

ENVIRONMENTAL REGULATIONS AND ECONOMIC GROWTH⁸⁰

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INTRODUCTION

Since the beginning of the process of harmonization of national legislation with the EU law, Republic of Serbia has made a significant progress. According to the Report on the implementation of the National Programme for Integration of Serbia in the European Union (NPI)⁸³, Serbian Government adopted more than 200 draft laws since July 2008, whereby the National Assembly adopted about 200 laws, which makes more than 90% of regulations prescribed in the NPI or adopted more than 800 regulations of total 1017.

Until 1st March 2012 the harmonization of national legislation with the European Union was not a formal obligation for the Republic of Serbia. On that date, the European Council endorsed the recommendation of the Council of Ministers and the opinion of the European Commission, and granted Serbia candidate status for EU membership. However, Serbia already began to unilaterally implement key documents for EU for the accession in 2008. Thus, on 10th September 2008, the National Assembly of the Republic of Serbia ratified the Stabilization and Association Agreement between the European Communities and their Member States and the Republic of Serbia⁸⁴ and the

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⁸⁴ Law on ratification of the Stabilization and Association Agreement between European Communities and their member states and Republic of Serbia, „Official Gazette RS“ N°83/2008.

Interim Agreement on Trade and trade-related matters⁸⁵. Both documents are applicable in Serbia as of 30th January 2009. The EU, in turn, delayed the implementation of the Interim Agreement till the adoption of a positive conclusion of the Council of Ministers on Serbia's cooperation with the ICTY in The Hague. Therefore, the EU applies this Agreement as of 7th December 2009.

Harmonization of national legislation with the *acquis communautaire* is conducted on the basis of Art. 107 of the Constitution of the Republic of Serbia from 2006 and the Art. 72 of the Stabilization and Association Agreement and Chapter III of the Interim Agreement. Thus, Serbia has undertaken to gradually, over a period of six years, align current and future laws and regulations with the EU regulations, and to ensure the proper application of both the current and future legislation⁸⁶. A successful process of harmonization of regulations depends on many factors, but primarily on the political will, legal proceedings, administrative capacity, and finally, on funds.

THE LEGAL FRAMEWORK FOR ENVIRONMENTAL PROTECTION IN THE REPUBLIC OF SERBIA

EU policy in the field of environmental protection aims to promote sustainable development and protect the environment for present and future generations. It is based on the integration of environmental policy with other EU policies, preventive action, the “polluter pays” and “consumer pay” principles, the elimination of environmental damage at source and shared responsibility. *Acquis communautaire* in the field of environmental protection includes over 200 major legal acts covering horizontal issues, water and air quality, waste management, nature protection, industrial pollution and risk management, chemical substances and noise. Ensuring compliance with the EU *acquis* requires significant investment, but also brings significant benefits. A strong and well-equipped administration at national and local level is essential for the implementation and enforcement of the EU *acquis* in the field of environmental protection.

Stabilization and Association Agreement establishes cooperation aimed to strengthen administrative structures and procedures in order to ensure strategic planning of environmental issues and coordination between the relevant decision makers and focuses on the harmonization of Serbian legislation with the EU *acquis*. The Serbian

⁸⁵ Law on ratification of the Interim Agreement on Trade and trade-related matters between European Communities and Republic of Serbia, „Official Gazette RS“ N°83/2008.

⁸⁶ Todorčić, V., Jovanović, N. (2011), Mind the gap: *Studija o implementaciji evropskog zakonodavstva u Srbiji*, Centar za novu politiku, p.15.

Constitution provides for every citizen the right to a healthy environment and timely and full information about its condition⁸⁷. Republic and autonomous provinces are responsible for environmental protection and the Serbian constitution defines the powers of management on protection of the environment at the national, provincial and local government level. The legal framework for the protection of the environment is the Law on Environmental Protection adopted in 2004, amended in 2009⁸⁸.

On 23rd March 2010 the Government of the Republic of Serbia adopted the National Environmental Strategy⁸⁹. This document is based on the previously adopted Law on Environmental Protection and it is the most important policy document in this area. Planning and management of environmental protection over a period of ten years is based on this document. The goal of the national program is the development of modern environmental policy in the Republic of Serbia. Achieving this objective is provided through the Action Plan, which is a legal and institutional framework for the withdrawal of funds from the EU-funded projects, as well as from funds intended for the candidate countries [8]. National Program defines priorities in improving environmental quality and in general the quality of life of the population in Serbia. Also on 20th December 2011 the National Strategy for the approximation of the environment was presented [9]. This strategy is based on three documents: the National Program on the Integration of Serbia in the EU [10], the National Program for the Environment⁹⁰ and the National Strategy for Sustainable Development⁹¹.

For harmonization of regulations, both formal and functional, and its application in practice Serbia needs about 10 billion euros or 1400 euros per capita by the year 2030⁹². The strategy provides for the application of three basic policies: harmonization with EU standards, optimization of use of grants and implementation according to the EU requirements.

According to the EU⁹³, Serbia has made great progress in the field of environmental protection, especially in the area of waste management, nature protection and management of chemicals, while significant investments need to be made in the waste water

⁸⁷ Constitution of the Republic of Serbia, Art. 74. „Official Gazette RS“ N°98/2006.

⁸⁸ Law on environmental protection, „Official Gazette RS“ N°135/2004, 36/2009 (36/2009 - dr. zakon, 72/2009 - dr. zakon, 43/2011 - odluka US.

⁸⁹ Ministry of natural resources, mining and space planning of the Republic of Serbia, <http://www.ekoplan.gov.rs/src/15-Ostala-dokumenta-127-document.htm>, 15.04.2014.

⁹⁰ Djurić, Dj., Ivanović, V., Balaban M.(2011), „Regional policy funds: How prepared is Serbia to access European Union regional policy funds?“, in: *Serbia and the European Union: economic lessons from the new member states*, University of Coimbra, Portugal, p. 303.

⁹¹ Ministry of natural resources, mining and space planning of the Republic of Serbia, <http://www.ekoplan.gov.rs/src/15-Ostala-dokumenta-127-document.htm>, 15.04.2014.

⁹² European Integration Office, www.seio.gov.rs, 10.04. 2014.

⁹³ Ministry of natural resources, mining and space planning of the Republic of Serbia, <http://www.ekoplan.gov.rs/src/15-Ostala-dokumenta-127-document.htm>, 15.04.2014.

management. Thus, the most investment of 5.6 billion euros is needed in the water sector, in the waste sector 2.8 billion and in the sector of industrial pollution 1.3 billion. In addition to the above, part of the funds in the amount of 962 million went to operating expenses to be borne by the budget⁹⁴. According to the adopted regulations, the new plant will have to be built in line with EU standards, and the old will be renovated in accordance with the new requirements. For this, there is a corresponding transition period.

In 2007 the Ministry of Environment, Mining and Spatial Planning was established as an institutional and administrative authority on environment protection⁹⁵, and in 2010 it received the authority in the field of mining and waste processing industries. It also formed the Agency for Environmental Protection and Planning for the development of a national information system for environmental protection and Chemicals Agency. However, formal coordination, information and shared decision-making between the administrative authorities in the effective implementation of the EU *acquis* is still weak. The responsibility for the protection and management of water resources is divided between the Ministry of Agriculture, Ministry of Health and the Ministry of Infrastructure. In addition, the Agency for Environmental Protection needs to strengthen human resources. At the local level, environmental protection is not sufficient and requires strengthening and further decentralization. The Law on Environmental Protection from 2004⁹⁶ envisaged basic functions, duties and powers of inspectors at the national, provincial and local levels. These duties are in addition to the above, furnished by the Law on Environmental Impact Assessment⁹⁷ and the Law on integrated prevention and control of pollution of the environment⁹⁸. These regulations give broad powers to environment inspectors. Thus, they may ban, confiscate and order actions to meet legal obligations. However, inspectors are faced with significant limitations, because no court order can access the sites without notice or take samples⁹⁹.

Ministry of Environmental Protection implemented the minimum criteria for environmental inspections since 2007. This provided the first assessment of the effectiveness of environmental inspection and penalties. However, a more thorough

⁹⁴ Ministry of natural resources, mining and space planning of the Republic of Serbia, http://www.ekoplan.gov.rs/DNA/docs/strategija_rs.pdf, 15.04.2014.

⁹⁵ European Integration Office, www.seio.gov.rs, 10.04. 2014.

⁹⁶ Commission staff working paper, Serbia 2011 progress report, accompanying Communication from the Commission to the European Parliament and the Council, Commission Opinion on Serbia's application for membership of the European Union, Brussels, *ec.europa.eu*, 10.05.2014.

⁹⁷ Commission staff working paper, Serbia 2011 progress report, accompanying Communication from the Commission to the European Parliament and the Council, Commission Opinion on Serbia's application for membership of the European Union, Brussels, *ec.europa.eu*, 10.05. 2014.

⁹⁸ Law on environmental protection, „Official Gazette RS“ N°135/2004, 36/2009, 36/2009 - dr. zakon, 72/2009 - dr. zakon, 43/2011 - odluka US.

⁹⁹ Law on Assessment of Influence on Environment, „Official Gazette RS“ N°135/2004, 36/2009.

application in practice and strengthened cooperation between different inspectorates are needed, as well as the delineation of their responsibilities and cooperation with police and prosecutors¹⁰⁰.

Horizontal legislation of the Republic of Serbia is largely in line with European standards¹⁰¹ and Government Regulations applied on a national list of environmental indicators¹⁰², but it is necessary to further harmonize the legislation with regard to cross-border aspects of environmental impact assessments. Also, it is necessary for Serbia to join the amendments to the Espoo Convention¹⁰³ and to implement the Directive on environmental liability¹⁰⁴. This is the first and the second amendment, relating to the notification of the environment and access to justice.

In terms of air quality, the Republic of Serbia has made progress in the harmonization of legislation, so that it is almost completely harmonized with the Framework Directive on air quality¹⁰⁵, but it remains to include provisions relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in the air as well as to harmonize regulations with the National Directive on emission ceilings¹⁰⁶ and with the standards in terms of fuel. Air qualities are monitored in large urban areas and in the cities of Belgrade, Novi Sad and Bor and plans for air quality are prepared. This became possible since the Agency for Environmental Protection established a network of automatic monitoring through municipal and other authorities.

In addition, national legislation is in line with key EU policies on waste management and hazardous waste management and applies the principles of prevention, reuse, recycle and re-obtain. In addition, legislation has been harmonized and applied when it comes to packaging and packaging waste in special cases, as well as the separation of waste. It remains to be seen how the application will work in practice, particularly in rural areas and landfills¹⁰⁷.

¹⁰⁰ Law on integrated prevention and control of pollution of environment, „Official GazetteRS“ N°135/2004.

¹⁰¹ Commission staff working paper, Serbia 2011 progress report, ec.europa.eu, 10.05. 2014.

¹⁰² Ateljević, V., Sretić, Z., Mitrović, S., Plavšić, P.(2011), Izazovi evropskih integracija u oblastima zaštite životne sredine i održivog razvoja lokalnih zajednica, PALGO Centar, p. 59.

¹⁰³ Commission staff working paper, Serbia 2011 progress report, ec.europa.eu, 10.05. 2014.

¹⁰⁴ Regulation on national list of indicators of environment protection, „Official GazetteRS“ N°37/2011.

¹⁰⁵ Convention on Environmental Impact Assessment in a Transboundary Context (Espoo, 1991), www.unece.org/espoo-convention.html, 03.04.2014.

¹⁰⁶ EUDirective 2004/35/CE of 21st April 2004 on environmental liability with regard to the prevention and remedying of environmental damage, Official Journal of the European Union, N° L 143/56, 30.4.2004.

¹⁰⁷ Framework Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management, Official Journal of the European Union, N° L 296/55, 21.11.1996.

When it comes to managing waste and sewage waste from the manufacturing industry, it is not sufficiently aligned with EU legislation and in particular the expected adoption of the provisions of the EU Framework Directive on Waste¹⁰⁸.

In terms of the quality of drinking water, the legislation of the Republic of Serbia is significantly aligned with the EU acquis, but it is necessary to adopt the standards of the Water Framework Directive¹⁰⁹, particularly when it comes to cost recovery for water suppliers, the introduction of water basin separation and the competent bodies. Also, it is necessary to harmonize regulations with the EU regulations on the protection of groundwater pollution and deterioration, monitoring of groundwater and EU directives on nitrates and treatment of urban waste water¹¹⁰.

Significant progress has been reported in the area of nature protection. It comprises the introduction of the provisions of the Birds Directive and the Habitats Directive, as well as the effective implementation of the biodiversity of the Republic of Serbia and the Action Plan 2010-2017¹¹¹. Further, it implies application of the regulation on compensation for damage caused by unlawful actions against explicitly protected wildlife.

Serbia aligned its legislation and began to implement the EU Directive on Integrated Pollution Prevention and Control Directive¹¹² and the control of major hazardous accidents - Seveso II¹¹³, which was a progress in the area of industrial pollution control and risk management. Also, the Law on Environmental Protection enabled the application of so called "voluntary instruments", such as the ISO 14001 standards, eco-management and the audit scheme, and national eco-labels, cleaner production, management, and technical standards¹¹⁴.

When it comes to chemicals, the regulations on chemicals and biocides are harmonized with the EU acquis, in particular with the REACH Regulation¹¹⁵, the Regulation on classification, labeling and packaging of substances and mixtures¹¹⁶ and

¹⁰⁸ Directive 2001/81/EC of 23 October 2001 on national emission ceilings for certain atmospheric pollutants, Official Journal of the European Union, N° L 309/22, 27.11.2001.

¹⁰⁹ EU Commission report on Serbia, 2010, *ec.europa.eu*, 10.05.2014.

¹¹⁰ Directive 2008/98/EC of 19 November 2008 on waste and repealing certain Directives, Official Journal of the European Union, N° L 312/3, 22.11.2008.

¹¹¹ Directive 2000/60/EC of 23 October 2000 establishing a framework for Community action in the field of water policy, Official Journal of the European Union, N° L 327/1, 22.12.2000.

¹¹² Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources, Official Journal of the European Union, N° L 375/1, 31.12.1991.

¹¹³ Ministry of natural resources, mining and space planning of the Republic of Serbia, www.ekoplan.gov.rs, 15.04.2014.

¹¹⁴ Law on integrated prevention and control of pollution of environment, „Official Gazette RS“ N° 135/2004.

¹¹⁵ Council Directive 96/82/EC of 9 December 1996 on control of major accident hazards involving dangerous substances, Official Journal of the European Union, N° L 10/13, 14.1.1997.

¹¹⁶ Institut za standardizaciju Srbije, www.iss.rs, 15.04.2012.

the Directive on the release of biocide products on the market¹¹⁷. In addition, Serbia has ratified the Rotterdam Convention on consent procedure on the prior informed procedure for certain hazardous chemicals¹¹⁸ and pesticides in international trade and the Stockholm Convention on Persistent Organic Pollutants¹¹⁹.

In regard to the protection and monitoring of soil condition our legislation lags behind EU standards. When it comes to noise, our Law on noise protection in the environment¹²⁰ is in compliance with the EU Directive on the Protection from the noise¹²¹. Also, there has been progress in the area of civil protection, in particular through integrated emergency management, adoption of the Law on emergency situations¹²² and the establishment of the Department of Emergency Management within the Ministry of Interior.

Serbia has ratified the Kyoto Protocol and UN Framework Convention on climate changes¹²³ and the Government adopted the National Strategy on Clean Development¹²⁴ and submitted national report with an assessment of the effects of greenhouse gases and the projections for 2012 and 2013¹²⁵.

In terms of legislation related to climate change, the process of harmonization with the EU *acquis* is at an early stage, and the area has covered only some sector laws. Serbia is a signatory to Article 5 of the Montreal Protocol on substances that deplete the Ozone Layer¹²⁶.

¹¹⁷ Regulation (EC) No 1907/2006 of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, Official Journal of the European Union, N° L 363/3, 29.5.2007.

¹¹⁸ Regulation (EC) No 1272/2008 of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006, Official Journal of the European Union, N° L 353/1, 31.12.2008.

¹¹⁹ Directive 98/8/EC of 16 February 1998 concerning the placing of biocidal products on the market, Official Journal of the European Union, N° L 123/1, 24.4.2008.

¹²⁰ Law on ratification of Rotterdam Convention on procedure of authorization upon previous notification for certain dangerous chemicals and pesticides in the international trade, „Official Gazette RS“, International conventions, N°38/2009. Law on chemicals, „Official Gazette RS“ N°36/2009 and Law on biocide products, „Official Gazette RS“ N°36/2009.

¹²¹ Convention on persistent organic pollutants, chm.pops.int/Countries/StatusofRatifications/, 12.jul 2012.

¹²² Law on protection of noise in the environment, „Official Gazette RS“ N°36/2009 i 88/2010.

¹²³ Directive 2002/49/EC of 25 June 2002 relating to the assessment and management of environmental noise, Official Journal of the European Union, N° L 189/12, 18.7.2002.

¹²⁴ Law on emergency situation activity, „Official Gazette RS“ N°111/2009, 92/2011.

¹²⁵ Kyoto Protocol to the United Nations Framework Convention on Climate Change, of 11th December 1997, http://unfccc.int/essential_background/kyoto_protocol/items/1678.php, 14.05.2014.

¹²⁶ United Nations Framework Convention on climate change, of 9th of May 1992, http://unfccc.int/essential_background/convention/status_of_ratification/items/2631.php, Serbia is a non-Annex-1 Party to the United Nations Framework Convention on Climate Change UNFCCC.

REVENUES FROM NATURAL RESOURCE USE

Of all the natural goods and resources for which fees or rent is charged, only the aspect that relates to the exploitation of mineral resources is presented here¹²⁷. Natural values, natural resources and natural capital are shared resources that are located in the state property. Using these values is subjected to a special form of rents that are within the legal framework defined as compensation. The most important natural resources, when excluding charges for the use of land, for which a fee is charged, are: mineral resources, coal, oil shale, hydrocarbons - oil and gas, radioactive raw materials and metallic materials, secondary raw material and non-metallic materials. In Serbia, the amount of fees or natural rent for the use of these resources is low. Crude oil and gas account for only 3 % of the total revenues of companies that exploit them. Natural rent for coal and oil shale is only 1%. The level of fees and natural rents has no incentive character, which would ensure sustainable exploitation of the resources listed.

The share of total income from fees in the sum of all budgets (Republic, autonomous provinces and local governments) in the period 2008-2010 has a steady increase from 2.2% in 2008 to 2.4% in 2009 and 2.6% in 2010. When observing the budget of the Republic, the increase in the share of fees had a significant growth from 0.9% in 2008 to 1.6% in 2010 which shows a relative increase of nearly 78%. The largest structural contribution of this growth has given rise to "environmental fees" that in the same period in the central budget recorded a growth of 0.2% share in 2008 to 0.7% in 2010. In the period 2008 – 2010 the environmental taxes total revenue budget increased from 0.3% share to 0.6% of the total revenues in the budget. The share of total income from fees in the total budget of the state institutions in Serbia ranged from 4.6% in 2008 to a fall to 4.4% in 2009 and then they rose to 4.7% in 2010.

In relation to the total GDP, total environmental taxes, in the broad and narrow sense, had the following participation per year. Total fees charged which include fees for planning and construction land use accounted to GDP in the year 2008 which was 2.12%, in 2009 2.09% and in 2010 2.26%. Environmental taxes in the strict sense in relation to GDP had the following participation: in 2008 of 0.13%, in 2009 increased to 0.21%, recording a further increase in the amount of 0.29% in 2010.

Environmental taxes in a broader sense, which exclude compensation for furnishing and the use of land, and include environmental taxes in the strict sense, along with the charges for water, agriculture and forestry fees, travel and spa fees, road tolls, fees for

¹²⁷ Nacional Strategy on integration of the Republic of Serbia in the mechanism of Clean development of Kyoto Protocol for sectors of waste management, agriculture and forests, <http://www.ekoplan.gov.rs/>, 10.05.1014.

mineral and mineral resources, in relation to the GDP had a share of 1.03% in 2008 and growth at 1.15% in 2009, while in 2010 they amounted to 1.25%.

Table 1. The total amount of fees and participation in relation to GDP
The values expressed in millions of EUR

The values expressed in millions of EUR

Year	GDP	Total Fees	% of to GDP	Ecological compensation in the strict sense	% to GDP	Ecological compensation in broad terms	% to GDP
2008	32.668,2	691	2,12	44	0,13	335	1,03
2009	28.956,6	608	2,09	60	0,21	332	1,15
2010	28.066,1	635	2,26	82	0,29	352	1,25

Data source: National Bureau of Statistics, Ministry of Finance of Serbia.

Note: For the calculation of the value of the RSD denominated in EUR the exchange rate for 1 euro = 88.60 RSD for the year 2008 was used, for the year 2009 = 95.89 RSD, for 2010 = 105.50 RSD.

In the table presented total fees include environmental taxes in the strict sense and fees charged for the use of construction equipment and land. Environmental fees are fees in the strict sense and include all kinds of fees for the use of natural resources and values, as well as fees that are paid for environmental pollution.

THE FUND FOR ENVIRONMENTAL PROTECTION

In Serbia in the period from 2006 up to and concluding the year 2012 a specialized Fund for environmental protection was established and operated as a separate unit. The Fund's collected income from the following sources:

1. Consideration for the supply of wild flora and fauna, fees for registration to EMAS system, compensation for environmental pollution and compensation for environmental pollution in areas of special state concern;
2. Purpose Fund budget of the Republic of Serbia earned from fees in accordance with the law;
3. Funds generated on the basis of international bilateral and multilateral cooperation on programs, projects and other activities in the field of environmental protection and renewable energy;
4. Funds from the cash management of the Fund;
5. Contributions, donations, gifts and grants;

6. Interest, or annuity loans;
7. Fee for the provision of professional services (the height of the fees prescribed by the board of directors of the Fund), with the prior approval of the Ministry of Environmental Protection and the funds are paid into a special account of the public revenue and are used for the operation of the Fund;
8. Other sources in accordance with the law.

In the past three years, most of the revenues of the fund have been generated from the fees for trade in wild flora and fauna, and they are all based on the Regulation on control of use and trade of wild flora and fauna adopted in 2005. Revenues are collected from various recompenses, such as fees based on the principle of "polluter pays", on the basis of the Regulation on the types of pollutants which specifies criteria for calculating compensation for environmental pollution and bonds, amount and method of calculation and payment of fees. This regulation was also adopted in 2005. When it comes to special funds from the budget and resources of the international financial assistance, this form of financing is carried out in accordance with Article 89 of the Law on Environmental Protection.

Table 2. Achieved revenues of 2006, 2007, 2008, 2009 and 2010

The values expressed in RSD

Fees	Actual 2006	Actual 2007	Actual 2008	Actual 2009	Actual 2010
Fee for wild flora and fauna	38,700,000.00	50,288,547.50	48,061,819.86	61.850.380,00	72.421.465,45
Fee for owners of motor vehicles	363,100,000.00	411,872,411,60	445,056,986,65	657.114.609,00	809.516.074,43
Fee for SO ₂ , NO ₂ , particulate matter produced or disposed of waste	481,600,000.00	503,233,844,54	549,133,635.40	1.635.299.571,00	2.541.947.230,26
Fee for substances that deplete the ozone layer	5,300,000.00	6,850,648.01	3,682,321.24	7,787,987.00	4.570.299,90
Fees for the use of fishing areas					29.265.264,95
The fee for products that after use become special waste streams					1.334.484.362,31
Total	888,700,000.00	972,245,491.65	1,045,934,763.15	2,362,052,547.00	4,792,204,697,30
Returned to Budget				800.166.949,27	
Total	888,700,000.00	972,245,491.65	1,045,934,763.15	1,561,885,597,73	4,792,204,697,30

Data source: <http://www.sepf.gov.rs>

In the presented table is a data structure of the source and foundation to raise money for the Fund for Environmental Protection. Also, according to the above mentioned data, it can be concluded that the income of the fund in nominal and real terms increased from about 888 million in 2006 to 4.7 billion in 2010.

ELEMENTS OF CASE STUDIES

In the Republic of Serbia 522120 hectares of land, forests, pastures, ponds, wetlands covering 463 areas, or 5.91% of the territory of Serbia are under the regime of environmental protection. Protected areas are managed by different entities, non-governmental organizations across the private companies to public companies owned by the state. For example, only "Srbijašume" manages 96 protected areas that encompass 216,804.88 hectares comprising 41.52% of the total protected area in Serbia.

In 2007 the Government of the Republic of Serbia adopted the National Sustainable Development Strategy which sets out national priorities for environmental protection in relation to economic development. The strategy is focused on the objectives of raising the level of protection, conservation and enhancement of biodiversity, the increase of areas under strict protection up to a level of 10% of the territory of the republic, expanding the network of protected areas and the establishment of ecological corridors. The Regional Development Plan of the Republic of Serbia for the period from 2010 to 2020 provides the increase of the total area under the regime of special environmental protection to 12% of the territory of the Republic. The management of protected areas is defined as an activity of public interest.

The right of protected areas within the defined rules is assigned by the Government of Republic of Serbia. In choosing the manager de facto there is no discrimination from the perspective of property forms, or forms of property rights on which the manager is constituted. Territorial complexes or areas that are put under the regime of protection and are given under the management have different forms of ownership (private, cooperative or state). The entity that manages certain protected areas usually has no property rights in protected areas. From the standpoint of property rights, the property of different persons (legal or natural) remains unchanged, but some restrictions are set to the owners on the use of those assets. An example of this is to limit the exploitation of resources, the use of fertilizers, the discharge of waste material, mode of construction land, etc.

In the regime of protected areas in Serbia the following forms are classified: national parks, strict nature reserves, natural monuments, protected habitats, landscapes of exceptional quality and nature parks.

National parks are areas with a large number of diverse ecosystems of national significance with special landscape features and cultural heritage of the region where people can live in harmony with nature. National parks are intended to preserve the existing natural values, geological resources and biodiversity. It is possible to perform scientific, educational, spiritual, aesthetic, cultural, tourism, health and recreational purposes in them, as well as other activities in accordance with the rules and principles of conservation and protection of nature.

Strict Nature Reserve, the area with the unmodified natural features that include representative natural ecosystems that represent an area of unchanged nature, genetic stock and maintained ecological balance. Implementing scientific research is allowed, provided that the natural features, phenomena, values and processes are not disturbed.

Special Nature Reserves are areas where the unaltered or slightly altered state of nature is present, which is important because of the uniqueness, rarity or representativeness. They are also the habitat of endangered wild fauna and flora. These areas are usually not or sparsely populated areas in which people live in harmony with nature. These areas are intended for the preservation of existing natural features, genetic, ecological balance, monitoring of natural phenomena and processes. The areas are permitted for scientific research, visits of tourists are controlled in order to preserve the traditional, inherited natural resources. Special nature reserves according to what the natural resources contain can be in a form of a forest, zoological, geological, hydro geological, hydrological, botanical.

Monuments of nature are less unchanged or partially changed natural areas or units, objects or phenomena that are clearly physically distinct, identifiable and unique. They are representatives of geomorphologic, geological, hydrological, botanical or other features. Monuments of nature may be areas in which human activity caused or created some of the botanical values that can be used in scientific, cultural, educational, aesthetic and tourism purposes. The following natural resources or assets can be proclaimed as natural monuments: geological, geomorphologic, caves, hydrological and botanic.

Protected habitats are areas that include one or more types of habitats that are important for the preservation of single or multiple populations of wild species and their communities.

Landscape protected areas are areas that have a distinctive and special appearance with significant natural biological - ecological, aesthetic, cultural and historical values. A key feature of these areas is that they are created as a result of the interaction of nature and natural resources on one hand and the traditional way of human activity on the other. Area of exceptional importance may be a natural area of exceptional importance and cultural landscape of exceptional quality. These areas are areas that have a

significant biological, ecological and aesthetic values, where traditional ways of the local population have not significantly eroded nature and natural ecosystems.

The cultural landscapes of exceptional quality are areas that have significant features, benefits, and cultural and historical values that have developed over time due to the interaction of nature and natural resources of the area and the traditional way of life of the population that lived or live in these areas.

The following table presents data on the types of protected areas, their number, surface and also on the largest comparative individual manager of these goods, “Srbijašume”.

Table 3. Protected areas in Serbia in 2011

N°	Types of protected areas in Serbia	Serbia		PE “Srbijašume”	
		N°	Area (ha)	N°	Area (ha)
1.	National Parks	5	158.986,36		
2.	Nature Parks	12	215.760,57	3	197.261,00
3.	Regional Nature Parks	4	361,86	1	296,64
4.	Area of exceptional importance	12	33.406,80	3	4.348,96
5.	Landscapes of special natural beauty	4	12.105,63	3	11.265,00
6.	Forest Park	1	19,65	1	19,65
7.	Strict Nature Reserve	42	2.207,28	35	561,89
8.	General Nature Reserve	4	60,49	4	60,49
9.	Special Nature Reserves	17	87.410,14	2	123,50
10.	Monuments of nature	327	7.681,00	36	2.222,44
11.	Memorial natural monuments	19	2.394,67	5	442,95
12.	Premises in the vicinity of immovable cultural property	16	1.725,55	4	202,36
13.	Strictly protected species	1681			
14.	Protected species	821			
Total 1-12		463	522.120,00	96	216.804,88

Data source: Table constituted on the basis of data obtained from a decision to designate protected areas “Srbijašume” data and data of the Institute for Nature Protection of Serbia.

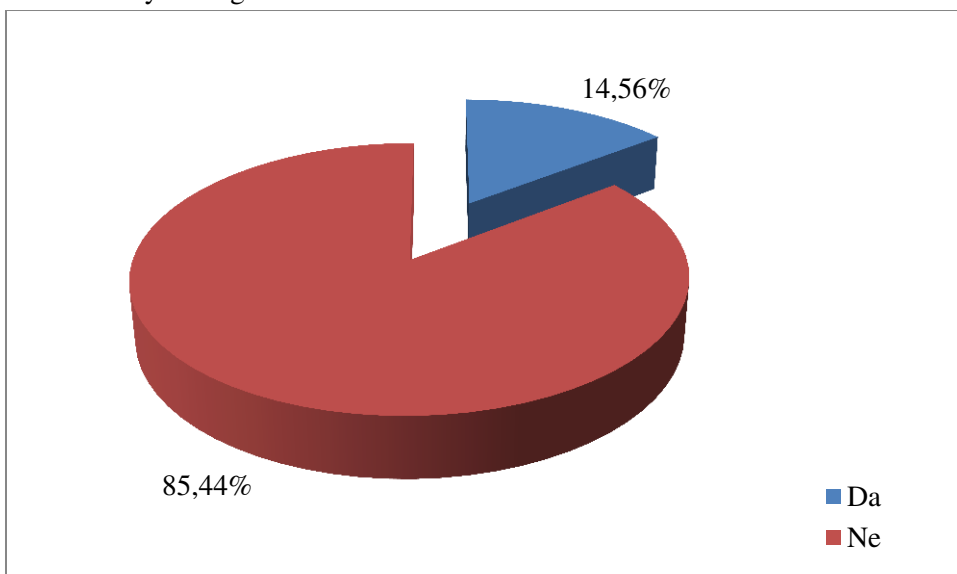
From a total of 463 protected areas with an area of 522 thousand hectares, 5 national parks are covering an area of approximately 159 thousand hectares or 30.45% of the total protected area. Total 12 nature parks accounted for 41.32% of the total surface of protected areas. Some 17 special nature reserves are in the third place, occupying 16.74% of the territory of the total protected area in Serbia. Other 429 protected areas occupy only 11.49% of the total surface of protected areas. The largest single control of protected areas is in the public company which manages “Srbija šume” which manages 41.52% of the total protected area.

Empirical research carried out in early 2012 included the residents of villages located on the edge of a special nature reserve “Zasavica”. Some 103 subjects of different ages and sex were surveyed by the method of interview. The study focused on the attitudes

of the population regarding the natural resources that are in SNR “Zasavica”. A short aspect of the study is presented here.

When asked to define key natural values that are found in the reserve respondents expressed the following value structure:

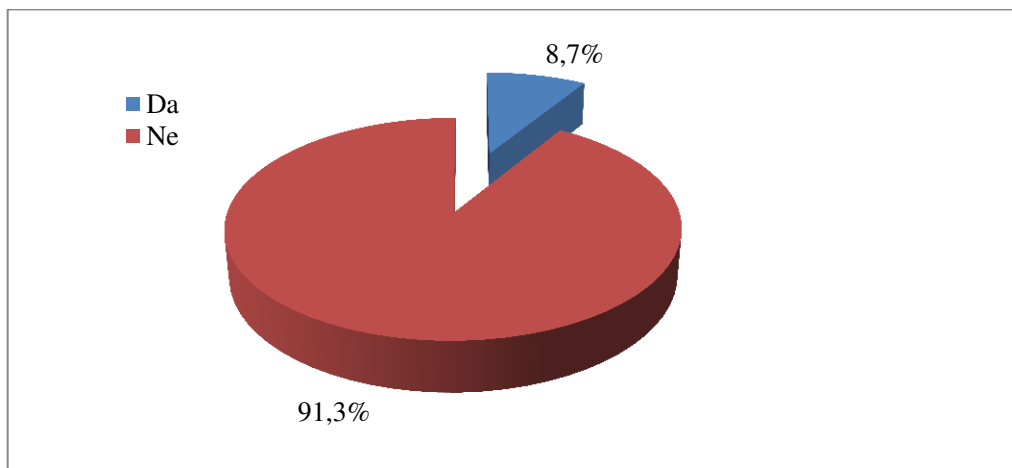
- Respondents defined natural values and rarities that are in “Zasavica”, as the most valued unspoiled nature (15.64% of respondents), followed by rare species with 14.66%, which takes an eco-tourism as a development business opportunity, and then followed by the value of clean air (11.73% of the respondents), the water supply (8.47%), healthy food (6.51%) and arrangement of space (3.58%).
- Rare species were valued relatively modestly as a specificity of Zasavica, for example beaver with 10.75%, “mangulica” pork with 9.45%, a prairie ox with 2.93%.
- In response to the question whether they have suffered any damage caused by or related to the reserve only 14.56% of respondents stated that they had suffered damage, while 85.44% of respondents expressed the view that they did not suffer any damage.



Graphic 1. Does the population suffer any damage from the national reserve.
Blue – yes, red – no.

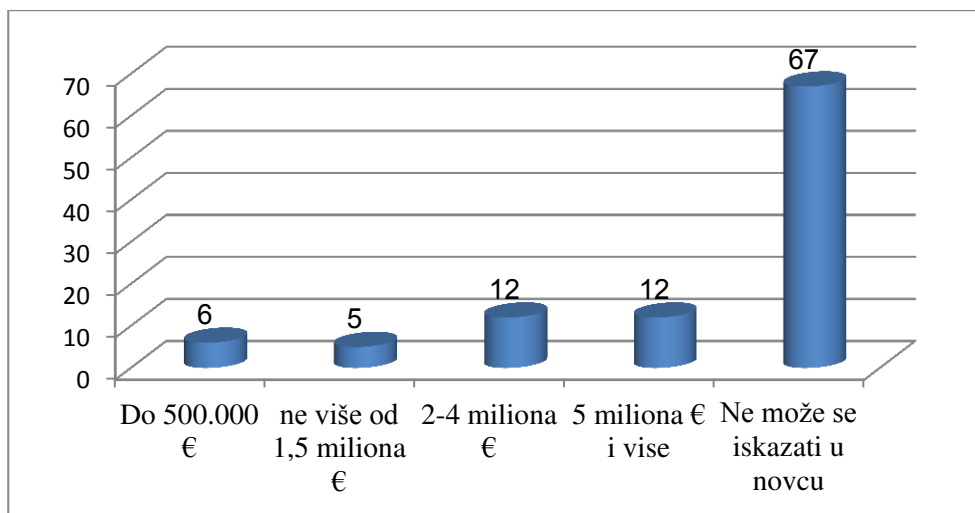
When it comes to the attitude of the respondents in relation to possible changes of the status of protected areas in terms of its conversion into farmland the respondents expressed their views as follows (blue-yes, red-no).

Only 8.7% of all respondents expressed the view that the purpose of “Zasavica” should be changed from the Special Nature Reserve into an agricultural land. On the contrary, 91.3% of the respondents expressed the view that the purpose of a nature reserve should not be changed.



Graphic 2. Changes of the status of the national reserve. Blue – yes, red – no.

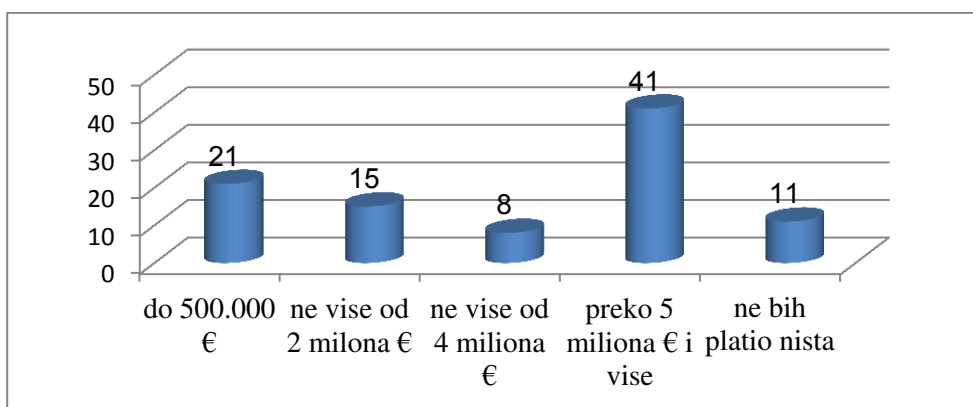
The view of the respondents regarding their assessment of how much the special nature reserve is worth, expressed in money, were characteristic. Out of 103 interviewed persons only one person had no position regarding the value. The problem of evaluating SNR “Zasavica” and expressing values in money were particularly important during the interview. Most respondents were not willing to state the monetary value of “Zasavica”. In fact, 65% of them said that the value "cannot be expressed in money," the total value of natural resources is beyond the scope of monetary expression. “Zasavica” value expressed in money is defined greater than 2-4 million or \$ 5 million or more by the 11.7% of respondents. The value in the range of up to 500 euros and up to 1.5 million euros was defined by the 10.7% of respondents.



Graphic 3. Assessment of value of the special nature reserve “Zasavica”. 1. Up to 500000 euros, 2. not more than 1,5 Million euros, 3. 2-4 Million euros, 4.5 or more Milion euros, 5.can not be expressed in money.

In contrast to the approach of a neutral evaluation of the value of nature reserves, on the question of how much they would be willing to pay, and for which price they would be willing to buy the reserve, most respondents expressed the monetary value of the reserve.

Out of 103 respondents 96 of them defined the scale of monetary values, while 7 of them did not have a position on the value. The dominant response of the respondents was that the reserve was worth over 5 million euros.



Graphic 4. Assessment of value of the special nature reserve “Zasavica”. 1. Up to 500000 euros, 2. not more than 2 Million euros, 3. not more than 4 Million euros, 4. over 5 Milion euros and more, 5. nothing.

Unlike the interesting neutral evaluation in which for most respondents the value of “Zasavica” cannot be expressed in money, when the respondents were placed in the

position of a potential buyer of the complex, their approach to natural resource valuation changes. The maximum monetary value of “Zasavica” of over 5million is attributed by the39.8% of the respondents, the value of up to 500.000 euros is valued by 20.4%of the respondents, not more than 2million euros by 14.6%and not more than 4million Euro by78% of the respondents. A relatively highpercentage ofrespondentsexpressed the view thatthey would bewilling to pay“nothing” for “Zasavica” and that attitudewasexpressed by 10.7% of the respondents.

CONCLUSION

According to the European Commission, the Republic of Serbia has made a significant progress in aligning its legislation with the EU *acquis communautaire* in the field of environmental protection, horizontal legislation, as well as in the field of waste management, nature protection and dealing with chemicals. However, further alignment is necessary in terms of water quality and climate change. In addition to the legal framework, there are necessary administrative capacities. However, more coordinated work and sustained efforts are needed with the aim of harmonization and effective implementation of the EU *acquis*. In relation to that, a substantial investment and strengthening the administrative capacity are needed in order to implement the legislation and to achieve the medium-term compliance on key issues including the climate change. Full compliance with the *acquis* is only possible in the long term and would require a higher level of investment.

Funding adjustments and raising awareness of its benefits are considered as the main obstacles. For example, in the field of environmental protection by the year 2030 the approximation of standards is expected, so it is necessary to invest about 10.5 billion euros, but the future income will be approximately 15 billion euros, which means a profit of around 5 billion euros. There are of course political constraints in the implementation of regulations. There is also the question of the feasibility of compliance. Time frame alignment is defined through negotiations with the EU, and it is possible and feasible. In preparation for the start of the negotiations, the starting position of Serbia is relatively good. The Serbian government also anticipated the costs of the compliance of regulations. However, the question of funding and assessment of political gain remains. A period of political stability, especially the stable executive power in the Republic of Serbia is also required.

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