

PROTECTED AREAS WORDWIDE

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Abstract

This paper present the history of protected areas in the world, increasing the percentage contribution made in protected habitats around the world.

The contributions in this area fils (natural protected areas) in the world captures period ranging from ancient times (emperor Asoka B.C.) until today. The land covered by protected natural areas increases continuously in the worldwide.

Key words: *protected natural area, national park, natural park, biodiversity and protected laws*

INTRODUCTION

The idea of protected natural areas is old and it came from the necessity to preserve samples of natural forests, as much as possible virgin or quasi virgin, with the purpose to allow the coming generations observe archetypes of organisation and functioning of the natural forestry ecosystems.

MATERIAL AND METHOD

The information was collected from various publications from the country and abroad and was analyzed and synthesized.

In Europe, the moments of reference in terms of conservation are: *Directive Birds* of the Council of Europe 79/409/CEE concerning the conservation of wild birds (1979) and *Directive Habitat* of the Council of Europe 92/43/CEE concerning the conservation of the natural habitats and of the species of wild flora and fauna (1992). IBA program (Important Bird Areas in Europe) started on the basis of the *Directive Birds* designated subsequently Special Protected Areas and became part of Natura 2000 network. On the basis of *Directive Habitat* were established Special Areas of Conservation for the protection of the species and habitats of community interest, and network Natura 2000 was started in Europe (Chape, S., et.al., 2005).

RESULTS AND DISSCUSIONS

The oldest references to the concept of protected areas can be found in India. Emperor Asoka (325 – 273 B.C.) fundamented the first protected area out of ethical reasons, according to the Buddhist concept requiring the protection of the sources of life. He established natural reservations with the

aim to prevent the decrease of the food reserves by excessive hunting, putting under protection mammals (elephants), birds, fishes and forest areas. It was prohibited to hunt some species of birds and mammals during the period of reproduction.

In 684, by order of king Srivijaya, the first Indonesian reservation is established: the island of Sumatra. It is still acknowledged in our days as one of the areas with the largest megadiversity, having numerous protected areas; most of the recently established sites cover 25,000 km² of tropical forests, included in the world patrimony through UNESCO.

In England, William the Conqueror proclaimed laws prohibiting poaching and fishing and established the first reservation protecting the game (1079), sharing the forests of England. All southern forests belong to the hunting domain of the king and no one else, by no means, could hunt here. Furthermore, as the king owned huge forest areas in Normandy, where he used to hunt wild pigs and deers, he ordered to plant a new forest (actually called New Forest) near Winchester. In 2005, this forest became a natural park.

According to the writings of Marco Polo, Kublai Khan banned in the 18th century the hunt of some species of birds and mammals during their period of reproduction and even provided them with food, while maintaining some forest areas especially for them. Another example is that of the Inca kings, who were protecting species of marine birds (Stanciu, E., 2009).

In Russia, the first measures of protection consisted in the regulation of wood clearing and in saving the endangered noble game. Tsar Peter the Great (1672-1725 A.D.) issued starting with 1703 decrees to protect and use some forests in a rational manner. In 1723 he forbid cutting the gallery forests along the rivers, unlike other states which only in the 19th century started to ban the clearing of forests that were important for the soil waters and to keep the soil fixed. Generally, the owners of large hunting grounds had protected the valuable game and the forests that harboured this game (Pop, E., 1963).

At the end in the 17th century, due to the irreversible alteration of the environment, different personalities started activities to protect endangered ecosystems. Professor Alexander von Humboldt had described a giant tree in Venezuela and declared it monument of the nature. In Lithuania, the protection of the beavers and of the European bison started in the 18th century, while in Galicia, the black goat and the marmot were protected since 1869.

Another type of reservations aimed to protect particularly beautiful landscaped for the distraction and leisure of the public. Among the European sites there is the Theresienhain forest near Bamberg (Bavaria),

officially protected by the Bavarian state since 1803 for the “distraction of the people” and the reservations from the Saxonian Switzerland. France decided in 1853 to protect “artistic reserves”, such as the Fontainebleau forest (the first natural reservation), about which the poet Verhaeren was saying that the oneness of this forest consists in its infinite variety. Much later, in 1998, the Fontainebleau forest has been classified as world biosphere reservation and was included in UNESCO patrimony.

All these initiatives gradually gained the attention of the state people. If they started by protecting the game, thereafter, starting from the “love and respect that have to be shown for the creations of nature” (Pușcariu, V., 1973)“, they started to establish national parks and natural reservations, action predominated by the aesthetic and educative interest.

The establishment of the first park may be tracked back during the Renaissance, when the Europeans were highly interested by the natural landscape, but this took the shape of a structured thinking hardly in the 18th century, when the industrial revolution was at its beginnings, particularly in the United Kingdom and in the European countries, as the natural resources started to be overexploited. The concern for environmental degradation and for increasing urbanisation unleashed an irresistible need for nature, which grew stronger and which produced the idea of protecting the natural environment. This idea found a lot of supporters in lawyers, writers and artists. However, this idea took a long time to spread worldwide. The establishment of a viable system of environmental protection appeared only in the second half of the 19th century when the first national park was established in the United States (Oarcea, Z., 1999).

The Yellowstone national park, located in NW Wyoming, at the limit with Montana, of rare variety and landscape originality, was noticed for the first time after the documentary visit of John Colter during the winter of 1807-1808. The area was crossed by the neighbouring Indians looking for bison. Thus, the documents state the permanent presence of a group of about 200 Shoshone Indians, known as sheep-eaters, in the interval 1800-1871.

The concept of national park appeared for the first time in the USA when, in 1932, George Catlin, writer, painter and traveller, fascinated by Amerindians and by the beauty of nature and worried by the impact of the white people on the Indian civilisation, on the species of plants and animals and on the wildness, considered that they should be maintained “*by a particular policy of governmental protection ... as a national park, with people and animals, in all the wilderness and freshness of their natural beauty*” (Stanciu, 2009)“.

The discovery of gold in Montana has drawn new attention on this area, and in 1863 a group of 43 gold prospectors inspected it thoroughly. In

1864, the American Congress donated the Yosemite Valley for conservation as state park. The nature of the park is not stated: national or natural. The exploration of this area was resumed in 1870, when at a bonfire, the idea of national park came up. Later, in 1871, the federal inspection headed by doctor F.V.Hayden explored the region again and, following a strong advertising campaign, on March, 1st, 1872, by decision of the Congress, the **National Yellowstone Park** was established. The act was signed by the acting US President, Ulysses Grant. The act highlights that *“all trees, all mineral deposits, natural curiosities of wonders inside the park will be protected from degradation and deterioration, in order to preserve them in their natural state”* (Oarcea, 1999). At that time, the National Yellowstone Park was protected and managed by the federal government *“to the benefit and for the joy of the people”*. The purpose of establishing the park was to stop any kind of exploitation of the forests, of hunting, mining activities and of any activity of the Indian and local communities. This approach with rules imposed by the state dominated much of the 20th century.

Following the above example, other national parks have been established worldwide. In 1856, in Europe, one of the oldest protected areas was established in Italy, Grand Paradiso, sanctuary for wild animals; 1879 - Australia, the first national park, Royal National Park; 1885-in Canada, the national park Banff-Hot Springs Reservation (Alberta);1886-British Columbia, the national park Glacier and the national park Yoho; 1890-USA, the national park Yosemite; 1891- under President Harrison the first forestry reservation is established in the USA; 1894 – New Zealand, the national park Tongarino; 1898 – South Africa, the national park Krüger (former Sabi reservation);1898 - Mexico, the national park El Chico; 1898 - Victoria, the national park Mount Buffalo; 1898- USA, the national park Sequoia; 1903-the first refuge for wild animals in Pelican Island-Florida, by President Roosevelt; 1909-Sweden, first national parks in Lapland; 1913-Switzerland, the first national park Engadine; 1925- in Asia, Cambodia - the first modern national park Angkor Wat; 1934- Argentina, the national park Iguazu; 1947-Poland, Bialowieza park; 1978-Germany, the first national park Bayerischer Wald.

In conclusion, the start of the 19th century meant the establishment of about 35 new national parks both in Europe (former USSR, Sweden, Switzerland) and on other continents: Africa, Asia and South America.

The idea of an international collaboration for nature protection was initiated by the Swiss Paul Sarasin, at the first international conference from 1913, at Berne.

The World War One interrupted temporarily the activity of nature protection. The following inter-bellum period was rich in such activities,

many countries passing special laws and establishing new natural reservations and national parks.

In 1923, an international conference took place at Paris, and in 1929, upon initiative of the Dutch Van Tienhoven, the *International office for natural protection* was established. One of the topics was the uniformization of the terminology for *national park* (different so far from one country to another), further discussed at the international conferences from Paris (1913) and London (1933).

World War Two interrupted the activity of protection, but it grew in importance after it finished, when there was a lot of concern for environmental nature and when a very large number of national parks were established worldwide.

In 1946, the idea of the international cooperation through the Swiss league for environmental protection refreshed. The first international conference took place in 1947 at Brünnen (Switzerland); in 1948, the French government hosted the International conference for environmental protection at Fontainebleau, under UNESCO auspices. The International Union for Environmental Protection (UIPN) was established, whose purpose was to “promote and assist the activities aiming to protect the wilderness and other natural resources of the earth, of the seas and air, not just for their intrinsic cultural and scientific value, but also for the long-term economic and social welfare of the man”.

This international forum was initially hosted by Brussels. The establishment act was signed by 18 states. The purpose of the forum was to coordinate worldwide the entire action for environmental protection and to reach a common position on the national park.

The “Centre for natural protection and landscape arrangement” was established in 1949 at Egesdorf; in 1952 it became the “Federal institute for environmental protection and landscape arrangement”, with headquarters at Bad Godesberg.

In 1956 there was the fifth general meeting of UIPN took place at Edinburgh (United Kingdom) under the aegis of president R.Heim. UIPN changed in UICN (International union for nature conservation), name still used. Alfred Toepfer president of *Verein Naturschutzpark* association exposed a program for the development of natural parks, which started with the assistance of the public authorities. The notion of Natural Park is admitted (Oarcea, Z. and Merce, O., 2007).

The World Wide Fund for Nature – WWF was established in 1961. This is the largest international, non-governmental, independent organisation running projects of nature conservation. WWF has about 5 million supporters worldwide and an active network in about 100 countries. According to the official WWF website, the “organisation is almost unique

by the fact that it is present from the local to the global level, being able to communicate with the tribes of Baka pigmies in the tropical forests from Central Africa, while also discussing with the World bank and the European Commission”.

In 1962, the first World Conference of the national parks took place at Seattle. It recommended advertising, by papers published in different countries, the efficiency of the establishment and development of national parks. This propaganda increased the flow of tourists in the American parks. Thus, while in 1961 they were visited by over 72 million tourists, in 1970 the number of visitors reached 172 million, which also increased the economic profit (cashing of 320 million dollars in 1962, while the 10 years investment was of just 277 million dollars) (Oarcea, 1999).

Although the income was high, the large flow of tourists endangers the ecologic equilibrium of the area. The number of tourists had to be limited and they have to follow special tracks. Yellowstone Park is now open just 5 months a year and 10% of the park area is covered by laboratories and administrative buildings. Over 50% of the total area is regulated as integral reservation. There is a service for receiving and assisting the visitors, and visiting rules have to be observed.

In 1963, In Tanzania, a College for African wildlife management was established at Mweka. Since 2003, over 4,200 African people graduated the college.

In 1967, France issued a Decree on the information about the Regional Natural Parks and in 1971 the French Federation of the Natural Parks was established.

Man and Biosphere MAB program has been established under UNESCO aegis in 1968. Under this program, 1529 biosphere reservations in 105 countries, covering more than 5 million square km by 2007. Biosphere reservations are those protected natural areas whose purpose is to protect and preserve areas of natural habitat and their specific biological diversity. They cover large areas and include a complex of terrestrial and/or aquatic ecosystems, lakes and rivers, wet areas with unique communities of flora and fauna, with harmonious natural or man-made landscapes, with human communities whose existence relies on the sustainable use of the natural reserves.

In 1969 Delhi hosted the national meeting of UICN, which established the conditions which a protected area must meet in order to be classified as National Park. One of these conditions stipulates that “no man enters” those area. However, this ideal proved to be difficult to accomplish.

In 1971, at Ramsar (Iran), the Convention of the Wetlands of International Importance is adopted, particularly the protection of the habitats for the protection of aquatic birds (the Ramsar Conference). This is

an intergovernmental treaty which provides the framework for the international cooperation to conserve the wetlands, with the following objectives: conservation and sustainable utilization of the wetlands and natural resources of great economic, scientific and recreational value, promoting the international cooperation in the field of wetlands.

In 1972, Sweden, at Stockholm, hosted the UN Conference on the environment and development. New convention are adopted for the protected areas and the UN environmental program (UNEP) is started, with headquarters at Nairobi. The Convention of the World Patrimony was adopted, by 2006 being acknowledged 166 natural sites of the world patrimony, 25 natural and cultural mixed sites, covering 1,800,000 square km. The second World Conference on the national parks took place at Yellowstone, Seattle. On this occasion, Jean Paul Harroy, president of the International Commission of the national parks, functioning within UICN, draw attention on several aspects: the pressure on parks due to the building of roads, dams and touristic camps; the ecological research must be mixed with tourist purposes; the need to establish park areas; park planning and management. Assistance must be developed in order to protect the tropical areas.

The conclusion of this analysis is that no national park can exist without its own administration, with clear tasks and proper size (Oarcea, 1999). The deep ecological research in different national parks and natural reservations worldwide, particularly in the African parks, has shown the importance of preserving these territories harboured from the deleterious influence of the human exploitation, being true functional micro-cosmoses in a natural biological balance.

Starting from these researches and analysing the situation of the national parks and of the analogue reservations using the data made available by the specialists, considering the recommendation of the 1972 World Conference on the National Parks from Seattle, the International Commission of the national parks from UICN compiled the *World list of the national parks and of the analogue reservations* with a French edition in 1967 and an English edition in 1971. The list include the general characterization of 1204 national parks and analogous reservations from 150 countries, and it was approved by the New Delhi General assembly of UICN (November-December 1969) and adopted by the UN Economic and social council (ECOSOC). Out of these national parks and analogous reservations, only 322 are in Europe, and 37 of the largest ones are on the European territory of the former USSR (Pușcariu, 1973).

The selection criterion for the status of protection of these national parks and analogous reservations relies on several principles: their territory must benefit of general protection and must prevent the deterioration of the

natural resources, while guaranteeing the territorial integrity against the different human activities of exploitation; the park or reservation must be under the highest competent authority (scientific/governmental) of that country, so as to observe the conservation of the ecological, geomorphological and aesthetic entities, to allow visits by tourists for recreational, educational and cultural purpose, while observing specific rules.

The analogous reservations generally fall into two categories: with a more severe system of administration than that of the national parks (integral natural reservations) and reservations belonging to a central, governmental or scientific authority (regional park or reservation, directed reservation). While any exploitation or any act that may change the natural aspect or the biologic balance is banned for the first category (tourism is allowed only with special authorization from the relevant authorities), the second category is more tolerant, given the necessary arrangements. This allowed tolerance concerns particularly the tourist organisation (communication roads, hotels, sport and golf), constructions for the administration and dwellings for the staff. Hunting and fishing must be excluded and forestry exploitation is allowed only when absolutely required (trees attacked by insects).

As Racoviță has shown, the area of a national park or of a reservation must be as large as possible, so as to provide for a good protection of the flora and fauna and to maintain the natural balanced. The UN selection criteria stipulate a minimal area for the national parks of 2000 ha for the countries with a population below 50 inhabitants per square kilometre and 500 ha for the countries with a population of more 50 inhabitants per square kilometre (Pușcariu, 1973).

The best formula to harmonise the two concepts, scientific and touristic, was adopted at the international colloquium "Protection of nature and of tourism", Arles, 1971. *The national, parks should be made available to the public within the limits of the environmental capacity of receiving, while recreation and the other socio-economic values must not forget the priority of environmental protection and restoration based in ecologic research.* Special facilities must be arranged for the tourists, in those places where the presence of the public is allowed.

The pressure of the car traffic and the of the cable railways on the national parks and reservations becomes a problem hard to solve both in the USA, in Canada and in Japan, which have large areas of parks; the same situation is in Switzerland for park Engadina, in Italy for the national park Gran Paradiso or for the Tatra park located on the territory of two countries Czechia and Poland.

“In order to stand the increasing pressure of the collective tourism it is necessary to develop tourism around the spas and to allow the access to picturesque areas around towns, to forbid the construction of industrial objectives near these regions, so as to preserve the integrity of the landscape and the silence necessary for recreation.

The authorities must adopt the notion of separation of areas in national parks and analogous reservations, each of them with a proper system of management: scientific for the integral reservations and tourist plus a protection area arranged for tourist activities, which ensures the second area of protection against the urban impact, channelling the excess of tourist traffic. Hence, the sustainable development of tourism in the western countries led to the development of natural and regional parks, besides the national parks. The first ones to be established were located in the over industrialised areas (in Germany there were at that time 52 natural and regional parks and a national park in Bavaria, with an area of 2,900,000 ha). Such achievements generated strong conflicts between the preservation of nature and tourism, such as it was the case of the National Park La Vanoise from France, saved ultimately from the tourist impact by the intervention of the President of the Republic.

The need for international collaboration between neighbouring countries for nature preservation, progressed by the conservation of the international natural and national parks, particularly in Europe (bilateral national parks: *Tatra*, *Krkonoše* and *Pienini* between Czechia and Poland, the natural park between Germany and Luxembourg, the national parks *Gran Paradiso* and *La Vanoise* between Italy and France etc.) (Puşcariu, 1973)”.

The program for the training of the staff working in protected areas stated in 1977 at Catie, Turrialba, Costa Rica and it is still running, supplying trainers for Central America.

The categories of protected areas included in UICN system were published in 1978. The framework for the evaluation of the protected areas worldwide was established.

In 1980, the World Strategy for Nature Conservation, published by U.I.C.N., WWF, U.N.E.P., popularized the term of sustainable development and the partnership between conservation and development.

In 1982, at Bali (Indonesia) takes place the third World Congress of the National Parks, which highlighted the importance of the protected areas as key-elements in the national plans of development, setting a target of at least 10% protected areas for each biome of the world.

The Bruntland report (1987) – “Our Common Future” of the UN commission for sustainable development, required that 12% of the land

receive the status of protected area, while maintaining the action of biodiversity conservation worldwide.

Starting from UICN recommendations, a list of the national parks and of the equivalent reservations has been compiled periodically since 1961.

The basic criteria used to enter the protected areas on the UN list, 1993 edition, are: size, management objectives, authority of the management body. The list includes integral scientific/natural reservations, national parks (2038 parks in 131 countries, on an area of about 376 million ha); natural monuments; directed natural reservations (fauna sanctuaries); protected terrestrial and marine landscapes. Gradually, the parks were classified according to the protected objective: national parks and natural parks. Many times, these two notions are confusing, often replacing each other. The notion of Natural Park belongs to Alfred Toepfer (Germany), who expanded the notion of urban park, with a lot of artificiality in its structure, into natural park, whose objective is for recreation, close to the nature, as natural as possible, exceeding the artificial, urban limits. He submitted for discussion in 1956 a program for the development of natural parks in Germany, whose accomplishment started with the assistance of the public authorities. Unlike the national parks whose attribute was of national bestowed them a note of prestigiousness in their conservation and administration, the natural parks appeared especially for the protection of the landscape, after World War Two, as a means of recreation for the industrialised modern society.

The confusion of the two notions, although possible, is inadmissible. The notion of Natural Park suggests the dominant proportion of the character of naturalness, unaltered. This trait is an indispensable condition for the national parks. Both notions define organisms which ensure the protection of nature, with different intensities, the national parks having the highest intensity because the conservation function has priority, unlike the natural parks where the recreation function has priority, as well as the traditional human activities (Oarcea, 1999).

The modern concept of biodiversity conservation by protected natural areas should guarantee the conservation of biodiversity (maintain the species and ecosystems in their natural state, or as close as possible to their natural state in protected areas); the scientific fundamentation of the methods and processes of management (sustainable use of the natural resources); the scientific fundamentation of the process of reconstruction and rehabilitation of the ecosystems, maintenance of the ecological services by conservation of ecosystems and protection of the cultural values and of the landscape (Chape et.al., 2005 and Stanciu, E., Florescu, F., 2009). This led to the definition of the different categories of protected areas, not just for

the conservation of the biological diversity, but also for the sustainable development of the local communities.

The establishment of Natura 2000 network is very important, but also difficult. In order to be accomplished, the candidate countries must prepare national lists with protected areas candidate for inclusion within Natura 2000 network, must identify the sites of community interest (SCI) and to designate areas of special conservation (ASC). Their purpose is the conservation of biodiversity by saving some vegetal habitats and animal, some species of flora and fauna of European importance. The member countries are asked to identify and delimit the areas suitable for the proposed targets and to communicate them to the European Commission for registration, to propose measures for the future maintenance of these areas and to pass adequate laws for these measures (Seghedini, 2004).

As the economic pressure on biodiversity, on the natural resources and on the cultural values increases, one can notice the multiplication of the number and area of the protected areas worldwide. There is a World Database on Protected Areas, reviewed every five years by the World Conservation Monitoring Centre. It was noticed that in 2007, the cumulated area of the national territories with protected areas covered 11.3% (there are 120,000 protected areas, covering 22 million sq. km). Most are terrestrial areas, and just 5% is marine environment.

A database of U.N.E.P. and U.I.C.N., where information on the protected areas worldwide can be found is at www.wdpa.org.

The Global environmental Fund (GEF) was established in 1991 by the World Bank and UNDP (United Nations Development Program) providing an intergovernmental mechanism of financing for the protected areas.

In 1992, the fourth Congress of the National Parks and Protected Areas took place at Caracas, Venezuela, which highlighted the relation between the protected areas and the other sectors of the society. Also that year was the Convention of Biologic Diversity (CBD), international agreement adopted at the Earth summit. The main objectives that were set included: conservation of the biological diversity, sustainable use of its components, correct and fair division of the benefits arising from the use of genetic resources. CBD was signed by the state leaders from over 150 countries at the UN Summit for Environment and Development. Presently the convention has been ratified by 188 countries, being one of the conventions with the largest ratification.

The UN General Assembly approved in 2000 the Millennium Development Goals, Goal 7 being the sustainable management of the environment.

The World Summit for Sustainable Development took place in 2002 at Johannesburg, South Africa, which debated the loss of biodiversity until 2010 and which decided on the establishment of a complex system of protected marine areas by 2012.

The fifth Congress of the National Parks and Protected Areas took place at Durban, South Africa, in 2003 and it focused on the concept of *benefits beyond borders*, stressing on the sustainable development of the protected areas.

2004 is marked by the 7th reunion of CBD Conference, which adopted a complete working program for the protected areas with the purpose of implementing the in-situ conservation of CBD components.

According to the data published by the World Database on Protected Areas, in 2011 there were more than 130,000 protected natural areas, covering an area of about 27 million sq. km (14% of Earth surface).

In 2012 Bucharest hosted the International Conference COP11 Ramsar, where new Ramsar sites were established.

CONCLUSION

The land covered by protected natural areas increases continuously worldwide, but the relevant legislation is too large and lacking precision, with unclear definitions that often overlap or contradict, causing confusion. Therefore, a much more simple, yet rigorous legislation is required, easier to understand and to apply in the field, which to take into consideration the social, aesthetic role of these areas. On the other hand, the protected natural areas must be uniformly distributed in order to include the whole biodiversity of the vegetal carpet and not only. A deficient area is that of the fields, where the protected areas are almost inexistent, so that it may cover the entire altitudinal space.

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