlıöz Özgen et al., 2016).

The Global Sustainable Tourism Criteria were developed in 2007 with the engagement of many tourism organizations, including the Global Sustainable Tourism Council (GSTC) and the United Nations World Tourism Organization (UNWTO). By presenting the criteria defined here to businesses as guidelines, it is aimed to increase the sustainability of businesses, to enable travel agencies and tour operators to participate in sustainable tourism certification systems and to select their suppliers accordingly, to inform the press about sustainable tourism, to prepare a general ground for the certification system criteria in the tourism industry, and to create a common starting point for governments, private sector, and NGOs (URL-10, 2020).

The Global Sustainable Tourism Criteria are used nowadays by businesses and organizations across the world for the purpose of understanding the complicated aspects of sustainable tourism in a better way and turning sustainability into a basic methodology in the forms of traveling, learning, and working. Meanwhile, these criteria are also used to have a common understanding of sustainable tourism and to establish the minimum conditions that every tourism organization should try to meet (URL-10, 2020).

The criteria created for the aforementioned purposes in the activities of GSTC have been defined (Gebhard et al., 2009):

- Social welfare,
- Protection of the natural and cultural environment,
- Product quality and visitor satisfaction,
- Management/observation.

Furthermore, these criteria have the potential of being the main starting point to establish the necessary criteria for grounding the tourism and ecotourism activities performed in protected areas on sustainability. It should be remembered that it is important but difficult to measure sustainability for ecotourism activities in protected areas.

In the literature studies, numerous criteria and indicator sets have been developed to serve the purpose of sustainable ecotourism management in protected areas worldwide (Abidin, 1999; Choi & Sirakaya, 2006; Bender, 2008; Gebhard et al., 2009; Gallaher, 2010; Barzekar et al., 2011; Miller, 2001; Tali et al., 2012; Medina et al, 2013). However, it is striking that criteria and indicator sets to serve this purpose in Turkey could not be developed. In Turkey, there is a limited number of studies revealing the current status in the related field only by making use of sustainable criteria and indicator sets (Gürer, 2009; Çalık, 2014; Varnacı Uzun, 2012; Aydın et al., 2017).

## 2. CONCLUSION AND EVALUATIONS

Nowadays, when the expectations for ecotourism activities in protected areas, especially in the forestry sector, which are devoted to wood-based and non-wood products, as well as non-material service and/or benefit production, are taken into account; it seems obvious that certification of protected areas will contribute and support the sustainability of protected areas. In this context, principles and principles for certification programs should be established in protected areas and efforts should be made in this regard.

When the certification systems implemented at the national and international levels are reviewed, it is understood that the possibility of their implementation is relatively limited in terms of the ecotourism activities performed in the protected areas of Turkey, and some of them have a higher potential of implementation.

The national certification systems with relatively limited possibilities of implementation are the Green Star, Blue Flag, Halal Tourism, and Safe Tourism Certificate, whereas the international certification systems are the Green Globe 21, NEAP, Costa Rica Certification System, New Zealand Certification System, and ISO 14001 certification systems. The fact that these systems are specific to certain areas and subjects has an effect on the limited possibility of their implementation.

For example, Green Star addresses large-scale hotels, Blue Flag is applied to beaches and marinas, the Safe Tourism Certificate is related to the COVID pandemic, the Halal Tourism Certificate targets a certain group, Green Globe 21 aims at meeting halls and congress centers, Travelife focuses on tour operators and travel agencies, Bream and Leed deal with buildings, the Costa Rica Certification System concentrates on mass tourism and sustainable tourism and is limited to Central American countries, and the ISO 14001 certification system is related to sustainable tourism.

On the other hand, the NEAP and New Zealand certification systems make decisions on ecotourism. However, NEAP is limited to Australia and the New Zealand certification system to New Zealand, which makes it difficult to adapt the criteria in these certification systems to the conditions in Turkey.

Additionally, among the national certification systems in Turkey, the White Star and Greening Hotels certification systems involve decisions on sustainable tourism. Therefore, it is thought that they can be an infrastructure for ecotourism with some additions and arrangements.

International certification systems such as Europark, PanParks, and the Global Sustainable Tourism Criteria can be said to be suitable for the certification of ecotourism activities in protected areas.

Due to the fact that Europark, PanParks and Global Sustainable Tourism Criteria cover activities for protected areas, sustainable tourism and ecotourism, their geographical scope is mostly European countries and the status of many protected areas in our country parallels the purpose of establishment, the criteria and targets in these certification systems are more likely to be adapted to the conditions of our country. However, certification studies should be emphasized by paying attention to the provision of a sustainable financing structure in these certificate systems that are conforming to our country, the implementation of legal regulations related to the field and the rules on monitoring and auditing.

Nowadays, certification activities in tourism are carried out at the level of accommodation businesses, travel agencies, and tour operators in general. In fact, certification must be made mandatory for sustainable management of protected areas. Because thousands of visitors come to protected areas in our country every year, but a control system for limiting incoming visitors has not been fully developed. Therefore, natural and cultural resources in protected areas may experience environmental deterioration over time and problems in the living spaces of people living in the region. Therefore, protected areas should be included in certification systems in order to protect protected areas more effectively and efficiently and to provide socio-economic benefits of ecotourism to people living in the region. In this way, the negative effects of tourism activities in protected areas can be reduced thanks to certification systems with national or international validity and based on volunteerism. In other words, certification is not a goal; it should be used as a tool to enable and accelerate the development of sustainable tourism and ecotourism.

Moreover, the certification of the protected areas in Turkey is important, but the determination of criteria and indicators for sustainable ecotourism activities in protected areas is quite a new topic. In this context, studies that would enable creating, improving, and monitoring criteria and indicators for sustainable ecotourism on a national scale should be focused on. While focusing on these studies, the reason for the existence of ecotourism in protected areas should not be forgotten and attention should be paid to determining policies in a way that is most beneficial to these areas.

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