

“Challenges of Governments in Terms of Water Protection – the Contribution of Agriculture”

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Map of Bulgaria



Structure of the Presentation

- **Facts and Overview of the Danube River Area of Bulgaria;**
- **The EU Strategy for the Danube Region and Bulgaria;**
- **Protection and Water Quality Preservation of the Danube River - the Contribution of the Agriculture;**
- **Conclusions;**

Overview of the Danube River Area of Bulgaria



Facts about the Bulgarian Danube Area - I

- Danube region *covers 45%* of the whole territory of Bulgaria. In the Danube catchment area falls more than half of the *entire utilized agricultural area of the country;*
- *44% of the total* population /7 640 238 /of the country lives in the Danube area;
- The region has *126 municipalities*, including *71 towns* and *1086 villages;*
- The largest cities along the Danube on the Bulgarian territory are *Ruse*, with more than 100 000 inhabitants, *Vidin and Silistra* with between 50 - 100 000;
- Economic structure of the region: about *19% comes from agricultural production*, *27% is the share of industry* and *54% of the total value is coming from services.*

Facts about the Bulgarian Danube Area - II

- The region along the Danube on the Bulgarian side is *poor in energy resources*. On the Danube near Kozoduj is the first nuclear power plant in Bulgaria.
- The greatest wealth is the *agricultural land which constitutes 73% of the area throughout the region*.
- *Four major river ports* with national and international significance /Ruse, Lom, Svishtov, Vidin and four with local significance - Orjahovo, Somovit, Tutrakan and Silistra/;
- On the Bulgarian stretch of the Danube, *Bulgaria has now only one bridge with Romania*, the construction of the second one at Vidin-Kalafat will be completed at the end of 2012;

The EU Strategy for the Danube Region , endorsed by the EU Council in June 2011

The whole territory of Bulgaria is under the influence of the Danube river as a transport, water, energy potential, etc.

The main priorities within the EU Strategy for the Danube Region shared by Bulgaria:

- **Cooperation Area: *"Connectivity"*;**
- **Cooperation Area: *"Environment and Prevention of Risk"*;**
- **Cooperation Area: *"Social and Economic Development, Human Capital and Intercultural Dialogue"*;**
- **Cooperation Area: *"Management"*;**

The EU Strategy 2020 and the Danube Strategy are of utmost economic and social importance for Bulgaria and will shape the development of the country over the next ten years!

Bulgaria - Water Quality Preservation of the Danube River - I

The two basic directives that regulate issues of water quality and have regard to the impact of agricultural activities on water are the Water Framework Directive and the Nitrates Directive. Both directives have been introduced in the national legislation through the Water Law, the Law for the Protection of Agricultural Land and the corresponding acts and regulations.

- ***Significant challenges in the management of the River Danube:***
 - contamination by organic substances;
 - pollution by nutrients;
 - contamination by hazardous substances;
 - hydromorphological changes;

The first three problems have a direct link to the agricultural activities.

Bulgaria - Water Quality Preservation of the Danube River –II

Water Framework Directive

- ***Water Framework Directive /WFD/*** - entered into force in 2000/ as an effective tool for water management. The main objective and priority of Bulgaria after the WFD adoption is the achievement of “good ecological status” till the year of 2015 and ensure a sufficient supply of clean water for future generations where the aquatic ecosystems /flora and fauna/ in their natural form are used as a main criteria;
- ***Improvement of wetland land use and expanding the protected areas network*** - a key activity for supporting the process of reducing the effect of the nutrient pollution on Danube river waters;
- ***Designation of environmentally sensitive areas*** on the territory of the Danube basin area;

Sensitive Areas within the Bulgarian Danube Region



Bulgaria - Water Quality Preservation of the Danube River - III

Water Framework Directive

- Introduction and application of the *innovative approach for water management based on river basins*. Based on this and the corresponding existing national Water Acts, a *River Basin Management Plan /RBMP/ on the Danube region* has been established. The aim of the Plan is the achievement of **good water status** in the Danube region **by 2015**. */ The area of the Danube River basin management is 47,235 sq. km, which is 42.5% of Bulgaria and 82.8% of the entire Danube region/.*
- According to the RBMP, the development of environmentally friendly agriculture and introduction of good agricultural practices for using fertilizers are among the key measures for combating contamination of surface and groundwater;

Wetlands Protection Policy of Bulgaria

Lower Danube Green Corridor - I

In accordance with the commitments set under the WFD, since 2000 Bulgaria has been a part of the most ambitious wetland protection and restoration initiative in Europe - the initiative of the Lower Danube countries: Romania, Bulgaria, Moldova, Ukraine.

As a result:

- Establishment of *Strategy and Action Plan for the Protection and Restoration of Floodplain Forests on the Bulgarian Danube Islands* /over 200 ha of Floodplain forests are restored/.
- *Extension and strengthening of the protected areas network* on the Danube islands.
- As a member state of the EU Bulgaria develops a *national ecological network of floodplain areas*, a part of the European ecological network NATURA 2000 - 48 protected areas along the river Danube;

Wetlands Protection Policy of Bulgaria

Lower Danube Green Corridor - II

- **9 new protected areas have been designated** along the Danube with a total area amounting to 28 400 ha.;
- Development of **management plans** of Srebarna Nature Reserve, Persina Nature Park, Protected Area Kalimok Brushlen, Rusenski Lom Nature Park;
- Realization of different projects **promoting the development of eco- and rural tourism** / Bulgarian-Romanian Association of Ecotourism has been established/;
- Improved **cross –borders cooperation**;
- **Enhancement of eco-culture** and general awareness towards the significance of the eco-systems, biodiversity conservation, green economy and implementation of good practices in agriculture;

Bulgaria - Water Preservation of the Danube River – the Nitrates Directive –I

The EU Nitrates Directive aims to protect water quality across Europe by preventing nitrates from agricultural sources polluting ground and surface waters and by promoting the use of good farming practices /adopted and applied in Bulgaria since 2007/

- Since 2005, a set of *Rules of Good Agricultural Practices*, approved by the Minister of Agriculture and Food, are introduced and adopted to prevent the pollution of waters caused by nitrates from agricultural activities;
- In accordance with the Nitrates Directive a special *Action Program for reduction and elimination of pollution in vulnerable areas* has been developed in Bulgaria since 2006 for period of 4 years, aiming at reducing and preventing the nitrate pollution from agricultural sources in the vulnerable zones;
- The *measures under the program are mandatory* for all farmers on the territory of the Nitrate Vulnerable Zones /except for farmers who grow pasture endangered breeds of domestic animals/;

Vulnerable Areas within the Bulgarian Danube Region



Bulgaria – Water Quality Preservation of the Danube River – the Nitrates Directive –II

Since **1 January 2012** each farmer, receiving direct payments under the single area payment scheme, has to observe the following:

- ***Protection of groundwater against pollution caused by certain dangerous substances:***
 - indirect groundwater discharge of certain individual substances selected on the basis of their toxicity /included in List I of the Nitrates Directive/, is strictly prohibited.
 - indirect groundwater discharge could be performed in some cases, only after a special permit issued by the Director of the corresponding basin directorate;

Bulgaria - Water Quality Preservation of the Danube River – the Nitrates Directive –III

- direct or indirect groundwater discharge of substances, included in List II of the Directive, could be done only in a presence of a **special permit**, issued by the Director of the corresponding basin directorate;
- each farmer is obliged to **take all appropriate measures**, envisaged accordingly in the Bulgarian national legislation, to prevent and reduce the indirect groundwater discharge of substances, included in List 1 and List 2 of the Nitrates Directive;

Bulgaria – Water Quality Preservation of the Danube River – the Nitrates Directive –IV

- Protection of waters against pollution caused or induced by nitrates from agricultural activities:
 - general *use precautions* for nitrogenous fertilizers;
 - special *storage measures* for nitrogenous fertilizers;

Conclusions - I

- Bulgaria has *years-long traditions* in *protection and preservation* of the *Danube river, sustainable water management* and *nature protected areas management*;
- Bulgaria as a new EU Member-State has *approximated and harmonized its national legislation with the corresponding EU legislation* on the issues of water management and water quality protection of the Danube River. The institutions and authorities responsible for implementation of this legislation are Ministry of Environment and Water, Ministry of Agriculture and Food and the corresponding regional units and structures;
- Bulgaria is among the 14-th countries signed in 1994 the Danube River Protection Convention, Bulgaria is an active member of the International Commission for the Protection of the Danube River /ICPDR/, ensuring the surface waters and groundwater within the Danube River Basin are managed and used sustainably and equitably;

Conclusions - II

- ***Bulgaria should not be considered as a major contaminant*** along the Danube river - the nature of the rural areas and the kind of agricultural activities performed, practically could cause no serious problems ;
- ***Crop monoculture planting***, especially prevalent in the recent years, could turn out to be a ***challenge*** as the unused residues of fertilizers contaminate surface and groundwater /the risk is primary for the region of Dobrudja/;

Conclusions - III

- ***Bulgaria actively contributes to the better management*** of the river through the implementation of a set of environmental protection measures and standards in the field of the agricultural policy and water management, as well as in the area of the nature conservation policy, pursued with regard to the river Danube and the islands;
- With the measures here above, Bulgaria actively contributes not only for ***the water quality preservation in the lower Danube***, but also for the overall maintaining of the ***Danube delta*** and the ***Black Sea ecosystem*** in ***good ecological status***.

***Thank you for your
attention!***