



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

---

**Project: „ECO Education for Healthy Environment“- by the Cross-border Cooperation  
Programme Romania - Bulgaria 2007 - 2013  
MIS ETC 336**

---

Analysis of the achieved results within  
Activity 2 "Study on environment issue"

The current analysis has been prepared in the period 24.03.2015 - 09.04.2015 and presents the results of a conducted study on global environmental issues, which have an influence at a local level in the cross-border region Romania - Bulgaria.

Content:

- Purpose of the analysis
- Ecological issues, concerned in the results of the study
  - Biodiversity
  - Protected areas
  - Reserves
- Actions, necessary for the raising of the awareness over the environmental issues



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

## 1. Purpose of the analysis

The overall purpose of the current report is to present the necessity of raising the awareness over the environmental issues among the students in Romania and Bulgaria at a high school level. This has been determined due to a number of factors:

- The establishment of policies, related to the environmental protection and the climate, provide sustainable benefits for the normal functioning of the European and global ecosystems, as well as such for the protection of the health and the standard of living of the population. The insufficient knowledge among young people puts the environmental problems aside from the focus on the priority global topics. Such neglecting of serious issues like climate changes, air and water pollution, waste management, etc. would lead to a sure global ecological crisis with an indefinite occurrence date. The access to information over the topic for young people should be the first mandatory step towards the long-term strategy for the prevention of fatal ecological consequences.
- The challenges, which the EU has faced are significant. The natural capital has been progressively destroyed by socio-economic activities like agriculture, industrial activity, household spending on services, etc., and the pace of growth of those negative factors have been increasing steadily since the 90s until now. The global pressure over the consuming society exerts a significant influence on the environment, which is co-related to the economic appearance of each country, including Romania and Bulgaria. The established policies and governmental approaches towards the solution of such problems are apparently not efficient enough in a long-lasting aspect, as they rely on transitory solution to a problem, leaving the preventive measures behind, among which is the education, which has a vital role.
- The decreased pollution in the last few years have significantly improved the quality of air and water in Europe, but it still doesn't corresponds to the ambitions of the Seventh Environmental Action Programme of the EU. The loss of the soil functioning, the



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

demolition of lands and the climate changes remain the basic issues, as their solution would have a positive influence over the economic well-being of Europe. Those topics get under the focus of the study, which is subject of the current analysis, as other priority environmental issues have also been mentioned.

- The discontinuation of losing the biodiversity until 2020 is the priority objective of the ecological policy of the EU. Despite the implementation of some more specific objectives, the accomplishment of the overall strategy seems impossible at the current moment. The affection of the climate changes are expected to continue accelerating, which is among the basic reasons for the existence of the so called protected species and types of habitats "with an unfavorable conservation condition".

- A large number of influences on the environment remain significant, regardless of the comparatively reduced usage of their causing factors in the last few years. As an example, the fossil fuels still represent  $\frac{3}{4}$  of the energy supplies of the EU - a factor, which affects negatively the ecosystems with the climate change. This is completely mismatching the "Vision 2050", elaborated by specialists together with the European Climate Forum, the Institute for Climate Impact Research and the International Institute for Applied Systems Analysis. According to this report, by the year 2050 the European countries will be capable of satisfying completely their needs for electricity through renewable energy sources, in case that they take the necessary measures. Presenting those measures to young people is essential, as they represent the future energy consumers and the responsible for the sustainable environmental protection. Education should be a starting point of their responsible ecological consciousness, so investing in innovative teaching methods in the environmental topic is a key instrument for future positive changes.

- Globalization of the ecological factors, tendencies and effects appear as serious challenges in the process of environmental management in the EU. The necessity of European economic development in a global aspect defines the need of an enhanced



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

use of resources, which decreases and even neutralizes the positive results of the reduced release of greenhouse gas emissions and the respective air pollution. A switch to the so called "green economy" is necessary.

- There are 4 established approaches in the field of the environmental policy, as a part of the achievement of the "Vision 2050" targets. They are, as follows: 1) mitigating of the known impacts on the ecosystems and the human health, while creating socio-economic opportunities through resource-effective technological innovations; 2) adapting to the expected climate and other environmental changes through increasing the sustainability, for example in the cities; 3) avoiding potentially serious ecological harms to the health and well-being of humans and ecosystems through taking precaution measures and preventive actions, based on **early warnings by science**; 4) recovery of the sustainability in the ecosystems and society through increasing the natural resources, contributing to the economic development and overcoming the social injustices. Introducing the environmental topic into the school subject-matter, as an instrument for the formation of consciousness, is absolutely necessary. Putting the ecological issues on the agenda at a high school level, their solution and prevention would become a part of the system of values of the growing students, building inside of them a sense of responsibility towards the preservation of natural resources, considering the local ones at first, as well as the global ones afterwards.

- There is a huge gap in the knowledge about the direct relations between the environmental changes and the human well-being. It needs to be filled by the respective school material, responding to the main ecological issues and served to young people in an accessible way. Arousing their interest towards the aforementioned subject is vital for the sustainability of their efforts, directed to the management of current and future changes, in the context of natural capital preservation.

- The Seventh Environmental Action Programme of the EU foresees a sustainability of the ecosystems, contributing to an improved future living of the children.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**EuroIntegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

Science and technologies are the right method for the implementation of this engagement, but taking immediate and decisive actions in the field is a matter of great importance and priority.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

**Таблица ES.1 Указателно обобщение за тенденциите в околната среда**

	Тенденции за 5-10 години	Перспектива 20+ години	Напредък към целите на политиката	Прочетете повече в раздел ...
<b>Производство, опазване и подобряване на природния капитал</b>				
Биоразнообразие на сушата и в сладките води			<input type="checkbox"/>	3.3
Използване на земите и почвени функции			Няма цел	3.4
Екологичен статус на сладководните обекти			<input checked="" type="checkbox"/>	3.5
Качество на водата и постъпления на хранителни вещества			<input type="checkbox"/>	3.6
Замърсяване на въздуха и въздействието му върху екосистемите			<input type="checkbox"/>	3.7
Разнообразие в морето и в крайбрежните води			<input checked="" type="checkbox"/>	3.8
Въздействия върху екосистемите, дължащи се на климатичните промени			Няма цел	3.9
<b>Ефективност на ресурсите и нисковъглеродна икономика</b>				
Ресурсо-ефективност на материалите и употреба на материалите			Няма цел	4.3
Управление на отпадъците			<input type="checkbox"/>	4.4
Емисии на парникови газове и смекчаване на въздействията от климатичните промени			<input checked="" type="checkbox"/> / <input checked="" type="checkbox"/>	4.5
Енергопотребление и употреба на изкопаеми горива			<input checked="" type="checkbox"/>	4.6
Търсене на транспортни услуги и свързаните въздействия върху околната среда			<input type="checkbox"/>	4.7
Промислено замърсяване на въздуха, почвите и водите			<input type="checkbox"/>	4.8
Употреба на вода и напрежение върху качеството на водата			<input checked="" type="checkbox"/>	4.9
<b>Защита от екологични рискове за здравето</b>				
Замърсяване на водата и свързаните екологични рискове за здравето			<input checked="" type="checkbox"/> / <input type="checkbox"/>	5.4
Замърсяване на въздуха и свързаните екологични рискове за здравето			<input type="checkbox"/>	5.5
Шумово замърсяване (особено в градските райони)		N.A.	<input type="checkbox"/>	5.6
Градски системи и традиционна инфраструктура			Няма цел	5.7
Промяна в климата и свързаните екологични рискове за здравето			Няма цел	5.8
Химическите вещества и свързаните с тях екологични рискове за здравето			<input type="checkbox"/> / <input checked="" type="checkbox"/>	5.9

Индикативна оценка на тенденциите и перспективите	Индикативна оценка на напредъка за постигане на целите на политиката
<input checked="" type="checkbox"/> доминират тенденциите към влошаване	<input checked="" type="checkbox"/> до голяма степен се отклонява от пътя за постигане на основните цели на политиката
<input type="checkbox"/> тенденциите показват смесена картина	<input type="checkbox"/> частично следва пътя за постигане на основните цели на политиката
<input type="checkbox"/> доминират тенденциите към подобряване	<input checked="" type="checkbox"/> до голяма степен е на път се постигнат основните цели на политиката

**Забележка:** Индикативните оценки, представени тук се базират на основните индикатори (налични и използвани в тематичните брифинги на SOER), както и експертно решение. Съответните карети "Тенденции и перспективи" в съответните раздели предоставят допълнителни разяснения.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

## 2. Ecological issues, concerned in the results of the study

### 2.1 Biodiversity

#### 2.1.1 Common characteristics and problems

Over 1000 plant species and 150 types of birds are endangered in Europe. The measures taken in order to overcome this situation and the preservation of the flora and fauna are expressed through the following of the EU environmental policies, and the measures for the preservation of those species are compiled into a large number of directives and regulations.

The human activity has a direct negative influence on the ecological condition and the natural aspect of the cross-border region. The consequences, which bring a negative effect over the biodiversity, are a result from a variety of levels of the social-economic development and the processes, affecting the natural wealth through a permanent external interference. There is a number of factors, which provoke changes in the ecological structure and the biological capabilities of the natural capital:

- The quick process of industrialization is expressed in a development of the infrastructure in big production units, mainly in the field of the ferrous and nonferrous metallurgy, chemical and petrochemical industry and also machine building. This factor increases the consumption of fossil (non-renewable) energy resources from local and external sources, which has a negative effect due to the huge pollution of air, soil, surface and ground waters. In addition we may point out the direct and collateral pollution, caused by an incompetent management or even a lack of purifying equipment in the field of the heavy industry.
- The concentration of forest industry in big units, which favors the over-exploitation of natural forests, causes an ecological imbalance into a variety of mountain watersheds.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

- The development and intensity of the agricultural production systems, including the transformation of natural or semi-natural ecosystems into an arable land with the purpose of integrating intensively producing technologies, bring their negative impact. The floodplains along the valley of the Danube river have been obstructed and transformed into intensive agricultural systems; a huge part of the meadow steppe vegetation and the wet lands have been transformed into an arable land; natural windbreaks and forest areas in the plains and meadows have been cut.
- The diversity of sources and the density of releasing harmful emissions in a solid, liquid or gas form is increasing, which is accompanied by often violations regarding the maximal eligible amounts of pollution and the legal provisions regarding the environmental protection.
- The fossil natural energy sources are over-exploited for the needs of the production processes.

Considering the striving for a sustainable preservation and development of the natural capital, the respective negative consequences shall be carefully revised and taken into consideration:

The active process of fragmentation in the biodiversity is expressed in different forms:

- Reduction and extinction of a large number of plant species - 74 extinct species of higher plants; categorizing of 1 256 higher plants as "rare species"; 171 have the status of vulnerable and 26 plant species are taken as endangered.
- A significant reduction of animal species. 105 mammals are known, which are representatives of the local fauna: 26 of them are endangered species, 35 are vulnerable and 25 are in a serious decline in population. However, other 3 species (wolf, brown bear and lynx), which are generally rare or extinct in a lot of countries in the EU, have a numerous population in the area. As for the fish, the number of species which





1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

inhabit the Romanian waters is 216. 11 of them are endangered, 10 are in a critical condition and 18 are vulnerable.

- The reduction or elimination of some types of habitats or ecosystems in the transition areas (natural windbreaks, wetlands, as a part of the large structure of agricultural or lotic systems), the diffusive pollution, the soil erosion and the surface runoffs are just a part of the consequences from the human activity that is harmful for the environment. It also affects directly the natural capital in the agricultural sector through restructuring and reducing its bio-productive capacity.

- The enhancement of the economic activity exerts a strong pressure on the environment and represents a permanent threat for the biodiversity. If we evaluate the results of that negative influence, we could point out some basic categories of harmful effect towards the environment:

- Degree of the damage to the species and natural habitats in the affected areas; Changes in the parameters of ecosystems; Fragmentation of ecosystems; Measure to mitigate the impact.

- The main threats for the biodiversity could be respectively pointed out, as follows:

- Habitat loss and fragmentation due to urbanization, infrastructure development and exploitation of natural resources;

- Abandonment of traditional land use systems for the use of the soil, especially grasslands and meadows; stubble incineration; overgrazing;

- Reduction of groundwater reserves as a result of the continuous hydraulic works, leading to a partial or full drying of dozens of hectares of forests;

- Overexploitation of ecosystems and species - the industrial agriculture leads to a reduction of the soil resources and a severe erosion of slopes, as well as degradation of ecosystems; inadequate organization of harvest gathering;



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

- Loss of wetlands due to their conversion to agricultural land; Misuse of wetlands; etc.;
- A risk of invasive plant species;
- Pollution - the acid rains affect negatively the forests and the eutrophication exerts negative pressure on wetlands;
- Uncontrolled disposal of waste in the protected areas;
- Activity of wind parks - the main negative effect, which is being discussed as a priority of the environmental protection context, is related to the flight of certain bird species in the reach of the moving wind rotors and the disturbance of habitats, if the bird colonies are relatively bigger in the respective area.
- Low public awareness and participation;
- A failure to grant an adequate ecological education at school;
- Natural negative effects - extreme weather condition;
- Population growth; Changes in the landscape and ecosystems.

#### 2.1.2 Flora and fauna in the cross-border counties in Romania:

- **Mehedinti county:** In the natural parks, a large number of rare, endangered or endemic species are present (28 endemic species in the "Iron Gates" Natural Park; 23 endemic species in "Domogled-Valea Cernei" National Park), which demands that specific measures should be taken. The condition of the natural habitats is directly connected to the influence of other ecological factors. The conducted research about the fauna of the respective county shows a large variety of vertebrate (fishes, amphibians, birds and mammals) and invertebrate animal species, as well as a large number of avifauna representatives. They are concentrated mainly in the "Iron Gates" National Park and two of the wetland areas in the county.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

- Dolj county: 4 habitats of national significance have been identified - swamps with sources rich in mineral salts, wooded grasslands, broadleaf forests; natural dystrophic lakes and ponds; 19 habitats of community interest (grasslands and others); oligotrophic and mesotrophic dead waters; euro-siberian steppe vegetation; 170 species are identified under a national interest and 86 - under a community interest. As for the flora and fauna representatives - 56 plant and 114 animal species are of a national interest.
- Olt County: it is characterized with its moderate level of biodiversity, regarding the amount of species, habitats and ecosystems, which they form, but the current landscape changes bring some significant damage - the intensity of the farm producing affects mainly the production areas, and the abandonment of agricultural activities is particularly present in less productive areas. In reference to the flora, in Olt county have been identified 2700 plant species, among which 3 have been identified for a natural heritage, 9 are endangered, 17 are vulnerable and 35 are rare. 13 type of wetland habitats have been identified and described, one specific grassland and meadow habitat and 6 forest habitats. The climate influences from the arid southwestern areas, the moderate areas in the north of the country and the climatic differences between the north and the south, caused by the ground altitude, have led to the formation of a large number of habitats.
- Teleorman County: generally preserved forest environment, except for a small part, exposed to unfavorable conditions, due to natural events, such as droughts and abusive trees cutting. The forests cover 24 708 hectares - 4.3 % of the surface area of the county.
- Giurgiu County: there are a few categories of protected areas established, as follows: 6 protected areas of a national importance and new protected areas of a community interest (16.43 % of the county surface). The main types in the concrete county are forests, farmlands and water courses. Forests play an important part of the biodiversity, because they provide a natural habitat for the plant and animal species and



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

also a protection from soil erosion and floods; they regulate the climate; provide a suitable relaxing place. 10 % of the Giurgiu county surface is covered with forests so their preservation is a priority.

- Calarasi County: the environment is formed of 98% human living environment, dominating in the plain areas. The most common habitats are meadows, forests and freshwater courses. The flora and fauna in the county is characterized by steppe and forest steppe areas, influenced by the ecological situation in the county and around it. The fauna includes hunting species, among which wild boar, roe deer, pheasant, hare, fox and others. In the ponds and lakes, there are wild ducks and geese. Among the fish representatives, which inhabit those watercourses, there are such as: crucian, bream, perch, zander and pike, and along the valley of Danube river - cat fish, sturgeon and mackerel.

- Constantza county: it is characterized with a large number of natural and semi-natural habitats with high levels of diversity - aquatic habitats (freshwater aquatic habitats, saltwater aquatic habitats, seawater aquatic habitats and coast water aquatic habitats), ground habitats (forest habitats, grassland habitats, steppe habitats and wetland habitats) and underground habitats (cave habitats). The flora in the Dobrogea part is characterized with the particularly intensive migration, as a result of climate changes, the primary soil types and also their connection to the migration of the different type of phytogeography elements. The wild animals in the county are highly varied due to the existence of a lot of habitats. They are represented by over 345 vertebrates (45 mammal species, 243 bird species, 19 reptile species, 10 amphibian species, 28 fish species),

### 2.1.3 Flora and fauna in the cross-border counties in Bulgaria:



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**EuroIntegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

According to the geo-botanic zoning in Bulgaria, the border area is located in the territory of the European broadleaf forest system, which covers a part of the Eurasian steppe and forest steppe region. The physiographic location of the border area defines the significant amount of biodiversity. The protected habitats that are typical for the researched area, are represented by thermophilic beech forests, oak and hornbeam forests, mixed forests on screes and ravines, etc. A variety of wetland areas by the valley of the Danube river are extremely important for the wildlife. The most significant of them is the Srebarna lake. 179 species have been established in this protected area, 50 of which have been included to the Red Book of Bulgaria. There is the nesting place of the colony of the Dalmatian pelican, only in Bulgaria. The lake and the surrounding wetlands are an important natural habitat for many other species, such as: pygmy cormorant, night heron, spoonbill, red duck, otter, polecat and marbled polecat. In the salt lake and the estuaries, a lot of rare birds are nesting - much of the red-breasted goose population, thousands of flocks of backwater birds, which hibernate in this area.

- Vidin region: the biodiversity in the region is very rich. The flora diversity in the area originates from the favorable conditions and the large variety of habitats. Almost all species, which are typical for Bulgaria are spread over a relatively reduced area. The rich fauna is represented by 179 bird species, 53 mammal species (among which 14 bat species), 11 amphibian species and 15 snake species. The birds appear to be the majority among the vertebrate representatives of the wildlife.

- Montana region: The biodiversity is large. The northern slopes of Western Balkan Mountains, in the foothills of "Kom" peak, are covered with some rare for the mountain natural spruce and spruce-fir-beech dendrocoenoses. In the "Kopilovo" sector of the Western Balkan Mountain there are century-old deciduous and coniferous forests.

The protected area "Ribarnitsite pri Orsoya" in the land of Lom is a typical habitat for protected, rare and vulnerable species of the flora and fauna - a center for feeding, rest, reproduction, nesting and wintering of many different migrating birds.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**EuroIntegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

- Vratsa region: the variety of plant and animal species in the most southern part of the region and in the Danube region is extremely high. Huge rock complexes in the "Vrachanski Balkan" natural park are a habitat for more than 250 species of vertebrates, among which the most numerous groups consist of over 180 bird species. The region is a natural nesting place of such species as: the Alpine chough, the Alpine swifts, the stone butterfly, the tree pipit, various species of woodpeckers and the Egyptian vulture. Although very rarely, in the region may appear the golden eagle, the common ratter, the sparrow hawk and other preying birds that use the area for hunting. The cave fauna is among the most valuable for the region. The flora is rich in a large number of rare and endangered species - alone in the "Vrachanski Balkan" natural park over 700 plant species are present, which is 1/5 of the Bulgarian flora; 51 of them have been identified as rare or endangered and 25 species are protected by law. The forest wealth in the mountain region include the beech tree, the oak, the white pine, the black pine and the spruce. There are also a lot of herbs, including hardhay, marjoram, lemon balm, yarrow, linden, black elderberry, hawthorn and verigar, red peony, etc. Among the commonly met animal species, there are: roe deer, deer, fallow deer, wild boar, hare, rabbit and pheasant. The wealth of the avifauna includes a variety of waterfowl, such as swan, pelican, ibis, geese, duck, grebe, etc; scavengers like the eagle and the raven, as well as owls.

- Pleven region: a variety of habitats - from marshes to sand, grassland, thicket, forest and rocky areas, etc. Some of the protected plant species inhabit the area, including water floating plants, the giant snowdrop and many more. Among the animals are present some amphibians, invertebrates, fishes, mammals and a large number of birds, most of which are protected species. In the area also appear: the black stork, the red heron, the bittern, the osprey, the sparrow hawk, the buzzard, the small eagle, the steppe eagle, the spotted eagle, the imperial eagle, the golden eagle, the short-toed snake eagle, the prairie falcon, the green sandpiper, the woodcock, the rock pigeon, the owl, etc.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

- Veliko Tarnovo region: the forests occupy a significant part of the protected areas in the region. Among the more important species for protection are the common salamander, the yellow-belly bittern, the tree frog, the water turtle, otters and more. Among the rare and protected bird species, more significant are the grey heron, the dwarf heron, the black stork, the common ratter, the sparrow hawk, the prairie falcon, the corncrake, the marsh hen, the green sandpiper, the long-eared owl, the blue fischer, the grey woodpecker, etc.
- Rousse region: "Rusenski Lom" natural park is a habitat of over 930 plant species. Among the rarer of them are: Emile Popov's Cinquefoil, Snowdrop Windflower, Common Snowdrop, Common Rue and many others. Among the large variety of animals, there are 10 amphibian species (5 of which protected) and 19 reptile species. The forests are a home to 66 mammal species of a total of 92 in Bulgaria (20 of which are rodents). In this region are also cohabiting: the roe deer, the deer, wild boars, wolves foxes, jackals, wild cats, hedgehogs, etc. The avian universe in the Lom area fascinates with the abundance of animals: Egyptian vulture, golden eagle, black stork, lesser kestrel, ruddy shelduck and many others, which are only a part of the species, which are present in the niches and on the terraces of the canyon of Lom river.
- Silistra region: characterized by numerous forests, most of which oak and hornbeam. The most important protected area in the region is the "Srebarna" reserve, where more than 230 bird species (which represent 57.5 % of the avifauna in Bulgaria), as 132 of those species are nesting and 98 - wintering.
- Dobrich region: the favorable physical-geographical factors in the region like the flat landscape and the excellent soil structure, provide the condition for the abundance of agricultural land - 80.3 %, out of 58 % on a national scale. The percentage ration of forest areas is very low - only 12.3 %, compared to the national average - 34 %. Despite the highly intensive agricultural development in the Dobrich region, there are places still unaffected by human activity. Over this area passes by one of the two routes



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

of migrating birds - "Via Pontica". There are also coastal wetlands of international importance, steppe areas with rich vegetation (almost 400 species), including rare plant species.

## 2.2 Protected areas

### 2.2.1 National parks in the cross-border counties in Romania:

- Mehedinti county: Domogled - Valea Cernei <http://www.domogled-cerna.ro/>

**Geographic location:** The "Valea - Cernei" national park is located on the territory of the counties East Caras-Severin (23.185 hectares), West Mehedinti (8.220 hectares), West Gorj (29.806 hectares).

Out of geographical point of view, the park runs down the riverbed of the Cerna river from the source to its confluence in the river Belareca, among the mountains Godeanu and Cernei.

The total size of the park is 61.211 hectares.

**Establishment:** proposed for including in the list in 1990, included in 2000.

**Natural reserves:** Coronini-Bedina, Domogled, Iardashitsa, Iarna-Craiova, Barzoni cave, Cheile Corcoaiei, Ciucevele Cernei, Piatra Cloșanilor, Stan's peak and Valea Tesna.

**Habitats:** Beech forests (Symphyto-Fagion, Asperulo-Fagetum), middle-european beech forests (Cephalanthero-Fagion), alluvial forests (*Alnus glutinosa* and *Fraxinus excelsior*), Illyrian oak forests, Alpine and boreal bushes, etc.

### Flora and fauna:

Mammals, reptiles, amphibians, insects:





1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

14 mammal species: brown bear, lynx, river otter, long-winged bat, etc.

One reptile and one amphibian - wide-tailed turtle, yellow-bellied toad.

6 fish species: small gudgeon, bullhead, Balkan loach, aspik, etc.

22 invertebrate species

#### Birds:

Mountain pipit, rock eagle, snake eagle, common cuckoo, Syrian spotted woodpecker, etc.

#### Grasses and flowers:

Lady slipper, mountain clove, white rock clove, etc.

#### **Monuments (near):**

- Tismana monastery
- Balneological complex Baile Herculane
- Wooden churches: "St. Voevodi", "St. Nikolai", etc.
- Archeological complexes: Zavoi, Voislova, Baile Herculane, etc.

• Constantza: Danube Delta - announced as a natural park in 1991  
<http://www.deltadunarii.ro/>, national park - biosphere reserve, included in the List of world heritage of UNESCO



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

**Geographical location:** Danube delta's south-west border is the Dobrogea plateau, the north border is Bessarabia, on the east it flows in the Black sea. On the north, the sleeves Chilia and Musura represent the border between Romania and Ukraine. The total size of the delta, together with the Razim-Sinoe lagoon complex, is about 505 square km, 732 of which are a Ukrainian territory.

Near „Patlageanca”, the Danube is divided in two sleeves - Chilia (north) and Tulcea (south). The Tulcea sleeve is later divided in Sulina and St. George sleeves.

**Establishment:** announced as a natural park in 1991.

**Natural reserves:** Capul Doloshman, Histria fortress, Vatafu-Lundulet complex, Sakalin Zatoane complex, Popina island, Potkoava lake, Caraorman forest, Letea, Roska-Buhaiova, Belciug lake, etc.

**Habitats:** in the area of the delta 29 types of habitats of community interest have been identified: dunes with *Hippophae rhamnoides*, alluvial grasslands of *Cnidion dubii*, pubescent oak forest vegetation, etc.

#### **Flora and fauna:**

**Flora:** vegetation, specific for the wetlands, which occupies 78% of the total area (reed, bulrush, sedge, etc.), the coastal forests occupy 6% of the delta - willow, ash tree, alder, poplar, etc.

**Fauna:** The Danube delta is a home to over 360 bird species and 45 freshwater fish species. It consists of migratory birds from all over the world. The main fish species in the delta are the pike and the catfish.

**Mammals:** wild boar, river otter, muskrat, European mink, weasel, golden jackal, steppe polecat, hedgehog, etc.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

---

*Birds: small white-fronted goose, imperial eagle, garganey, etc.*

#### **Monuments (near):**

- Orthodox church "Annunciation", Tulcea, 1869
- Monastery and Roman city Halmyris, Murighiol
- Azizyie mosque
- Argamum-Orgame fortress, Tulcea
- Black sea, Macinului mountains, Razim-Sinoe lagoon complex (Dobrogean limans), etc.

#### **2.2.2 Protected areas in the cross-border provinces in Bulgaria:**

"Protected areas" is a generalized concept, which covers all parks, reserves, sights and protected areas. In 1933 the first reserve in Bulgaria has been announced - Silcosiya, and in 1934 has been announced as the first natural park not only in Bulgaria, but also on the Balkan Peninsula.

- Vratsa province and Montana province: **Vrachanski balkan** - natural park, situated in the Vratsa mountain, which is a part of the Balkan mountain. It has been announced in 1989. It covers the provinces Vratsa, Montana and Sofia.

On the territory of the park is the "Vrachanski carst" reserve. It has been announced in 1983. It is situated in the Vratsa province.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

#### Protected areas in the natural park:

- "Borov kamak"
- "Vola" peak
- "Lakatnishki" rocks

#### Sights:

- "Vratsata" - a chine
- "Ledenika" - a cave
- "Ritlite" - upstanding rock formations
- "Temnata dupka" - a cave

- Dobrich province: **Golden sands** - a natural park in the Varna province and Dobrich province - Kranevo village. Declared in 1943. The species under protection are oak forests, Hungarian oak, pubescent oak and also dense forests - manna ash, field ash tree, linden, hornbeam, Turkey oak, climbing plants - ivy, clematis.

On the territory of the natural park is situated the "Aladja" monastery.

- Pleven province and Veliko Tarnovo province: **Persina** - natural park, situated in the Svishtovo-Belen lowland on the territory of the provinces Pleven and Veliko Tarnovo. Declared in 2000.

In the area of the natural park are included the following reserves:

- "Persina" swamp, declare in 1981 in order to protect tarrocks, seagulls, cormorants, herons, wild ducks and geese. It is situated in the Pleven province.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

- "Kitka" on the Kitka islands - protecting the sea eagle. It is in the area of the Pleven province.
- "Milka" on the Milka island - protecting the sea eagle. It is in the area of the Pleven province.
- Rouse province: "**Rusenski Lom**" - natural park in the valley of the Rusenski Lom river. Declared in 1970 as a national park. Rouse province. The protected species are broadleaf forests - hornbeam, raspberry thorn, acacia, Turkey oak, Hungarian oak.

In the area of the park are situated:

- Architectural reserve "Skalni carkvi" (Rocky churches) near Ivanovo
- Architectural reserve "Cherven" (Red)
- Rocky monastery near Basarbovo - the only active rocky monastery in the country.

## 2.3 Natural parks and reserves

### 2.3.1 Natural parks in the cross-border counties in Romania

- Mehedinti: MEHEDINTI PLATEAU - declared as a natural park in 2005.  
**Geographical location:** in south-western Romania, west of the Motru river, in the foothills of the Mehedinti mountains.  
**Flora and fauna:** broadleaf forests, different types of sub-Mediterranean plants.  
**Fauna,** typical for the broadleaf forests: wild boar, predators like wolf, fox.  
**Rezerves:** the cave of Epuran, "Lyulyakova gora" (Lilac forests) in Ponoarele.

IRON GATES - declared as a natural park in 2000 <http://www.portiledefier.ro/>



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

**Geographical location:** Situated in the south-west part of Romania, on the border with Serbia; occupies an area of 115.655 hectares. Covers partially the territories of the counties Caras-Severin and Mehedinti.

**Establishment:** declared as a natural park in 2000.

**Protected areas:** 18 in number: Valea Oglanicului, Cracul Crucii, Valea Mare, wetland Kalinovac island, Bazias, Balta Nera - Danube, etc.

**Flora and fauna:**

**Flora:** the Iron Gates park is abundant of boreal plants, mountain plants, Mediterranean plants. 171 plant species have been described and identified; 26 endemic plants.

**Fauna:** 34 mammal species, predators (bear, wolf, fox, lynx, etc.), 14 types of amphibians, 17 reptile species, 205 bird species, etc.

**Monuments (near):**

- Ladislau fortress
- Tri Kule fortress
- Voditsa monastery
- St. Ana monastery
- Mraconia monastery
- Bas-relief of Decebal
- Caves: Gaura Chindiei II, Veterani, Haiducilor
- The Iron Gates I lakes

- GIURGIU: COMANA - declared as a natural park in 2005

<http://www.comanaparc.ro/>

**Geographical location:** located in Muntenia, on the territory of the Giurgiu county.

**Establishment:** declared as a natural park in 2005.

[www.cbcrromaniabulgaria.eu](http://www.cbcrromaniabulgaria.eu)

Investing in your future!



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

**Habitats:** oak and hornbeam forests, mixed coastal forests, European-Siberian forest-steppe vegetation, etc.

**Flora and fauna:**

Flora: a large variety of plants, some of which endemic, rare, protected.

Fauna: two mammals: souslik, greater mouse-eared bat, a reptile, two amphibians, birds: grey heron, levant hawk, Eurasian siskin, etc.

**Monuments (near):**

- churches: „Uspenie Bogorodichno” (Assumption of Mary), „St.George”, „St. Nikolai”, „St. Paraskeva”, etc.

### 2.3.2 Reserves in the cross-border provinces in Bulgaria

- Vidin province: Chuprene - one of the biggest biosphere reserves in Bulgaria. Declared as a reserve in 1973 for the protection of the most northern coniferous forests of Bulgaria. In 1977 it is included in the list of biosphere reserves.

It is located in the Chiprovo mountain, Western Balkan mountain. 90% of the territory is forests - spruce, fir tree, beech, common maple, aspen, mountain maple.

Diversified animal wildlife. The only reserve in Bulgaria to be permanently inhabited with wolves.

- Montana province: **Ibisha - maintained reserve**

Ibisha island is located opposite the mouth of Tsibritsa river. Established in 1984. A maintained reserve since 1999. The island is covered with floodplain forests of brittle willow, white willow, black alder, black poplar.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

The biggest mixed colony of cormorants and herons. It is inhabited by the night heron, the little white heron, the squacco heron, the spoonbill, the green woodpecker, the mallard. The nesting of the oyster catcher along the Danube /in 1989/ and the nesting of the globally endangered pygmy cormorant and the white spoonbill have been established for the first time.

- **Vratsa province: "Vrachanski karst"** - a reserve in the natural park "Vrachanski Balkan". Declared in 1983. Protects the wildlife and the typical karst terrain with various geomorphological formations, a unique cave fauna, relict species. Forests of the common hornbeam, the oriental hornbeam, manna ash, oak, field maple, black pine. Among the grasses, there are snowdrop, wood nymph tulip, wood anemone.

Animals - grave-digger raven, Egyptian vulture, black stork, alpine common swift, yellow-beak daw.

- **Pleven province: Reserves, situated in the "Persina" natural park**
  - **Persina swamps** - the reserve has been declared in 1981. All kind of human activity is forbidden in the reserve. It is situated on the Persin island - covers the Peschan swamp, the Dead swamp and the Duljovo swamp. There are water lilies, devil walnut, water fern, nostrum.

It is inhabited by many birds - rufous-necked grebe, whiskered tarrock, river heron, great cormorant. There are 170 bird species in the reserve.

- **Kitka** - declared as a reserve in 1981. Protects the vegetation and the sea eagle.
- **Milka** - reserve; the sea eagle is protected.





1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

- Veliko Tarnovo province: **White cow** - a reserve, situated in the Elena Balkan. Declared in 1968 for the preservation of the century-old beech forest and "White cow" karst springs.

There are: oak, hornbeam, maple, wild cherry, linden, aspen. Average height - 30 meters. Age - 130 years. An interesting bush is the laurel, which is a Mediterranean specie.

- Rouse province: **Beli Lom** - a reserve on the territory of the provinces Razgrad and Rouse /municipality of Vetovo/. Declared in 1980 for the preservation of the typical for the Ludogorie forest ecosystems - oak-linden forests, Hungarian oak, summer and winter oak, silver-leafed linden, small-leafed linden, common hornbeam, oriental hornbeam, field maple, ash tree. Bushes - hawthorn, lilac, raspberry thorn, sumac.

Along the river, there are willows, alder, white poplar, spotted eagle, honey-buzzard, hobby (falcon).

- Silistra province: **Srebarna** - the reserve is situated in the west part of the Ajdemir lowland, 16 km from the city of Silistra. The biggest riverside lake in Bulgaria. Its depth is between 1 and 3 meters. It is 2 km away from the Danube, on the main route of migratory birds between Europe and Africa "Via Pontica". In 1975 Srebarna has been included in the Ramsar convention for the protection of wetlands of international significance. In 1977 it has been declared as a biosphere reserve in the list of UNESCO. Srebarna is among the "100 Tourist Site of Bulgaria" of the Bulgarian Tourist Union.

There is a natural science museum. The living inside may be observed by video cameras - 227 bird species: 140 species are nesting in the reserve; 94



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

species are wintering; 65 are in the Red book of Bulgaria; 90 species are of a European natural preservation importance /SPEC/.

➤ **Dobrich province: Baltata** - a maintained reserve in the Dobrich province. It is situated on the Black sea coast, on the land of Obrochishte village, municipality of Balchik. It has been declared as a reserve in 1978; as a maintained reserve - in 1999. Covers the most northern dense forest in Bulgaria, along the mouth of Batova river.

In the forest, there is an abundance of field elm and plantain ash tree, which reach up to 35 meters of height. There are: summer oak, field ash tree, wild pear, common hornbeam, black alder, white poplar, white willow.

Sub-forest - common and black hawthorn, blackberry, rose hip, hazel, viburnum. There are: ivy, wild vine, common clematis. Grasses - swamp snowdrop, bluebell, elecampane, crowfoot, sedge, willow herb, rose mallow.

➤ **Kaliakra** - a reserve, which covers the cape of the same name. Typical steppe plants - Kaliakra campion, Kaliakra cornflower, ribwort peony, nacre, feather grass, Caucasian sagebrush.

The nesting birds - Aristotle cormorant, little bittern, little grebe, ducks. On the north of the peninsula there are two small wetland areas - **Bolata** and **Taukliman**.

## 2.4 Danube delta

The Danube delta is the wettest land in Europe with a coverage of 5240 km<sup>2</sup>. It is the second biggest delta in Europe, after the one of the Volga river (18 000 km<sup>2</sup>). The extremely diversified structure of natural ecosystems, most of which unaffected by human



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

activity, makes the Danube delta, together with the lakes Razim and Sinoe, a priority complex of a global importance. It has been declared as a biosphere reserve, included in the Ramsar convention and the List of world cultural and natural heritage.

➤ **Negative consequences for the Danube delta:**

As a result of the elimination of floodplains, the fertile capacity of the Danube delta is being exceeded since the 80s and today it is affected by the significant eutrophication, which has the following consequences:

- Reduction or even elimination of submerged macrophytes, altering the specific specter of algae, as well as distribution of competitive species in the conditions of abundant nutrients (blue-green algae) are possible only in the presence of floodplain lowlands;
- Amendment of the specific specter of fishery and the reduction of the fish population have a negative economic effect, due to the loss of shallow areas in the floodplain forests - a suitable environment for feeding and reproduction.
- Changes among the reed vegetation - as an example: irreparable damage over a territory of 60 000 hectares, a result of a plan for an intensive exploitation since the 50s.

Apart from the negative consequences, caused by eutrophication, the biodiversity of the delta is influenced by the amendment and the destruction of habitats by a change of the hydrological regime, due to the establishments of channels or the cutting of meanders (for example: the St. George sleeve), the transformation of big areas into



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

agricultural ones (Pardina) or fishing areas (Ciamurlia, Popina and others), and also through the change in the water quality (for example: the transformation of the Razim lake from a saltwater to a freshwater lake).

The future plans envisage a large number of ecological recovering activities along the Danube delta, such as:

- Recovery of primary biological species;
- Recovery of biocenosis;
- Elimination of human interference, as much as possible, except for activities, executed with traditional methods by the local population;
- The reasonable exploitation of resources should be taken into consideration, as a part of the sustainable economy and the safe natural environment.

In the last 4-5 decades, numerous damages to the habitats and extinction of species have been registered, as a result of many factors:

- Construction of dams upstream, which has obviously interfered the natural flooding;
- Creation of agricultural and fishing holdings in the delta, which has decreased the natural area with more than 20% of the surface;
- The high levels of nutrients have contributed to the loss of water vegetation and the amendments in the structure of the fish population;
- Industrial pollution, accumulated in the caviar of fishes and the eggs of the birds, feeding with fish like the pelican and the cormorant, decreasing their productivity during the reproduction process;
- Expansion of an artificial navigation canal, which affects negatively the hydrological regime and the lake water quality.
- Inadequate management of the fishing activity and the reed resources.



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/eurointegra](http://www.facebook.com/eurointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

### 3. Necessary actions, in order to raise the awareness on the environmental issues

In 2010, it became clear that neither the global, nor the European target for the elimination of the biodiversity loss would be achieved, despite the important progress in of the measures for the nature protection, which have been made in Europe. This progress includes the expansion of the protected areas network Natura 2000 and the recovery of some wild species, for example large predators. In 2011 the European commission approved the Biodiversity strategy to 2020 with a main purpose "halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss". This target is completed by six targets for protection and restoration of nature, maintenance and improvement of ecosystems and their services, leading to certain driving forces to biodiversity loss (agriculture, forestry, fishery, invasive alien species) and the prevention of biodiversity loss.

The key to preserving the biodiversity in Bulgaria is the adoption of such an approach towards the keeping and managing of land and resources, which considers the value of preserving and restoring the biological diversity at all scales in the protected areas and reserves, as well as in the land around them. In the various regimes of management, the provided recommendations in this category emphasize the need of a better integration of the management of all land, water and biological resources, in order to preserve and restore the ecological processes, on which the biological diversity depends.

In the 7<sup>th</sup> Environmental action programme, there is a necessity of a clearer and unambiguous way of describing the environmental challenges which the EU faces, including the acceleration of the climate change, deterioration of the ecosystems and



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

increase of the natural resources overuse. A key role during the next decade will play the solution of environmental issues through a joint integrated approach, which consider the connection between those issues and fills the existing gaps. Otherwise, some irreversible damage may be caused. Therefore some specific targets until 2020 shall be established and also a clear and ambitious environmental vision until 2050, based on a financing frame directed to education innovations, scientific-research and development activity, aimed at assuring the high quality of life and the well-being of all citizens. The weaknesses, connected to politics, include an insufficient applying and realization of natural-protecting legislation and effective compliance of the ecological and naturally friendly administrative-legal measure and regulations; inefficient management of protected areas; insufficient (or nonexistent) punishment, fines and penalties; lack of a registration and effective control of the extraction and use of biological resources, etc.

A conducted questionnaire among the students of the partnering schools by the project "ECO Education for Healthy Environment" MIS ETC 336, categorically shows the lack of an even middle level of acquaintance to the environmental issues in the cross-border region Romania - Bulgaria. The analysis of the results from the questionnaires, elaborated the experts in the project, emphasize the need of a strengthened focus on the ecological problems and the measures for their prevention. The partial common knowledge, which the students have, is quite insufficient for the effective solving of the variety of local appearance of global natural events. The prompt establishment of teaching of leading topics, related to the environmental protection, would support the formation of an overall framework strategy for that process, which would be developed by the next generations. The most accessible method of learning among young students is the digitalized school content. This modern innovation has proved its efficiency in the most advanced countries in Europe, as well as at a global scale. In the 21<sup>st</sup> century, computers are a part of each household and this is how the young generation grows technically knowledgeable and prepared for the constantly changing technological



1680 Sofia, Beli brezi,  
"Haidushka gora" 60 str., fl.3, ap.11  
tel. +359 2 832 41 36, fax. +359 2 832 41 52;  
e-mail: [euointegrasofia@gmail.com](mailto:euointegrasofia@gmail.com)  
[www.facebook.com/euointegra](http://www.facebook.com/euointegra)  
**Eurointegra Association**  
**Project: "ECO Education for healthy environment"**  
**MIS ETC CODE 336**

environment. It also has a positive effect in the educational area, which respectively substitutes the old ways of teaching with the innovative instruments. An excellent example are the so called **web portals**, which not only allow the storage of a large amount of information, which doesn't occupy as much space as paper; they also keep the students and the teachers in a permanent communication, which inevitably improves the process of apprehending the teaching material and increase the interest of young people towards the academic environment.

Considering the above described date and arguments, there is a necessity of taking urgent measures for raising the distribution of scientific information, reflecting the priority ecological issues in the cross-border region Romania - Bulgaria. The lack of knowledge and the inefficient policy are also considered as threats. Even though the solid scientific base about the biodiversity in Bulgaria is one of the nation's strengths in general, there are some certain gaps and weaknesses. The most significant among them is the insufficient information of the species variety, the distribution and dissemination of some species, the existing populations and population dynamics and tendencies regarding a lot of taxonomic group; insufficient information about the biodiversity in some specific geographical areas; insufficient information about the impact of different anthropogenic threats, and also about the measures for their diminishing and the procedures and ways of restoration. Furthermore, there is an inadequate community understanding about the importance of the biodiversity and the threats towards it. Reliable and easily accessible information is lacking, which may raise the public culture and consciousness to a greater level.