

THE DANUBE DELTA BIOSPHERE RESERVE - REGIONAL CLUSTERS IN PROTECTING AND PROMOTING THE LOCAL AREA AND LOCAL FISHERIES PRODUCTS

Berceanu, Bogdan; Sandu, Cristina

Source / Izvornik: **Ekonomski vjesnik : Review of Contemporary Entrepreneurship, Business, and Economic Issues, 2015, 28, 495 - 509**

Journal article, Published version

Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:145:282814>

Rights / Prava: [Attribution-NonCommercial-NoDerivatives 4.0 International](#)/[Imenovanje-Nekomercijalno-Bez prerada 4.0 međunarodna](#)

Download date / Datum preuzimanja: **2024-04-19**



Repository / Repozitorij:

[EFOS REPOSITORY - Repository of the Faculty of Economics in Osijek](#)



Bogdan Berceanu

*National University of Political Studies
and Public Administration*

Faculty of Public Administration

*30 A Expozitiei Boulevard, 1st District,
012104 Bucharest, Romania*

bogdan.berceanu@administratiepublica.eu

Phone: +40727743873

UDK: 639.31:339.137.2/(498)(282.243.7.05)

Review article

Received: April 29, 2015

Accepted for publishing: November 16, 2015

Cristina Sandu

*National University of Political Studies
and Public Administration*

Faculty of Public Administration

*30 A Expozitiei Boulevard, 1st District,
012104 Bucharest, Romania*

cristina.sandu@administratiepublica.eu

Phone: +40762642445

THE DANUBE DELTA BIOSPHERE RESERVE - REGIONAL CLUSTERS IN PROTECTING AND PROMOTING THE LOCAL AREA AND LOCAL FISHERIES PRODUCTS

ABSTRACT

The intensification of fishery activity through the intervention of regional clusters can have a positive impact at the local level – social impact (reducing unemployment), environment impact (reducing pollution effects and protecting the species within the biosphere reserve), tourism impact (increase the number of tourists and improve the “public image” of the region), market impact (increase the potential clients for local fishery products and improve the products quality). This paper will focus on fishery activity within the local area of the Danube Delta Biosphere Reserve from Romania, through the perspective of regional clusters’ actions in protecting and promoting the local area and local fishery products.

Keywords: Regional clusters, fishery, marketing instruments, Danube Delta, European Union

1. Introduction

1.1 Context

The United Nations Educational, Scientific and Cultural Organization (UNESCO) characterizes the Danube Delta from Romania as one of the largest and best preserved deltas in Europe, hosting over 300 species of birds and 45 freshwater fish species¹. Through the UNESCO program “Man and the Biosphere”, the Danube Delta is included in the international network of biosphere reserves (1990) due to its impressive characteristics: fisheries and reed resources; sustainable local production; monitoring, research, education and training programs in the natural ecosystems domain; etc.

Local public authorities highlighted the importance of ensuring real conditions for the socio-economic development of local communities in the Danube Delta area, by elaborating the Danube Delta Strategy for the period 2011-2015².

A SWOT analysis of the Danube Delta provided by the Local Action Group of the Danube Delta³ reveals important weaknesses and threats in developing the local area, namely low interest in practicing traditional crafts, insufficient local budget for project implementation, insufficient awareness in sustainable management of natural resources (as weaknesses), opposition to changes by the local community, competitiveness with similar European products within the Commune Agricultural Policy, labour migration, natural risks (as threats).

Starting with 1st January 2007 Romania became part of the European Union (EU), and as a member state of the EU had to adjust its legislation, policies and procedures to comply with the requirements of EU policies and law to function more effectively within the EU framework. The European policies of agriculture, fishery and environment had a great impact on the way in which the regional clusters from the Danube Delta Biosphere understood to act.

1.2 Objectives

The main activities within the local area are fishery, tourism, agriculture, forestry and logging, reed harvesting, and hunting (source the Danube Delta Biosphere Reserve Administration).

This paper will focus on fishery activity within the local area of the Danube Delta Biosphere Reserve.

The starting assumption of the paper is that the intensification of fishery activity through the intervention of regional clusters can have a positive impact at the local level – social impact (reducing unemployment), environment impact (reducing pollution effects and protecting the species within the biosphere reserve), tourism impact (increase the number of tourists and improve the “public image” of the region), and market impact (increase the potential clients for local fishery products and improve the products quality).

Thus, the research aims to investigate the following dimensions:

1. European and national legislation and institutional actors on fishery domain, from which we will try to highlight some convergence aspects regarding the practices imposed by the EU;
2. Regional clusters' actions;
3. A marketing vision on local area and local fisheries products.

1.3 Research methodology

The qualitative research represents a top-bottom analysis, from European level to national, regional and local level.

The main research instruments are legislation analysis, comparison, market segmentation, reference standard, and the main information sources are the European and national documents, reports, communications, legislation and institutions websites.

2. General overview on the Danube Delta Biosphere Region – DDBR

As the Danube approaches the last stage of its long journey to the Black Sea it forks into two branches, the Chilia (120 km) and the Tulcea (17 km). The Tulcea branch further divides into the Sulina channel (63.7 km) and the Gheorghe channel (109 km). These channels, together with 400 freshwater lakes of varying size and a network of interconnecting waterways form the largest delta in Europe and sustain a unique pattern of closely tied habitats and ecosystems (Bell et al., 2001: 11).

The wetlands of the Danube Delta are rich in biodiversity and serve as a bird breeding and migration stop. 320 bird species have been observed. The largest populations of globally endangered Dalmatian Pelican and Pygmy Cormorant take refuge here. Fish species, including Sturgeon, Mullet and Black Sea Herring rely on the wetlands for spawning and feeding. Based on a recent assessment of the Worlds Biodiversity by scientists from the World Wildlife Fund (WWF), the Delta ranks as one of the world's 200 most important areas of biodiversity (Bachmann, Wurzer, 2010: 88).

For these reasons, in 1990, the Romanian Government established the *Danube Delta Biosphere Reserve Authority* to manage 5800 square kilometres of wetland. About the same time, the government also signed the Ramsar Convention, placing the Danube Delta on the international importance wetlands list and acknowledging the role of its reed beds as a filter for the Black Sea⁴.

The DDBR Administration is a public institution with legal personality, subordinated to the Ministry of Environment, Waters and Forests and whose activity is based on *Law no. 82/1993* on the establishment of the DDBR, as amended by *Law no. 136/2011*.

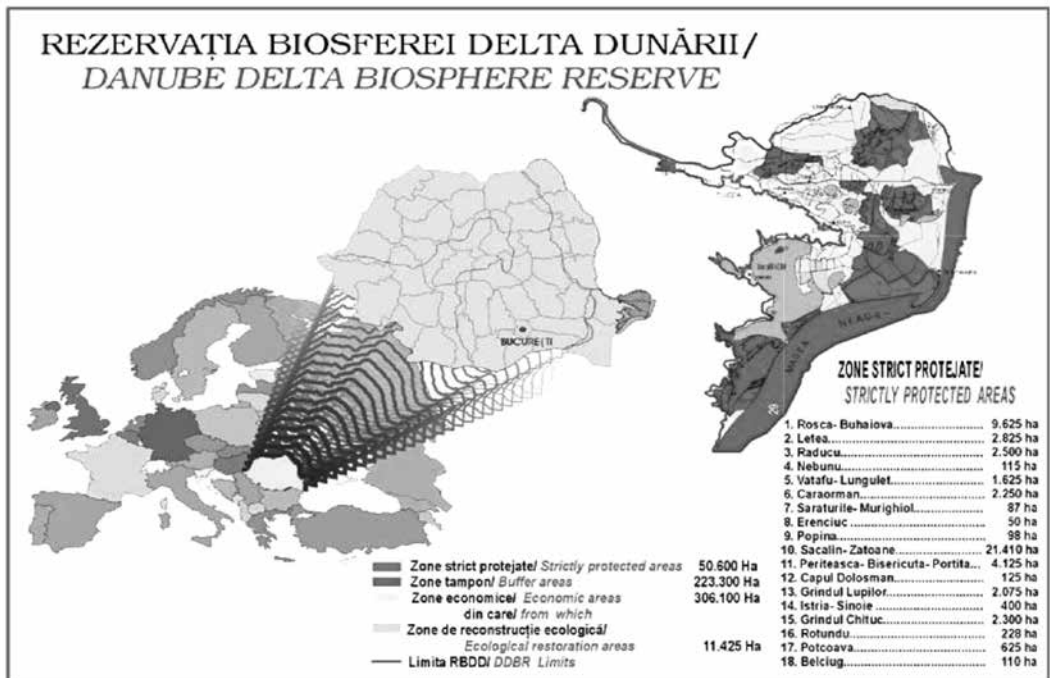
According to the law, the main activities of the DDBR aimed to achieve the objectives of the Government Programme on Environmental Protection to the management of sustainable natural resources and biodiversity conservation.

As it can be observed in Figure 1, the localities of the DDBR are concentrated mostly along the Danube's arms and occupy small areas.

The active population represents 35.3% of the total reserve, with occupancy rate of approximately 81.4% assigned differentiated activities⁵:

- fishing and fish (15.3%)
- agriculture and forestry (29%)
- industry, construction, trade, services (15.7%)

Figure 1 Danube Delta Biosphere Reserve Map



Source: Danube Delta Biosphere Reserve Authority, Available at: <http://www.ddbra.ro/en/ddbra-map> (Accessed on: January 23, 2014)

- tourism, transport, communications (15.4%)
- health (1.9%)
- education and culture (5.7%)
- public administration (13.5%)
- other activities (3.6%).

The economic zone covers a total area of 306,100 ha (52.8% of the reserve) and includes land in easily flooded land reclaimed from the sea for agricultural use, fisheries and forestry, and land on which settlements are located⁶.

The practicing of tourism can be also sustained in the area by the natural and cultural values of the Danube Delta and by the uniqueness and specific architecture and its outstanding attractions.

The diversity of the resources of the Danube Delta Biosphere Conservation makes possible tourism in its various forms⁷: tourism for rest and recreation; tourism knowledge; tourism specialized (scientific); ecotourism has a role in promoting sustainable use of biodiversity; rural tourism (in which guests are hosted and guided by locals); tourism for fishing highly appreciated by visitors of all ages, in any season, for any species of fish, and hunting sources.

The main activities regarding fisheries which can be practiced in the DDBR are: commercial fishing, sports fishing, science fishing and family fishing⁸.

Most industrial facilities are concentrated in urban areas in the adjacent area of the Delta itself. Thus, industry is developing on operation and exploitation of natural resources, primarily fisheries and agriculture (vegetables, grain, livestock, etc.). Between specific resources, fish and reed presents the greatest importance, both locally deltaic habitat economy and the functioning of industries of national interest.

The freshwater lakes and channels of the delta contain seventy-six species of fish. Fishing is a vital mainstay of economic subsistence for the delta's population and the most important commercial species are carp, bream, perch, sturgeon and shad. There are eighteen strictly protected areas within the borders of the reserve, two of which are rare oak/ash forests. The other sixteen areas cover channels and lakes that were previously available as fishing grounds, but are now strictly off limits to fishermen and protected by DDBR wardens (Bell et al., 2001: 11).

3. Aspects regarding the fisheries domain and its importance in the DDBR

Fishing has been and still is the most representative economic activity in the Danube Delta, given its structure, about 85% of the floodplains⁹.

For all these reasons, the fishery activity constituted a key point in all the strategies of developing the region, especially after the accession of Romania to the European Union on January the 1st 2007. Due to its policies, legislations and funds, the EU has made important contributions in transforming the intervention of regional clusters regarding the fishery activity and the protection of environment.

The European interventionist policy is much stronger on the regional level than on the national states level. Each economic activity in Europe's regions now has its own place on the European market economy. The creation of a single market will determine the dimensions of this market and the flexibility required by further economic increase as well as a remarkable expansion.

As long as the individual nations and regions maintain their independence and cultural and linguistic diversity, the unique market will have a major influence on the economic development¹⁰.

Creating a European market is important due to its size and economic potential. Central and Eastern Europe is a potential area of new markets expansion and organization. Moreover, expansion and trade are becoming important to the entire European economy as well as all its regions.

All these facts are important in creating the conditions of practices of convergence imposed by the EU. A subject of these common practices is also the fisheries domain, which is strictly regulated at the EU level by the EU Common Fisheries Policy (CFP).

3.1 EU policies and fisheries legislation with impact on the DDBR

European integration through its policies and legislation aims at leading to a more powerful convergence and less divergence in the regional economic zones and to the contribution of reducing the disparities between the EU countries.

One of these euro-zone subjects of all the regulations of the EU is also the Danube Delta Biosphere Reserve.

One of the EU instruments with impact on the DDBR is the European *Fund for Orientation and Agricultural Guarantee*. It represents the financing instrument of the *EU Common Agricultural Policy*. The financing objective of this fund is to contribute to the agricultural re-structuring in the community zone and to support the agricultural products market. There are two sections which are specific to this fund:

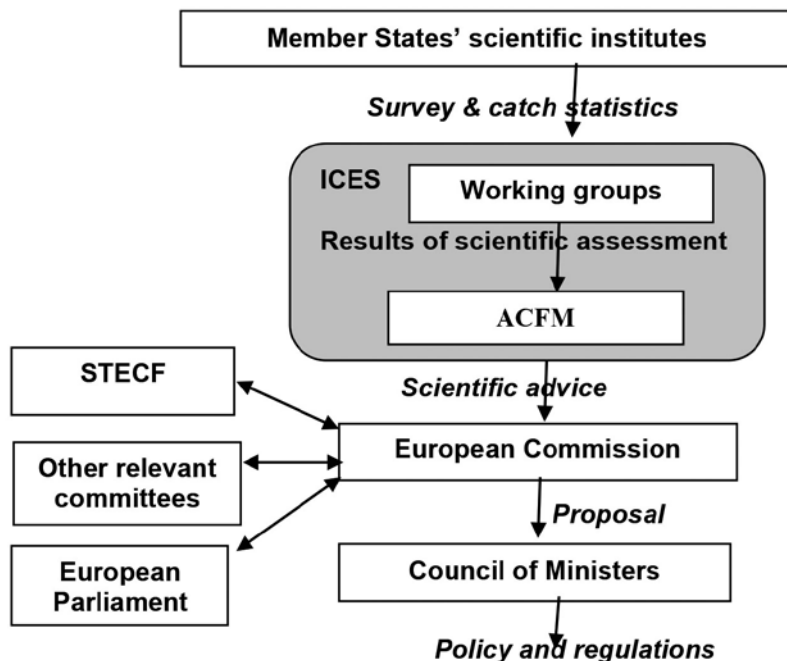
- *The European Regional Development Fund* (ERDF) – which is meant to reduce the development discrepancies between member countries' different regions.
- *The Financial Instrument of Fisheries Guidance* (FIFG) – intended for the fisheries sector and has as a main objective the promoting of a durable balance between the sector's exploitation capacity and the seas regeneration capacity.

The CFP was first introduced in the 1970s and went through successive revisions, the most recent of which took effect on 1 January 2014¹¹.

The CFP is a set of rules for managing European fishing fleets and for conserving fish stocks. Designed to manage a common resource, it gives all European fishing fleets equal access to EU waters and fishing grounds and allows fishermen to compete fairly. Stocks may be renewable, but they are finite. Some of these fishing stocks, however, are being over fished. As a result, EU countries have taken action to ensure the European fishing industry is sustainable and does not threaten the fish population size and productivity over the long term.

One can observe in Figure 2 that an important role is given to the *stakeholder organizations* which provide the Commission and EU countries with recommendations on fisheries management matters. This may include advice on conservation and socio-economic aspects of management, and on simplification of rules. The Advisory Committees are consulted in the context of regionalization. Advisory Committees should also contribute to data for fisheries management and conservation measures.

Figure 2 Actors on the CFP¹²



Source: Daw T., Gray T. (2005), "Fisheries science and sustainability in international policy: a study of failure in the European Union's Common Fisheries Policy", *Marine Policy*, Vol. 29, No. 2, pp. 189-197

The CFP was also subject to an important reform in the last years. The Lisbon Treaty now explicitly mentions common fisheries in Article 38, Treaty on the Functioning of the EU (TFEU), although there are still no separate or differentiated objectives for the two policies. In addition to this, the Lisbon Treaty also changes other aspects of fisheries policy. For example, it introduces new and differentiated legislative procedures that both add and detract from the involvement of the European Parliament depending on the type of measure (and therefore legislative procedure) involved.

The most important document regarding CFP reform was the *Green Paper Reform of the Common Fisheries Policy*. The Green Paper proposed a liberalizing agenda intended to transfer detailed decision making away from the European institutions and relocate it in the regions. By seeking to create 'a clear hierarchy between fundamental principles and technical implementation', the Commission means to redistribute the burden of micromanaging the EU's extensive and complex fisheries. Firstly, the Commission would be able to delegate some of its responsibilities to member states acting together in some form of regional framework. Secondly, it proposes involving the fishing industry directly in providing technical and tactical solutions to fisheries management issues within a system of results based management, preferably at regional and local levels. This would allow the European institutions to concentrate their energies on elaborating the broader strategies¹³.

The most important EU laws regarding the matter of fisheries are:¹⁴

- REGULATION (EU) No 1380/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC,
- REGULATION (EC) NO. 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No. 2847/93, (EC) No. 1936/2001 and (EC) No. 601/2004 and repealing Regulations (EC) No. 1093/94 and (EC) No. 1447/1999,

- REGULATION (EC) NO. 1198/2006 of 27 July 2006 on the European Fisheries Fund,
- REGULATION (EC) NO. 498/2007 of the EU Commission of 26 March 2007 laying down detailed rules for the implementation of Regulation (EC) No. 1198/2006 on the European Fisheries Fund,
- REGULATION (EC) NO. 26/2004 of 30 December 2003 on the Community fishing fleet register.

In a significant change to EU policy, instead of being generally subject to exclusive EU competence, agricultural and fisheries policy are now in principle subject to shared competence between the EU and Member States - except as regards the conservation of marine biological resources (see Article 4(2)(d), TFEU) in relation to which Article 3(1)(d) provides for EU exclusive competence, but restricted to the conservation of marine biological resources under the CFP only). Member States should now be able to pass and implement national fisheries management measures in areas that are not specifically covered by EU legislation - unless they fall within exclusive competence under Article 3(1) (d)¹⁵.

To ensure that fishing rules are applied in the same way in all member countries, and to harmonize the way infringements are sanctioned, the EU has established a list of serious infringements of the rules of the common fisheries policy. EU countries must include in their legislation effective, proportionate and dissuasive sanctions, and ensure that the rules are respected¹⁶.

As from 1 January 2012, EU countries should have introduced a point system for serious infringements. Under the scheme, national authorities will¹⁷:

- assess alleged infringements involving vessels registered under its flag, using standard EU definitions;
- impose a pre-set number of penalty points on vessels involved in serious infringements (points are recorded in the national registry of fisheries offences);
- suspend the vessel's license for 2, 4, 8 or 12 months when a pre-set number of points have been accumulated in a 3-year period.

At the **national level** the most important actors which have competence in implementing the CFP are:

1. Ministry of Environment, Waters and Forests – The Department of Waters, forests and fisheries;
2. Ministry of Agriculture and Rural Development – The General Direction of Fisheries – Management Authority.

These two bodies are in charge of creating the National Strategy of Fisheries Sector 2014 – 2020. The Danube Delta Biosphere Reserve Administration is in charge for the implementation of the Strategy and all other regulations at the local level.

3.2 Regional clusters in fisheries domain

A deep overview on the national stakeholders in fisheries domain reveals various regional clusters involved in the elaboration and implementation of national policies direction in the region.

Based on the common and particular strategic directions regarding the fisheries domain within their programs, the analysis will focus on four main regional clusters: the Danube Delta Biosphere Reserve Administration (DDBR Administration), the Local Group for Sustainable Fisheries in Danube Delta (FLAG DD), the Local Action Group of Danube Delta (GAL DD), and the Local Action Group North Dobrogea (FLAG DN). They are fully regulated and they are acting as *de facto* regional clusters.

The **Ministry of Environment, Waters and Forests** (The Ministry) awards to the **DDBR Administration** the role of fisheries resources administrator and monitoring and control responsibilities.

The DDBR Administration is the regional representative of the Ministry, thus it is the legislative supervisor of the regulations in the fisheries domain.

Also, the DDBR Administration is the fisheries activities supervisor in the region. The DDBR is the only region where disembarkation points and first-sell centres are organized and adequately equipped (in 2013, there were 49 disembarkation points and 31 first-sell centres registered, and in 2012 there were 1720 fishermen registered).¹⁸

Important projects as the Up-Grade Black Sea Scientific Network (FP7) and the Danube River Network of Protected Areas – Development and Implementation of Transnational Strategies for the Conservation of the Natural Heritage at the Danube

River (SEE Program), are aimed at protecting the habitats and biodiversity preservation, at developing its own infrastructure and public procurement.¹⁹

In partnership with public and nongovernmental organizations, the DDBR Administration implemented a project that aimed at gathering stakeholders in the region for identifying and implementing the best strategy for sustainable fisheries – the **Local Group for Sustainable Fisheries in Danube Delta** (Fisheries Operational Program 2007-2013).

The necessity to create FLAG DD was determined by the difficulties that the fisheries sector was confronting (e.g. the fisheries sector regress) and by important opportunities that the local authorities believed could be explored (e.g. improve the quality the fisheries products and create fishermen jobs) (FLAG DD, 2012: 9).

The Strategy of FLAG DD has an open and dynamic approach regarding all the social and economic stakeholders in the region, namely leader groups, communities, societies, commercials and nonprofit organizations.²⁰ The Strategy of FLAG DD has a bottom-up approach, in terms of highlighting and satisfying all the fisheries local communities' needs.

The Local Action Group of Danube Delta was established as a non-governmental organization, in the lines of National Program for Rural Development. The Local Development Plan of GAL Danube Delta territory county Tulcea targets the implementation of 16 projects within the frame time 2013-2016 in the region of Danube Delta on three main priorities: increase in life quality of rural population, sustainable improvement of natural and cultural resources within the region and consolidation of cooperation initiatives.²¹

The Local Action Group North Dobrogea was set up by the stakeholders in fisheries domain, namely fishermen associations, water quality and aquatic resources maintenance associations, education and research institutions, and local authorities. FLAG DN elaborated the Strategy of Development "North Dobrogea – the wild land between the waters", for a sustainable development of fisheries and aquaculture activities in the North of Constanța County.

A description of the regional clusters in the Danube Delta Biosphere Reserve is provided in Table 1. The table underlines the legal status of each cluster and the strategic objectives.

Table 1 Regional clusters in the Danube Delta

No.	Name	Targeted-territory	Legal status and mission
1.	Danube Delta Biosphere Reserve Administration (DDBR) ²²	Danube Delta	Public institution – administrative responsibility for the preservation and management of biodiversity, eco-systems and natural resources of the Danube Delta
2.	Local Group for Sustainable Fisheries in Danube Delta (FLAG DD) ²³	Danube Delta	Nongovernmental organization – sustainable development of fisheries area
3.	Local Action Group of Danube Delta (GAL DD) ²⁴	Danube Delta	Nongovernmental organization – sustainable development of the Danube Delta territory
4.	Local Action Group North Dobrogea (FLAG DN) ²⁵	North side of Dobrogea Region	Nongovernmental organization – sustainable development of fisheries area in the North side of Constanța County and entire region and to provide the necessary support for the national, regional and local strategies for developing the fisheries areas

Source: Authors elaboration on data collection

4. Key-actions of regional clusters in fisheries domain (Strategies, Programs and Reports analysis)

In order to understand the key-actions of regional clusters in protecting and promoting the DDBR, and to understand the social actions, it is important to underline the normative acts which constitute the basis for these actions.

4.1 Legislative priorities

Due to a large number of legislative documents in the fisheries domain and the differences in application and interpretation, the DDBR Administration targets a normative project for the harmonization of normative documents (*Program of Activity of the DDBR Administration for 2012*, 2011: 8).

In order to respect and implement the environmental legislation (see Table 2), the DDBR Administration is also responsible for the economic activities regulation (*Program of Activity of the DDBR Administration for 2012*, 2011: 9).

Table 2 Proposal for regulation activities in fisheries domain 2012

Sustainable use of natural resources	
Authorizations for commercial fishing	1,300
Permits for commercial fishing	1,400
Permits for sportive-leisure fishing	10,000
Permits for family-purpose fishing	1,500

Source: *Program of Activity of the DDBR Administration for 2012* (2011: 10-11)

In accordance with the implementation and the effects of European legislation in fisheries domain, the DDBR Administration considers that it is necessary to review the Management Plan of the DDBR. This is for the reason that the results-objectives targeted needed to correspond to new European legislation demands.

FLAG DD, GAL DD, and FLAG DN are responsible for the correct application of legislative dispositions given by the Ministry and under the strict surveillance of the DDBR Administration.

In 2014, there were a large number of legislative proposals with direct impact on the good administration and functioning of the DDBR, namely:

- Draft Government Decision on the Management Plan and the Statute of the DDBR;

Strategic objectives	Observations
The creation and application of a special administrative regime for the preservation and protection of biological diversity within the natural ecosystems of the DDBR, local communities development and activities organization, ensuring the legal regulations' application	Jurisdiction of the Ministry of Environment, Waters and Forests
The attainment of a correct and realistic diagnostic regarding the area, the identification of the advantages and problems, opportunities and risks, the formulation of priorities, objectives and the necessary measures to implement in order to achieve a sustainable development of the fisheries area	Members – public institutions and nongovernmental organizations
To increase the life-quality of the population in rural areas, sustainable improvement of natural and cultural resources within the region and to consolidate the cooperation initiatives	Members – public institutions, private companies and nongovernmental organizations
To implement the Development Strategy “North Dobrogea – The Wild Land between the waters”, to create a common understanding upon the main problems, needs and opportunities, to develop a general awareness regarding the common external threats and opportunities	Members – public institutions, private companies, nongovernmental organisations, individuals

- Draft Government Decision on the approval of Statute as regards wearing uniforms in service and the methods of distributing them to the staff of the DDBR;
- Draft Government Decision on the approval of Regulations regarding the access and movement of ships and boats on the canals and inland lakes within the perimeter of the DDBR;
- Draft Law on fisheries and aquaculture in the area of the DDBR.

Currently, none of these legislative proposals were adopted.

4.2 Protecting DDBR actions²⁶

The DDBR Administration is the body of the Ministry responsible for the implementation, management and evaluation of projects in the region, at both the national and the international level (the Trilateral Agreement Romania-Republic of Moldova-Ukraine, UNESCO, European, Commission, Schubz Germany project, etc.).

The DDBR protection key-actions were identified as follows:

- preserving the biodiversity and natural habitats: parameters assignation, monitoring and evaluation for natural habitats status; monitoring special fish species; information dissemination;

- sustainable use of renewable natural resources: monitoring the use of natural resources and fishing tourism; monitoring the programs for fish species with high economic and ecological value (in danger);
- participation in the elaboration and implementation of environmental and sustainable development local policies and strategies.

The FLAG DD protection key-actions that could be identified are the following:

- keeping the region attractiveness by investing in protection, preserving and valuing actions;
- investing in protection, preserving and valuing actions for cultural patrimony;
- population awareness on fisheries issues;
- rehabilitation/construction of fisheries landmarks patrimony.

GAL DD protection key-actions were identified as follows:

- creation and development of public services for rural population;
- improvement of living conditions for local communities;
- rehabilitation and preserving cultural patrimony landmarks;
- acquisition of special equipment for preserving the patrimony.

Regarding the FLAG DN the protection key-actions identified are the following²⁷:

- rehabilitation and development of fisheries villages;
- creation of a multifunctional centre for fishermen and their families.

4.3 Promoting DDBR actions

The actions of the regional clusters in promoting the Danube Delta Biosphere Reserve can be synthesized as the following²⁸:

DDBR Administration:

- creation of an information system;
- awareness, information, ecological education, visiting campaigns;
- evolving the local communities;
- development of Public Relations: events, newspaper "Deltaic Universe".

FLAG DD:

- creation, modernization and/or rehabilitation of fishing tourism infrastructure;
- education and training for fishing tourism;
- mapping the fishing tourism routes;
- development of economic activities for fishing tourism.

GAL DD:

- training programs in fisheries;
- information actions and knowledge dissemination;
- elaboration and implementation of a marketing plan;
- leisure activities, information centres;
- development of marketing tourism services.

FLAG DN:

- rehabilitation and development of fisheries villages;
- creation of a multicultural centre for fishermen and their families.

4.4 Socio-economic actions

Socio-economic actions were identified in the strategies and development local plans of FLAG DD, GAL DD, FLAG DN, as follows:

FLAG DD: investments plan for fisheries competitiveness, investments plan for jobs creation (fishermen and workers), education and training for fisheries workers;

GALL DD: creation of small and medium enterprises (SMEs) in fisheries, encouraging business initiatives (traditional fisheries crafts), job creation, especially in rural areas;

FLAG DN: infrastructure for fisheries commerce and market competition, jobs creation and training.

4.5 Mapping regional clusters' actions

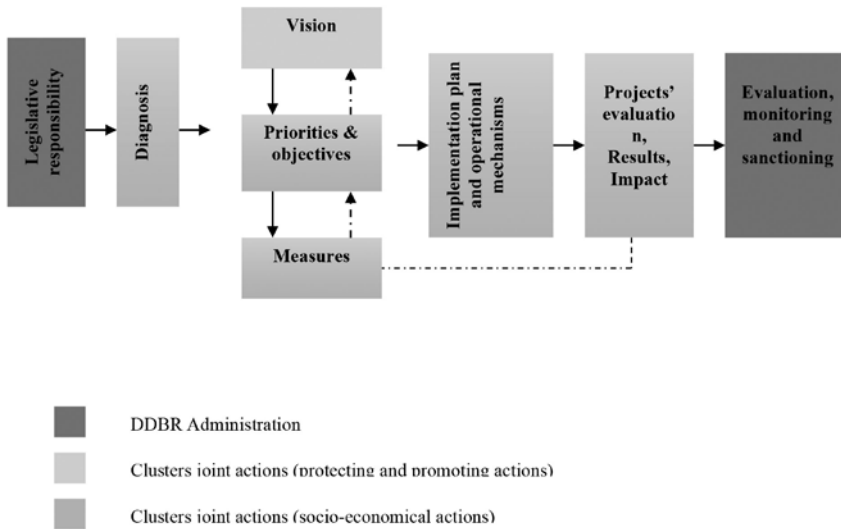
The regional clusters in the Danube Delta Reserve Biosphere have a linear and common vision in protecting and promoting the local products. This statement can be underlined also by the Figure 3, which groups the actions of the regional clusters.

FLAG DD, GAL DD and FLAG DN come also with a socio-economic approach in the elaboration and implementation of their strategies.

The DDBR Administration is not only in charge of protecting and promoting the DDBR, but it also has an important legislative, monitoring and evaluation mission.

The strategies and development plans analysed for the four regional clusters describe important directions for the intensification of fisheries activity designed towards a positive impact in the region: environmental and cultural impact (protection actions), tourism and marketing impact (promotion actions), and social impact (socio-economical actions).

The lack of a marketing vision concerning the local area and local fisheries products has been identified as an important weakness in their strategies and development plans.

Figure 3 Mapping regional clusters' actions

Source: Authors elaboration based on Figure Strategy of the FLAG DD (2012: 201)

In this respect, the authors propose the elaboration of a marketing strategy not only on tourism matters, but also on marketing the fisheries products. This fact is argued on the possibility to increase the selling of the traditional fisheries products; thus, developing the local area in terms of economic, social, environmental, tourism and cultural strategic directions.

This is the reason why mapping the regional clusters can offer a full image of possible actions on specific matters: legal responsibility; problems diagnosis; vision, priorities and objectives; measures to be implemented/actions to be undertaken; elaboration of an implementation plan and operational mechanisms; projects, results and impact evaluation; evaluation, monitoring and sanctioning.

5. A marketing approach for the DDBR

The strategic documents of the analysed clusters (only FLAG DD and GAL DD mention marketing aspects) reveal some important weaknesses regarding a marketing approach for the DDBR.

FLAG DD SWOT Tourism analysis highlights the fact that there is a lack of marketing studies for tourism in the DDBR (FLAG DD, 2012: 182).

GAL DD presents its proposal for marketing for traditional fisheries crafts activities and for fishing tourism activities within the Local Development Plan (GAL DD, 2012: 200, 201, 206).

By referring to the traditional marketing instruments (product, price, place, and promotion), one can notice the fact that there is no specific mention of these marketing instruments in the analysed documents.

Thus, from a marketing approach, the authors can rely on information on the following aspects provided by the regional clusters, given in Table 3:²⁹

Table 3 A marketing approach on fisheries in the DDBR

Marketing instruments	Who and how?
Product	The local products: <i>fish products</i> (material goods) and services (fishing tourism services) Focus on fish products: the DDBR Administration Focus on fishing tourism services: FLAG DD Focus on both fish products and fishing tourism services: GAL DD and FLAG DN
Price	<i>Fish products</i> : The Management Authority for Fisheries Operational Program, the National Agency for Fisheries and Aquaculture, Tulcea County Council, the DDBR Administration – November 2013 financing contract for Fish Stock Project mission – fighting against evasion in fisheries domain, raising the fishermen life quality and protecting the fish resources <i>Fishing tourism services</i> : no information available
Place	<i>Fish products</i> : 49 disembarkation points and 31 first-sell centres, traditional crafts fairs (direct and indirect distribution) (regulated by the DDBR Administration) <i>Fishing tourism services</i> : special areas regulated by the DDBR Administration
Promotion	All regional clusters – regarding both <i>fish products</i> and <i>fishing tourism services</i> : information centres, awareness campaigns, events, festivals, promotional materials, etc.

Source: Authors elaboration on data collection

6. Conclusions

According to above-mentioned descriptions, one can observe that the DDBR is a complex area that differs essentially from all others in the world. It has a special legislation adopted by the Romanian state, but it is also subject to European legislation regarding the protection of environment, fisheries, agriculture and in general all the rules and regulations to which Member States are subject.

The analysis on the institutional structure from the section 3.2 of the paper, underlines that there is a great need for more cooperation and coordination between different institutions and the important "actors", including the clear responsibilities and the capacity coordination among interested governmental authorities.

Due to the variety of stakeholders and different economic interests in the region, potential conflicts between different categories of stakeholders can be distinguished concerning: water supply public services; ecotourism development; traditional handicrafts development; shops for fish commercialization.

Through their joint actions, the regional clusters can have a great contribution in protecting and promoting the local area and local fisheries products.

This aspect could be a suggestion for a more focused analysis regarding good practices and the good actions of the regional clusters to the reduction of the DDBR disparities in comparison with other regions.

The research represents a descriptive analysis of the situation in the targeted region. Thus, the authors consider that the research limitations are represented by the lack of own data collection and the rapidly changing legislative acts.

Acknowledgement

A version of this paper was presented by the authors at the 10th Edition of the International Conference *Journées Internationale du Marketing*, 24 February – 3 March 2014 in Marrakech, Morocco.

REFERENCES

1. Annex to the Government Decision, "Strategia Deltei Dunării pentru perioada 2011-2015", Available at: www.ddbra.ro (Accessed on: January 07, 2014)
2. Bachmann, J., Wurzer, A. (2010), "The Danube: a River of Life WWF", Danube Carpathian Programme Ottakringerstr. 114-116, A-1160 Vienna, Austria.
3. Bell, S., Nichersu, I., Ionescu, L., Iacovici, L. (2001), "Conservation Versus Livelihood in the Danube Delta, Anthropology of East Europe Review", *Anthropology of East Europe Review*, Vol. 19, No. 1, pp. 11-15.
4. Commission of the European Communities (2009), "Green Paper: Reform of the Common Fisheries Policy", COM (2009) 163 final, The European Commission, Brussels.
5. Daw, T., Gray, T. (2005), "Fisheries science and sustainability in international policy: a study of failure in the European Union's Common Fisheries Policy", *Marine Policy*, Vol. 29, No. 2, pp. 189-197.
6. DDBR Administration (2011), "Programul de activitate al Administrației Rezervației Biosferei Deltei Dunării pentru anul 2012" (Program of Activity DDBR Administration for 2012), Available at: <http://www.ddbra.ro/administratia/despre-noi/rapoarte-programe-de-activitate/program-de-activitate-al-administratiei-rezervatiei-biosferei-delta-dunarii-pentru-anul-2012-a890> (Accessed on: January 07, 2014)
7. European Commission/ Fisheries/ CFP, Available at: http://ec.europa.eu/fisheries/cfp/control/infringements_sanctions/index_en.htm (Accessed on: January 10, 2014)
8. FLAG DD (2012), "Regulament de organizare și funcționare FLAG DD", <http://www.flagnord.ro/organizare.html> (Accessed on: January 07, 2014)
9. GAL DD (2012), "Planul de dezvoltare locală al teritoriului GAL Delta Dunării județul Tulcea", <http://www.gal-deltadunarii.ro/#> (Accessed on: January 07, 2014)
10. Law no. 82/1993 on the establishment of the DDBR, as amended by Law no. 136/2011.
11. Ministry of Environment, Waters and Forests, Ministry of Agriculture and Rural Development (2013), "Strategia Națională a Sectorului Pescăresc 2014-2020", Available at: <http://www.madr.ro/docs/fep/programare-2014-2020/Strategia-Nationala-a-Sectorului-Pescarese-2014-2020-update-dec2013.pdf> (Accessed on: January 07, 2014)
12. Muntean, M. C., Nistor, R., Nistor, C. (2010), "Competitiveness of Developing Regions in Romania", *Wseas Transactions on Business and Economics*, Vol. 7, No. 3, pp. 252-261.
13. REGULATION (EC) No. 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No. 2847/93, (EC) No. 1936/2001 and (EC) No. 601/2004 and repealing Regulations (EC) No. 1093/94 and (EC) No. 1447/1999.
14. REGULATION (EC) No. 1198/2006 of 27 July 2006 on the European Fisheries Fund.
15. REGULATION (EC) No. 26/2004 of 30 December 2003 on the Community fishing fleet register.
16. REGULATION (EC) No. 498/2007 of the EU Commission of 26 March 2007 laying down detailed rules for the implementation implementing Regulation (EC) No. 1198/2006 on the European Fisheries Fund.

17. REGULATION (EU) No. 1380/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No. 1954/2003 and (EC) No. 1224/2009 and repealing Council Regulations (EC) No. 2371/2002 and (EC) No. 639/2004 and Council Decision 2004/585/EC.
18. Treaty on the Functioning of the EU (2012), Official Journal C 326.
19. UNESCO World Heritage List, Available at: <http://whc.unesco.org/en/list/> (Accessed on: January 22, 2014)

(ENDNOTES)

- 1 UNESCO World Heritage List, Available at: <http://whc.unesco.org/en/list/> (Accessed on: January 22, 2014)
- 2 Source: Romanian Ministry of Administration and Internal Affairs, Available at: <http://www.mai.gov.ro/Home/index.htm>
- 3 Available at: gal-deltadunarii.ro/pdf/Analiza-SWOT.pdf (Accessed on: January 22, 2014)
- 4 Available at: <http://www.ddbra.ro/administratia/despre-noi> (Accessed on: January 23, 2014)
- 5 The strategy of Danube Delta for the period 2011-2015: 10
- 6 Idem, p. 11
- 7 Idem, pp. 11-12
- 8 Available at: <http://www.ddbra.ro/activitati/pescuit> (Accessed on: January 23, 2014)
- 9 Available at: <http://www.ddbra.ro/activitati/pescuit> (Accessed on: January 23, 2014)
- 10 Muntean et al. 2010: 253
- 11 European Commission/ Fisheries/ CFP, Available at: http://ec.europa.eu/fisheries/cfp/index_en.htm (Accessed on: January 23, 2014)
- 12 STECF - Scientific Technical and Economic Committee for Fisheries; ICES - International Council for the Exploration of the Sea; ACFM – Advisory Committee on Fisheries Management
- 13 Commission of the European Communities, 2009. Green Paper: Reform of the Common Fisheries Policy. COM (2009) 163 final. The European Commission, Brussels.
- 14 Available at: www.eurlex.eu (Accessed on: January 23, 2014)
- 15 Client Earth, The impact of the Lisbon Treaty on EU fisheries policy - an environmental perspective, Available at: <http://www.clientearth.org/reports/clientearth-briefing-lisbontreaty-march-2010.pdf> (Accessed on: February 12, 2014)
- 16 European Commission, Fisheries. Available at: http://ec.europa.eu/fisheries/cfp/control/infringements_sanctions/index_en.htm (Accessed on: January 10, 2014)
- 17 Idem
- 18 Ministry of Environment, Waters and Forests, Ministry of Agriculture and Rural Development, (2013), "National Strategy for Fisheries Sector 2014-2020", pp. 13-14, Available at: <http://www.madr.ro/docs/fep/programare-2014-2020/Strategia-Nationala-a-Sectorului-Pescaresc-2014-2020-update-dec2013.pdf> (Accessed on: January 07, 2014)
- 19 Available at: <http://www.ddbra.ro/proiecte/implementate-de-arbdd> (Accessed on: January 07, 2014)
- 20 Idem, p. 4
- 21 Available at: <http://www.gal-deltadunarii.ro/> (Accessed on: January 07, 2014)
- 22 Available at: DDBR website <http://www.ddbra.ro/> (Accessed on: January 07, 2014)
- 23 Source: FLAG DD Strategy 2012, Available at: [http://www.ddbra.ro/media/Strategie%20Delta%20Dunarii_versiunea%2029sept2012_FLAG\(3\).pdf](http://www.ddbra.ro/media/Strategie%20Delta%20Dunarii_versiunea%2029sept2012_FLAG(3).pdf) (Accessed on: January 07, 2014)
- 24 Source: GAL DD website, Available at: <http://www.gal-deltadunarii.ro/> (Accessed on: January 07, 2014)
- 25 Source: Regulation on organization and functioning of FLAG North Dobrogea, Available at: <http://www.flagnord.ro/documente/ROF%20GLDN.pdf> (Accessed on: January 07, 2014)
- 26 Actions analysis within Program of Activity DDBR Administration for 2012, Strategy of the FLAG DD 2012, Local Development Plan of GAL DD territory Tulcea county 2012, Applicants Guide 2013 FLAG DN.
- 27 Measures (key-actions) elaborated in the Strategy "North Dobrogea – The Wild Land between the waters", as call for projects through EU funds.
- 28 Actions analysis within Program of Activity DDBR Administration for 2012, Strategy of the FLAG DD 2012,
- 29 Within the strategic documents and website information.

*Bogdan Berceanu
Cristina Sandu*

REZERVAT BIOSFERE U DELTI DUNAVA - REGIONALNI KLASTERI ZA ZAŠTITU I PROMOCIJU LOKALNOGA PODRUČJA I LOKALNIH RIBARSKIH PROIZVODA

SAŽETAK

Intenziviranje ribarske djelatnosti uz pomoć regionalnih klastera može imati pozitivan učinak na lokalnoj razini i to u obliku društvenoga utjecaja (smanjivanje nezaposlenosti), utjecaja na okoliš (smanjivanje zagađenosti i zaštita flore i faune u rezervatu biosfere), utjecaja u turizmu (povećanje broja turista i unaprjeđenje „imidža“ regije u javnosti), utjecaja na tržište (povećanje broja potencijalnih kupaca za lokalne ribarske proizvode i unaprjeđenje njihove kvalitete). U ovome radu obradit će se ribarska djelatnost na lokalnom području rezervata biosfere u delti Dunava u Rumunjskoj u svjetlu aktivnosti regionalnih klastera u zaštiti i promociji lokalnoga područja i lokalnih ribarskih proizvoda.

Ključne riječi: regionalni klasteri, ribarstvo, marketinški instrumenti, delta Dunava, Europska unija