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Synopsis



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The United Nations issued the first Environmental Performance Review of Bosnia and Herzegovina (Environmental Performance Reviews Series No. 20) in 2004.

This volume is issued in English only.

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Preface

The second Environmental Performance Review (EPR) of Bosnia and Herzegovina began in January 2010 with a preparatory mission. During this mission, the final structure of the report was discussed and established. A review mission took place from 24 May until 3 June 2010. The team of international experts taking part included experts from Canada, Czech Republic, Germany, the Netherlands and Russian Federation, as well as from the secretariats of the United Nations Environment Programme (UNEP) and the United Nations Economic Commission for Europe (UNECE).

The draft EPR report was submitted to Bosnia and Herzegovina for comment and to the Expert Group on Environmental Performance for consideration in October 2010. During its meeting on 29 October 2010, the Expert Group discussed the report in detail with expert representatives of the Government of Bosnia and Herzegovina, focusing in particular on the conclusions and recommendations made by the international experts. The Expert Group decided to address those recommendations of the first EPR of Bosnia and Herzegovina that were still valid in two different ways. If a chapter from the first EPR was also covered in the second EPR, then valid recommendations and their conclusions from the former would be reflected at the end of the respective chapter in the latter. If a first EPR chapter however was not covered in the second EPR, valid recommendations would be mentioned in Annex I-A “Valid Recommendations from the first Environmental Performance Review not covered in preceding chapters”. The remaining first EPR recommendations that had been implemented partially or fully would be covered in Annex I-B “Implementation of the recommendations of the first Environmental Performance Review”.

The EPR recommendations, with suggested amendments from the Expert Group, were then submitted for peer review to the Committee on Environmental Policy on 2 November 2010. A high-level delegation from Bosnia and Herzegovina participated in the peer review. The Committee adopted the recommendations as set out in this report.

The Committee on Environmental Policy and the UNECE review team would like to thank the Government of Bosnia and Herzegovina and its experts who worked with the international experts and contributed their knowledge and assistance. UNECE wishes the Government of Bosnia and Herzegovina further success in carrying out the tasks involved in meeting its environmental objectives, including the implementation of the recommendations contained in this second review.

UNECE would also like to express its deep appreciation to the Governments of Austria, the Netherlands and Switzerland for their financial contributions; to the Governments of Germany and the Netherlands for having delegated their experts for the review; and, to UNEP and the United Nations Development Programme for their support of the EPR Programme and this review.

Executive summary

The first Environmental Performance Review (EPR) of Bosnia and Herzegovina was carried out in 2003. This second review intends to measure the progress made by Bosnia and Herzegovina in managing its environment since the first EPR and in addressing upcoming environmental challenges.

During the post-war period there has been a persistent, huge current account deficit driven by a large trade deficit. After experiencing massive hyperinflation during and after the war, the situation improved and has stabilized during the past decade. Inflation has dropped to the single-digit level. Despite high gross domestic product (GDP) growth during the past 10 years, the current account imbalance continued to grow. The current account deficit, along with the high unemployment rate, are the two most serious macroeconomic challenges in Bosnia and Herzegovina today.

In spite of relatively low integration in the global economy, Bosnia and Herzegovina has been deeply affected by the 2008 international economic crises. The risk of a knock-on effect on local industries from the drop in European Union (EU) industrial production is significant, as is the big decrease in foreign direct investment and in large per capita remittances coming from the exceptionally high percentage of the population living abroad. By 2009 the economy is estimated to have contracted by about 3 per cent. A three-year US\$ 1.5 billion International Monetary Fund (IMF) Stand-By Arrangement was agreed mid-2009.

The current economic downturn presents significant opportunities to reorientate the recovery process by increasing investment in clean and efficient technologies, renewable energy and ecosystem services. These all have potential for increasing economic returns, job creation, poverty reduction and increased foreign direct investment. However, economic priorities continue to be focused on redressing negative GDP trends and ensuring repayment of IMF and World Bank loans.

Policy-making framework for environmental protection and sustainable development

Redressing political fragmentation will continue to be a significant challenge for a complex State such as Bosnia and Herzegovina. With up to four administrative levels (state, entity, cantonal, municipal), environmental administration and regulatory control systems are very complex and in many cases duplicate one another.

*The Government has stated its commitment to putting environmental priorities high on its agenda. However, environmental management has not been a priority in the post-war economic recovery process in Bosnia and Herzegovina and environmental management throughout the country suffers from suboptimal institutional, policy and legal frameworks. As a consequence, policies, plans and programmes fail to take into account environmental impacts. However, an important driver in the reform efforts of the environment sector since the first EPR has been the prospect of eventual EU membership and the adoption and transposition of the EU *acquis communautaire*.*

*The EU pre-accession period has created important opportunities for the country to start systematically adapting its laws and accessing additional resources and technical assistance. It also brings complex challenges for Bosnia and Herzegovina, since adoption of the entire EU environmental *acquis* requires extensive changes to the existing institutional and legal framework. Environmental laws have been harmonized in both entities and in line with a number of EU directives.*

The State Mid-Term Development Strategy for the period 2004-2007 makes reference to the importance of the environment in poverty reduction. However, environmental priorities were not specified, and for political reasons the strategy has not been effectively implemented. There are currently no plans to develop a long-term development strategy at the State level.

In view of the lack of a State-level environment agency, the inter-entity approach has been a good compromise. The lack of an environmental mandate, authority and capacity at the State level and continuing opposition to any increase in power at the State level contributes to many problems, especially a lack of policy coherence between the State and the entities. Environmental management continues to be the primary responsibility of the two entities, in accordance with article III.3 (a) of the Constitution.

Inter-entity cooperation has been strengthened through the Inter-Entity Steering Committee for the Environment. This has functioned reasonably well in coordination and harmonization of environmental law and policy between the two entities and provides a good example of inter-entity cooperation. However, it has had limited impact in raising environmental issues to State level and in ensuring the necessary level of vertical and horizontal coordination and communication. This is in part because the Committee does not have a legal basis for its existence.

Compliance and enforcement mechanisms

The State Law on Environmental Protection has still to be adopted, as has a strategy for environmental protection and sustainable development. The lack of a State environment law continues to exacerbate a number of problems, such as the scattering of the competencies for environmental legislation and administration over all administrative levels. Because of weak inter-entity coordination mechanisms, legislative and administrative procedures are slow and redundant. Law-making activities at the State level are not based on clear and coordinated policies and priorities. Poor coordination with other sectors in turn leads to limited attention to environmental considerations in those domains.

In both entities a Law on Environmental Protection has introduced significant new instruments for environmental protection and for integrating environmental concerns in economic sectors. These are environmental permits and procedures to carry out environmental impact assessments (EIAs). In addition, since 2006, all entity-level inspectorates, including non-environmental inspectorates, have been subordinated to a single entity-level administration for inspection activities. This consolidation has been accompanied by an institutional separation of inspection and permit issuing processes thus improving the quality and integrity of compliance mechanisms.

The implementation of EIAs began in 2008 and Strategic Environmental Assessment (SEA) has been adopted in both entities but has yet to be implemented. SEA has not been implemented because neither entity has a precise procedure included in the Law on Environmental Protection, nor have they issued a decree. Although both entities have an Environmental Advisory Council to establish a wide social and scientific professional basis for environmental protection, there is a need for greater exchange of experiences on environmental permits and compliance.

Monitoring, information, public participation and education

Specified goals and priorities in environmental monitoring, information management and environmental training were adopted in the 2003 National Environmental Action Plan. Achievements include strengthening the air-quality monitoring network; improving water monitoring; strengthening emission reduction activities and emission monitoring of large emitters; establishing a pollutant emission cadastre; and developing Pollution and Release and Transfer Registers (PRTRs). However, there has been little progress in developing a comprehensive monitoring system, an integral spatial information system or a national environmental information system including a central database. Practical implementation of PRTR also faces a number of challenges, especially insufficiently trained staff.

One of the most important gaps for air quality monitoring is the lack of organization, coordination and communication between different public institutions. Data exchange between the different public institutions is limited and as a consequence there is no centralized database. Also, measurement sites have not been

selected using modelling results, so the chosen locations may not reflect the worst pollution. Positive aspects include automation of some monitoring stations allowing, in particular, observations of pollutants dangerous to human health such as ground-level ozone (O₃) and particulate matter (PM₁₀ and PM_{2.5}).

In both entities, a Law on Water specifies the institutions responsible for establishing and managing the water management data-processing system. The laws also oblige all other legal bodies, institutions, companies using water or engaged in public water supply, or wastewater discharge, to install devices for measuring and control of water quality and quantity; to carry out measuring and testing; and to keep and submit proper records. The most significant gaps are in monitoring of lakes, bathing waters, coastal waters, groundwater and discharge of harmful and toxic substances in wastewater. Gaps also remain in river monitoring.

Currently there are no specific laws, at the national or entity level that directly address soil protection including monitoring. As a result, soil monitoring does not exist in Bosnia and Herzegovina. Efforts are limited to ad hoc observations on the scope of projects, land valuations, studies and other activities by various institutions.

Waste monitoring currently organized through the entity Statistical Institutes is partially functional and based on a statistical form, which public utility companies are obliged to fill in. Public utility companies present data from their own internal waste-monitoring system. However, the quality of such monitoring is questionable since it is based on estimations, not constant monitoring.

Bosnia and Herzegovina has improved data reporting to the European Environment Agency (EEA) and now submits some 65 per cent of required data. The establishment of a State environmental protection agency has been under discussion since 2002. The Federation of Bosnia and Herzegovina has introduced regular environmental assessment reports based on indicators, but much needs to be done to improve the reliability and consistency of data and indicators contained in its state-of-the-environment report. There are no similar environmental assessments in the Republika Srpska or at the State level.

Bosnia and Herzegovina acceded to the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters in 2008. The definitions of environmental information, restrictions to its access and other provisions of the entities' laws correspond generally to those established in the Convention. Environmental authorities at the State, entity and cantonal levels take actions to raise public awareness of environmental problems and citizens' rights on environmental protection. However, contrary to the entity environmental laws, non-governmental organizations are not sitting on the supervisory boards of the entity environment funds.

The public actively participates in environmental permitting procedures, especially with regard to projects subject to environmental impact assessment. The Environmental Advisory Council of each entity, established under its Law on Environmental Protection, is expected to be actively involved in the evaluation of strategic environmental assessments, environmental plans and programmes. These Councils are composed of different stakeholders including environmental associations, organizations and institutions representing professional and economic interests and scientific circles.

Some progress has been made in creating a public system of environmental education in Bosnia and Herzegovina. Curricula and programmes for preschool education and schools now include environmental elements, due to the adoption of a number of laws and strategies. However, these elements are insufficiently linked and coordinated, which prevents the interdisciplinary approach necessary for understanding environmental issues. In higher education, several universities have introduced environmental curricula.

Since the first EPR, Bosnia and Herzegovina has made some progress in compiling information on biodiversity and on forestry. There is much biodiversity data at different institutions. However, these data are

frequently neither accessible nor verified. No central or coordinating institution responsible for collecting, registering and analysing biodiversity data has been designated at the entity or at the State level. The second countrywide State Forest Inventory has been under way since 2006.

Implementation of international agreements and commitments

As part of the international community, Bosnia and Herzegovina is aware of the need to take its share of responsibility for solving global ecological problems. More detail is needed for policy formulation, and environmental protection programmes remain to be developed. Nevertheless, the EU agreements already refer to commitments under Multilateral Environmental Agreements (MEAs), and the current United Nations Development Assistance Framework (UNDAF) for 2010–2024 includes a target for fulfilment of these commitments by 2014.

Since the first EPR, major steps have been taken to strengthen international cooperation and the participation of the country in international agreements. Bosnia and Herzegovina has ratified or acceded to many global and regional MEAs. Since the first EPR the country has ratified seven environmental conventions and two protocols. However, there is still much to be done as regards practical implementation and enforcement.

By ratifying the Kyoto Protocol in 2008, Bosnia and Herzegovina has demonstrated its interest and need for inclusion in the mechanisms, which are offered to signatories of the Protocol. Bosnia and Herzegovina carries out its Protocol obligations in line with the technical and financial assistance it receives. Country delegations have also regularly participated in the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC), as well as at the meetings of expert bodies within the UNFCCC secretariat.

As a potential candidate country, Bosnia and Herzegovina will benefit from the EU Instrument for Pre-Accession Assistance (IPA). The Multiannual Indicative Planning Document for the period 2009–2011 builds on the IPA programme with results and indicators for adoption of an environment strategy; alignment of sectors to the environment; prioritization tools for environmental infrastructure investments, and measures for operationalizing environmental protection; and co-financing mechanisms and enhanced investments in environmental infrastructure.

Economic instruments and expenditure for environmental protection

Since the first EPR, Bosnia and Herzegovina has continued developing and defining its environmental priorities and policies, including with regard to economic instruments. Both entities have created the foundation for environmental legislation, although only a limited amount of legislation relating to environmental economic instruments is as yet operational. In most cases the current Government policy appears to be to manage environmental problems using regulatory instruments rather than market mechanisms.

However, the growing prosperity of Bosnia and Herzegovina since the war has augmented the ability of the population to pay fees, charges and taxes for an improved environment. It has also increased the use of natural resources and overall consumption, and therefore the pressures on the environment, and hence there is a need to better appreciate the importance and value of these natural assets. Both the Federation of Bosnia and Herzegovina and the Republika Srpska laws on environmental protection recognize the polluter pays and user pays principles.

There seems to be a growing awareness of environment-related economic instruments and their use among government officials at the State as well as at the entity level. The use of the instruments that are available seems to depend on the historical importance of the environmental sector and the strength of the institution in charge of the sector.

Because of the fragmented nature of the political structure in Bosnia and Herzegovina, finding statistical data on internal environmental expenditure is virtually impossible. According to the very general information available, the Federation of Bosnia and Herzegovina spent 0.9 per cent of its budget on environmental protection in 2009, while the equivalent expenditure for the Republika Srpska was about 0.2 per cent of its budget.

Both entities have their own environmental funds achieving operational status in 2010 after a long process started by the Republika Srpska in 2002 and by the Federation of Bosnia and Herzegovina in 2003. These funds are excellent tools for an economic approach to environmental problems. The cooperation between the funds seems to function well and there is a mutual understanding of the priorities for improving the environment in Bosnia and Herzegovina.

Climate change and environment

Bosnia and Herzegovina ratified the United Nations Framework Convention on Climate Change (UNFCCC) in December 2000 and the Kyoto Protocol in April 2008. Bosnia and Herzegovina has prepared all the necessary legislation and started to establish the administrative structures required to become a beneficiary of the Clean Development Mechanism (CDM). The Designated National Authority for CDM is being established. The Initial National Communication (INC) was approved by the Government in October 2009 and submitted to UNFCCC. There is no special legislation on climate change in force in Bosnia and Herzegovina either at the State or entity levels, but certain relevant provisions are included in some legal acts, particularly in the field of energy. Studies have indicated great potential for hydropower and other renewable sources, as well as for an increase in energy efficiency.

For successful implementation of its obligations under UNFCCC, Bosnia and Herzegovina has established at the State level, the Climate Change Committee and the Subcommittee for Climate Change. These two bodies include representatives of the State and the two entities and are responsible for reaching common positions on relevant proposals before their submission for official adoption/endorsement.

Greenhouse gas (GHG) emissions in Bosnia and Herzegovina are estimated to grow by almost 30 per cent between 2005 and 2030, driven by the increase in CO₂ emissions. Currently, 73 per cent of GHG emissions originate from the energy sector, followed by 13.5 per cent from agriculture and 10.4 per cent from industry. The energy sector of Bosnia and Herzegovina is mostly based on coal, which represented around 45 per cent of total primary energy supply in 2005, followed by liquid fuels (21 per cent), renewable energy (20 per cent) and hydropower (10 per cent). The impact of land use change and forestry represents almost 22 per cent of gross national emissions.

Climate change is expected to seriously impact Bosnia and Herzegovina, with the temperature projected to increase from 0.7 to 1.6 °C per 1 °C of global increase during the period 2031–2060. Dry periods, the incidence of torrential flooding and the intensity of land erosion will increase as will the occurrence of hail, storms, lightning and maximum wind velocity, which can represent threats to all forms of human activity. Bosnia and Herzegovina is highly vulnerable to these threats, because of the economic role of climate-sensitive sectors, such as agriculture and forestry, and has very limited capacity to address climate change risks.

Several projects relevant to climate change adaptation and mitigation have been, or are being, undertaken with the support of international donors. However, at present, there is no official strategy or policy document in Bosnia and Herzegovina dealing explicitly with climate change issues. The INC is the most important background document for future climate change mitigation and adaptation strategies, and there are certain other sector-specific documents relevant to climate change in place for the energy sector.

Sustainable management of water resources

Bosnia and Herzegovina is rich in water resources but the water management sector has some serious problems to address. Implementation of concrete measures to improve water management infrastructure has started over the past five years. However, progress has been slow due to lack of funding and the need to prepare a legal and policy framework. Key challenges relate to discrepancies between supply and demand, infrastructure inadequacies and weaknesses in the regulatory and financial framework. The lack of adequate infrastructure due to lack of investment, war damage and insufficient maintenance has resulted in the pollution of water resources and deterioration in the quality of drinking water. The most important issue is the creation of a comprehensive and reliable monitoring system.

The aim of meeting the EU public water supply standards by 2025 is extremely ambitious. The objectives of rehabilitating 50 per cent of the existing water infrastructure and providing safe drinking water for all by the year 2010 have not been met. Public water utilities in the Republika Srpska supply only 46 per cent of the population. In the Federation of Bosnia and Herzegovina, the situation is similar, with 56 per cent of the population having access to the public water supply system.

However, since the first EPR legislation has been implemented at the entity level, in line with EU directives. Both entities' water laws address the majority of water management issues and are 65 per cent compliant with EU regulations. Barriers to compliance remain, including the lack of an effective national regulatory and legislative framework, and the complex administrative system. In combination with the lack of a comprehensive and consistent monitoring system, inefficient instruments in compliance and enforcement and water pricing which does not fully cover the costs, this has resulted in inefficient and weak management of water resources.

Efforts on flood protection have been made by both entities since the first EPR, in terms of legal documents, strategies, programmes and plans. However, no significant investment in new flood control facilities has been made in the past 15 years. In the near future, a detailed analysis of climate impacts on outflows in basins in the Republika Srpska is planned. Even without taking the effects of climate change into account, the normal pattern of major floods, which cause enormous damage, is to be expected in future, unless adequate measures are implemented.

However, the preparation of a number of sanitation projects and programmes has started in both entities. In Bosnia and Herzegovina, as with most countries in development or with economies in transition, the development of sewerage systems has been slow in comparison with those for water supply. As far as industrial wastewater is concerned, the situation is slightly better, mainly due to the fact that industrial production is at less than 30 per cent of the pre-war level.

Waste management

Progress has been made in the area of waste management since the last EPR in 2003. The construction of regional sanitary landfills has started and efforts have been made to remove the accumulated hazardous/chemical waste. There are signs of progress in the development of policies and laws, and modest investments in appropriate infrastructure for treatment of industrial and medical waste, municipal waste management and reduction and recycling of waste.

A start has been made by both entities in closing down illegal dump sites. Countrywide, in Bosnia and Herzegovina 10–15 per cent of illegal dumpsites have recently been closed, although there are estimates of 1,100 dumpsites still in use.

A limited number of initiatives for the separation of waste have been initiated in Bosnia and Herzegovina. In Sarajevo canton the cost of the collection and compressing of the separated waste is more or less covered by

selling it on to companies for further processing. Other pioneering recycling projects include a small-scale paper collection in Maglaj and paper and metal collection in public places in the town of Doboј.

In 2009 the State Agency for Statistics started consolidation of a nationwide municipal, industrial and hazardous waste database. There remains much room and need for improvement in the quality and content of the information produced through close collaboration between relevant bodies.

Forestry, biodiversity and protected areas

Bosnia and Herzegovina has made significant progress in the areas of forest management and biodiversity since the first EPR, especially in terms of developing the necessary legal frameworks and strategic and programmatic documents. Many essential elements of the forest management system are in place. However, a number of gaps still exist in terms of effective implementation of existing plans and capacity-building, and current capabilities and funding are dispersed.

Forestry management was poorly regulated after the war, but since early 2000 Bosnia and Herzegovina has made notable progress in building a more effective forest regulatory and management system. This system has many commonalities in both entities, which allows for rigorous and effective forest management in the country. Currently, both the Federation of Bosnia and Herzegovina and the Republika Srpska are in the process of updating their forestry legislation.

At the same time, the forestry sector is treated as an economic sector of secondary importance and suffers from under-budgeting and lack of political commitment. However, during the past 10–15 years forests have provided substantial additional income for rural communities through jobs, firewood, non-timber forest products, hunting and recreation. Forests were significantly degraded during the war years and will require over 50 years to regain stability and ensure sustainable production.

The 2009 Second National Report to the Convention on Biological Diversity listed the key problems that the country faces in the area of biodiversity conservation and sustainable use. These are: lack of an integrated information system on biodiversity objectives; an ineffective institutional framework (which is a major obstacle to the decision-making process and implementation at the international level); lack of cooperation between the relevant institutions in the Republika Srpska and the Federation of Bosnia and Herzegovina; and an uneven level of implementation of international agreements and EU directives in both entities.

Sustainable and well-managed production of biodiversity resources could provide additional opportunities for development and new jobs. Bosnia and Herzegovina joined the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 2008, but related key obligations have yet to be implemented. However, for some activities, the absence of procedures and regulations under CITES means that the country cannot legally continue trophy hunting and related export activities and so will suffer from significantly reduced economic activity related to international hunting operations and tourism; neither can it adequately control the trade in medicinal plants.

The key priority today for Bosnia and Herzegovina is to increase significantly the area of its territory under protection via the establishment of new protected areas or the redesignation of previously existing ones. Most of the challenges are due to extremely low capacity in this sector, the absence of a designated responsible agency and a lack of political interest in the topic, all of which hinder rapid designation of new areas, due to conflicts of interest with other economic sectors.

Conclusions and recommendations

Chapter 1. Policymaking framework for environmental protection and sustainable development

Environmental management in BiH has suffered from the absence of a State-level authority with a strong legal mandate, and from a very complex administrative system that is further complicated by the poor delineation of responsibilities between the State and the entities. However, BiH has to improve its environmental performance to continue to receive EU support under its 2008 European Partnership Agreement. The latter specifically calls for the adoption of a State law on environmental protection and the establishment of a State environment agency.

Even if the establishment of the State-level environmental agency may not be feasible at this point, at the very least the current organizational structure within MoFTER, which groups together resource management, energy and environmental protection into one Sector, must be changed. The current structure is problematic because it pits resource extraction priorities against environmental protection imperatives.

Recommendation 1.1:

The State Ministry of Foreign Trade and Economic Relations should take the following steps to strengthen the environmental mandate, authority and capacity at the State level:

- (a) Elevate the current Department for Environmental Protection into a new Sector;*
- (b) Expedite the adoption of the State law on environmental protection and all relevant secondary legislation. Specifically, the State law should ensure:*
 - (i) A clear allocation of competencies to various administrative levels;*
 - (ii) That further provisions are made for the implementation of an obligatory reporting and coordination system for legislative drafting in order to avoid duplication;*
 - (iii) Principles and mechanisms are put in place for integrating environmental concerns into other sectors.*

Since the 1992 World Conference on Environment and Development in Rio, sustainable development has been considered to be the way forward for future global action. Agenda 21 was adopted in Rio as a vehicle for implementing the model of sustainable development. It is a global action programme for the 21st century, which calls on all nations to formulate concepts and strategies for sustainable development. Promoting environmental consideration to other areas of economic and social activities remains a much needed objective for guaranteeing not only sustainable development but also public health and social well-being. Effective intersectoral cooperation is a prerequisite for achieving this goal. Unfortunately, there is still no National Commission on Sustainable Development that would be entrusted with strategic guidance of sustainable development efforts.

In the post-war economic recovery process in BiH, economic priorities such as job creation, infrastructure reconstruction and GDP growth have in many cases trumped environmental concerns. This has resulted in large part from the lack of a long-term vision for development that balances the importance of economic growth with environmental considerations.

Environmental considerations thus receive inadequate attention. This means that policies, plans and programmes systematically fail to take into account environmental impacts. This problem is also exacerbated by the current organizational structure within MoFTER, as discussed above, which does not provide enough political support for environmental concerns.

The current economic downturn presents significant opportunities to reorient the recovery process by increasing investment in clean and efficient technologies, renewable energy, and ecosystem goods and services, all of which have potential for increasing economic returns, job creation, poverty reduction and increased foreign direct investment.

Recommendation 1.2:

The State Ministry of Foreign Trade and Economic Relation in cooperation with the relevant authorities in the Federation of Bosnia and Herzegovina and Republika Srpska, and with broad participation from all stakeholders, should:

- (a) *Develop the legal basis for a sustainable development strategy;*
- (b) *Prepare and propose for adoption a draft a strategy for sustainable development, and specify the policy instruments and indicators to monitor and track progress, and the economic instruments that will be required to ensure its full implementation;*
- (c) *Elaborate an action plan for the implementation of the strategy. The action plan should be fully integrated into the budget process to ensure that it is allocated the financial resources needed to achieve its objectives.*
- (d) *Set up a national commission on sustainable development, to include members of major groups, which would be entrusted with strategic guidance of sustainable development efforts.*

Despite adoption of a number of environmental laws, including the harmonization of the six framework laws, there is a tremendous backlog of secondary legislation that has not yet been drafted or adopted. The latter is required to ensure implementation of the framework laws. At the same time EU approximation efforts must be stepped up considerably in light of the large volume of legislation that remains to be approximated. The difficulties stem from severely limited human, financial, and technical resources.

In addition, limited coordination between, and institutional fragmentation within, the entities have weakened environmental management and led to inefficiencies. The requirements for legislation, implementation and monitoring all draw from the same limited pool of expertise, funding and human resources. The State should play a role in streamlining and coordinating the efforts of the entities, reducing redundancy and maximizing resource use.

Recommendation 1.3:

The Federal Ministry of Environment and Tourism and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should expedite the adoption of secondary legislation and approximation of the EU environmental acquis. Specifically they should:

- (a) *Strengthen legal capacity within the ministries to develop and implement environmental laws and policies;*
- (b) *Monitor evolving EU requirements and new EU legislation to which approximation efforts must be aligned.*

See also recommendation 5.1(a)

Recommendation 1.4

The entities Government should:

- (a) *Assess the extent of institutional weakness of environmental institutions affecting environmental policy, regulatory functions, and funding;*
- (b) *Where relevant, redress institutional fragmentation through improved reorganization of roles and responsibilities within the respective ministries.*

Recommendation 1.5:

The Federal Ministry of Environment and Tourism and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should strengthen their overall capacity for environmental management by:

- (a) *Strengthening institutions by implementing capacity-building and training programmes;*
- (b) *Encouraging other sectors to integrate environmental concerns into their policy and legislative frameworks.*

* * * * *

Parts of the conclusions and recommendations from the first EPR of Bosnia and Herzegovina are still valid and are listed below.

With the structure established by the Dayton Peace Agreement, it is difficult to streamline environmental legislation, policies and activities or make them consistent. The division of responsibilities among the different authorities is not always clear. This further complicates the situation and has a negative impact on implementation and enforcement. Considerable progress has been made through the establishment of, first, two inter-entity bodies – the Inter-entity Commission for Water and the Inter-entity Steering Committee for the Environment – and, more recently, the National Steering Committee for Environment and Sustainable Development. There appears to be a movement towards strengthening the role of the State in environmental matters, as evidenced by the creation of this National Committee and the decision of the Council of Ministers that the Ministry of Foreign Trade and Economic Relations should draft both a State-level environmental protection bill and a strategy for environmental protection and sustainable development. This could be extremely helpful in rationalizing environmental management in the country.

Under the ReREP programme, a feasibility study is examining the possible establishment of a national environment agency with the support of the European Commission Delegation to Bosnia and Herzegovina. However, much work remains to be done to reach consensus about such an agency and define its role, structure, scope and jurisdiction. It seems clear that the need is growing for a coordinating body for international agreements and programmes for environmental protection and the use of natural resources in Bosnia and Herzegovina. Mechanisms must be found to allow the State to play an appropriate role in environmental affairs, enabling Bosnia and Herzegovina to participate regionally and globally, as well as to maintain a level of consistency between the entities and Brčko District in developing national environmental policy and management.

EPR I - Recommendation 1.1:

The Council of Ministers should establish an environment agency, which should:

- (a) Provide advisory services to the authorities and institutions on both State and entity level in creation of strategy of sustainable development, environmental policy and management and protection of environment, natural resources and natural heritage;*
- (b) Collect environmental monitoring data and report, as appropriate, to international bodies, convention-governing bodies and the European Environment Agency;*
- (c) Manage, supervise and coordinate the implementation of the entities' plans for management and protection of waters, air, land, forests, as well as management of waste and chemicals (POPs, ODS, transboundary pollutants and dangerous pesticides);*
- (d) Develop methodologies to facilitate a common approach to environmental management;*
and
- (e) Provide training, capacity building and awareness rising.*

The environment agency should rely on and assist the inter-entity bodies.

Because of the war in 1992-1995, Bosnia and Herzegovina could not take part in many of the activities under Agenda 21, which resulted from the 1992 United Nations Conference on Environment and Development in Rio de Janeiro (Brazil). Its National Environmental Action Plan was the first comprehensive document about the environmental problems in the country and their prioritization. The proposals of the NEAP provided a basis for the assessment of needs for environment and water management in the Mid-term Development Strategy of Bosnia and Herzegovina. The NEAP, however, has not been adopted at the State level. In any case, these documents cannot substitute for a national strategy for both sustainable development and protection and management of the environment.

EPR I - Recommendation 1.2:

Pursuant to the decision of the Council of Ministers, the Ministry of Foreign Trade and Economic Relations should begin as soon as possible to draft:

- (a) A new State law on environmental protection and all relevant secondary legislation; and*
- (b) A strategy for environmental protection and sustainable development, in cooperation with the relevant Environment Ministries in the Federation of Bosnia and Herzegovina and Republika Srpska, and with broad participation from all stakeholders.*

The strategy should aim at:

- Strengthening the institutional capacity for designing and implementing environmental policy at all levels;*
- Developing and institutionalizing communication among sectors and ministries within and among the State, the entities and Brčko District;*
- Establishing procedures for communication between officials and stakeholders in decision-making for sustainable development; and*
- Improving the knowledge of the general public about the significance of environmental protection and encouraging the preparation of awareness-raising programmes.*

A review of the institutional framework for environmental protection in Bosnia and Herzegovina shows the weaknesses of the system, including a shortage of staff and funding. Additionally, the number and relative independence of the cantonal ministries in the Federation of Bosnia and Herzegovina may create obstacles to integrated environmental management. A stronger Ministry of Physical Planning and Environment could result in the establishment of uniform regulations, ensuring a consistent standard of environmental licensing throughout the Federation. It would also help standardize inspection procedures and help the Ministry attain the necessary legal competence for its work.

The Ministry of Physical Planning, Civil Engineering and Ecology in Republika Srpska is also understaffed. Its Ecology Sector currently has only seven staff. A stronger Ecology Sector within the ministry or new environment ministry would have several benefits. It would facilitate the integrated management of the main environmental media. Through the clear assignment of authority for licensing and for environmental quality and through better coordination with the other line ministries (agriculture, water, industry, energy and mining) and municipalities, the Ministry could secure standardized environmental licensing, installation inspections and the necessary legal competence.

EPR I - Recommendation 1.3:

The Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should be strengthened, as a matter of priority, so that they are able to:

- (a) Prepare all secondary legislation required by the new Laws on Environmental Protection, Air Protection, Water Protection, Waste Management, Nature Protection and the Environmental Fund;*
- (b) Organize and implement effectively environmental permitting, inspection and control; and*
- (c) Implement all the tasks incumbent upon them as ministries.*

Both Ministries may be strengthened either by increasing the number of permanent staff or by hiring external experts ad hoc.

Chapter 2. Compliance and enforcement mechanisms

It is obvious that BiH is trying hard to transpose, adopt and implement EU rules and standards in the environmental field. Step by step, headway has been made and will continue to be made with this process.

The public administration in BiH is very complex for political and institutional reasons, including the existence of up to four layers of administration that are not always well coordinated. In these circumstances, it is essential that the regulatory and control aspects are very precisely defined. Delays, gaps, overlapping, duplication, unequal application of standards, and unequal treatment of violations may occur. Adequate horizontal and vertical coordination mechanisms are of great importance.

Furthermore the status of the environmental authorities is still low and, although all the fundamental institutional elements of a regular environmental administration system are present, they are understaffed at all levels for the work that has to be done now and for the challenges that lie ahead. The State Government should understand that “economizing” on staff for environmental jobs now will cost it much more in the future.

Recommendation 2.1:

- (a) *At all levels of Government, adequate formal and informal coordination of environmental matters (planning, permits, inspections and enforcement) is essential;*
- (b) *The State's Ministry of Foreign Trade and Economic Relations should make a precise estimate of the staff required for environmental tasks and ensure that vacancies are properly filled;*
- (c) *The main environmental authorities at entity level should provide regular education and training on the job, on a non-commercial basis, to ensure that staff who are responsible for issuing permits and for inspections, at the entity level, as well as at the cantonal and municipal levels, adapt their skills accordingly.*

See also recommendation 7.2 in this report.

In BiH there are several thousand installations, which do not have an environmental permit and it is estimated that more than 50 per cent of those which are obliged to request one, do not do so. The FBiH Administration of Inspection Services and the RS Administration for Inspection Activities are mandated to take action against this and this illegal situation needs to be resolved. Drawing up a comprehensive register of these installations and ensuring effective coordination within each entity between the respective environmental authorities and the inspectorates, will be a basis for further success.

Recommendation 2.2:

The Federal Administration of Inspection Services and Republika Srpska's Administration for Inspection Activities should ensure that operators of enterprises and installations file an environmental application, by preparing and publicizing a list of operators who should apply for environmental permit, accompanied by a schedule for mandatory application.

As a result of the 2006 reorganization of the entity-level environmental inspectorates, the functions dealing with permits and inspections are strictly separated. Although this separation is essential for a well-functioning compliance and enforcement mechanism, other requirements also exist. For example, an adequately clear permit system is unarguably part of a successful compliance regime. Inspectors cannot do their work if requirements are unclear and could be interpreted in different ways. Furthermore, mutual exchange of experience, advice, draft permits and the outcome of inspections between the relevant ministries and the inspectorates for environment and ecology at the entity level is of great importance. The purpose of this exchange should be to achieve a more efficient system for issuing permits, which will be to the advantage of all parties, including the operators.

The same applies to communication between different departments at the cantonal and municipal levels.

Recommendation 2.3:

The Federal Ministry of Environment and Tourism and Administration of Inspection Services, and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, and the Administration for Inspection Activities must keep each other informed about the content of permits (in outline at least), and the results of inspections, through an institutionalized procedure.

In 2001 the European Parliament and Council adopted recommendation 2001/331/EC, providing for minimum criteria for environmental inspections (RMCEI). The purpose of the RMCEI is to strengthen compliance with, and contribute to a more consistent implementation and enforcement of, European Community environmental law in all EU member States.

The RMCEI establishes criteria for environmental inspections of installations and of other enterprises and facilities whose air emissions, water discharges or waste disposal or recovery activities are subject to authorization, permit or licensing requirements under Community law ("controlled installations"). Planning of inspection activities is a key requirement of the RMCEI.

The FBiH Administration of Inspection Services and the RS Administration for Inspection Activities comply with most of the RMCEI criteria. In particular, the inspection management system of the RS Administration is a useful instrument for carrying out inspection activities. Overall, considerable progress has been achieved on certain aspects of the compliance and enforcement system (secondary legislation, EIA policy, system of permits). In other areas, such as SEA policy and industrial plant inventory, procedural and structural aspects have not yet been adequately developed.

Extra attention still needs to be paid to planning inspections on the basis of a risk assessment, and the inspectorates should be able to learn from each other and to make use of the experience gained.

Recommendation 2.4:

The Federal Administration of Inspection Services and Republika Srpska's Administration for Inspection Activities should exchange experiences on planning of inspection activities on the basis of risk assessment; This could also be usefully undertaken at other relevant governmental institutions.

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Parts of the conclusions and recommendations from the first EPR of Bosnia and Herzegovina are still valid and are listed below.

In the longer term, Bosnia and Herzegovina wishes to accede to the European Union and it, therefore, has to align its legislation with European Community law. The framework environmental laws have been produced under the CARDS Programme for both entities. They transpose to a great extent the most important European Commission's environment-related directives. Although this package of laws was adopted in Republika Srpska in the summer of 2002 and in the Federation of Bosnia and Herzegovina in the autumn of 2003, the legislation cannot be implemented because of a lack of regulations. This situation is all the more problematic because the most important tools for their implementation, such as environmental impact assessment and integrated environmental (IPPC) permits, have only recently been adopted in Bosnia and Herzegovina. It is expected that the secondary legislation will establish procedures, approaches and competences that could contradict the old laws and regulations.

EPR I - Recommendation 1.4:

The Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should develop the necessary secondary legislation for the implementation of the new framework Law on Environmental Protection and other specialized environmental laws as soon as possible. The most urgent issues are:

- (a) Establishment of a detailed to environmental impact assessment (EIA) procedure with all the necessary steps: preparation of the list of activities that are subject to EIA, early notification, screening and scoping, public participation at all levels, access to information and decision-making;*
- (b) Establishment of a detailed SEA procedure for plans and programmes;*
- (c) Development of a permitting system under the Law on Environmental Protection, including integrated (IPPC) permits; and*
- (d) Updating of their industrial plant inventories and establishment of new registers of polluters.*

Chapter 3. Monitoring, information, public participation and education

Bosnia and Herzegovina has made progress in improving its environmental observations, especially air-quality monitoring. Entity environmental laws have been completed recently by a series of detailed regulations (rulebooks) regarding various types of monitoring activities. Progress has been made, moreover in improving environmental self-monitoring and reporting by large polluters. The establishment of entity Pollution Release and Transfer Registers (PRTRs) is underway. However, for some environmental topics, like soil and biodiversity, monitoring remains weak. The country continues to lack a comprehensive environmental monitoring system. Overall, more than 80 technical (expert) institutions are collecting environmental data with practically no coordination and policy guidance. These institutions do not ensure data compatibility, or take each other's practices into account, when purchasing software and upgrading or developing systems for data collection and management.

Recommendation 3.1

Based on the Memorandum of Understanding on National Environmental Information Systems, the State Ministry of Foreign Trade and Economic Relations, in cooperation with the Inter-entity Steering Committee for the Environment, the Inter-entity Commission for Water and relevant entity institutions and the DB should take steps to create an integrated monitoring system in BiH.

See also recommendation 9.1 in this review.

Few formal mechanisms exist for the transfer of data and information between institutions dealing with the environment in the two entities. Much exchange is voluntary. The only bodies ensuring some form of homogeneity in data collection and presentation are the institutes of statistics of both entities and the Agency for Statistics of Bosnia and Herzegovina. There is no centralized database on the environment at the State level.

FBIH introduced a system of producing regular environmental assessment reports based on indicators. It published the first such report in 2009. There is no similar system in RS or at the State level. The absence of regular objective assessments of the state of the environment and of trends in the main environmental indicators leads to difficulties in appreciating the impacts and the effectiveness of decisions taken. Both entities' Law on Environmental Protection leaves important information management functions to the State. Discussions has been underway between entities since 2002 on the development of coherent national environmental information covering, inter alia, modalities for data sharing, processing and integration, publishing a national state-of-the-environment report and delivering environmental data and information to the international community on behalf of BiH. No progress has, however, been made so far.

Recommendation 3.2

The State Ministry of Foreign Trade and Economic Relations, the Federal Ministry of Environment and Tourism, and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should complete the development of specific modalities for sharing, processing and integration of environmental data, publishing indicator-based environmental assessment reports for BiH, and their circulation and uploading on the Internet to make them available to the general public.

BiH has recently acceded to the Aarhus Convention. It has made significant progress in involving the public in environmental decision-making. The public actively participates in environmental permitting procedures, especially with regard to projects subject to EIA. To establish a wide basis for environmental protection, each entities' Law on Environmental Protection requires the creation of environmental advisory councils to assist the Environment Ministers and the entities' Governments. The councils have to be composed of different stakeholders including environmental associations, organizations and institutions representing professional and economic interests and scientific circles. The councils are expected to be actively involved in the evaluation of strategic environmental assessments, environmental plans and programmes. However, no progress has been made in the entities to establish such councils.

Recommendation 3.3

The Federal Ministry of Environment and Tourism, and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should ensure that existing environmental advisory councils work on the principles of the Aarhus Convention.

Some progress has been made in creating a public system of environmental education in Bosnia and Herzegovina. Several initiatives, like the education reform programme, led to visible improvements. Environmental issues have been included in pre-school and school curricula. In higher educational institutions a number of environmental subjects have been included in curricula. Many NGOs are actively promoting extra-curricular environmental education for children and adults. The entity environmental authorities organized several professional training courses for their staff, officials of other public authorities and relevant personnel of enterprises. These efforts have been unsystematic and unstructured, however. There continues to be a lack of experts in BiH on such issues as environmental management, environmental impact assessment and environmental law. BiH has not adopted a national strategy on education for sustainable development (ESD), as recommended by the UNECE Strategy on ESD. No inter-agency commissions or expert groups, involving all stakeholders, have been established at the State level to develop and to promote the implementation, thereafter, of a national strategy.

Recommendation 3.4

The State Agency for Education, in close cooperation with the State The Ministry of Foreign Trade and Economic Relation and entities' education and environment ministries, media representatives and other stakeholders, should establish a national commission on education for sustainable development (ESD). The commission should be entrusted with the preparation of the national strategy for ESD, as a priority.

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Parts of the conclusions and recommendations from the first EPR of Bosnia and Herzegovina are still valid and are listed below.

At present there is no comprehensive environmental monitoring system in Bosnia and Herzegovina, but there are some isolated data collection, maintenance, processing and dissemination. Overall, more than 60 technical (expert) institutions are collecting environmental data with practically no coordination and policy guidance. For some environmental topics, there is not enough monitoring capacity to cover the whole country or even parts of it. Data are frequently collected case by case. There is no monitoring of compliance by economic actors with legal environmental obligations. There are neither registers of polluters nor information systems of environmental inspections.

The institutions in both entities that collect environmental data tend to do so independently, according to their often outdated mandates. Generally, these institutions do not ensure data compatibility or take each other's practices into account when purchasing software and upgrading or developing systems for data collection and management. There is no systematic use of internationally accepted monitoring methodologies to collect environmental data on particular topics. This is due to the lack of coordination between the monitoring institutions and the absence of commitment to using these methodologies.

The new environmental laws adopted in the two entities provide a much-needed framework to strengthen environmental monitoring in a coordinated manner. The Laws on Air Protection, Water Protection, Waste Management and Nature Protection set specific requirements for collecting, recording, analysing and reporting environmental data. The Laws on Environmental Protection oblige the Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology to establish and operate systems for monitoring the state and use of the environment in their jurisdictions including the measurement, collection, processing and registration of data. Polluters are obliged to monitor their emissions and the impact of their installations and to provide data to the authorities.

These environmental laws need to be further detailed through regulations. The entities' Environment Ministries should have adopted such regulations within one year of these laws entering into force. This has not been done so far. Neither human nor financial resources were provided to them to cope with their new, expanded responsibilities in environmental monitoring and information.

EPR I - Recommendation 3.1:

The Ministry of Physical Planning and Environment of the Federation of Bosnia and Herzegovina and the Ministry of Physical Planning, Civil Engineering and Ecology of Republika Srpska should issue, without delay, regulations to specify, in particular:

- *New procedures for setting or revising environmental quality standards harmonized with European standards;*
- *Measurements, monitoring and reporting requirements for operators;*
- *Criteria for the qualification of experts for self-monitoring by polluting enterprises; and*
- *Modalities for the registers of installations and of pollution taking into account the requirements of the UNECE Protocol on PRTRs.*

Few formal mechanisms exist for the transfer of data and information between institutions dealing with the environment in the two entities. Much exchange is voluntary. The only bodies ensuring some form of homogeneity in data collection and presentation are the Institutes of Statistics of both entities and the Agency for Statistics of Bosnia and Herzegovina. There is no centralized database on the environment at the State level.

There is no environmental reporting either to the State or to the entities. Parliaments and Governments do not receive state-of-the-environment reports to serve as a basis for law- and policy-making. The absence of regular objective scientific assessments of the state of the environment and of trends in the main environmental indicators leads to difficulties in appreciating the impacts and the effectiveness of decisions taken. Information to the general public is provided mostly through some newsletters, irregular brochures and upon request. The authorities do not use international guidelines for the production of environmental reports such as the UNECE Guidelines for the Preparation of Governmental Reports on the State and Protection of the Environment endorsed by the Kiev Ministerial Conference "Environment for Europe".

The newly established web sites of the Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology provide information on legal and institutional matters mainly. Bosnia and Herzegovina's reporting to the governing bodies of the applicable international environmental conventions and EIONET is poor. The country intends to accede to the Aarhus Convention soon but it risks failing to meet the Convention's explicit requirement to publish regular state-of-the-environment reports.

What is definitely missing is an authority at the State level to take responsibility for data integration and national environmental reporting.

The entities' Laws on Environmental Protection leave important information management functions to the State. According to these laws, an inter-entity environmental body will be in charge, inter alia, of setting and monitoring environmental standards and procedures, coordinating environmental monitoring and information systems, and collecting and sharing information. This should be done through the development of inter-entity environmental programmes and issuing guidelines and expert opinions for the entities' relevant ministries. The laws stipulate that the said body may take decisions that will be mandatory for implementation by governmental bodies and agencies of both entities, as far as such decisions comply with State regulations.

The development of a coherent national environmental information system requires, first of all, a legal and institutional basis at the State level. A legal framework should be established to assign countrywide data collection and reporting responsibilities to institutions at different levels. It should spell out the modalities for sharing information, both horizontally and vertically. An institution (agency) should be made responsible at the State level for providing administrative and expert support to the envisaged inter-entity environmental body. It should, in particular, set up and operate a national environmental information system, publish a national state-of-the-environment report and deliver environmental data and information to the international community on behalf of Bosnia and Herzegovina.

On 16 May 2002, the Council of Ministers adopted a decision instructing the State Ministry of Foreign Trade and Economic Relations to draft an environmental law. No progress has, however, been made so far.

EPR I - Recommendation 3.3:

When the State Ministry of Foreign Trade and Economic Relations prepares the environmental law for Bosnia and Herzegovina it should cover, among other things, the specific modalities for setting up, financing and operating a national environmental information system. The law should specify the responsibilities of the entities and the State's institutions (including the national agency to be established) regarding:

- (a) The collection of environmental data and information, their storage, evaluation and dissemination;*
- (b) The development, on the basis of international experience, of environmental indicators for data collection in the entities and the State and reporting to them;*
- (c) The publication of state-of-the-environment reports for consideration by the Parliamentary Assembly and the Council of Ministers of Bosnia and Herzegovina, their circulation among interested institutions at various levels and uploading on the Internet to make them available to the general public;*
- (d) Transmission of environmental data and reports, on behalf of Bosnia and Herzegovina, to governing bodies of applicable international conventions;*
- (e) Participation in EIONET, including the designation of a national focal point, national reference centres and expert institutions, and in other international programmes on environmental monitoring and assessment; and*
- (f) Training of experts in monitoring and information management.*

Chapter 4. Implementation of international agreements and commitments

BiH has ratified or acceded to many global and regional multilateral environmental agreements. Since the first EPR in 2004 the country has ratified seven conventions and two protocols. However, there is still much to be done in practical implementation and enforcement. National focal points for a number of MEAs have not been appointed, the necessary institutional setting has not been established, and the relevant programme and plans have not been prepared and adopted. These shortcomings are often due to lack of adequate capacity and funding.

Recommendation 4.1

The State Ministry of Foreign Trade and Economic Relation should:

- (a) Strengthen the practical implementation and enforcement of the global and regional multi-lateral environmental agreements that have been ratified;*
- (b) Ensure the appointment of national focal points for all MEAs;*
- (c) When necessary and/or envisaged by obligations under the MEAs, ensure establishment of the necessary institutional setting and adoption of the relevant programmes and plans including their adequate financing.*

Despite the progress achieved by BiH in ratification or accession to global and regional multilateral environmental agreements, there are still a number of MEAs that have been signed but are still awaiting ratification. For instance, the Protocol on Pollutants Release and Transfer Registers to the Aarhus Convention; the Protocol on Strategic Environmental Assessment to the Espoo Convention; and, the Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters, to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes, were signed during the Fifth Ministerial Conference "Environment for Europe" (Kiev, 2003) but have still not been ratified.

Recommendation 4.2:

As soon as appropriate capacities for implementation are available, the Government of Bosnia and Herzegovina should accede to the following conventions and protocols:

- Convention on the Transboundary Effects of Industrial Accidents;*
- Convention on the Conservation of Migratory Species of Wild Animals;*
- The relevant Protocols to the Convention on Long-range Transboundary Air Pollution;*
- The relevant protocols to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean;*
- Protocol on Pollutants Release and Transfer Registers to the Aarhus Convention;*
- Protocol on Water and Health to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes*
- Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes and to the 1992 Convention on the Transboundary Effects of Industrial Accidents;*
- Protocol on Strategic Environmental Assessment to the Espoo Convention.*

* * * * *

Parts of the conclusions and recommendations from the first EPR of Bosnia and Herzegovina are still valid and are listed below.

Since the end of the war in 1995, Bosnia and Herzegovina has made progress in its international environmental cooperation at bilateral, regional, European and global levels. However, there is still important work to be done, in particular in clarifying institutional responsibilities. Some challenges, including many of those that are expressed in the Assessment on Sustainable Development in Bosnia and Herzegovina, the National Environmental Action Plan and the Mid-term Development Strategy, are of transboundary or regional importance and are being considered by the respective ministries as top national priorities. In a continuing process of stabilization and accelerated regional and international integration, Bosnia and Herzegovina will be able to continue to rely on the support of the international community. It can be expected that important cooperation programmes will continue and new ones be created, especially in the context of cooperation with the European Union.

One issue of concern is the lack of a systematic, strategic approach to international cooperation. A strategy and action plan in this area could provide a blueprint for cooperation to assist the country in identifying the bilateral and multilateral agreements most appropriate for it. Such a strategy could also help to prepare Bosnia and Herzegovina to harmonize its legislation with that of the European Union.

EPR I - Recommendation 4.1:

The State Ministry of Foreign Trade and Economic Relations, working closely with the Federation's Ministries of Physical Planning and Environment and of Agriculture, Water Management and Forestry, Republika Srpska's Ministries of Physical Planning, Civil Engineering and Ecology of Agriculture, Forestry and Water Management and the appropriate authorities in Brčko District, should develop a national strategy and action plan for international environmental cooperation consistent with the Strategy for environmental protection and sustainable development proposed in recommendation 1.2. The strategy should address the role in international cooperation of all relevant actors, including non-governmental.

Chapter 5. Economic instruments and environmental expenditures for environmental protection

Against the backdrop of its parallel and multilayered administrative structure and with a relatively small workforce spread out across multiple organizations, it is no wonder that environmental policymaking in BiH is cumbersome. To streamline and speed up the environmental policy processes, the European Union and several international organizations, UNECE included, have recommended that BiH should establish an environmental agency at the State level to lead and coordinate the national environmental work. However, there has been no development on this issue since the last EPR was published in 2004.

Environmental economic instruments are based on the idea of the “user and polluter pays” principles. Setting a price for using natural resources or for polluting emissions should change the behaviour of people or legal entities in a more environmentally friendly direction. To change behaviour, taxes, charges and fees are needed.

BiH already has a collection of well-thought-of environment laws in which the “user and polluter pays” principles are included, but unfortunately it is impossible to use these laws for protection of the environment until secondary legislation is adopted, incorporating the necessary tax rates, fees and charges. To have the desired effect, secondary legislation needs to have enforceable and meaningful non-compliance penalties, and enforcement of the law needs clearly defined competencies within the administration.

There are no studies on the social and economic impact of economic instruments and therefore setting taxes, fees and charges at the optimal level is total guesswork. However, starting from even a very low level of charging would provide some funding for protection of the environment, while at the same time introducing the idea of the “user and polluter pays” principles to the population. Charging levels have to be regularly adjusted for inflation and the real level of charges can be altered at the same time.

Recommendation 5.1:

The entity Governments should:

- (a) Introduce the secondary legislation which is still missing into all entity-level environmental legislation. This secondary legislation should have an unambiguous fee structure;*
- (b) Strengthen compliance with the “user and polluter pays” principles through adequate penalties and enforcement in cases of non-compliance;*
- (c) Start to collect all fees and charges instituted by the new secondary legislation [in order to ensure full-cost recovery];*
- (d) In case it has not been politically possible to make environmental fees high enough for them to have an effect on the environment, increase or adjust the level of fees and charges at a later date.*

Currently BiH does not have readily available data on the environment neither on environmental accounting. There is no yearbook on environmental statistics and the data which is available is spread across multiple government offices at the State, entity and municipal level. Without good, accurate and up-to-date data on the environmental situation, conducting feasibility studies on potential policies is impossible. Neither can the effectiveness or outcome of the policies or economic instruments used be compared. Inadequate information can lead decision-makers to select and endorse environmental policies without a full understanding of the social and economic implications of a new policy or piece of legislation.

Quite often the emission and pollution fees are set too low, below the marginal abatement cost level, and thus the fines or charges do not trigger a change in production or consumption patterns. It is important to study the effects of the economic instruments foreseen in the new environmental laws. Such studies would allow fees, charges, taxes and penalties to be set at rates that encourage sound environmental management, while taking into account the current state of economic development in BiH and the affordability of environment-related payments for businesses and the general population. This would ensure that all stakeholders accept the use of economic instruments, making it easier to implement and enforce them and, ultimately, provide for higher collection rates and availability of more funds for protection of the environment.

Recommendation 5.2:

The Council of Ministers of BiH should strengthen the role of the State Agency for Statistics in:

- (a) Collection, analysis and dissemination of environmental accounting data;*
- (b) Conducting analysis on the efficiency of environmental taxes and fees and cost-benefit analysis of them.*

The environmental funds in both entities are operational, although the fund in FBiH is not yet engaged in projects. The primary task of the funds is the selection, evaluation and financing of environmental projects. Both funds are operating with limited financial resources and their workforce is very small, taking into account the variety of tasks they perform, from raising money for the funds through project evaluation and financing to policy development. The funds are providing an invaluable service and the entity Governments should provide all the financial support they need.

Recommendation 5.3:

The entity Governments should:

- (a) Strengthen the organizational structure of the environmental funds, and*
- (b) Increase their sources of funding, in accordance with relevant secondary legislation.*

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Parts of the conclusions and recommendations from the first EPR of Bosnia and Herzegovina are still valid and are listed below.

The economic instruments for environmental protection are generally not well developed and their use is limited. Many have been inherited from the former Socialist Federal Republic of Yugoslavia and do not reflect Bosnia and Herzegovina's current economic and social development or the state of its environment. In areas where economic instruments are relatively well developed and used, such as water management, they often remain inefficient because the established tariffs and the rates of collection are too low to cover the cost of services, let alone to make the necessary investment in infrastructure development. In other cases the charges are not collected at all. Often the main purpose of an economic instrument is to raise revenue for the government budget (entities, cantons or municipalities) or for the public utility. Its effect on the environment is not a priority – if considered at all. Few of the charges have an explicit environmental purpose. The purpose of economic instruments and their impact on the environment are poorly understood. Together with the inadequate service and the low incomes of some people, this often results in a low collection rate of user fees.

Recently adopted environmental legislation in the Federation of Bosnia and Herzegovina and in Republika Srpska clearly outlines the objectives of economic instruments for environmental protection. The “polluter pays” and “user pays” principles are an integral part of the legislation. The legislation is almost identical in both entities and so sets a good basis for harmonized policies, including in the area of economic instruments. Unfortunately, the development of secondary legislation (by-laws and regulations) is lagging. Consequently, the provisions of these laws related to economic instruments cannot be implemented until such secondary legislation is drawn up. To make the new economic instruments efficient, several requirements must be met. For instance, the “polluter pays” and “user pays” principles must be implemented; the instruments must be socially acceptable, this means introducing lower rates or subsidies for the poor; and companies must have incentives to apply technologies that significantly reduce pollution and their impact on the environment.

EPR I - Recommendation 2.1:

(a) *The Ministry of Physical Planning and Environment of the Federation of Bosnia and Herzegovina and the Ministry of Physical Planning, Civil Engineering and Ecology of Republika Srpska in cooperation with the State Ministry of Foreign Trade and Economic Relations, should draw up by-laws and regulations to introduce the economic instruments stipulated in the environmental laws and ensuring the consistency with the State environmental policy.*

(b) *When developing the secondary legislation, they need to propose adequate levels of charges, fees, taxes and penalties. If it is not feasible to introduce instruments at the desired levels (for example, user fees at the level of full cost recovery for the service provided), the charges may be reduced at first, but should increase incrementally with a clear time frame until they reach the desired levels.*

EPR I - Recommendation 2.2:

The Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should establish a regularly updated and readily accessible database of economic instruments for the environment. This would enable all levels of government, businesses and the general public to have a clear understanding of the instruments that exist, their main purpose, the recipients of the revenues (and the amounts) and whether the revenues are used for environmental purposes. The changes in rates, when necessary, and the reasons for such changes would also become transparent. These databases should be made available to the State for policy-making.

EPR I - Recommendation 2.3:

The Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with environmental NGOs, the media and other stakeholders, should organize a public awareness campaign with the aim of increasing collection rates for services related to the use of natural resources as well as for waste management. Such a campaign should inform the public of the importance and the positive impact of economic instruments on the environment.

The country's privatization process has been going on for more than six years, yet many of its objectives have so far not been realized. There are a number of successful privatization projects, which turned loss-making companies into profitable businesses and even increased employment opportunities, but society's overall attitude towards privatization remains largely negative. For companies privatized through tenders, the privatization agreement either does not include environmental requirements or it has only a general clause requiring the new owner to comply with environmental legislation. As a rule, privatization agreements contain no provisions for past environmental liabilities. Currently, the Agency for Privatization in the Federation of Bosnia and Herzegovina and the Directorate for Privatization in Republika Srpska do not employ environmental specialists.

No coordination exists between the privatization bodies and the respective Environment Ministries.

On the positive side, some newly privatized companies have voluntarily taken effective pollution preventing measures. The case studies of such companies may be instrumental in developing policies to encourage new owners to invest in pollution prevention and resource-saving technologies. The largest energy, water, forestry, mining and telecommunications enterprises are about to be put up for privatization. Because of their importance for the national economy and the impact many of them have on the environment, environmental considerations must be taken into account during this phase of the privatization process.

EPR I - Recommendation 2.5:

(a) *The Federation's Agency for Privatization and Republika Srpska's Directorate for Privatization should strengthen their cooperation respectively with the Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering. In particular, they should involve them in the decision-making in the privatization process to promote environmental investments by the new owners by:*

- *Developing and introducing clauses on past environmental liabilities into the privatization agreements;*
- *Requiring enterprises and industries put up for privatization to carry out environmental audits; and*
- *Including compliance plans, prepared by the new owner, in the privatization agreement.*

These plans should specify the measures that enterprises and industries have to take to comply with environmental standards and regulations.

(b) *The Agency and the Directorate should have one or more environmental specialists on their staff.*

Chapter 6. Climate change and environment

For BiH, exposure to damaging climate change is expected to be high. The country is highly sensitive to climate change because of the economic role of climate-sensitive sectors, such as agriculture and forestry. However, at the time of the review, data on GHG emissions (both inventories and projections) and for monitoring, was not readily available. This is largely due to the war and the interruption to established monitoring systems.

Recommendation 6.1:

The State Government of BiH, in cooperation with the Governments of entities and Brčko District, should:

- (a) *Establish mechanisms and administrative structures for regular development of emissions inventories and emissions projections, in accordance with international methodologies and for reporting;*
- (b) *Speed up preparation of the second National Communication under UNFCCC;*
- (c) *Finalize legal and institutional preparations for implementation of CDM projects.*

No strategy, policy or action plan specific to climate change issues exists at the State or entity levels. According to available data, national emissions of GHGs in per capita terms are below the EU 27 average; nevertheless a considerable increase is indicated by available emission projections. Due to its geographic and natural conditions, BiH is very vulnerable to the impact of climate change, especially in agriculture, forestry and the energy sector.

Recommendation 6.2:

The State Government of BiH, in cooperation with the Governments of the entities and Brčko District, should:

- (a) *Develop a national climate change mitigation strategy and related action plan;*
- (b) *Develop, within the framework of subregional activities, a national climate change adaptation strategy and related action plan.*

The energy sector (with about 45 per cent of coal in total primary energy supply) is the dominant source of GHG emissions in BiH. On the other hand, the use of renewable energy (hydropower) is higher than in the majority of other countries. BiH has certain potential in energy efficiency and energy savings and high potential in renewable energy sources (mainly hydropower and biomass). Nevertheless, it should be taken into account that further introduction of certain renewable sources might be in conflict with some environmental media (air in the case of biomass, water in the case of hydropower and nature in the case of wind). Available projections indicate an increase in GHG emissions from the energy sector.

Recommendation 6.3:

The State Government of BiH, as well as the Governments of the entities, should continue in their efforts to develop and/or update and implement energy strategies and strategic plans with the aim of:

- (a) Improving energy efficiency in both production and consumption;*
- (b) Supporting energy saving in the public sector;*
- (c) Supporting the wider introduction of renewable energy, while respecting air and water protection and nature conservation;*
- (d) Encouraging the development of carbon off-set forestry projects;*
- (e) Coordinating activities relating to climate change mitigation with those for reduction of air pollutant emissions to make use of the “one measure, two effects approach” as per recommendation 5.4 from the first EPR (ratification of CLRTAP protocols).*

Chapter 7. Sustainable management of water resources

Due to the institutional character of BiH and its entities, the current institutional framework for water-related issues is decentralized, very fragmented and heterogenic, both at the entity and local levels. The national constitutional and legal framework contains neither specific and clear principles, nor clarified responsibilities for management of the shared water resources (both river basins are multinational and cover both entities). In addition, there is no reliable institutional and procedural system for resolving controversies and disputes. As a result, the management of the shared water resources and the regulation of corresponding inter-entity relations are insufficient and inefficient. Similar problems arising from a decentralized and highly fragmented institutional framework can be found at the entity and local levels. Again, this leads to inefficient and legally non-compliant water management, which is not in line with water laws and the secondary legislation.

The present institutional framework does not provide adequately identified responsibilities for all international and coordination work on shared water resources at the national level. At the entity level, while competences are concentrated and clearly assigned, this does not yet ensure more efficient water management, as more importance is given to administrative divisions than to catchment areas. Efforts in terms of water protection by operators or water users at the local level are not yet based on harmonization and compliance with standards and regulations.

The most important issues in need of streamlining are the creation of a comprehensive and reliable monitoring system for quantity and quality of surface water and quality of groundwater; management and documentation of monitoring data; harmonization of sub-laws, guidelines and standards; coordination of water-related issues (implementation of EU directives, shared water resources etc.); and, consulting the ministries and cantons on complex problems.

Recommendation 7.1:

- (a) The State Government should streamline existing State-level authority over water-related issues so that there is one water resources management department in MoFTER.*
- (b) The Federation's Government should streamline existing entity-level authority over water-related issues so that there is one water resources management department in the Federal Ministry of Agriculture, Water Management and Forestry.*

(c) *Republika Srpska's Government should streamline existing entity-level authority over water-related issues so that there is one water resources management department in the Republika Srpska's Ministry of Agriculture, Forestry, and Water Resources.*

(d) *At the commune level, concentrate all water-related issues in one ministry with clearly defined responsibilities. The institutional organization of the cantons for water-related issues should be harmonized. Public water management companies should be organized in line with technical principles and be totally politically independent (especially the management). In RS, the public water management companies for flood management should be reorganized: an administrative and coordinative body should be implemented in the water management agencies for execution of complex works (such as operating and maintaining pumping stations) and simpler practical works should be privatized. This was also foreseen in the draft of the new RS water law and has been successfully implemented in the Federation.*

As mentioned in section 7.3 above, the inspectorate at the entity and commune levels (cantonal or municipal) is responsible for verifying compliance with the water-related requirements on quality and quantity in terms of water resources management. One significant obstacle in this context is that the division of responsibilities between inspectors at the two levels is only partially or inappropriately defined.

Recommendation 7.2:

The entity Governments should clearly define the responsibilities of water inspectorates to avoid overlapping duties. The competent authorities for inspection should be determined on the basis of the complexity of the inspection. Simple inspections should be performed at the cantonal (Federation) or municipal (Republika Srpska) level, whereas complex inspections should be performed at the entity level. The criteria for determining the complexity of inspections should be simple and transparent.

Due to the lack of a national legal framework, there are currently some problems in terms of inconsistent compliance with laws and sub-laws. On the one hand there is a lack of compliance due to unclear responsibilities and/or lack of sub-laws, on the other hand there are transitional old by-laws referring to the former water laws, which are not consistent with the new water laws. As water resources management should be based on catchment areas and not on administrative divisions, consistent and integrated water resources management is almost impossible without corresponding laws and strategies at the national and entity level.

The situation is even more complex at the communal level, given that the cantons in FBiH and the municipalities in RS can adopt their own water laws, regulating the organizational issues falling within their competence. There are still a lot of cantons and municipalities where the communal water laws are based on the old State water laws and/or old sub-laws. This creates a situation which undermines the consistency and uniformity of water management. For example, water laws have been adopted in 2 out of 10 cantons in FBiH (Zenica-Doboj and Central Bosnia), while the process of adoption of water laws is under way in only 2 other cantons (Sarajevo and Bosnian Podrinje).

Recommendation 7.3:

(a) *The State Government should develop a State-level water law, taking into account the existing entity water laws and clearly identifying and allocating responsibilities in terms of shared water resources and countrywide water management issues. The Federal Government should also develop a national water management strategy and action plans which concretize the corresponding work at the national level.*

(b) *The Governments of the Federation and the Republika Srpska should accelerate the implementation of existing sub-laws and standards and harmonize the existing secondary legislation, including guidelines and standards. The Government of Republika Srpska should develop and adopt a water management strategy with corresponding action plans, as prescribed in the entity law on water protection.*

(c) *Where the existing water laws are not in line with the new entity water laws, the cantonal authorities in the Federation and municipal authorities in the Republika Srpska should accelerate the adop-*

tion and implementation of new communal water laws that are in line with the entity-level legislation. In terms of corresponding sub-laws in the different cantons and/or municipalities, special attention should be paid to uniform compliance, especially in the fields of water supply and wastewater management.

Construction and maintenance of infrastructure is financed by the water utilities and local communities through subsidies, grants etc, and partially by contributions from the public water management companies. However, water utilities are largely dissatisfied with the prices set as they do not cover full service costs, but rather a fraction of operating and maintenance costs. Prices are far from being economically viable and are indeed one of the main reasons for the poor state of the water supply infrastructure and especially that of wastewater management.

Recommendation 7.4:

The entity Governments should establish a sustainable, efficient and transparent water funding system with uniform and comparable financial conditions and compliance. The following two goals should be considered:

- (a) A comprehensive and reliable sector finance study should be carried out, taking into account urban and rural areas.*
- (b) The pricing of water supply services should be adjusted to ensure that the cost of services, reinvestment and maintenance is covered, while adequate provisions for vulnerable social groups are made.*

The water management infrastructure, especially in the field of wastewater management, is either non-existent or, with very few exceptions, outdated and poorly maintained. There is no area-wide hydrological monitoring network and flood protection installations are not reliable and often not functional, due to poor maintenance and war damage. The first EPR clearly recommended that this situation be improved, however the implementation of concrete measures has only got underway slowly over the last five years, due to lack of funding and the need to prepare a legal and policy framework. This situation could be improved with the support of the international community, including the EU and other bodies of international cooperation. For this purpose, enhancing the ability of relevant institutions to prepare high quality project proposals to secure such support, either in the form of aid or concessionary loans, would be highly valuable.

Recommendation 7.5:

The entity Governments should renovate existing, or build new, water infrastructure with an emphasis on water and groundwater protection according to a priority list of relevant water projects.

Recommendation 7.6

The entity Governments, should also take into consideration the following additional recommendations, while implementing recommendations 7.3, 7.4 and 7.5 of the first EPR:

- (a) Emphasize the significance of drinking water quality control and treatment of drinking water, wastewater collection and treatment.*
- (b) For wastewater treatment and water supply systems in small cities, focus on alternative low-cost facilities that are easy to maintain, extend and upgrade and have low energy consumption. Conventional facilities and outdated technology are often expensive to maintain as, due to the lack of local production, no spare parts are available on the local market.*
- (c) Speed up the process of rebuilding the treatment plant in Sarajevo (for 600,000 inhabitants), which used to be an efficient plant before the war. Located on the upper part of the Bosna River, it would significantly improve the water quality situation in the densely populated area along the river.*

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Parts of the conclusions and recommendations from the first EPR of Bosnia and Herzegovina are still valid and are listed below.

The water infrastructure was severely damaged during the war, and even before the war the water-supply systems suffered from a lack of investment and maintenance. So although it is estimated that 90% of the water-supply sector has been rehabilitated to its pre-war level, it still does not reach international standards. The quality of drinking water is on the whole mediocre, and for the nearly 50% of the population who do not have access to public water-supply systems the water quality is probably even more questionable.

EPR I - Recommendation 7.2:

- (a) *The Government of the State of Bosnia and Herzegovina, in cooperation with the Government of the Federation of Bosnia and Herzegovina and the Government of Republika Srpska, should develop a new water policy pursuant to the memorandum of understanding with the European Communities and taking into account the Millennium Development Goal to halve by 2015 the proportion of people without access to safe drinking water.*
- (b) *The Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with their Ministries of Agriculture, Forestry and Water Management, should start now to:*
- (i) *Ensure that drinking water is safe by properly treating abstracted water;*
- (ii) *Develop water protection strategies consistent with the new State policy and the Millennium Development Goals;*
- (iii) *Establish standards and norms for water quality which are consistent with international ones; and*
- (iv) *Reduce the leaks from the distribution systems by repairing and replacing old and damaged pipelines. The number of households with access to public water-supply systems should be substantially increased.*
- (c) *As soon as they are established, the river authorities should develop plans for river basin management.*

Discharges of untreated municipal waste water have a major impact on the quality of surface water in most of Bosnia and Herzegovina, and they are also potential threats to the quality of groundwater, which are the main source of drinking water. However, the most serious impact is on public health and the environment.

EPR I - Recommendation 7.3:

The entities' Ministries of Agriculture, Forestry and Water Management in cooperation with the entities' Ministries of environment and with the help of the public enterprises for water management, should assist and require the municipalities to reduce the negative impact of waste-water discharges by:

- (a) *Reducing the leaks from public sewerage systems and by building new sewerage systems to substantially increase the number of household connections;*
- (b) *Building municipal waste-water treatment plants of environmentally high standards and with sufficient treatment capacity in all the big cities; and*
- (c) *Ensuring that sewage sludge from municipal treatment plants and septic tanks is sufficiently treated for use as fertilizer in agriculture or disposal in sanitary landfills.*

Waste water from industrial plants containing organic and hazardous substances are, with very few exceptions, discharged into the nearest watercourse with little or no treatment. This is also true for seepage water containing hazardous substances from mining and ore-processing. The negative impact on water quality is considerable, and there is no doubt that these discharges could represent a threat to public health and the

environment. Moreover, this situation must be expected to get much worse when industry recovers from the devastating effects of the war, unless proper action is taken.

EPR I - Recommendation 7.4:

The Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with the other ministries involved, should take appropriate action to reduce the negative environmental impact of waste-water discharges from industry and seepage water from mining and manufacturing by:

- (a) *Ensuring that water treatment plants are reconstructed and brought on stream again;*
- (b) *Drawing up a survey of the most polluting mining, manufacturing and other industries; and*
- (c) *Instructing mining, manufacturing and other industries to take immediate and appropriate action to stop or reduce the discharges where drinking-water resources are seriously threatened.*

Flood protection installations have been poorly maintained, and dikes, channels and pumping stations were damaged or destroyed during the war. Some large areas that are exposed to flooding do not have flood protection installations at all. Since the end of the war Bosnia and Herzegovina has not experienced extremely high water levels, even if a flood in the Tuzla region caused large-scale damage in 2001. However, extremely high water levels must be expected in the future. If there is no proper flood protection in place, they could cause many casualties and much material damage.

EPR I - Recommendation 7.5:

The proposed environment agency, with the Federation's Ministry of Agriculture, Water Management and Forestry and Republika Srpska's Ministry of Agriculture, Forestry and Water Management, should work in close cooperation with the new river authorities on an urgent basis to reduce the impacts of floods. Steps to be taken include:

- (a) *Improving and repairing, in cooperation with the regional and local authorities, existing flood protection systems and building new ones in exposed areas that do not have them, and taking non-structural measures for flood protection, in particular the conservation or rehabilitation of natural wetlands and retention areas; and*
- (b) *Drawing up a comprehensive national flood disaster strategy, which includes preparedness, mitigation, recovery and reconstruction.*

Chapter 8. Waste management

In 2009, after 10 years of not collecting information, the BiH Agency for Statistics started consolidation of a nationwide municipal, industrial and hazardous waste database from the reports and responses to questionnaire surveys. It is not clear how the information and data, which have been collected by the authorities issuing the relevant licences at cantonal and entity levels, are shared with the Agency for Statistics. There is much room and need for improvement in the quality and content of the information produced through close collaboration between the State-level Agency for Statistics, the RS Ministry of Physical Planning, Civil Engineering and Ecology, the FBiH Ministry of Environment and Tourism, the Brčko District Government, and the cantonal authorities, all of which are receiving data and information on waste from waste management service utilities, enterprises and others.

Recommendation 8.1

The Agency for Statistics, the Federal Ministry of Environment and Tourism, Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, the Brčko District Government and the cantonal authorities should improve their data and information collection on all types of waste, in order to provide

the basic information needed for the development of sound waste management mechanisms, ensuring the efficiency of waste data collection and consolidation, as well as consistency [and correspondance to actual waste flows].

The RS Ministry of Physical Planning, Civil Engineering and Ecology, the FBiH Ministry of Environment and Tourism, the Brčko District Government, municipalities and waste management companies should accelerate construction of the regional sanitary landfills by selection of sites which will be accepted by the public and municipalities, and establish waste management services which are financially and socially sustainable. Consideration should be given to the municipalities which are distant from the planned sanitary landfill sites to find the best option for them from the point of view of minimizing transport costs by either upgrading current municipal dumpsites, or constructing transfer stations and introducing separation of waste.

Another major challenge that still remains at large for the RS Ministry of Physical Planning, Civil Engineering and Ecology, the FBiH Ministry of Environment and Tourism, the Brčko District Government, and the cantonal authorities is to clear and/or close a number of illegal dumpsites which still exist.

Recommendation 8.2

- (a) *The entity Governments and municipalities should accelerate the construction of regional sanitary landfills and the establishment of financially, socially and environmentally sound municipal waste management systems, and close open dumpsites which are currently being used;*
- (b) *The entity and cantonal governments should make further efforts to close illegal/uncontrolled dumpsites whose locations are threatening health and the environment.*

Recommendation 8.3:

The FBiH and RS Ministries of Health, in cooperation with the other relevant ministries - the Federal Ministry of the Environment and Tourism, Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, and the Brčko District Government - should adopt international best practices in order to improve their hazardous medical waste management.

Recommendation 8.4:

The Federal Ministry of the Environment and Tourism, Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, the Brčko District Government and the cantonal authorities, in collaboration with various partners, should:

- (a) *Raise public understanding and awareness of sustainable waste management to facilitate further progress on the development of regional landfills, prohibition of illegal dumping of waste, separation of waste, and minimizing the generation of waste in households;*
- (b) *Make efforts to distribute information widely on waste generation and management, relevant policy documents, and the development and establishment of legislation.*

Industrial and municipal waste is often a source of valuable raw materials with a measurable economic value. Increasing awareness among industries about recycling opportunities, technical options, and the development of policy and the legal framework to encourage business development is required.

Recommendation 8.5:

The Federal Ministry of the Environment and Tourism, the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology and the Brčko District Government should scale up and promote materials and energy recovery from waste through separate collections, reuse and recycling, and foster business development based on waste.

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Parts of the conclusions and recommendations from the first EPR of Bosnia and Herzegovina are still valid and are listed below.

Waste management is one of the environmental protection priorities in Bosnia and Herzegovina, as evidenced in the NEAP, the Mid-term Development Strategy and the Solid Waste Management Strategy and the entities' new Laws on Waste Management.

The focus now should be on implementing the Strategy and the legislation. It is necessary to develop and implement an overall environmentally sound waste management system to reduce the negative environmental impact of municipal waste disposal. Some of the measures to improve the system are: separating municipal waste (paper, plastic and hazardous waste) and, to the extent possible, recycling municipal waste, such as paper, glass, aluminium and organic waste, and industrial waste; separating and incinerating medical waste; ensuring the environmentally sound disposal of radioactive waste; composting organic waste; ensuring the biological treatment of municipal waste; introducing stricter standards for municipal waste disposal; and introducing economic instruments and improving existing financial mechanisms for the overall waste management system. (See also Chapter 2 on economic instruments and privatization.) Energy production from waste should be considered as a longer-term measure. Attention also needs to be given to reducing waste generation at the source and to introducing life-cycle analysis of goods, with particular reference to those that could be recycled (for example, beverage containers, cars, tyres, and batteries).

At present there is no regular reporting system for municipal and industrial waste, although work has begun to introduce such a system under a project financed by the EU. This information is needed to define methods of waste treatment and disposal, allocating the resources and developing concrete measures to improve the overall waste management system.

EPR I - Recommendation 6.1:

The Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with municipalities, should implement the Solid Waste Strategy. To strengthen its implementation, they should:

- (a) Raise awareness and organize training in separation, recycling and reuse; and*
- (b) Undertake feasibility studies for organizing the separate collection of municipal waste and constructing facilities for its recycling and reuse. The studies should also examine economic aspects including the potential market for such recycled or reused goods.*

At present there is no industrial waste recycling or reuse as secondary raw material. However, such industrial waste as electrofilter ash from thermoelectric plants, red mud from aluminium plants, steel slag and mining waste are valuable sources of secondary raw material that could be used in other industries. Mining waste (overburden), for example, could be used to rehabilitate municipal landfills and repair roads, restore contaminated land for building; spent oil and solvents could be processed to produce low-grade solvents and oil.

EPR I - Recommendation 6.5:

The Federation's Ministry of Physical Planning and Environment in cooperation with its Ministry of Energy, Mining and Industry and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology in cooperation with its Ministry of Economy, Energy and Development should:

- (a) Conduct feasibility studies on the introduction of environmentally sound processes for the use of some categories of waste or its components as secondary raw material; and*
- (b) Prepare relevant legal acts on recycling and processing secondary raw material.*

Chapter 9. Forestry, biodiversity and protected areas

BiH has made significant progress in the areas of forest management and biodiversity since the first EPR, especially in terms of developing the necessary legal frameworks and strategic and programmatic documents. Many essential elements of the forest management system are in place - for example, the new inspectorate. However, a number of gaps still exist in terms of effective implementation of existing plans and capacity-building, and current capabilities and funding are dispersed. Although some positive movement can be seen in the area of information and data collection and utilization (particularly on forests), overall information on biodiversity continues to be insufficient, odd, of poor quality, irregular and outdated. There is an obvious lack of centralization of all environmental data collection and storage in accessible form, including the biodiversity component of monitoring activities.

Protected areas continue to be low priority and no visible progress has been made since 2003, despite several good projects completed over the last four to five years and new protected areas established. Unfortunately, there are no positive signs of political will to put the results of these projects into practice. This also applies to activities relating to protection of endangered species based on comprehensive RDBs with clear legal status. Another gap in this area relates to the non-implementation of CITES in the country.

Many new projects have been completed and/or started, not only with international support but also using funding provided by relevant ministries in a predominantly transparent way and engaging local experts and institutions. The challenge is full and effective practical implementation of project outcomes and results.

Effective realization of the National Biodiversity Strategy and Action Plan (NBSAP) depends totally on the level of its implementation in the entities, while ensuring pragmatic coordination and joint discussion on activities undertaken to improve the quality of biodiversity and living conditions for the population of the entire country. In so doing, the State can ensure full incorporation of goals related to the integration of BiH into the European Community. Successful NBSAP implementation will require new approaches and new and additional resources. Incorporation of considerations relating to ecosystem services may strengthen efforts to provide the necessary resources for NBSAP activities to be undertaken and goals achieved. The Pan-European Biological and Landscape Diversity Strategy would provide a basis for training, capacity-building and the creation of materials to enhance awareness for key authorities in both entities of the Economics of Ecosystem and Biodiversity initiative to fully incorporate ecosystem services assessment into NBSAP implementation. MoFTER has a special role in facilitating this process in line with its mandate in the area of protection of the environment and use of natural resources.

Recommendation 9.1:

(a) *The State's Ministry of Foreign Trade and Economic Relation, the Federal Ministry of Environment and Tourism, Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology and the Logistics Unit of Brčko District should promote the adoption of the draft national biodiversity strategy and action plan;*

(b) *Once adopted, the relevant governmental bodies at the State, entity and intra-entity levels should ensure that regulations and institutional mechanisms for implementation of the strategy are in place, including through the establishment of a formal process for intersectoral and inter-entity coordination, and the integration of relevant provisions in other sectoral strategies and planning documentation;*

(c) *The Council of Ministers should identify a body that will be responsible for coordination of data collection, data exchange, information flows, and monitoring, as they relate to full and effective implementation of the strategy.*

Inadequate biodiversity information continues to be a significant issue which is hindering the transition to sustainable management and usage practices, and informed protection. The organization of biodiversity monitoring at different levels and for a broad range of objects is essential. These actions need to be facilitated and supported at State level to ensure that they correspond to international and European processes and standards. Good quality information and efforts to combine all existing data will allow RDBs to be devel-

oped to fulfil the obligations prescribed by the legislation of both entities and to develop a strong legal background for implementation of national and entity strategies for environmental and biodiversity conservation. Trade in wildlife continues to be a significant threat to biodiversity, so it is essential to ensure full implementation of CITES. For the success of all the above-mentioned activities cross-sectoral and inter-agency coordination and cooperation are essential.

Recommendation 9.2:

The Federal Ministry of Environment and Tourism and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in collaboration with their respective forestry departments, should:

- (a) *Develop and promote the adoption of RDB regulations at entity level or, if more appropriate, make the necessary amendments to existing RDB regulations;*
- (b) *Establish entity working groups with relevant stakeholders on preparation of entity RDBs based on existing information;*
- (c) *In cooperation with relevant stakeholders, develop educational and public awareness programmes and campaigns on RDB legal provisions and importance for conservation.*

Recommendation 9.3:

To strengthen implementation of CITES, the Council of Ministers should:

- (a) *Nominate as the management authority for CITES the State's Ministry of Foreign Trade and Economic Relations and as additional management authorities the Federal Ministry of Environment and Tourism and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology. Once nominated, the additional management authorities should designate scientific authorities and strengthen capacity by applying to the CITES secretariat for training and capacity-building for CITES implementation, and by requesting expert support and capacity-building from the wildlife trade monitoring network TRAF-FIC;*
- (b) *Establish a joint group on CITES implementation consisting of management and scientific authorities, representatives of customs and of the inspectorates and border police;*
- (c) *Initiate preparation and adoption of the necessary regulations for CITES implementation with expert support from the CITES secretariat.*

Recommendation 9.4:

To improve the regulatory and implementation framework for hunting, the Federal Ministry of Environment and Tourism and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should:

- (a) *Conduct an inventory on the status of species that are hunted for all hunting areas and coordinate this work in order to produce a national inventory;*
- (b) *Complete delineation of all hunting areas and ensure the development of appropriate management plans;*
- (c) *Coordinate with the Ministry of Foreign Trade and Economic Relations activities related to CITES implementation in respect of species that are hunted and non-timber forest products;*
- (d) *Introduce new economic instruments into the organization of hunting.*

The entities are lacking a forest strategy, policy and long term programmes. Despite substantial progress in developing forest regulations, there are still a number of gaps, including adoption of the framework law in FBiH and a number of regulations in both entities. While a number of institutions are working on forest issues, there is no single strong and capable body fully responsible for forest issues, including forestry research. There is no strategy on human resources development for the forestry sector or comprehensive capacity-building programmes. Most of the forest management enterprises work on existing 10-year forest management plans, but these plans have no revision mechanisms so do not allow for timely incorporation of new developments, including the requirements of Forest Stewardship Council certification. Non-timber forest products are very important for local communities as an additional source of income, but there is no system of assessment, statistical accounting, monitoring of status and reserves, or control over use of these resources. Forest inspections require finalization of processes to transit to an "electronic inspector" system, including full provision of equipment and training for staff, as well as a unified geographic information system (GIS) for all data.

Recommendation 9.5:

- (a) *The Federal Government should adopt as a matter of priority the new law on forests and provide for timely and full revision of existing regulations and the development and adoption of new ones necessary for full and effective implementation of the new law;*
- (b) *Republika Srpska's Ministry of Agriculture, Forestry and Water Resources should initiate the process of revision of the existing forest plans of JPS Sume RS, Sokolac to incorporate all the provisions of Forest Stewardship Council certification;*
- (c) *The Federal Ministry of Agriculture, Water Management and Forestry, Republika Srpska's Ministry of Agriculture, Forestry and Water Resources, and the Brčko Department of Agriculture and Forestry, in cooperation with the respective entity ministries of environment, should:*
- (i) *Develop forestry strategies for their respective entities, ensuring sustainable forest management and forest conservation, including use of non-timber forest products;*
- (ii) *Provide for forestry education, training and capacity-building, incorporating the relevant provisions of the Ministerial Conference on the Protection of Forests in Europe (MCPFE) and forest law enforcement and governance (FLEG) processes;*
- (iii) *Complete preparation of action plans and forest programmes on the basis of the forest inventory and subsequent strategies;*
- (iv) *Establish coordination mechanisms to provide for inter-entity dialogue and, where appropriate, joint actions to achieve sustainable forest management and forest protection;*
- (d) *The State's Ministry of Foreign Trade and Economic Relations should provide guidance on European and global forest processes to the Federal Ministry of Agriculture, Water Management and Forestry and the Republika Srpska's Ministry of Agriculture, Forestry and Water Resources.*

The key priority today for BiH is to significantly increase the area of its territory under protection via the establishment of new protected areas (or the re-designation of previously existing ones) with clear legal status, in accordance with current legislation. In doing so, the physical plans of the entities as they relate to protected areas need to be amended based on gap analysis and with an assessment of the representativeness of existing protected areas, including the results of the Natura 2000 assessment and the previous results of the Emerald project. Most of the issues, such as a very low level of efficiency and slow progress with protected areas, are due to extremely low capacity in this sector, significant underfunding of activities relating to protected areas, the absence of a designated responsible agency and a lack of political interest in the topic, all of which hinder rapid designation of new areas, due to conflicts of interest with economic sectors.

Recommendation 9.6:

- (a) *The Federal Ministry of Environment and Tourism and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should:*
- (i) *Provide for an assessment of the representativeness of the system of protected areas in order to adjust physical plans, including incorporation of new legal provisions for categories of protected areas compatible with IUCN categories and in accordance entities laws;*
- (ii) *Substantially enlarge the system of protected areas based on physical plans and using existing feasibility studies provided for a number of protected areas in both entities;*
- (iii) *Provide official protection status to designated Ramsar sites with special urgency and attention regarding Hutovo Blato;*
- (iv) *Develop an action plan for applying the EU Habitat Directive and the Natura 2000 network. In so doing, it is recommended that the results of the project "Europe's Living Heart" be fully utilized;*
- (b) *The Federal Ministry of Environment and Tourism and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should establish entity cadastres of all protected areas and the State's Ministry of Foreign Trade and Economic Relations should collate this data and report to international organizations on the current status of protected areas.*

* * * * *

Parts of the conclusions and recommendations from the first EPR of Bosnia and Herzegovina are still valid and are listed below.

At present, the new Laws on Forests define the action to be taken in forestry, including a reorganization of the forestry authorities, and the role of commercial companies. However, there is no overall forestry strategy either nationally or in the entities, and there are no official forestry development programmes. To facilitate the appropriate management of the forests and their sustainable development, it is important that a strategy should be drawn up and an action plan developed.

EPR I - Recommendation 8.2:

Republika Srpska's Ministry of Agriculture, Forestry and Water Management, the Federation's Ministry of Agriculture, Water Management and Forestry and Brčko District's Department of Agriculture and Forestry, in cooperation with the respective entities' ministries of environment, should:

- (a) *As soon as possible, develop a national forestry strategy (including forest use and timber industry) applying Strategic Environmental Assessment. The Strategy should ensure the gradual recovery of the forests and sustainable forest management, and include the development of a programme for forest certification as a first step toward sustainable forest use and management.*
- (b) *Draw up action plans on the basis of the strategy.*

The two entities have made significant progress by adopting and harmonizing their new Laws on Nature Protection. However, they cannot be implemented without by-laws. This requires, among other things, that the entities and Brčko District should prepare and adopt red lists and a red data book. Similar progress has been made by the entities through their new Laws on Forests, but these, too, need by-laws to facilitate their implementation. In the development of all these by-laws, it is essential to clearly define institutional responsibility for protected area management.

EPR I - Recommendation 8.3:

(a) *The Federation's Ministry of Physical Planning and Environment and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should:*

- *Finalize and adopt red data books for plant and animal species according to the IUCN classification; and*

- *Accelerate the development of the by-laws for the respective Laws on Nature Protection.*

(b) *Republika Srpska's Ministry of Agriculture, Forestry and Water Management and the Federation's Ministry of Agriculture, Water Management and Forestry should similarly accelerate the development of by-laws for the respective new Laws on Forests.*

(c) *In developing these two sets of by-laws, it is essential for the Federation's Ministry of Physical Planning and Environment and Ministry of Agriculture, Water Management and Forestry and Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology and Ministry of Agriculture, Forestry and Water Management to work together in order to define clearly the institutional responsibilities for nature reserves, protected areas and national parks.*

Valid recommendations from the first Environmental Performance Review not covered in second EPR chapters

Chapter 5: Air quality management

Road transport is the most important transport mode for passengers, and traffic is a major source of air pollution in the cities. The number of registered vehicles has significantly increased over the past years and will probably continue to do so in the coming years, aggravating the pressure on air quality.

Beside economic instruments, reducing traffic-related air emissions also requires a number of technical measures at all levels from the municipalities to the entities and the State.

Recommendation 5.3:

In close collaboration with the Environment Ministries and other authorities responsible for the environment, the State Ministry of Transport and Communications, the entities' Ministries of Transport and Communications and the Government of Brčko District should seek to reduce traffic emissions or at least mitigate their impact through a better integration of transport policy and traffic management. This should be achieved by strengthening collaboration between the State Ministry of Transport and Communications, the Ministries of Transport and Communications and the municipal authorities (cantonal authorities in the Federation) responsible for traffic management. Some of the measures to be envisaged are:

- *Effective enforcement of technical inspections (together with the Ministries of Internal Affairs);*
- *Improving road maintenance;*
- *Improving the management of traffic flows;*
- *Improving the quality of fuels in internal combustion engines; and*
- *Promoting and extending public transport.*

Bosnia and Herzegovina is a Party to the Convention on Long-range Transboundary Air Pollution. However, it is a Party to only one of the Convention's eight protocols: the Protocol on the Financing of EMEP. The country does not currently report emission data to EMEP due to the destruction of the EMEP station during the war.

Support from the Convention and its Parties may be forthcoming if the barriers to accession to the other protocols can be identified. Stronger links with the Convention would aid the development of a monitoring strategy, the creation of emission inventories and the development of an air quality strategy in general. While implementation of these protocols may not be a priority for the country, it should be used as a tool for promoting air quality locally, regionally and nationally.

Recommendation 5.4:

(a) The Federation's Ministry of Physical Planning and Environment, Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology and the environmental authorities of Brčko District under the coordination and supervision of the State Ministry of Foreign Trade and Economic Relations and in cooperation with the State Ministry of Transport and Communications should develop appropriate and realistic strategies for the ratification and implementation of the protocols to the Convention on Long-range Transboundary Air pollution.

(b) The responsible body should ensure reconstruction of the EMEP station and recommencing Bosnia and Herzegovina emissions data reporting to the EMEP bureau.

* Following the decision of the EPR Expert Group, this annex contains parts of the recommendations, that are still valid, and their preceding conclusions from the first Environmental Performance Review of Bosnia and Herzegovina that have not been covered in the preceding chapters of this EPR

Chapter 9: Tourism and Environment

At the State level

Tourism is not dealt with at State level. However, an effort is being made to establish a State tourist association to coordinate the development of the tourist industry in both entities. The tourism strategy that is being finalized as a contribution to the State's development strategy is also an effort at State level to which the two competent ministries in the entities are contributing. Neither the State nor the entities have a policy or legislation on sustainable tourism.

EPR I - Recommendation 9.1:

The State Ministry of Foreign Trade and Economic Relations in cooperation with the relevant entities' ministries and supported by international experts should:

- (a) *Coordinate the development of a State strategy for sustainable tourism. It should be made an integral part of the development strategy for tourism. This policy could provide a cohesive framework and ensure that sustainability criteria are consistently applied in all laws and regulations affecting tourism development.*
- (b) *Develop adequate legislative tools for the sustainable development and management of the tourism sector. These tools should address the problem of unreliable statistics and the introduction of sustainable tourism indicators*

At the entity level

Once a framework policy has been established, it is important to develop a general master plan for sustainable tourism and a series of individual master plans for specific sites. To provide baseline data for the master plan, it is important to make an inventory of all sites of interest (including sites with a potential for cultural heritage, rural tourism, river tourism, industrial heritage, nature tourism and spas). This can be done by the entities.

EPR I - Recommendation 9.2:

- (a) *On the basis of the State strategy for sustainable tourism, the Ministry of Trade and Tourism in Republika Srpska and the Ministry of Trade in the Federation should develop local guidelines and regulations for tourism development and introduce eco-standards for tourist premises.*
- (b) *A tourism master plan, also based on the overall policy for sustainable tourism, should be developed for both entities, to allow for appropriate economic, environmental, spatial and resource planning and the development of the necessary infrastructure in tourist areas.*
- (c) *The competent bodies for tourism, in cooperation with the Ministries of Culture and the Environment Ministries, should make an inventory of all sites of tourist interest. As the sites are identified, individual management plans for their sustainable development should be prepared.*

Although mentioned as one of the objectives of the tourism development strategy of Bosnia and Herzegovina, the development of local production related to the tourist sector such as locally grown and possibly organic food and crafts does not seem to be the object of any specific development effort.

EPR I - Recommendation 9.3:

The competent authorities for tourism, in cooperation with local authorities, should undertake a survey of local products that could be supported and included in a sustainable tourism development plan.

There are no economic instruments for natural resources management or supporting the development of sustainable tourism.

EPR I - Recommendation 9.4:

The responsible authorities should establish the following economic instruments to support sustainable tourism:

- *Entrance fees at national parks;*
- *An eco-tax on tourist infrastructure putting environmental pressure on nearby protected areas, to be paid by the owners (e.g. hotel owners); and*
- *Fiscal incentives for tourist premises that implement eco-standards, such as “green hotels” that save and protect resources such as water and energy. These could take the form of tax breaks or reduced licensing fees.*

There are no programmes to train people in the tourist sector. No training is given to workers of the tourist sector in environmental awareness and sustainable tourism, and there seem to be no specific environmental awareness programmes in primary and secondary school curricula.

EPR I - Recommendation 9.5:

- (a) *The responsible authorities for tourism, in cooperation with the Ministries of Education, should introduce training programmes in tourism and sustainable tourism in the curricula of higher education institutions.*
- (b) *The Environment Ministries in cooperation with the Ministries of Education should develop and introduce environmental awareness programmes in primary and secondary schools.*
- (c) *The responsible authorities for tourism, in cooperation with the Environment Ministries, should carry out widespread campaigns to raise awareness of sustainable tourism particularly among hotel managers, tourist agencies, tourists and municipal authorities. The campaign should make use of workshops, community meetings, brochures and posters, and other media.*

Chapter 10: Agriculture and environment

Organic farming is definitely a market niche for traditional farmers and can also have a positive impact on the environment. To develop this type of farming, it is necessary to have a strong legislative framework that ensures inspection and certification and protects plants that could be overexploited (e.g. wild medicinal plants and wild mushrooms).

EPR I - Recommendation 10.5:

The State ministry responsible for Agriculture, in coordination with the Federation’s Ministry of Agriculture, Water Management and Forestry, Republika Srpska’s Ministry of Agriculture, Forestry and Water Management and the Government of Brčko District, should develop and adopt the necessary legislation to support and promote organic farming. In drafting this legislation, the relevant directives of the European Union should be taken into account.

Chapter 11: Environmental concerns in the energy sector

Once the overall framework is established, stable and flexible rules for energy activities have to be set. These should:

- *Encourage the co-generation of heat and power (CHP) where economically justified and create incentives for its development. Such incentives may include: that the power companies have to take power produced by CHP at a preferential rate; the introduction of green certificates for power and heat produced by CHP combined with a demand that power companies should include a certain percentage of “green electricity” in their production mix; and support to the development or rehabilitation of district heating schemes allowing for the introduction of CHP instead of individual heating.*
- *Encourage energy production from renewable energy sources, such as biomass, wind energy, solar energy, geothermal energy and small-scale hydropower, where economically justified and environmentally acceptable and create incentives for its development. The incentive can largely be similarly structured as for encouraging CHP.*
- *Encourage end-use energy efficiency by setting standards for efficiency, e.g. by energy labelling schemes.*
- *Set rules for the technical performance of energy installations, including emission standards.*

EPR I - Recommendation 11.2:

The State Ministry of Foreign Trade and Economic Relations, in coordination with the Federation's Ministry of Energy, Mining and Industry and Republika Srpska's Ministry of Economy, Energy and Development, should develop an energy policy and common energy legislation that encourages a more sustainable and economical energy system based on renewable energy sources, co-generation of heat and power and end-use energy efficiency, and that sets a well defined framework for the performance of energy activities.

Chapter 12: Human health and environment

According to general health indices, the health of Bosnia and Herzegovina's population is worse than that of the population of the EU countries, but comparable to that of the population of Central and East European countries. However, the health statistics system has difficulties in defining the size of the population and other basic demographic indicators. Underreporting and under diagnosis of diseases and incomplete registration of demographic indicators influence the quality of health statistics. These problems are also the result of the recent war. Health statistics are reported separately for the two entities. Only basic health indicators are reported State-wide to WHO. Most of the currently available health data are estimates; they therefore do not fully reflect the real situation. There is a lack of studies investigating the influence of environmental conditions on the health of the population.

The prerequisite for adequate environmental health policy, i.e. rational monitoring and evaluation, is the creation of an accurate database. Currently, there are no quality data on environmental pollution. This makes it impossible to estimate individual and population-wide exposure and subsequently leads to difficulties in linking health data to environmental exposure data and establishing a causal relationship between exposure and disease. The identification and registration of sources of contamination could contribute to assessing their risks for environmental health. A comprehensive monitoring system is needed, with regular and consistent collection of relevant indicators. In most cases the quality of air, drinking water and food is assessed on request. Such sampling coverage and monitoring are insufficient. The capacities and abilities for regular microbiological and physico-chemical analyses of food and water are inadequate.

EPR I - Recommendation 12.1:

The Federation's Ministry of Health and its Public Health Institute, Republika Srpska's Ministry of Health and Social Welfare and its Public Health Institute, and the Government of Brčko District should work closely with the Ministries responsible for developing comprehensive monitoring systems for air quality, drinking water quality, waste and hazardous waste disposal, ionizing radiation sources, food production and distribution chain from primary producer to consumer, in order to:

- (a) *Develop an environmental health information system;*
- (b) *Collect health statistics data;*
- (c) *Promote epidemiological studies on environmental health-related issues; and*
- (d) *Create a register of all ionizing radiation sources.*

The National Environmental Action Plan (NEAP) was prepared jointly by the two entities and adopted by their Governments and Assemblies in 2003. This plan provides detailed analyses of the country's environmental problems, and sets environmental protection and institutional development goals. The National Environmental Health Action Plan (NEHAP) of Republika Srpska was adopted in December 2002; that of the Federation has been drawn up, but not yet adopted.

EPR I - Recommendation 12.2:

- (a) *The Government of the Federation should speed up the adoption of its NEHAP.*
- (b) *Both Governments have to develop an operational plan for the implementation of NEHAP.*

The development of an integrated approach to environmental health management requires close cooperation between both entities, and within entities, close cooperation between ministries, professional and public institutions dealing with environmental health. Cooperation is needed in particular in environmental health monitoring, the sharing of information, environmental health assessment, and planning of activities. The development of the NEAP and NEHAPs represents an opportunity for looking at environmental health from a cross-sectoral perspective. They identify priorities and areas for action on the basis of a broad consensus of the different sectors and agencies involved. However, there is much potential for more cooperation among the Federation of Bosnia and Herzegovina, Republika Srpska and Brčko District and for joint implementation of activities.

EPR I - Recommendation 12.4:

The Federation's Ministry of Health and its Ministry of Physical Planning and Environment, Republika Srpska's Ministry of Health and Social Welfare and its Ministry of Physical Planning, Civil Engineering and Ecology, and Brčko District's Department of Health, Public Safety and Community Services should together establish mechanisms for closer collaboration in the development of an integrated approach to environmental health management and the development of effective procedures to carry out environmental health impact assessment.

Implementation of 1st EPR recommendations*

PART I: THE FRAMEWORK FOR ENVIRONMENTAL POLICY AND MANAGEMENT

Chapter 1: Policy, legal and institutional framework

Recommendation 1.1:

The Council of Ministers should establish an environment agency, which should:

- (f) Provide advisory services to the authorities and institutions on both State and entity level in creation of strategy of sustainable development, environmental policy and management and protection of environment, natural resources and natural heritage;*
- (g) Collect environmental monitoring data and report, as appropriate, to international bodies, convention-governing bodies and the European Environment Agency;*
- (h) Manage, supervise and coordinate the implementation of the entities' plans for management and protection of waters, air, land, forests, as well as management of waste and chemicals (POPs, ODS, trans-boundary pollutants and dangerous pesticides);*
- (i) Develop methodologies to facilitate a common approach to environmental management; and*
- (j) Provide training, capacity building and awareness rising.*

The environment agency should rely on and assist the inter-entity bodies.

The recommendation has not been implemented. The State-level environment agency has not been established. This is largely due to some resistance to agreeing to an enlarged role for the State on environmental matters. Environmental management at the State level remains the purview of the Ministry of Foreign Trade and Economic Relations (MoFTER) and there are still no plans to establish an environment agency at the State level. It is also important to stress that only the Inter-Entity Steering Committee for the Environment is currently operational. Neither the National Steering Committee for the Environment and Sustainable Development nor the Inter-Entity Commission for Water is operational.

Recommendation 1.2:

Pursuant to the decision of the Council of Ministers, the Ministry of Foreign Trade and Economic Relations should begin as soon as possible to draft:

- (a) A new State law on environmental protection and all relevant secondary legislation; and*
- (b) A strategy for environmental protection and sustainable development, in cooperation with the relevant Environment Ministries in the Federation of Bosnia and Herzegovina (FBiH) and Republika Srpska (RS), and with broad participation from all stakeholders.*

The strategy should aim at:

- *Strengthening the institutional capacity for designing and implementing environmental policy at all levels;*
- *Developing and institutionalizing communication among sectors and ministries within and among the State, the entities and Brčko District;*
- *Establishing procedures for communication between officials and stakeholders in decision-making for sustainable development; and*
- *Improving the knowledge of the general public about the significance of environmental protection and encouraging the preparation of awareness-raising programmes.*

The State has not drafted a strategy for environmental protection and sustainable development and the draft State law on environmental protection has been pending since 2006. The lack of a State law continues to exacerbate a number of problems. For example, the competencies for legislation and administration remain

* The first review of Bosnia and Herzegovina was carried out in 2003 and published in 2004. During the second review, progress in the implementation of the recommendations in the first review was assessed by the EPR team based on information provided by the country.

scattered across all administrative levels. Because of weak inter-entity coordination mechanisms, legislative and administrative procedures are slow and redundant. Law-making activities at the State level are not based on clear and coordinated policies and priorities. Poor coordination with other sectors in turn leads to limited attention being paid to environmental considerations in those domains.

It is important to stress that because of the delays in the adoption of the State law on environmental protection, the European Commission has had to cancel €2 million from the Community Assistance for Reconstruction, Development, and Stabilisation (CARDS 2006) programme. Another €2 million from the Instrument for Pre-Accession Assistance (IPA) 2008 is available to assist MoFTER in fulfilling its obligations with regards to EU integration. However, these funds will not be accessible until the State law on environmental protection is adopted.

Recommendation 1.3:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should be strengthened, as a matter of priority, so that they are able to:

- (d) *Prepare all secondary legislation required by the new Laws on Environmental Protection, Air Protection, Water Protection, Waste Management, Nature Protection and the Environmental Fund;*
- (e) *Organize and implement effectively environmental permitting, inspection and control; and*
- (f) *Implement all the tasks incumbent upon them as ministries.*

Both Ministries may be strengthened either by increasing the number of permanent staff or by hiring external experts ad hoc.

The structure of the RS Ministry is largely unchanged since 2003. Within the Ministry, the Department for the Protection of the Environment has eight staff members, up from seven in 2003, whose responsibilities range from dealing with environmental protection issues, to solid and hazardous waste management, legal affairs, and biodiversity issues. RS employs only one lawyer in the ecology department.

The number of staff working on environmental issues in FBiH has not increased since 2003. FBiH does not have a single environmental legislation specialist within its government administration. There remains a distinct lack of human resources.

Recommendation 1.4:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should develop the necessary secondary legislation for the implementation of the new framework Law on Environmental Protection and other specialized environmental laws as soon as possible. The most urgent issues are:

- (a) *Establishment of a detailed environmental impact assessment (EIA) procedure with all the necessary steps: preparation of the list of activities that are subject to EIA, early notification, screening and scoping, public participation at all levels, access to information and decision-making;*
- (b) *Establishment of a detailed SEA procedure for plans and programmes;*
- (c) *Development of a permitting system under the Law on Environmental Protection, including integrated (IPPC) permits; and*
- (d) *Updating of their industrial plant inventories and establishment of new registers of polluters.*

At present, about 300 secondary legislative acts are missing on a countrywide basis. In FBiH, out of the 23 by-laws called for under the Law on Environmental Protection, only 6 have been adopted. In RS, while a large number of regulations and secondary legislation have been adopted in accordance with the framework laws, it is estimated that approximately one third of all secondary legislation remains to be drafted and adopted. The Brčko District Government has adopted 18 by-laws related to environmental protection and air and water management.

RS has implemented a system of environment permits under the Law on Environmental Protection. The Ministry now has the tools in place to hold industry accountable. Since 2006, permits from the ecology department must be received prior to applying for a construction permit in RS. So far 189 permits have been issued, and 32 risk assessments have been conducted in these facilities.

No such system has been implemented in FBiH.

Chapter 2: Economic instruments and privatization

Recommendation 2.1:

(c) *The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with the State Ministry of Foreign Trade and Economic Relations, should draw up by-laws and regulations to introduce the economic instruments stipulated in the environmental laws and ensure consistency with the State environmental policy.*

(d) *When developing the secondary legislation, they need to propose adequate levels of charges, fees, taxes and penalties. If it is not feasible to introduce instruments at the desired levels (for example, user fees at the level of full cost recovery for the service provided), the charges may be reduced at first, but should increase incrementally with a clear time frame until they reach the desired levels.*

Environmental legislation, with the exception of the water and waste sectors, still lacks adequately developed secondary legislation, thus hindering the effective application of environmental economic instruments. A case in point is the Law on Air Protection, which would become operational immediately upon approval of the required secondary legislation.

In cases where charges, fees and penalties are applied in practice, the rates chosen are often set administratively and it is not always clear whether the intention is to collect revenue or to attain full cost recovery or, finally, to encourage a change in the use of natural resources aimed at decreasing the amount of pollution and/or emissions.

Recommendation 2.2:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should establish a regularly updated and readily accessible database of economic instruments for the environment. This would enable all levels of government, businesses and the general public to have a clear understanding of the instruments that exist, their main purpose, the recipients of the revenues (and the amounts) and whether the revenues are used for environmental purposes. The changes in rates, when necessary, and the reasons for such changes would also become transparent. These databases should be made available to the State for policy-making.

Currently no database of environmental economic instruments is available.

Recommendation 2.3:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with environmental NGOs, the media and other stakeholders, should organize a public awareness campaign with the aim of increasing collection rates for services related to the use of natural resources, as well as for waste management. Such a campaign should inform the public of the importance and the positive impact of economic instruments on the environment.

The use of public awareness campaigns has been limited, however the collection rates for the services related to the use of natural resources and waste management have increased since the last EPR. It is not clear whether this is as a result of awareness campaigns or more efficient collection efforts, or both.

Recommendation 2.4:

(a) *The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should draw up by-laws and regulations to make the environmental funds operational.*

(b) *The Ministries and the environmental funds of the entities and the cantons should coordinate their activities based on the priorities included in the National Environmental Action Plan for spending on environmental protection and to ensure the most efficient use of environmental expenditures.*

The environmental funds in both entities are operational. The FBiH fund is still in the process of collecting funds to fund projects, while the RS fund is already actively funding projects.

Political entities are working mainly within their political boundaries. However entities, ministries, cantons and municipalities have successfully coordinated their activities in creating regional refuse dumps. Environmental funds are coordinating their support for the creation of the secondary legislation necessary for recycling in their respective entities. Regarding the efficient use of environmental expenditure, the current lack of information on the general level of environmental expenditure and the spread of the "ownership" of those funds to national, entity, cantonal and municipal level prevents efficient coordination of the use of the available funds.

Recommendation 2.5:

(c) *The Federal Agency for Privatization and the Republika Srpska's Directorate for Privatization should strengthen their cooperation respectively with the Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology. In particular, they should involve them in the decision-making in the privatization process to promote environmental investments by the new owners by:*

- *Developing and introducing clauses on past environmental liabilities into the privatization agreements;*
- *Requiring enterprises and industries put up for privatization to carry out environmental audits; and*
- *Including compliance plans, prepared by the new owner, in the privatization agreement. These plans should specify the measures that enterprises and industries have to take to comply with environmental standards and regulations.*

(d) *The Agency and the Directorate should have one or more environmental specialists on their staff.*

It is not clear if clauses on past environmental liabilities are included in privatization agreements or if the enterprises to be privatized have to have an environmental audit.

Chapter 3: Information, public participation and education

Recommendation 3.1:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should issue, without delay, regulations to specify, in particular:

- *New procedures for setting or revising environmental quality standards harmonized with European standards;*
- *Measurements, monitoring and reporting requirements for operators;*
- *Criteria for the qualification of experts for self-monitoring by polluting enterprises; and*
- *Modalities for the registers of installations and of pollution taking into account the requirements of the UNECE Protocol on PRTRs.*

Progress has been made in improving environmental self-monitoring and reporting by large polluters. The establishment of entity Pollution Release and Transfer Registers (PRTRs) is underway. In 2007, Rulebooks on Registration of Installations and Pollutants were adopted by both entities. Enterprises have been obliged to report data since 2008 and entity environmental inspectors have the right to fine the companies and their

management for non-compliance. Reporting obligations cover air emissions, waste water discharges, solid waste disposal, installation characteristics and details on permits. Both entities have developed questionnaires in order to collect emission, discharge and waste data from point sources. Criteria for the qualification of experts for self-monitoring by polluting enterprises have so far not been elaborated. No progress has been made in setting or revising environmental quality standards harmonized with European standards.

Recommendation 3.2:

The Inter-entity Steering Committee for the Environment and the Inter-entity Commission for Water, together with the State's Ministry of Foreign Trade and Economic Relations, should jointly prepare recommendations leading to the creation of an integrated monitoring system.

These recommendations should be addressed to the Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, the Federal Ministry of Agriculture, Water Management and Forestry and the Republika Srpska's Ministry of Agriculture, Forestry and Water Resources, the Federal Ministry of Health and the Republika Srpska's Ministry of Health and Social Welfare, the institutes of statistics of both entities and the Agency for Statistics of Bosnia and Herzegovina (BiH), other relevant ministries and the Brčko District Government. The following steps should be included:

- *To set up an inventory of air emissions including information on transboundary fluxes of harmful substances;*
- *To set up air pollution monitoring in major urban centres;*
- *To strengthen the system for monitoring water quality;*
- *To make an inventory of degraded land and assess the current situation and potential of soil erosion;*
- *To monitor biodiversity and forest health;*
- *To collect systematically data on (a) origins, quantities and types of waste; (b) facilities for handling waste; and (c) waste recycling and final disposal; and*
- *To create a network of authorized laboratories and certification centres.*

Bosnia and Herzegovina has made progress in improving its environmental observations, especially air and water-quality monitoring. For soil and biodiversity, monitoring remains weak. The country continues to lack a comprehensive environmental monitoring system. Most environmental laboratories in the country have not applied to the BiH Accreditation Institute and its regional branches in Banja Luka and Mostar. Thus far, only the Bjelaina Institute of Waters Laboratory has been accredited to analyze water samples in the Sava River Basin. No private laboratory in the country has been accredited for environmental testing.

In 2009, the BiH Agency for Statistics published the data for 2008 on quantities, types and flow of waste generated in 'production process in industry, crafts and other processes'. Data were consolidated based on reporting from companies with 10 or more employees engaging in the following activities: i) mining and quarrying; ii) manufacturing; and iii) electricity, gas and hot water supply.

Recommendation 3.3:

When the State's Ministry of Foreign Trade and Economic Relations prepares the environmental law for BiH it should cover, among other things, the specific modalities for setting up, financing and operating a national environmental information system. The law should specify the responsibilities of the entities and the State's institutions (including the national agency to be established) regarding:

- (g) *The collection of environmental data and information, their storage, evaluation and dissemination;*
- (h) *The development, on the basis of international experience, of environmental indicators for data collection in the entities and the State and reporting to them;*
- (i) *The publication of state-of-the-environment reports for consideration by the Parliamentary Assembly and the BiH Council of Ministers, their circulation among interested institutions at various levels and uploading on the Internet to make them available to the general public;*

- (j) *Transmission of environmental data and reports, on behalf of BiH, to governing bodies of applicable international conventions;*
- (k) *Participation in EIONET, including the designation of a national focal point, national reference centres and expert institutions, and in other international programmes on environmental monitoring and assessment; and*
- (l) *Training of experts in monitoring and information management.*

Few formal mechanisms exist for the transfer of data and information between institutions dealing with the environment in the two entities. Much exchange is voluntary. The only bodies ensuring some form of homogeneity in data collection and presentation are the institutes of statistics of both entities and the BiH Agency for Statistics. There is no centralized database on the environment at the State level.

BiH is a collaborating non-member country of the European Environment Agency (EEA)/ European Environment Information and Observation Network (EIONET). It has not formally designated its national focal point yet. It has improved data reporting to EEA, presently submitting some 65 per cent of required data.

Discussion has been continuing in the country since 2002 on the establishment of a State environmental protection agency to be responsible for an integrated environmental information system including multimedia and an electronic system. The agency would also be responsible for the preparation of country-wide environment assessment reports based on indicators; cooperation with EEA/EIONET; and data and information reporting to the international community. No progress has been made to this end so far.

FBiH has recently introduced a system of producing regular environmental assessment report based on indicators. It published the first such report in 2009. There are no similar environmental assessments in RS and at the State level.

Recommendation 3.4:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should establish, without any further delay, environmental advisory councils. The councils' membership and methods of work should be defined in consultation with stakeholders and in accordance with the entities' Laws on Environmental Protection. As a priority, the environmental advisory councils should assist the two above-mentioned Ministries and the Federal Ministry of Education and Science and the Republika Srpska's Ministry of Education and Culture to develop, in close cooperation with media representatives and other stakeholders, environmental communication strategies and education plans.

Environmental authorities at the State, entity and cantonal levels take actions to raise public awareness of environmental problems and citizens' rights on environmental protection. For instance, to implement the BiH Council of Ministers conclusion of 20 April 2010 (05-07-01-1279-31/10) on the adoption of a programme on celebrating important dates related to human rights in BiH. For 2010, they published a number of promotional materials with regard to the World Water Day, Earth Day, Environment Day and the Ozone Layer Protection Day.

Some progress has been made in creating a public system of environmental education in Bosnia and Herzegovina. Several initiatives, like the education reform programme, led to visible improvements. Environmental issues have been included in pre-school and school curricula. In higher educational institutions a number of environmental subjects have been included in curricula.

In neither entity has any progress been made to establish environmental advisory councils to assist the Environment Ministers and the entities' Governments.

Chapter 4: International cooperation

Recommendation 4.1:

The State's Ministry of Foreign Trade and Economic Relations, working closely with the Federal Ministries of Physical Planning and Environment and of Agriculture, Water Management and Forestry, the Republika Srpska's Ministries of Physical Planning, Civil Engineering and Ecology and of Agriculture, Forestry and Water Resources and the appropriate authorities in Brčko District, should develop a national strategy and action plan for international environmental cooperation consistent with the Strategy for environmental protection and sustainable development proposed in recommendation 1.2. The strategy should address the role in international cooperation of all relevant actors, including non-governmental.

A national strategy and action plan for international environmental cooperation have not been developed.

Recommendation 4.2:

(a) *BiH should speed up its accession to:*

- *The Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters;*
- *The Convention on Environmental Impact Assessment in a Transboundary Context;*
- *The Convention on Persistent Organic Pollutants;*
- *The Convention on Trade in Hazardous Chemicals and Pesticides Enters into Force;*
- *The Convention on Cooperation for the Protection and Sustainable Use of the Danube River;*
- *The Convention on International Trade in Endangered Species of Wild Fauna and Flora; and*
- *The Kyoto Protocol to the United Nations Framework Convention on Climate Change.*

(b) *BiH should also begin the process of accession to:*

- *The Convention on the Conservation of Migratory Species of Wild Animals;*
- *The Convention on the Protection and Use of Transboundary Watercourses and International Lakes; and*
- *The Convention on the Transboundary Effects of Industrial Accidents.*

BiH has acceded to 8 out of the 10 multilateral environmental agreements (MEAs) listed above, but is not yet a party to the Convention on the Conservation of Migratory Species of Wild Animals or the Convention on the Transboundary Effects of Industrial Accidents.

Recommendation 4.3:

The State's Ministry of Foreign Trade and Economic Relations, working together with the national focal points, should assess the requirements for implementation of all the conventions and protocols to which BiH is a Party. The results of this assessment should be reflected in the national strategy for international environmental cooperation, recommended in 4.1.

MoFTER, together with the national focal points, has assessed the requirements for implementation of some MEAs to which BiH is a party on an ad hoc basis. The conclusions of the assessment are not reflected in any State policy document, including a national strategy for international environmental cooperation.

PART II: MANAGEMENT OF POLLUTION AND OF NATURAL RESOURCES

Chapter 5: Air quality management

Recommendation 5.1:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should develop the secondary legislation necessary for the practical implementation of their Laws on Air Protection as soon as possible. However, considering the number of

bylaws to be developed as well as the scarcity of resources available, the Ministries should prioritize their common needs and the issues to be tackled. A realistic approach taking into consideration the existing and future capacity to ensure effective implementation of the legislation should be adopted in this process.

Both entities adopted seven compatible by-laws related to air quality management in 2005.

Recommendation 5.2:

The State's Ministry of Transport and Communications, the Federal Ministry of Physical Planning and Environment, the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology and the environmental authorities of Brčko District should develop a common air monitoring strategy to, inter alia:

- (a) Identify the responsibilities of the institutions involved in air monitoring necessary to achieve a cost-effective monitoring approach;*
- (b) Address the requirements of EIONET and the Convention on Long-range Transboundary Air Pollution; and*
- (c) Streamline the existing monitoring system. In this regard, the following should be taken into account:*
 - Delegating operating responsibilities for running stations;*
 - Transferring and concentrating monitoring activities within a limited geographical zone or region; and*
 - Discontinuing marginal, unrepresentative or inefficient air monitoring.*

Should the proposed Environment Agency be created at the State level, it should take the lead in implementing recommendation 5.2.

Implementation is in progress. In the case of FBiH, the number of air quality monitoring stations has been increased to 10 automated stationary stations covering 4 cities, and 5 mobile stations. One mobile station is being operated in RS and one in Brčko District.

Recommendation 5.3:

In close collaboration with the Environment Ministries and other authorities responsible for the environment, the State's Ministry of Transport and Communications, the entity Ministries of Transport and Communications and the Brčko District Government should seek to reduce traffic emissions or at least mitigate their impact through a better integration of transport policy and traffic management. This should be achieved by strengthening collaboration between the State's Ministry of Transport and Communications, the Ministries of Transport and Communications and the municipal authorities (cantonal authorities in FBiH) responsible for traffic management. Some of the measures to be envisaged are:

- Effective enforcement of technical inspections (together with the Ministries of Internal Affairs);*
- Improving road maintenance;*
- Improving the management of traffic flows;*
- Improving the quality of fuels in internal combustion engines;*
- Promoting and extending public transport.*

This has been partially implemented, but only the inspection of fuel quality is being carried out in all entities.

Recommendation 5.4:

(c) The Federal Ministry of Physical Planning and Environment, the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology and the environmental authorities of Brčko District under the coordination and supervision of the State Ministry of Foreign Trade and Economic Relations and in cooperation with the State's Ministry of Transport and Communications should develop appropriate and realistic strategies for the ratification and implementation of the protocols to the Convention on Long-range Transboundary Air Pollution.

(d) The responsible body should ensure reconstruction of the EMEP station and recommending BiH emissions data reporting to the EMEP bureau.

This recommendation has not been implemented. Preparations for ratification are only just starting.

Chapter 6: Management of waste and contaminated sites

Recommendation 6.1:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with municipalities, should implement the Solid Waste Strategy. To strengthen its implementation, they should:

- (c) *Raise awareness and organize training in separation, recycling and reuse; and*
- (d) *Undertake feasibility studies for organizing the separate collection of municipal waste and constructing facilities for its recycling and reuse. The studies should also examine economic aspects including the potential market for such recycled or reused goods.*

Part (a) of the recommendation has been implemented to a limited extent, through pilot projects in municipalities in Sarajevo Canton, and in Maja and Doboje municipalities.

Part (b) of the recommendation has not been implemented, although a very limited number of feasibility studies may have been undertaken. However, the results of any such studies are not available.

Recommendation 6.2:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with the municipalities and municipal enterprises, should:

- (a) *Draw up an inventory of legal landfills and elaborate plans to close dumping sites;*
- (b) *Continue the rehabilitation of non-sanitary legal landfills;*
- (c) *Speed up the implementation of the projects for the construction of regional sanitary landfills meeting European Union standards, including the introduction of a monitoring and maintenance system;*
- (d) *Enforce the law against fly-tipping of both municipal and demolition waste along rivers and other unauthorized sites; and*
- (e) *Increase municipal waste services to cover the entire population in the cities and towns and begin to provide such services in rural areas.*

(a) The inventory of legal landfills for municipal waste has been drawn up.

(b) The rehabilitation and construction of non-sanitary landfills to be used as regional landfills started with Phase 1 of the World Bank Solid Waste Management Project (2002-2010) and continues with Phase 2 (2008–2014). The rehabilitation of non-sanitary legal landfills, which could be used as transfer stations, has not been carried out.

(c) Regional sanitary landfills were constructed under Phase I of the World Bank Solid Waste Management Project (2002–2010), but with difficulties for some landfills.

(d) Enforcement of such a law remains a challenge and the problem persists.

(e) It is difficult to judge whether this recommendation has been implemented, as there is no reliable data available to compare the waste collection rate in BiH. Efforts to expand the coverage of waste collection have been made but face financial difficulties. The Swedish International Development Cooperation Agency (SIDA) is assisting in a project to improve waste collection by providing investment support and capacity-building for more than 30 municipalities. The project is expected to start 2010.

Recommendation 6.3:

(a) *The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should take the initiative to set up a single intra- and inter-entirety working group on waste with representatives of the following ministries:*

- *Federation : Ministry of Physical Planning and Environment, Ministry of Health and Ministry of Energy, Mining and Industry; and*
- *Republika Srpska: Ministry of Physical Planning, Civil Engineering and Ecology, Ministry of Health and Social Welfare, and Ministry of Economy, Energy and Development;*
- (b) *The intra/inter-entity working group on waste should, inter alia:*
 - *Agree on the respective responsibilities of the ministries with particular regard to hazardous and medical waste management; and*
 - *Set a timetable for preparing all implementing by-laws for the Laws on Waste Management, including regulations, norms and standards consistent with EU practices. Urgent attention should be given in particular to preparing by-laws dealing with the management of hazardous and medical waste.*

(a) Although such a working group on waste does not exist, in the past, cooperation on environmental issues, including waste, between the two entity Governments has been carried out by the Environmental Steering Committee (ESC), which was established in 1998. The two entities are de facto sharing information on waste management, and laws are, in general, harmonized between them. In addition, the above-mentioned Ministries have been working together on the management of medical and hazardous waste in both entities.

(b) Limited progress has been made, but further efforts are needed to prepare the necessary by-laws to implement the Law on Waste Management. A by-law for medical waste has been prepared, but not for hazardous waste.

Recommendation 6.4:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with relevant ministries, should:

- (a) *Draw up an inventory of storage facilities for industrial hazardous waste, medical waste and obsolete pharmaceuticals;*
- (b) *Organize the separate collection and environmentally sound incineration of medical waste;*
- (c) *Continue the encapsulation and cementation of obsolete pharmaceuticals;*
- (d) *Conduct environmental audits of industrial "hot spots" and prepare time-bound work plans for their rehabilitation; and*
- (e) *Introduce a system for the separate collection of oil waste and reuse.*

(a) This has not been done. However, preparation of the inventory is planned under Phase 2 of the World Bank Solid Waste Project.

(b) The entity laws on medical waste obliged health-care facilities to carry out separate collection of medical waste. Very infectious medical waste is incinerated/chemically sterilized before transfer for final treatment.

(c) Efforts have been made on this, although obsolete pharmaceuticals still remain in the country.

(d) To a certain extent efforts have been made, especially in the Tuzla region.

(e) Not yet done.

Recommendation 6.5:

The Federal Ministry of Physical Planning and Environment in cooperation with its Ministry of Energy, Mining and Industry and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology in cooperation with its Ministry of Economy, Energy and Development should:

- (b) *Conduct feasibility studies on the introduction of environmentally sound processes for the use of some categories of waste or its components as secondary raw material; and*
- (c) *Prepare relevant legal acts on recycling and processing secondary raw material.*

The recommendation has not been implemented.

Chapter 7: Water management

Recommendation 7.1:

(a) *The BiH State Government, in cooperation with the FBiH Government and the RS Government, should develop and adopt a new State water law based on the EU Directive that would, inter alia, establish autonomous river authorities.*

(b) *The FBiH Government and the RS Government should adopt the new water law, which will include institutional responsibilities for both water protection and water management.*

At the State level, no law relating to the water sector has been adopted. On the other hand, new laws on water have been adopted by the entities, in January 2008 for FBiH and June 2006 for RS. The two laws are broadly in line with the EU Water Framework Directive 2000/60/EC.

Recommendation 7.2:

(d) *The BiH State Government, in cooperation with the FBiH Government and the RS Government, should develop a new water policy pursuant to the memorandum of understanding with the European Communities and taking into account the Millennium Development Goal to halve by 2015 the proportion of people without access to safe drinking water.*

(e) *The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with their Ministries of Agriculture, Forestry and Water Management, should start now to:*

(v) *Ensure that drinking water is safe by properly treating abstracted water;*

(vi) *Develop water protection strategies consistent with the new State policy and the Millennium Development Goals;*

(vii) *Establish standards and norms for water quality which are consistent with international ones; and*

(viii) *Reduce the leaks from the distribution systems by repairing and replacing old and damaged pipelines. The number of households with access to public water-supply systems should be substantially increased.*

(f) *As soon as they are established, the river authorities should develop plans for river basin management.*

(a) At the State level, there is no water management strategy at present. In FBiH, this will be covered by the project on water policy in BiH financed by the European Commission, which is underway and is expected to end in 2011. The RS Law on Water calls for the development of a strategy for integrated water resources management. The strategy will provide a basic planning document for directing the development of the water sector in RS. The framework plan for water management development in RS was adopted in September 2006 at mid-phase in the process of development of this strategic planning document. The framework plan defines criteria, conditions and limits for further development of the water infrastructure and management of the entire water sector.

(b) At the entity level, the FBiH draft water management strategy has been prepared. This draft law is awaiting adoption by the FBiH Parliament. The draft is available on the websites of the FBiH Ministry of Agriculture, Water Management and Forestry and the water agencies. The main document on water management in RS is the Action Plan for Implementation of the Framework Plan for the Development of Water Management. The preparation of corresponding strategic documents for the development of the water sector until 2020 in RS has not yet started.

As described in chapter 7 above, no significant progress has been made on reducing the leaks in the water distribution system.

(c) Due to the fact that until now the underlying strategy has not yet been adopted in FBiH, and not yet drafted in RS, these plans do not exist at present. However, water management plans for river basins have to be adopted by the water agencies, by 2012 for FBiH and by 2015 for RS. According to the limited information available, these plans will put more emphasis on flood management and protection against the detrimental effects of water, such as defence from ice, protection from erosion and drought control.

Recommendation 7.3:

The entity Ministries of Agriculture, Forestry and Water Management in cooperation with the entity Ministries of environment and with the help of the public enterprises for water management, should assist and require the municipalities to reduce the negative impact of waste-water discharges by:

- (d) Reducing the leaks from public sewerage systems and by building new sewerage systems to substantially increase the number of household connections;*
- (e) Building municipal waste-water treatment plants of environmentally high standards and with sufficient treatment capacity in all the big cities; and*
- (f) Ensuring that sewage sludge from municipal treatment plants and septic tanks is sufficiently treated for use as fertilizer in agriculture or disposal in sanitary landfills.*

Implementation of projects on draining and treatment of wastewater has not been started. However, based on the European Union DABLAS project and the national QM I + II (2005-2008) project, two priority lists of sanitation projects for BiH have been developed. According to them, the preparation of the following projects and programmes has started:

- GEF project: Water Quality Protection (wastewater treatment plant (WWTP) Trnovo and Odžak, and phase I of WWTPs Živinice and Mostar)
- GEF project: Neretva and Trebišnjica Management (WWTP Konjic and Ljubuški)
- EIB project: Water and Sanitation in FBiH
- World Bank/IPA 2010: reconstruction and improvement of WWTP Sarajevo
- IPA 2007: water mains Živinice and WWTP Medugorje
- Grant project WWTP Bihać (KfW)

See chapter 7 above.

Recommendation 7.4:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology, in cooperation with the other ministries involved, should take appropriate action to reduce the negative environmental impact of waste-water discharges from industry and seepage water from mining and manufacturing by:

- (a) Ensuring that water treatment plants are reconstructed and brought on stream again;*
- (b) Drawing up a survey of the most polluting mining, manufacturing and other industries; and*
- (c) Instructing mining, manufacturing and other industries to take immediate and appropriate action to stop or reduce the discharges where drinking-water resources are seriously threatened.*

As with the management of domestic wastewater, no significant measures to reduce the pollution of water by industry have been implemented since the first EPR, due to lack of funds. For FBiH, there is a regular survey on the biggest industrial polluters, which is followed up by analysis of wastewater discharges carried out by authorized laboratories in FBiH. These analyses are updated every two years.

Recommendation 7.5:

The proposed environment agency, with the Federal Ministry of Agriculture, Water Management and Forestry and the Republika Srpska's Ministry of Agriculture, Forestry and Water Resources, should work in close cooperation with the new river authorities on an urgent basis to reduce the impacts of floods. Steps to be taken include:

- (a) Improving and repairing, in cooperation with the regional and local authorities, existing flood protection systems and building new ones in exposed areas that do not have them, and taking non-structural*

measures for flood protection, in particular the conservation or rehabilitation of natural wetlands and retention areas; and

(b) Drawing up a comprehensive national flood disaster strategy, which includes preparedness, mitigation, recovery and reconstruction.

There is no flood defence strategy at State level, but there are strategic documents at the entity level. In FBiH, besides the above-mentioned draft water management strategy, the Main Flood Prevention Plan was adopted in 2008 (FBiH OG No. 23/08). In RS, the Action Plan for Sustainable Control of Flooding Risk in the Danube River Basin was adopted and implemented in the territory of the Sava River sub-basin. This plan covers the period from 2010 until 2021.

Chapter 8: Biodiversity and forest management

Recommendation 8.1:

The Federal Ministry of Physical Planning and Environment, the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology and the Logistics Unit of Brčko District should accelerate the drafting and adoption of a national biodiversity strategy and action plan. The national strategy should be in line with the Pan-European Biological and Landscape Diversity Strategy. It should be drawn up in close cooperation between the two entities and Brčko District.

As required by the Convention on Biological Diversity (CBD), the draft national biodiversity strategy and action plan (NBSAP) was prepared in 2008 with support from UNDP/GEF, underwent a process of external consultation and since that time has been under consideration by the entities. There is still no final decision or agreement between the entities on the text. Disagreements are over the financial aspects and the specifics of the related action plan. However, adoption is expected by the end of 2010. The NBSAP is in general in line with the Pan-European Biological and Landscape Diversity Strategy (PEBLDS) as a European instrument for CBD implementation.

Recommendation 8.2:

The Federal Ministry of Agriculture, Water Management and Forestry, the Republika Srpska's Ministry of Agriculture, Forestry and Water Resources, and the Brčko District Department of Agriculture and Forestry, in cooperation with the respective entity ministries of environment, should:

(c) As soon as possible, develop a national forestry strategy (including forest use and timber industry) applying Strategic Environmental Assessment. The Strategy should ensure the gradual recovery of the forests and sustainable forest management, and include the development of a programme for forest certification as a first step toward sustainable forest use and management.

(d) Draw up action plans on the basis of the strategy.

There is no national forestry strategy. Based on the constitutional and political realities, both entities are currently developing their own forest strategies and respective action plans and forest programmes. The completion of this work is expected after finalization of the full forest inventory, which is ongoing in both entities with the support of the World Bank. The strategies state that forest recovery and sustainable forestry are the key principles. Since 2003, both entities have made significant progress in voluntary FSC certification. Thus in RS all public forests have been certified and in FBiH a number of forest management enterprises have also received their certificates. It will still be a challenge to incorporate FSC requirements into existing and provisional 10-year forest management plans. However, the key challenge for the country today is not the need for new strategies but full and effective implementation of existing instruments and documents.

Recommendation 8.3:

(d) The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should:

- *Finalize and adopt red data books for plant and animal species according to the IUCN classification; and*
- *Accelerate the development of the by-laws for the respective Laws on Nature Protection.*

(e) *The Federal Ministry of Agriculture, Water Management and Forestry and the Republika Srpska's Ministry of Agriculture, Forestry and Water Resources should similarly accelerate the development of by-laws for the respective new Laws on Forests.*

(f) *In developing these two sets of by-laws, it is essential for the Federal Ministry of Physical Planning and Environment and Ministry of Agriculture, Forestry and Water Management and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology and Ministry of Agriculture, Forestry and Water Resources to work together in order to define clearly the institutional responsibilities for nature reserves, protected areas and national parks.*

Neither entity yet has a red data book. Nevertheless, some work has been done during the period since the first EPR to draw up lists of rare and endangered species of fauna and flora. These lists were prepared within a number of different projects. There is a need to integrate all existing data and provide for completion of inventories and status reports.

In both entities some by-laws were adopted, both for nature protection, for example on hunting and protected areas, and for forestry. However some gaps still exist, in particular in relation to red data books, Natura 2000, the implementation of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the utilization of non-timber forest products, as well as on biodiversity monitoring, data collection and processing.

Both entities have adopted a great number of forestry-related by-laws. FBiH is in the process of adopting a new forest law, which may require revision of existing regulations, as well as preparation of new ones. This needs to be done as a matter of priority, to enable a smooth transition to implementation of the new law.

In FBiH, clear institutional responsibility for protected areas has been achieved: the Ministry of Environment and Tourism is responsible for designation and management of federal protected areas and the Ministry of Physical Planning plays a role in planning and identification of areas to be designated as protected. At the canton level, designation of the responsible body is up to the canton governments. In RS the Ministry of Physical Planning, Civil Engineering and Ecology is institutionally responsible for all protected areas. In both entities, the respective Forestry Departments play a role in the designation of new forest protected areas and provide forestry control of them. However, coordination of activities between different authorities, including the tourism sector, is still a significant gap.

Recommendation 8.4:

The Federal Ministry of Physical Planning and Environment and the Republika Srpska's Ministry of Physical Planning, Civil Engineering and Ecology should:

- *Substantially enlarge the system of protected areas;*
- *Apply the IUCN classification system for protected areas; and*
- *In developing these activities, apply to Natura 2000 network.*

According to the first EPR, protected areas covered 0.55 per cent of the national territory. In the 2009 First National Report to CBD, protected areas cover 0.67 per cent of the country and in 2010 they cover 0.84 per cent. Since 2003, only three new protected areas have been announced. Thus, some progress has been made since 2003, but the overall situation with the system of protected areas is still at the same level as in 2003. There is no cadastre of protected areas in either entity or at State level, so there is still no reliable data on numbers, area, boundaries and status of protected areas in the country. Although there is new legislation for protected areas, effective implementation would require it to be tailored to specific designated categories and types of protected areas.

Both entities have applied the International Union for Conservation of Nature (IUCN) categorization to their system of protected areas through their legislation (laws on nature protection).

Research on implementation of the EU Habitat Directive in BiH and on identification of annexed species and habitats, and Natura 2000 sites, is an ongoing process under a WWF project expected to be completed by 2012. There are no activities on Natura 2000 at government level, other than a few workshops organized by the FBiH Ministry of Environment and Tourism. It is very important that practical steps are taken for implementation of the results and proposals from existing projects, including the Emerald network. At institutional level, the main obstacle is the capacity of the responsible bodies.

PART III: ECONOMIC AND SECTORAL INTEGRATION

Chapter 9: Tourism and environment

At the State level

Recommendation 9.1:

The State's Ministry of Foreign Trade and Economic Relations in cooperation with the relevant entity ministries and supported by international experts should:

- (c) Coordinate the development of a State strategy for sustainable tourism. It should be made an integral part of the development strategy for tourism. This policy could provide a cohesive framework and ensure that sustainability criteria are consistently applied in all laws and regulations affecting tourism development.*
- (d) Develop adequate legislative tools for the sustainable development and management of the tourism sector. These tools should address the problem of unreliable statistics and the introduction of sustainable tourism indicators*

This recommendation was not implemented as no agreement was reached on this issue. However, a working group on tourism has been set up consisting of representatives of MoFTER, the FBiH Ministry of Environment and Tourism, the RS Ministry of Physical Planning, Civil Engineering and Ecology, Brčko District, trade chambers, NGOs dealing with tourism activities, and associations from both entities. With the support of international organizations, the working group is drafting a State strategy and a law on tourism.

At the entity level

Recommendation 9.2:

- (d) On the basis of the State strategy for sustainable tourism, the Federal Ministry of Trade and the Republika Srpska's Ministry of Trade and Tourism should develop local guidelines and regulations for tourism development and introduce eco-standards for tourist premises.*
 - (e) A tourism master plan, also based on the overall policy for sustainable tourism, should be developed for both entities, to allow for appropriate economic, environmental, spatial and resource planning and the development of the necessary infrastructure in tourist areas.*
- The competent bodies for tourism, in cooperation with the Ministries of Culture and the Environment Ministries, should make an inventory of all sites of tourist interest. As the sites are identified, individual management plans for their sustainable development should be prepared.*

Since the strategy has not yet been adopted, no further work has been carried out. There have been some attempts to make progress, but so far nothing concrete has been achieved. Tourism plans have not been developed, although some lists of tourist attractions exist, mostly developed by the tourist associations.

Recommendation 9.3:

The competent authorities for tourism, in cooperation with local authorities, should undertake a survey of local products that could be supported and included in a sustainable tourism development plan.

Some initiatives have started in some municipalities, but without a law to refer to. No product-labelling mechanism exists in the country or at the entity level.

Recommendation 9.4:

The responsible authorities should establish the following economic instruments to support sustainable tourism:

- Entrance fees at national parks;
- An eco-tax on tourist infrastructure putting environmental pressure on nearby protected areas, to be paid by the owners (e.g. hotel owners); and
- Fiscal incentives for tourist premises that implement eco-standards, such as “green hotels” that save and protect resources such as water and energy. These could take the form of tax breaks or reduced licensing fees.

There are entrance fees at one national park (see chapter 9 above). The last two parts of the recommendation have not been implemented.

Recommendation 9.5:

(d) *The responsible authorities for tourism, in cooperation with the Ministries of Education, should introduce training programmes in tourism and sustainable tourism in the curricula of higher education institutions.*

(e) *The Environment Ministries in cooperation with the Ministries of Education should develop and introduce environmental awareness programmes in primary and secondary schools.*

(f) *The responsible authorities for tourism, in cooperation with the Environment Ministries, should carry out widespread campaigns to raise awareness of sustainable tourism particularly among hotel managers, tourist agencies, tourists and municipal authorities. The campaign should make use of workshops, community meetings, brochures and posters, and other media.*

(a) Some training for civil servants took place when funds were available. Training at the local level is organized by international organizations.

(b) See implementation of recommendation 3.4

(c) No such campaign has taken place so far.

Chapter 10: Agriculture and environmentRecommendation 10.1:

(a) *A State ministry for agriculture should be established and should be responsible, inter alia, for preparing the State’s agricultural policy, facilitating inter-sectoral coordination, developing certification and promoting exports, standardizing the inspectorates, protecting agricultural biodiversity and cooperating with international partners. If no new ministry is established, these functions should be delegated to the State’s Ministry of Foreign Trade and Economic Relations.*

(b) *As a matter of priority, the State ministry responsible for agriculture should prepare a strategy and action plan for sustainable agricultural development to clearly set targets for agricultural development, provide the means to achieve these targets, address the links between agriculture and other sectors, and identify measures to promote sustainable rural development.*

(c) *From this strategy and action plan, the State ministry responsible for agriculture should derive a law on agriculture and sustainable development.*

(a) No State ministry for agriculture has been established. However, the Sector for Agriculture, Food, Forestry and Rural Development (SAFFRD) within MoFTER became operational in mid 2007. Amongst its tasks, SAFFRD is responsible for:

(i) Defining the framework for agro-economic policies in cooperation with the relevant bodies of the entities and Brčko District;

(ii) Adopting strategies which precisely define sector-wide and specific objectives;

(iii) Regular (at least once a year) monitoring and evaluation of the implementation of the strategies and assessment of individual agro-economic policies, their effectiveness and efficiency and their contribution to overall sector objectives in both financial and economic terms, and providing guidance on adjustment of

measures to be taken, in line with the findings from such assessment;

- (iv) Coordinating the implementation of all policy instruments to ensure that they are in line with sector strategies and relevant international agreements;
- (v) Regularly revising and updating strategies and action plans in full consultation and agreement with the relevant bodies of the entities and Brčko District and other institutions;
- (vi) Ensuring the harmonization and coordination of sector programmes, laws, regulations and measures necessary for the negotiation and fulfilment of relevant international commitments, including all necessary conditions linked with European integration at all levels of government;
- (vii) Ensuring the establishment and coordination of all necessary institutions and other bodies, coordinating the development of necessary measures and procedures for the fulfilment of international requirements and trading standards as they relate to SAFFRD, and their harmonization and integration within the EU;
- (viii) Ensuring the establishment and development of the necessary mechanisms of consultation, communication, coordination and cooperation with the authorities at all levels relevant to the effective management of the agriculture, food and rural development sector;
- (ix) Ensuring the promotion and dissemination of scientific knowledge and innovative practices for the agriculture, food and rural development sector, in coordination with other relevant authorities;
- (x) Producing annual reports on the state of the sector;
- (xi) Ensuring the effective coordination of all inspection services within SAFFRD;
- (xii) Guidance and supervision of the Veterinary Office, the Plant Health Protection Administration and the Administration for Harmonization of Payment Systems, and which further rights and duties shall be regulated by other laws and regulations;
- (xiii) Ensuring coordination with the Food Safety Agency.

(b) SAFFRD, in cooperation with all stakeholders from the State, the entities and Brčko District has drafted the Strategic Plan on Agriculture, Food and Rural Development Harmonization for the period 2008-2010.

(c) Framework Law on Agriculture, Food and Rural Development, No. 50 was adopted in 2008. The law includes sections on all key priorities identified in the functional review of the agriculture sector and regulates the definitions of terms to be used in legislation on the agriculture, food and rural development sector; the objectives, principles and mechanisms for development of strategies and policies; the structures and competencies at all levels of authority; institutional support structures and services, their functions and linkages; monitoring and evaluation mechanisms; and administrative and inspection supervision. The law includes sustainable development provisions as well as associated regulations

Recommendation 10.2:

The Federal Ministry of Agriculture, Water Management and Forestry, the Republika Srpska's Ministry of Agriculture, Forestry and Water Resources and the Government of Brčko District should prepare multi-year sustainable rural development programmes.

RS has already adopted a multi-year programme, Brčko District has developed one, which has not yet been adopted, and FBiH is in the process of developing one. RS is more advanced in this field due to its more agricultural structure compared to FBiH. However, sustainable rural development activities are ongoing throughout the country.

Recommendation 10.3:

The Federal Ministry of Agriculture, Water Management and Forestry, the Republika Srpska's Ministry of Agriculture, Forestry and Water Resources and the Brčko District Government should establish, strengthen and support public advisory services and promote their activities in order to improve the transfer of knowledge in agriculture and to raise the rural population's awareness of environmental issues.

RS has developed public advisory services and established an agency for public advisory services, which has five offices in the entity. In FBiH, the authorities have mandated institutes working on agricultural issues to carry out this task. The two entities are developing parallel strategies on public advisory services and the two

strategies will be harmonized. The legislative framework has yet to be developed on the strategies that have been adopted by the entities.

Recommendation 10.4:

(a) *The State's Ministry of Foreign Trade and Economic Relations, or another appropriate State body, should establish clear guidelines for the preservation of agricultural biodiversity.*

(b) *The Federal Ministry of Agriculture, Water Management and Forestry, the Republika Srpska's Ministry of Agriculture, Forestry and Water Resources and the, Brčko District Government with the entity' ministries for environment, in consultation with cantonal governments and local authorities, should jointly prepare actions plans for agro-biodiversity preservation and provide funds for the preservation of indigenous and traditional animal breeds and plant species within the framework of the Convention on Biological Diversity (see recommendation 8.1).*

The recommendation has not been implemented. An agro-biodiversity strategy will be drafted in the medium term.

Recommendation 10.5:

The State ministry responsible for agriculture, in coordination with the Federal Ministry of Agriculture, Water Management and Forestry, the Republika Srpska's Ministry of Agriculture, Forestry and Water Resources and the, Brčko District Government should develop and adopt the necessary legislation to support and promote organic farming. In drafting this legislation, the relevant directives of the European Union should be taken into account.

There is no organic farming promotion or the necessary legislation to support it. However, there are some initiatives being undertaken, through the organic farming association. The country still lacks certified laboratories in this field.

Chapter 11: Environmental concerns in the energy sector

Recommendation 11.1:

The State's Ministry of Foreign Trade and Economic Relations, in coordination with the Federal Ministry of Energy, Mining and Industry and the Republika Srpska's Ministry of Economy, Energy and Development, should extend the restructuring and liberalization of the electricity sector initiated for the power sector to other parts of the energy sector.

The recommendation has been in large part implemented. The electricity sector has been liberalized, a regulatory commission at the State level has been established, together with two new State companies and one transmission company at the State level. At the entity level, in RS a regulatory commission responsible for the energy sector, including electricity, has been created. In FBiH, only electricity is regulated by the regulatory commission. As regards the gas sector, there is no gas law at the State level. Relevant laws and regulations are being developed at the entity level.

Recommendation 11.2:

The State's Ministry of Foreign Trade and Economic Relations, in coordination with the Federal Ministry of Energy, Mining and Industry and the Republika Srpska's Ministry of Economy, Energy and Development, should develop an energy policy and common energy legislation that encourages a more sustainable and economical energy system based on renewable energy sources, co-generation of heat and power and end-use energy efficiency, and that sets a well defined framework for the performance of energy activities.

The recommendation has been partially implemented. At the State level there is no energy strategy, although it is possible that an energy policy for BiH as a whole will soon be developed. However energy strategies exist at the entity level. Since 2002 there has been an electricity law at the State level. At the entity level, RS adopted a new energy law in 2009 but FBiH has not done so yet.

Although the potential for further development of renewable sources of energy is significant, there is no strategy for renewable energy at the State level. However international obligations exist, through the participation of BiH in the Energy Community Treaty and the Energy Charter Treaty and its protocol on energy efficiency. These provide guidelines for future policy in this field.

Still to be done: an energy strategy document for BiH is lacking and still needed. The EU directive on renewable energy and energy efficiency is under discussion in BiH, but no laws on energy efficiency exist at any level. Cogeneration exists in FBiH to a limited extent but not in RS.

Recommendation 11.3:

The State's Ministry of Foreign Trade and Economic Relations should coordinate the activities of the entity ministries of energy and other relevant environmental authorities in implementing the environmental management instruments such as environmental impact assessments for proposed energy developments and integrated permits (IPPC) for industrial installation.

The recommendation has been partially implemented. All new investments need an environmental impact assessment (EIA). Without an EIA no project can start. Integrated permits are issued for new but not for existing industrial installations.

Recommendation 11.4:

The State's Ministry of Foreign Trade and Economic Relations, in coordination with the Federal Ministry of Energy, Mining and Industry and the Republika Srpska's Ministry of Economy, Energy and Development, should:

- (a) *Adjust energy prices gradually to reflect the real cost of production, including environmental impact, taking into account the UNECE Guidelines on Reforming Energy Pricing; and*
- (b) *At the same time protect vulnerable consumer groups through needs-based social assistance programmes instead of through subsidized energy prices.*

- (a) This part of the recommendation has been partially implemented. Liberalization is progressing, but in general tariff levels remain low and do not yet reflect costs, primarily for social reasons
- (b) RS has adopted a social assistance programme and FBiH is expected to do so in the near future.

Recommendation 11.5:

The State's Ministry of Foreign Trade and Economic Relations, in coordination with the Federal Ministry of Energy, Mining and Industry and the Republika Srpska's Ministry of Economy, Energy and Development, should:

- (a) *Encourage the further rehabilitation of the thermal power, industrial and heating sector to increase energy efficiency and seek to meet EU emission levels and climate change requirements; and*
- (b) *Develop new green production capacity of heat and electricity.*

- (a) Many activities have taken place in the thermal power, industrial and heating sector aimed at rehabilitation of thermal power plants and enhancing energy efficiency. Efforts are being made to increase the level of heat and power from renewable sources and, in big cities, to restore district heating systems which were destroyed during the war.

- (b) Efforts to strengthen hydropower, in many cases extensive, have been made (see chapter 6) and some limited examples of solar power generation exist, especially in the south of the country. Wind power plants and small hydropower plants are also on the Government policy list.

Chapter 12: Human health and environment

Recommendation 12.1:

The Federal Ministry of Health and its Public Health Institute, the Republika Srpska's Ministry of Health and

Social Welfare and its Public Health Institute, and the Brčko District Government should work closely with the ministries responsible for developing comprehensive monitoring systems for air quality, drinking water quality, waste and hazardous waste disposal, ionizing radiation sources, food production and distribution chain from primary producer to consumer, in order to:

- (e) *Develop an environmental health information system;*
 - (f) *Collect health statistics data;*
 - (g) *Promote epidemiological studies on environmental health-related issues; and*
 - (h) *Create a register of all ionizing radiation sources.*
- (a) Not implemented. According to the legislation, data is collected from ministries in their areas of competence. RS and FBiH have not developed indicator systems.
- (b) Partially implemented. Progress has been made, for example with the establishment of the food safety agency in 2006. Food safety again scores much better in terms of statistics (see 12.3 below).
- (c) Partially implemented. Such studies exist but remain at the level of faculties and academia. The State Food Safety Agency is also a research institute and as such cooperates with all research institutes in BiH that conduct studies. The FBiH Public Health Institute also participated in studies on environmental health in 2002 and 2006. Such studies were also undertaken by the RS Public Health Institute.
- (d) Partially implemented. Since 2009, there is a new agency at the State level, the State Agency for Nuclear Radiation. This agency is in charge of creating the register.

Recommendation 12.2:

- (c) *The FBiH Government should speed up the adoption of its NEHAP.*
 - (d) *Both Governments have to develop an operational plan for the implementation of NEHAP.*
- (a) *Not implemented. FBiH has developed and drafted a National Environmental Health Action Plan (NEHAP) but never adopted it.*
- (b) *Not implemented. Operational plans for implementation of the NEHAPs have not been developed.*

Recommendation 12.3:

All Ministries which currently have responsibilities for food safety, i.e. the Federal Ministry of Health, Ministry of Agriculture, Water Management and Forestry, Ministry of Energy, Mining and Industry, and Ministry of Trade, and the Republika Srpska's Ministry of Health and Social Welfare, Ministry of Agriculture, Forestry and Water Resources, Ministry of Economy, Energy and Development, and Ministry of Trade and Tourism, should:

- (a) *Develop a common national food safety strategy within the framework of the organization of the Ministerial Conference on Food and Nutrition in 2006;*
 - (b) *Establish a State-level body responsible for food safety;*
 - (c) *Prepare a new State food safety law that meets the requirements of the European Union;*
 - (d) *Develop secondary legislation in the area of veterinary, phyto-sanitary and food quality control;*
 - (e) *Implement hazard analysis and critical control point (HACCP) systems in the food industry;*
 - (f) *Establish a State register of food manufacturers; and*
 - (g) *Identify an organization to participate in the Codex Alimentarius Commission.*
- (a) Not implemented.
- (b) Fully implemented. The State Food Safety Agency was established in 2006 pursuant to the Law on Food Safety.
- (c) Fully implemented. The Law on Food Safety was adopted in 2006.
- (d) Thirty-two by-laws or other documents of secondary legislation have been developed. Another 30 documents have been developed and await approval. At the time of the review in 2010, 25 more by-laws

were being developed. The food safety agency is in charge of initiating and drafting pieces of legislation in cooperation with other relevant stakeholders, based on high quality cooperation with ministries at the state level and entity-level ministries, chambers of commerce, consumer associations, and academic and research institutes. The regulations are adopted by the Council of Ministers.

(e) Partially implemented. The State Food Agency is preparing a package of regulatory documents that would enable these systems to be implemented.

(f) Fully implemented. The State register falls within the mandate of the State Food Agency, which is constantly compiling data for the register.

(g) Fully implemented. Since 2007, the Food Agency has been a permanent member of this Commission and also participates in the European Food Safety Agency.

Recommendation 12.4:

The Federal Ministry of Health and Ministry of Physical Planning and Environment, the Republika Srpska's Ministry of Health and Social Welfare and Ministry of Physical Planning, Civil Engineering and Ecology, and the Brčko District Department of Health, Public Safety and Community Services should together establish mechanisms for closer collaboration in the development of an integrated approach to environmental health management and the development of effective procedures to carry out environmental health impact assessments.

Recommendation not implemented. An essential prerequisite for developing an integrated approach to environmental health management, as well as effective procedures to carry out environmental health impact assessments, is the use of IT systems, which currently do not exist.