

The Legal Status of the Danube Delta Biosphere Reservation

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Abstract: In recent years the world has become aware that natural resources are not inexhaustible, that many species are threatened with extinction and that is is necessary to strive for judicious use of natural resources to fulfill the needs of the present without compromising the ability of future generations to meet their needs (principle of sustainable development). To conserve species and habitats protected areas have been established worldwide. The protected area is a geographically defined area, with rare natural elements and / or endangered species, regulated and managed in order to achieve specific conservation objectives. Although ranked Europe's second in size (after the Volga River) and the 20th in the world, because of the rich landscape and wildlife, with the birds ranked most important, the Danube Delta has a very special interest scientifically as it is a natural laboratory of forming delta, tourism and economic ecosystems, through its renewable natural resources of which the most important resources are living aquatic resources.

Keywords: rotected area; environment; sustainable development; legal protection

1. Introduction

Danube Delta was included in the international network of biosphere reserves in the "Man and Biosphere" to conserve the natural areas, ecosystems representative genetic resources capable of maintaining and expanding plants and animals endangered or threatened program. Unlike other protected areas, a Biosphere Reserve is not exclusive for protection but has several purposes, among which only a few: conservation of ecosystems and balanced use of renewable natural resources, the preservation of traditional forms of economic activity, which contribute to produce ecological imbalances, research and continuous monitoring of protected ecosystems components, harmonizing the interests of local population with the primary purpose of Biosphere-preservation (Gâștescu, & Ştiucă, 2006)

In this study, in order to understand the importance of protection and sustainable exploitation of aquatic resources within a reservation - the Danube Delta Biosphere Reserve, we presented the concept of protected areas, types of protected areas and Danube Delta Biosphere Reservevation's place nationally and internationally.

We know that natural resources are subject to various anthropogenic pressures. No aquatic resource has escaped the impact of people directly (capture) or indirectly (destroying habitats and breeding areas by drainage, dams, etc.). We summarized the impact of activities on the Delta over time with emphasis on the impact on natural resources.

We have paid special attention to preserving the Delta as wetland of international importance that is part of the Ramsard (Convention on Wetlands of International Importance especially as Waterfowl Habitat²). To conserve the rich biodiversity hosted by the Danube Delta Biosphere Reserve, the Danube Delta Biosphere Reserve Administration has developed (periodically) management plans that

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² Ratified by Romania by Law no 5/1991 published in Official Monitor, part 1, no 18/26.01.1991.

included objectives materialized through projects leading to improved environmental conditions, protection of protected species, sustainable use of resources natural, etc.. A Master Plan was presented by the Danube Delta Biosphere Reservation Administration in support of sustainable development¹, in which the investment projectswere included which are expected to be achieved by focusing on ecological restoration works aimed on actual environmental aspects (hydrologic regime by restoring network channels to improve water circulation, restoration and improvement of degraded lands renaturation economic areas used for agricultural and fishery facilities) and socio-economic (traditional activities).

Effects of ecological restoration of these plans are beneficial to the delta ecosystem and will result in expansion of existing natural habitats, improve ecological conditions in natural aquatic complex, natural extension of spawning, feeding and rest of fish and wild birds. Ecological restoration projects in the delta support the sustainable development of the fisheries. To this end the National Agency for Fisheries and Aquaculture Fisheries initiated an Operational Plan in accordance with EU regulations and sustainable development.

For sustainable exploitation of aquatic resources clear rules and a restructuring of the fisheries and aquaculture by maintaining a constant number of fishermen and fishing vessels (even encouraging fishermen to give up this activity by compensation) orientation and financial support for aquaculture development of this branch are required. To avoid over-exploitation of water resources to assess the areas and quantities available and planned for is necessary.

None of the plans will have the expected success, if there are no efforts to fight poaching in two areas: fish and wildlife. Aquatic fauna and hunting are hit, especially when poaching is done during the prohibition and using inappropriate but performant fishing gear or when trapping is non selective

2. The Matter Seat

Located in the geographical center of Europe, Romania has five of the 10 biogeographic regions officially recognized in the European Union, holding the largest biogeographical diversity compared to other countries Community (47% and semi-natural ecosystems). The Network of protected areas covers about 7.5% of the country (and rising), plus about 17, 84% of Natura 2000 sites designated in 2007 (SCI - Sites of Community Importance to protect species and habitats and SPA important Bird sites to protect birds). Tulcea is the largest area of protected areas in the country (85%) where Delta has a special place.

The Danube Delta has got a good international recognition:

- Inclusion in the international network of biosphere reserves, under the "Man and Biosphere" Programme MAB UNESCO (1990);
- Declared as wetland of International Importance especially as Waterfowl Habitat Ramsar Convention (September 1990);
- Inclusion in the Cultural and Natural Heritage List of UNESCO (December 1990);
- European Diploma of Protected Areas awarded by the Council of Europe (2000);
- EUROSIM Awards: 1995 for ecological restoration projects and Cernovca Babina polders; 2001 for the public awareness.²

The Danube Delta Biosphere Reserve is also part of Natura 2000 network site being declared SCI (Site of Community Importance) and SPA site

¹ www.ddbra.ro

² www.ddbra.ro Starea mediului/ The state of the environment. RBDD 2007.

Biosphere reserves are those protected areas for furthering the protection and conservation of natural habitat areas and biological diversity specific. Biosphere reserves are spread over large areas and include a complex of terrestrial and / or water, lakes and streams, wetlands with unique biocenotic flora and fauna communities with natural harmonious landscapes resulting from traditional land use planning, ecosystem modified in human influence and that can be restored to natural state, human communities whose existence is based on exploitation of natural resources, sustainable and harmonious development. (defined by GEO 57/2007 on the regime of protected natural habitats, flora and fauna).

Throughout the biosphere reserves one can delineate areas with different protection regime:

- strictly protected areas where only research is conducted;
- buffer zones, with a protective role of strictly protected areas where certain activities are allowed to exploit natural resources;
- ecological restoration areas in which the environmental rehabilitation measures become effective -economic areas where traditional or new environmental activities are allowed.

Biosphere reservations with settlements are managed so that models of human communities in harmony with the natural environment are developped. The Reservation Administration is the administrator of the public domain of national interest, and the environmental authority throughout the Danube Delta Biosphere Reserve.

The activity of the Reserve Administration is to create and implement a special administration for biological diversity conservation and protection of natural delta ecosystems for human settlements development and organization of economic activities in connection with the carrying capacity of these ecosystems.

To achieve these objectives management plans have been drawn up that include measures and projects for conservation of the biodiversity.

An important plan, adopted in 2005, is the Master Plan that supports sustainable development developed by DDBRA and representing an integrated development plan, drawn up to promote projects and programs that meet the principles of sustainable development. The overall objective of this plan is the preservation and protection of natural heritage and promoting DDBR sustainable exploitation of natural resources.

For achieving the overall objective the following objectives have been identified:

- Improving the monitoring system for the Danube Delta ecosystems using modern satellite surveillance;
- Improvement of public utilities, transport and communications to reduce pollution, isolation of human communities to raise living standards in villages in the Danube Delta;
- Support the development of alternative traditional economic activities to reduce pressure on fishery resources;
- Local traditions conservation and the preservation of natural resources and local traditions in housing (rural landscape), promoting the use of conventional energy (windmills, solar cells, electric propulsion navigation, etc..)
- Rebuilding the natural eco-systems and natural habitats of endangered species in the Danube Delta.

3. Conclusions

Conservation, management and exploitation of living aquatic resources, aquaculture activities, processing and marketing of products from fisheries and aquaculture are regulated by GEO 23/2008 on fisheries and aquaculture.

The legislation defines sustainable exploitation as "exploitation of living so as not to compromise their future operation and not have a negative impact on aquatic ecosystems"

Of the 300 species in Europe and 185 in Romania 133 species were recorded in DDBR. To this aquatic resource and other aquatic creatures less exploited are added (crayfish, frogs, leeches, clams).

For restoration and conservation of living resources:

- a fishing quota species is set annually, based on a study by research institutes and approved by the Romanian Academy;
- annually the order of prohibition determines fishing periods, areas with fishing ban, the type of tools allowed, prohibited species to fishing;
- fishing effort is regulated (by limiting the number of ships / fishing vessels and fishing activity time, the number of tools used in fishing and fishing off.

Fishing rights in natural fish ponds belong to the state and are assigned by the National Agency for Fisheries and Aquaculture

The fishing permit, a temporary (issued annually) additional fishing license, contains data for identifying the ship / fishing boat, the validity period, the fishing zone and quota species¹ The fishing license is awarded directly to fishermen, individuals and / or legal organizations of fishermen in commercial fisheries.

Fishermen are issued a commercial fishing license is an individual document and non-transferable

To activate within the Danube Delta Biosphere Reserve territory fishermen, fishing organizations or companies have to obtain environmental authorization for seizure activity and / or acquisition and / or sale in compliance with Order no. 410 of April 11, 2008. Aquatic resource is in decline due to pollution, impoundment by reducing breeding areas, poaching.

For recovery of the fisheries sector several plans and projects have been initiated.

DDBRA made (and still ongoing) ecological restoration projects consisting of desilting of channels, the flooding of abandoned facilities, etc.(renaturate islets were Babina, Cernovca, flooding of southern Popina -- and other areas are in the planning phase) Abandoned facilities proposed for ecological restoration, ecological restoration under the Strategic Plan of the Danube Delta, the period 2005 - 2015, will restore the delta ecosystem by restoring natural hydrologic functions, biogeochemical, ecological wetlands typical

NAFA has developed Operational Programme for Fisheries for 2007-2013 taking into account environmental aspects, social and economic welfare. This program can obtain funds for:

- 1. modernization and safety of ships boats (eg new engines with low fuel consumption and reduced environmental impact);
- 2. fittings (modernizing) ports for selling fish;
- 3. trening;
- 4. aquaculture development to reduce fishing pressure on natural environment.

¹Order 4 of 14.01.2009 for approval of access to living aquatic resources in the public domain in the practice of commercial fishing in internal waters and inland waters

Implementation of Operational Fishery Programme¹ in accordance with environmental regulations will lead to a restructuring of the fishery resource exploitation in line with sustainable development.

Implementation of ecological restoration plans and sustainable fishery development will not have the expected result if no action is taken to combat poaching. It is hard to believe that poaching will be eradicated but one can take steps to limit and diminish it.

Measures to reduce and prevent acts of poaching can be divided into three groups-legislative measures, institutional capacity building and information and awareness measures:

- Development of clear legislation that does not leave room to interpretation
- Normative acts to transpose EU legislation but also take into account the specifics of our country
- Sanctions regime to be established depending on the gravity
- Magistrates specializing in environmental law (because no one within five years was punished for an offense committed against environmental protection legislation on reservation land)
- Providing performant transportation to authorities of controls
- Specialized and continuing training of control bodies to intervene promptly and fairly when investigate any illegal acts
- Informing the population by means of interest regulations with examples of sanctions
- Information campaigns and training of hunters and fishers organizations, the local population of the reservation
- At this time it is impetuously necessary to enhance fishermen awareness to the fact that they primarily have to guard the fisheries if they continue to fish. It is found more often that authorized fishermen when fishing accept even unauthorized persons on boat that they pay over in fish (obviously more than it is listed in the report). Fishermen do not advise the control authorities about the presence of poachers in their fishing area.

In conclusion, to prevent poaching awareness is needed that both wildlife and fish are resources to be exploited rationally in order for the future generations to enjoy them.

Danube Delta Biosphere Reservation Administration, together with other institutions with the right to control must strive for a better cooperation for natural resources to be valued in accordance with their potential for regeneration and ecosystem support capacity.

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¹ Operational Program = document approved by the European Commission to implement those sectoral priorities and / or regional national development plan which are approved for funding through the Community Support Framework

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