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**ENVIRONMENTAL POLICY IN SOUTH-EASTERN EUROPE**

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through the Ad Hoc Working Group of Senior Officials

BACKGROUND DOCUMENT



UNITED NATIONS



# Environmental Policy in South-Eastern Europe



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## 1. Introduction

### 1.1 South-Eastern Europe (SEE) region

For the purpose of this report South - Eastern Europe includes Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Kosovo, UN administered territory under UN Security Council Resolution 1244.

This region, sometimes also referred to as Western Balkans is highly diverse in terms of its geography, ecosystems, ethnic groups, religions, culture and economies, but also shares common turbulent history. The region includes four of Europe's bio-geographical areas: Mediterranean, Central European, Alpine and Pannonic. Owing to its location at the boundaries between past empires and cultures the major religions are Catholic, Orthodox and Islam.



The diversity of this part of Europe was severely abused during a series of conflicts and instability between 1991 and 2001 that followed the dissolution of Yugoslavia and collapse of socialist political systems. Since then, reconstruction and rehabilitation have been the main common characteristics of the region. Due to the complexity of this process, the region today still represents a geographical gap in the enlarged European Union, but has a clear European perspective that includes high quality of environment and sustainable development.

The EU perspective is currently the main political driver for changes in the region, structured around the Stabilisation and Association Process and Accession Process for Croatia and Macedonia FYR. These processes run on a country by country basis, depending on individual fulfilment of the Copenhagen criteria for EU membership. Croatia has already entered negotiations for EU membership, showing the way for the neighbouring countries in the region.

The views and information presented in this Report are those of the authors, country consultants and individual contributors. They do not represent official views of UNDP or the individual countries in the region. The use of names, maps or other statements in the report in no way implies any position of UNDP regarding the international status of countries or their parts.

### 1.2 Purpose and scope of the Report

The purpose of the Environmental Policy in South-Eastern Europe report is to provide an overview of the progress towards the development and implementation of environmental and sustainability policy in South-Eastern Europe. It has been prepared for the Belgrade Ministerial Conference in 2007. Its scope is to help the Environment Ministers and other decision makers in South-Eastern Europe, the EU, donor countries, international organisations and other interested parties in their decision making about their future work in the areas covered by the Report. This document also supplements the Pan-European Environmental Report prepared by the European Environment Agency (EEA) and the Eastern Europe, Caucasus and Central Asia (EECCA) Report prepared by the Organization for Economic Co-operation and Development (OECD), as well as a number of other reports covering South-Eastern Europe and/or specific topics. The Report generally covers the period from 2000 until 2007 as no similar report on the region was prepared for the Kiev Conference in 2003.

The Kiev Conference ministerial declaration touched on South-Eastern Europe saying:

“We welcome and support the REReP in its efforts to strengthen institutions, enhance cooperation and reduce environmental and health threats in South-Eastern Europe . We appreciate the joint work done by the countries of South-Eastern Europe and REC for Central and Eastern Europe to facilitate REReP implementation and we invite the donor community further to support and develop the process.”

Already before Kiev all the countries in the South-Eastern Europe had expressed their goal to become members of the EU and their efforts have mainly focused on this process. Facilitation of EU accession in the field of environment has also become the overall purpose of the Regional Environmental Reconstruction Programme that was agreed by the countries of the region and the EU Commission in 2000, and reviewed in 2003. The countries of the region are at various stages of the accession or association and stabilisation process with the EU. This ranges from membership negotiations in the case of Croatia, to negotiations towards an SAA in the case of Serbia, and to Kosovo, UN administered territory under UN Security Council Resolution 1244, where the SAA negotiations have not started yet.

In this context, the reference framework for this report is provided by the strategic policy documents of the EU, principally the Sixth Environmental Action Programme [1600/2002/EC] and the Renewed Sustainable Development Strategy [10917/06/EC]. Progress in development and environmental policies

1 The EC and Montenegro have initialled the SAA in March 2007

in the region is also assessed against a broader framework of the Millennium Development Goals agreed by world leaders at the Millennium Summit in 2000 and the Agenda 21 as agreed in Rio de Janeiro in 1992 and reviewed in Johannesburg in 2002.

For the specific issues and priorities of South-Eastern Europe the framework is provided by the Regional Environmental Reconstruction Programme as expressed in the Joint Statements of Skopje from March 16, 2000 and October 15, 2003. The Joint Statement of Skopje from 2003 presents a wide scope of environmental policy reform under way in South-Eastern Europe ranging from transposition and implementation of individual items of EU legislation to integration of environmental objectives into sectoral policies. Joint Statement of the Regional Ministerial Conference "Environmental Policies in the Context of European Integration" in Montenegro in 2006, involving representatives of Ministries of Environment, Agriculture and Tourism, provides the framework for sectoral integration. The Energy Community Treaty signed in Athens on October 25, 2005 provides the framework for energy related environmental and sustainability issues and the UNECE Strategy for Education for Sustainable Development agreed in Vilnius in 2005 provides a context for adapting educational systems to the needs of sustainable development.

The Report tries to provide a picture of progress achieved in recent years across this broad range of issues. The selection of topics covered by the Report was made by representatives of UNDP Country Offices in consultation with country focal points at the Regional Workshop on September 14 and 15, 2006. It is based on the scope of the reference framework as well as the policy development and implementation situation in the region. The Report does not include individual country profiles, as they have already been presented in the report "Environmental Snapshot of South-Eastern Europe: REReP Country Profiles" published by the REC in 2006.



## 2. Securing sustainable development through membership in the European Union

### 2.1 Sustainable development objectives

#### The (environmental) challenge



In response to ... environmental challenges, the concept of sustainable development addresses the need for an increased understanding of the complexity and interconnectedness of socio-economic and environmental systems. It fundamentally calls for a change in the way society approaches its own economic, social and environmental future. And increasingly Europe has been, and is, embracing the concept of sustainable development, as more and more responses to environmental challenges make use of integrated approaches that link environmental policies directly to, in particular, transport, energy and agricultural policies.

#### Introduction

In the early nineties, at the time of the Rio Conference, the countries of South–Eastern Europe region were going through the period of dissolution and instability, and they could not fully participate in the UN Conference on Environment and Development (UNCED) and its follow-up. Since then, all the countries of South-Eastern Europe have declared accession to the EU to be a main strategic goal, recognising the EU Sustainable Development Strategy as a guiding framework for their future development. However, with the exception of Croatia whose GDP per capita is higher than that of some EU member states, the level of economic development and the social situation in the countries of South-Eastern Europe is lagging behind the countries of the EU, calling for radical measures to increase the economic growth.

Unsustainable development patterns are a real concern in trying to achieve rapid economic growth. In coping with this challenge, a country can either integrate environmental and social objectives into economic development or delay investment into social and environmental development until higher levels of GDP are achieved. In making this (implicit or explicit) choice the key issues are:

- » Whether the currently most frequent policy approach of mechanically copying development patterns and regulatory framework from more advanced countries is economically, environmentally and socially sustainable?
- » Whether Sustainable Development is truly recognised as the main strategic goal by the government, society and business sector at all levels?

This choice is reflected in the level of integration of sustainable development goals in the overall development policies and in the distribution of responsibilities for sustainable development among the government institutions.

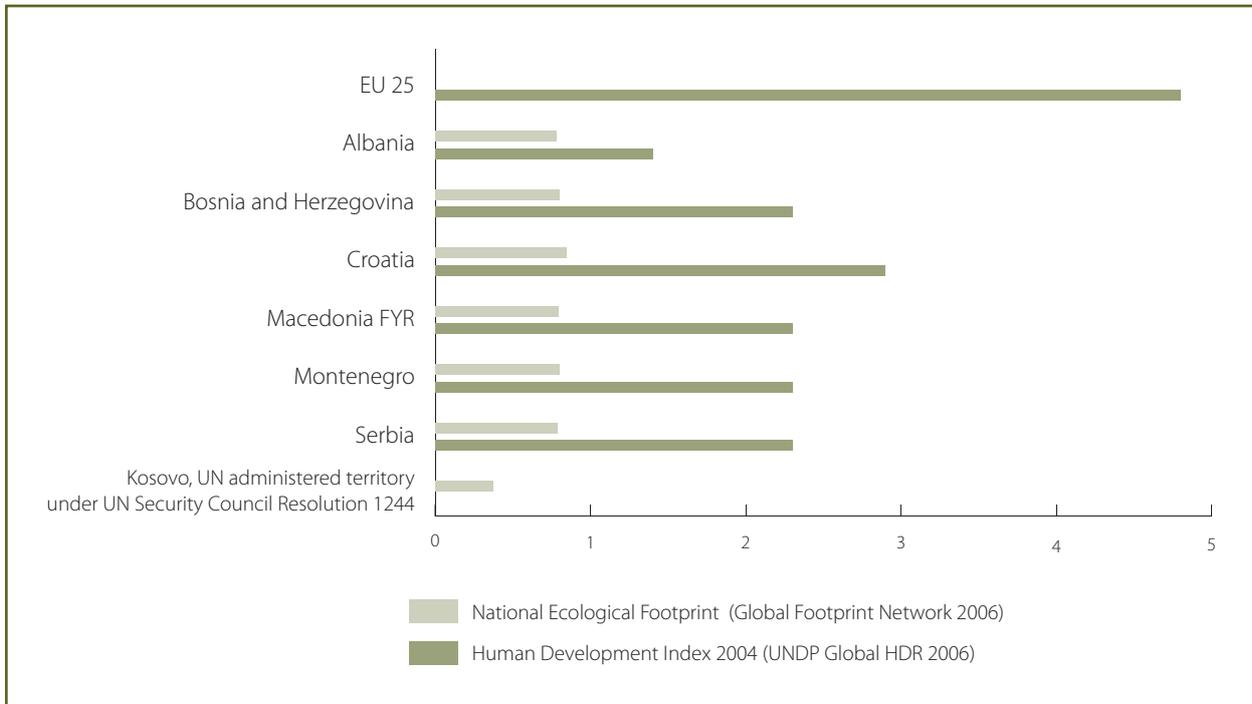
Sustainable Development was defined by the Brundtland Commission in its report, *Our Common Future* in 1987, endorsed by Agenda 21, adopted at the UN Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992 and reviewed at the World Summit on Sustainable Development in Johannesburg in 2002. Sustainable development is the main general goal for the national policies of all the members of UN, the international policies, and has been in particular integrated into the core of EU policies and law. Agenda 21 proposes the following specific actions related to the national level:

- » To strengthen institutional structures to allow the full integration of environmental and developmental issues, at all levels of decision-making, and
- » To adopt a national strategy for sustainable development.

The EU Sustainable Development Strategy (10917/06/EC) sets out the following overall policy guiding principles:

- » Promotion and protection of fundamental rights
- » Solidarity within and between generations
- » Open and democratic society
- » Involvement of citizens
- » Involvement of businesses and social partners
- » Policy coherence and governance
- » Policy integration
- » Use of best available knowledge
- » Precautionary principle
- » Making polluters pay

The Sixth Community Environment Action Programme [1600/2002/EC] calls for the adoption of policies and approaches that contribute to the achievement of sustainable development in the countries which are candidates for accession ('Candidate Countries') building on the transposition and implementation of the *acquis*.

Figure 1: Key sustainable development indicators<sup>1</sup>

## Recent progress

After the period of conflicts and instability the countries focused first on post conflict reconstruction and building the institutional infrastructure for democracy and market economy. This process has been strongly supported by donor financial and technical assistance. The first post conflict priorities were focused on return of refugees and displaced persons as well as on rehabilitation of basic infrastructure, such as water supply, electricity, roads and accommodation.

In the mid term, the main goals include establishment and maintenance of the rule of law and macro-economic stability, acceleration of economic growth and improvement of living standards through, inter alia, completing privatisation processes, attracting higher level of foreign direct investments, and development of small and medium sized enterprises. In most countries a process of decentralisation and de-concentration of government is under way, transferring significant responsibilities related to sustainable development to municipalities and regions.

<sup>1</sup> Human Development Index (HDI) and Ecological Footprint are chosen as composite indicators that flag how well are countries performing on a range of sustainability issues. HDI is derived from life expectancy, GDP and living standard, and education (adult literacy, enrolment rates) indicators; the higher level of HDI indicates higher level of human development. Ecological Footprint measures how much land and water area a human population requires to produce the resources it consumes and to absorb its wastes under prevailing technology, i.e. it gives an indication of the society's demand on nature in comparison with the nature's capacity to meet that demand. The higher value of the indicator means that a given economy is more resource intensive.

Privatisation and restructuring of state and socially owned enterprises has contributed to economic growth, but unemployment is still high, discrepancies in economic power among regions and citizens are growing, trade imbalances are significant and rising, external debt is high, state intervention in the economy is significant and often counter-productive from the sustainability point of view (including costly subsidies to loss-making enterprises). Restructuring of industry has led to a gradual improvement in its environmental performance in some countries, but new problems have emerged across the region such as demographic decline in rural areas and the pressure of uncontrolled urbanisation around the cities and along the coasts.

With donor support, the governments have embarked on the process of institution building and development of policy and legal frameworks. All countries have developed and adopted national environmental action plans (or other forms of environmental strategies), and poverty reduction strategies aiming to deal with the environmental and social dimensions of sustainability. New environmental and natural resource legislation has been adopted aiming to achieve compliance with EU directives and international agreements, but its implementation is still in its early stages.

In the framework of the EU Accession process Croatia developed the Strategic Development Framework in 2006 setting the platform for sustainable development in the period 2006 – 2013. In Montenegro, the National Strategy for Sustainable Development was adopted in early 2007, while participatory processes towards preparation of sustainable development strategies continue in Macedonia FYR and Serbia (due to be finalised in 2008 and 2007 respectively). Montenegro has also set up a government office supporting the National Council on Sustainable Development in order to co-ordinate the sustainable development strategy with the implementation of the declaration of Montenegro as an ecological state from 1991. Bosnia and Herzegovina established the National Steering Committee for Environment and Sustainable Development with its Secretariat based in the Ministry for Foreign Trade and Economic Relations of Bosnia and Herzegovina in 2002. Furthermore an Inter-Entity Environment Body was established in 2006 based on the new environmental legislation.

On paper, all countries in the region subscribe to sustainable development, but in practice, sustainability has yet to be integrated in the mainstream economic and social development policies.

### Montenegro ecological state

The Montenegrin Parliament adopted a Declaration on Montenegro as an Ecological State in 1991. The 1992 Constitution reaffirmed the Declaration by determining that Montenegro is a “democratic, social and ecological state”. During the political and economic crisis of the 1990s, however, little was done to implement these provisions and the concept of ‘ecological state’.

Since 2000, efforts are under way to make the concept operational and implement it through the development of strategic documents and more recently through the harmonisation of national legislation with EU environmental *acquis*. Sustainable development has gained prominence in policy making and in the public during recent years with the implementation of various initiatives on institutional strengthening for sustainable development.

The National Strategy for Sustainable Development was prepared through a participatory process in 2005 – 2006, and was adopted at the beginning of 2007. The National Council on Sustainable Development was expanded to ensure wider stakeholder representation, and has taken a more prominent role in inter-sectoral co-ordination and the integration of environmental concerns into policy making. Some experiences have been gained with new tools for the integration of sustainability requirements into policy making, through, for example, Strategic Environmental Assessment pilots for the National Spatial Plan and Energy Strategy. There is still a large scope for improved application of market based instruments.

Even though the ‘ecological state’ concept and sustainable development are generally supported by a wide range of stakeholders and even though the number of sustainability instruments is growing, risks of unsustainable development choices remain high.

[www.gom.cg.yu/minzastsred/vijesti.php?akcija=rubrika&rubrika=33](http://www.gom.cg.yu/minzastsred/vijesti.php?akcija=rubrika&rubrika=33)

[www.mturizma.vlada.cg.yu/vijesti.php?akcija=rubrika&rubrika=257](http://www.mturizma.vlada.cg.yu/vijesti.php?akcija=rubrika&rubrika=257)

[www.greenambassador.org](http://www.greenambassador.org)

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## Public Administration Reform in Bosnia and Herzegovina

The need to change the existing public administration into an efficient citizens-oriented administration has been recognised during the Peace Implementation Council (PIC) meeting in 2003, where BiH authorities together with representatives of the international community placed Public Administration Reform (PAR) at the heart of their policies. The reform aims at good governance, defined as user-oriented, efficient, transparent, and participatory governance of public affairs in the best public interest, at all levels from the state to the local level.

A Memorandum of Understanding on “Functional Reviews of Public Administration” was signed between the Council of Ministers of Bosnia and Herzegovina, the Government of the Federation of Bosnia and Herzegovina, the Government of the Republika Srpska, and the European Commission in 2003. The programme comprised seven (7) functional reviews as well as a System Review of cross-cutting issues. The sectoral reviews were focused on in-depth functional analyses of the following sectors: Agriculture, Economy, Education, Environment, Health, Police, Justice, and Return of Refugees and Displaced Persons.

The Functional Review for the Environment was conducted between August 2004 and April 2005. Outputs included identification of structural and performance weaknesses of the existing system, and a proposed reform concept to be implemented according to the action plan in the timeframe of 2005 - 2010. Some of the activities for implementation of the recommendations are ongoing, such as preparation of a state-level legislation and creation of the Environmental State Agency.

### Macedonia’s second National Environmental Action Plan (NEAP 2)

After the conclusion of the Stabilisation and Association Agreement, the Republic of Macedonia has committed to revise its approach to legislation, policies, economic instruments, etc., in the area of environment, in order to implement the environmental *acquis* of the European Union. The MoEPP, with the support of EU CARDS Programme, developed the second National Environmental Action Plan (NEAP 2) upgrading the first one developed in 1997. The Plan was adopted by the Government in March 2006.

NEAP 2 clearly defines the environmental problems and the measures and activities required for to resolve them in the course of six years, thus establishing a flexible framework for achievement of the main goals: continuation of the process of approximation with the EU environmental policy, implementation of an integrated policy as a way of overcoming the challenges, establishment of directions for environmentally sustainable approaches, enhancement of the extent of compliance with the obligation deriving from regional and global agreements and opening of new perspectives and involvement of the international system for environment protection. The NEAP Monitoring Body that is expected to be created will have a key role to report to the Government on the NEAP implementation on regular basis.

<http://www.moepp.gov.mk/WBStorage/Files/Vtor NEAP 2006.pdf>

**Table 1: Strategic documents governing sustainable development**

Country / territory	National Sustainable Development Strategy	Other top level national policy documents setting sustainability objectives
Albania		Draft National Environmental Strategy
Bosnia and Herzegovina	Environmental strategies under preparation	Mid-term Development Strategy
Croatia	Under preparation.	Strategic Development Framework 2006 – 2013
Macedonia FYR	Under preparation	Second National Environmental Action Plan, 2006
Montenegro	Adopted (2007)	
Serbia	In final stage of preparation	National Environmental Strategy and Action Plans pending approval of the Parliament National Strategy for Sustainable Use of Natural resources and Goods under preparation
Kosovo, UN administered territory under UN Security Council Resolution 1244	Under preparation	“Kosovo/a Development Strategy Draft 1+1” (2006) “Environmental Strategy and Sustainable Development for Kosovo Project” (2004)

**Table 2: National co-ordination body for sustainable development**

Country / territory	National institution responsible for integration of sustainable development
Albania	Ministry of Environment, Forestry and Water Administration
Bosnia and Herzegovina	Council of Ministries of Bosnia and Herzegovina, Unit for Economic Planning and Implementation of the Mid-term Development Strategy National Steering Committee for Environment and Sustainable Development Inter-Entity Body for Environmental Protection.
Croatia	National Committee for drafting and implementing sustainable development strategy chaired by the Minister of Environment, Physical Planning and Construction
Macedonia FYR	Ministry of Environment and Physical Planning
Montenegro	National Council for Sustainable Development supported by Office for Sustainable Development
Serbia	National Sustainable Development Council, chaired by the Deputy Prime Minister
Kosovo, UN administered territory under UN Security Council Resolution 1244	UNMIK EU Pillar Ministry of Finance and Economy Ministry of Environment and Spatial Planning

## Open issues

As the concept of sustainable development is only recently being integrated as a central part of the policy making system, monitoring of relevant data and indicators is relatively undeveloped (especially related to environment and poverty). Information relevant to sustainable development is collected and published as part of individual, usually *ad hoc* or sector based initiatives, often supported by international organisations and donors, but is not well related to traditional economic indicators.

Even with increasing attention to the integration of environmental and social objectives into economic decision making and sectoral strategies, better political understanding of the complexity and drivers of sustainable development is needed. In the absence of this, economic growth remains the predominant driver for the policies of countries and territories. Short-term economic gains (especially in the conditions of low GDP) seem politically more attractive than the longer-term benefits associated with integration of sustainability requirements into policy making.

In several countries/ territories, corruption and lack of transparency have been identified as important obstacles to any policy development and its implementation. Regardless of the significant capacity building efforts invested in public participation and cooperation, institutional inertia remains strong. The level of communication and co-ordination among government institutions (different ministries, for example) should be strengthened, better to share responsibilities and avoid duplication of efforts for sustainability.

A limited number of successful experiences with sustainability within the countries are gradually becoming widely known. In the future they may be able to influence the individuals and organisations to seriously consider sustainable development as a viable option, and provide a domestic knowledge base for their multiplication.

### Way forward

Each of the SEE countries is in position to make shortcuts in progress towards sustainable development by applying mechanisms tailored to their conditions and learning from the experience of more developed countries. The moment may be right for such an exercise, as the lack of clear vision and strategy of what EU membership would mean in practice is probably the most important barrier for more efficient mobilisation of existing resources in a majority of the countries.

Raising awareness and building capacities for applying sustainable development principles at policy formulation and implementation levels should continue. The horizontal and vertical communication channels of the relevant governmental institutions should be strengthened; partnerships with other stakeholders will play an increasingly important role in the future.

### Further information

UNDP, The 2006 Human Development Report, available on <http://hdr.undp.org/hdr2006/>

Ministry of Environment, Forestry and Water Administration of Albania, Draft National Environmental Strategy for Albania, 2006

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Republic of Croatia, Strategic Development Framework 2006 – 2013, available on <http://www.strategija.hr/Default.aspx?sec=97>

UNDP, Draft Kosovo Human Development Report 2007

Government of the Republic of Montenegro, National Strategy for Sustainable Development, 2007

UNDP, Serbia Human Development Indicators, 2006

## 2.2 Development, environment and quality of life

### The (environmental) challenge



The challenge for all countries remains to increase the economic welfare and wellbeing of society while, at the same time, reducing impacts on the environment, reducing waste generation, and limiting consumption of energy and resources.

Beyond the immediate harm caused to individuals and society, and also the associated non-income impact on society, such as poor education, health care and other services, poverty can have direct implications for environmental quality. People with low incomes are more likely to use inefficient fuels that have a direct adverse impact on air quality and to live in substandard housing that has inadequate insulation and therefore cannot be heated efficiently. They are also more likely to have inadequate sanitation and substandard water supplies and disposal. Poverty can also drive directly destructive behaviours such as unsustainably cutting down trees for fuelwood, or grazing animals in protected areas.

### Introduction

The economies of the region have been largely based on agriculture, natural resources and industry. These sectors used to employ large numbers of people, but at the same time they caused resource depletion and pollution. Many traditional economic activities have collapsed since 1990, leading to improvement of environmental quality but causing widespread unemployment, poverty and migration to large cities and abroad. After the suffering of the nineties, the governments in the region are working to improve the quality of life, with their citizens expecting of standards of living similar to those of Western Europe.

Even though people in SEE live in a region of great natural beauty and high cultural and social capital most of them have yet to benefit from the ongoing changes. There is strong awareness that, for the future, the main competitive advantages of the countries in the region are their natural (minerals, coal, water, forests, high biodiversity, scenic beauty) and human resources with a relatively high level of education. But it is difficult to put the environmental, social and cultural capital to work for the improvement of livelihoods and to create competitive advantage for the economies in the region. At the moment there is a risk that global unsustainable consumption patterns take over indiscriminately.

Whereas extraction of natural resources is increasing to meet the domestic and international demand, and global consumerism patterns provide the perception of growing prosperity (transport, packaging, housing, urban sprawl, services replacing social networks), efforts and solutions to base sustainable development on the unique characteristics of the region and preservation of its indigenous resources are scarce. The opportunities to support existing sustainable consumption and production patterns actively and strengthen the existing social and environmental capital do not seem to be recognised and taken advantage of sufficiently. In order to address this issue, Croatia with UNEP and Central European

Initiative conducted a regional workshop on Sustainable Consumption and Production in SEE in 2005. The Eco label assigning system has been carried out in Croatia since 1993 and the Croatian Center for Cleaner Production has been active since 2000. Thanks to its experience and activities undertaken in this field, Croatia is a lead country in drafting the Category II document on SCP in SEE for the Environment for Europe (EfE) Conference in October.

The objectives of the EU Sustainable Development Strategy (10917/06/EC) are:

- » Environmental protection;
- » Social equity and cohesion;
- » Economic prosperity;
- » Meeting international responsibilities of the EU.

**Table 3: Quality of life - key indicators**

Country / territory	GDP per capita (PPP US\$)*	Life expectancy at birth (years)	Adult literacy rate (% ages 15 and older)	Infant mortality per 1000	Poverty (% of population below national poverty line)	Unemployment %	Economic growth %
Albania	4 978	73.9	98.7	14.9	25	16	6
Bosnia and Herzegovina	7 032	74.3	96.7	13	20	45	5.8
Croatia	14 368	75.7	98.1	5.7	11.1	11.2	4.8
Macedonia FYR	6 610	73.9	96.1	11.3	30.2	35	4
Montenegro	6 641	73.2	96.4	7.8	10.9	18.6	6.3
Serbia	3 516	73.2	96.4	11.5	10.5	32.4	6.7
Kosovo, UN administered territory under UN Security Council Resolution 1244	1 124 Euro**	74	93	35	44	44 – 60	2

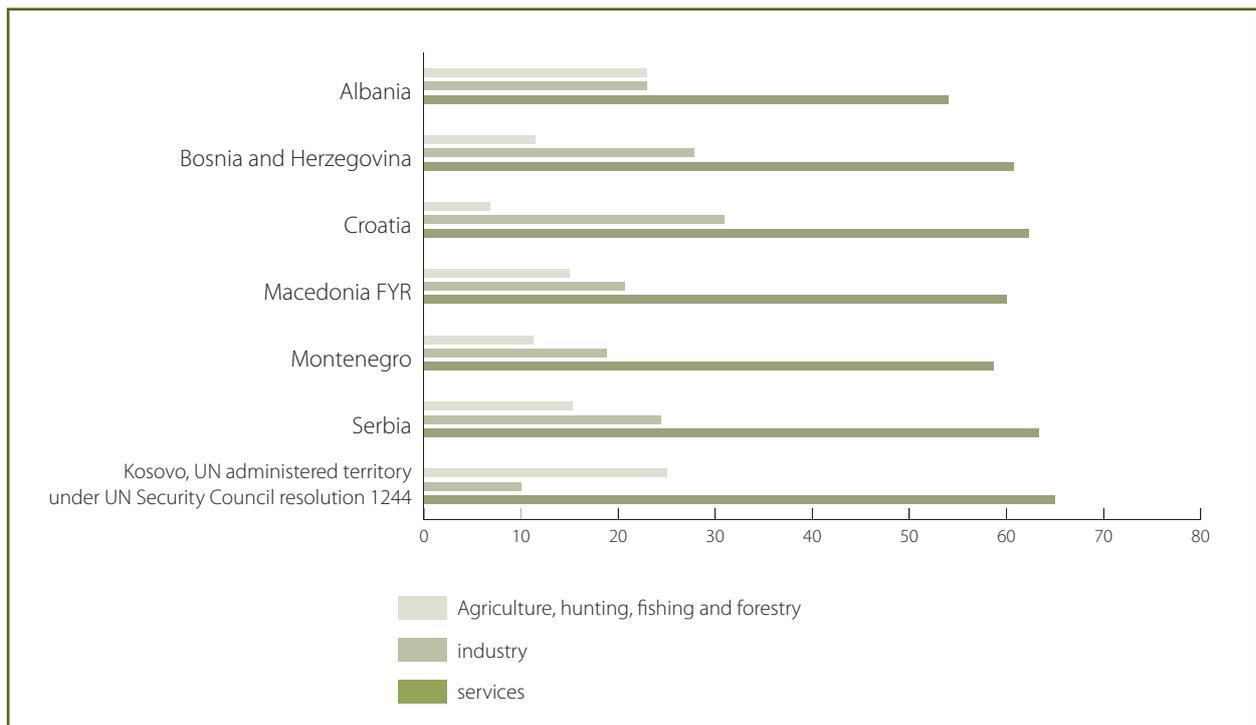
\* The last available official data

\*\* Indicator Not available in PPP US\$

### Recent progress

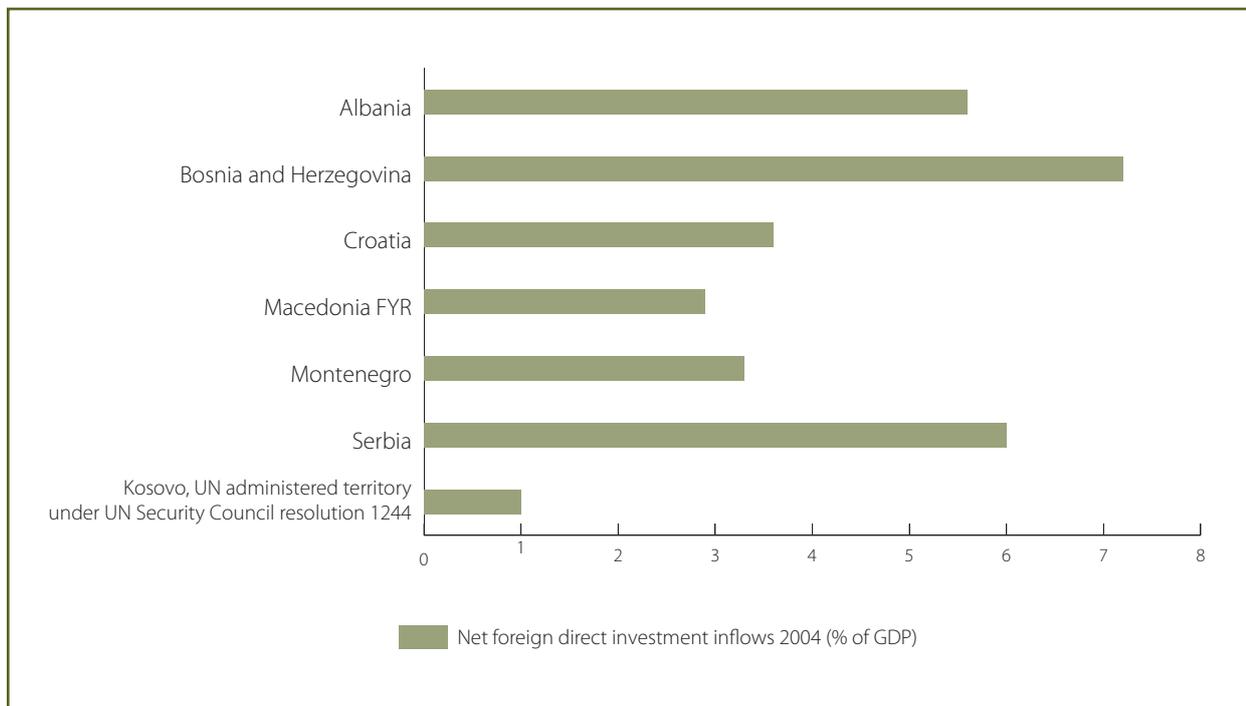
Liberalisation of trade, privatisation and restructuring of enterprises, inward financial flows from donors, and remittances from abroad contributed to an economic growth which is higher than the EU average. Owing to the relatively low cost of labour, relative vicinity to the EU markets, perceived lack of adequate environmental enforcement and demand for energy and raw material, resource extraction industries (energy, minerals, metals) are the first target for foreign investments and are currently among the most successful industries even if they generate only a minor share of GDP. For example, in Bosnia and Herzegovina industrial production grew strongly in 2005, recording an aggregate increase of 9.8% (FBiH 6.1% and RS 19.8%) over 2004. At the same time, the resumption of industrial activity has led to a renewed increase in pollution in certain areas.

Figure 2: Structure of GDP



In Croatia and Montenegro tourism has rebounded and become a major sector of the economy, while others still see it as a future opportunity to generate new work opportunities. However concerns are rising about the level of sustainability of the tourism industry when it comes to the rapid use of land for new construction in the most valuable areas such as coasts or protected areas. Both Croatia and Montenegro are making efforts to move away from mass tourism although in the case of Montenegro, mass tourism seems to have prevailed in the recent period.

Figure 3: Foreign direct investment



Investments in roads and water supply have had a positive effect on the economy and quality of life; water supply improvements in particular have had a positive impact on environmental health. On the other hand, rapid increase in car ownership is causing air pollution, congestion in urban areas and large number of accidents. In case of construction of new highways, negative consequences include significant land take and segmentation of habitats.

From before 1990, the region inherited extensive public service systems such as health, education and social security. In these times of economic hardship, these systems are under severe pressure. They are undergoing reforms, but still have to catch up. Owing to insufficiently coherent policy the social security systems are not able to cover basic needs even though a substantial share of public expenditures is allocated for this purpose. In such conditions, the issue of how the benefits from economic recovery are shared is very important for development and for improving the wellbeing of all members of society. As a result of the parallel structures in the 1990s, education levels have deteriorated in Kosovo, UN administered territory under UN Security Council Resolution 1244, and the current state of education remains poor.

## Investments in public water supply system at the Montenegro Coast

Some 145,000 inhabitants connected to public water supply system in the coastal region of Montenegro experience water shortages and regular interruptions in water supply during the summer months. The coastal region is at the same time of central importance to Montenegrin tourism industry – the main contributor to country's economic recovery during the past few years. Water shortage is seen as one of the main obstacles to further tourism development. Problems were particularly pronounced in 2003, when supply interruptions of around 20 hours per summer day were recorded in some municipalities.

At the same time, water losses are very high owing to run down facilities and distribution networks. According to the Water Supply Master Plan (2006), unaccounted for water exceeded 70% of total water production in some municipalities. Technical losses were estimated at 37 (summer) to 53% (winter months), which amounts to 0.6 to 5.1 m<sup>3</sup> per hour per km of pipeline.

In response, a two-phased programme of urgent rehabilitation measures was implemented in 2004 and 2005. The programme resulted from a co-operation of public water supply companies of the coastal municipalities and was funded by a consortium of local banks (total investment over the two years was around 7M Euro). First phase measures included installation of 26 new pumps and 42 water flow metres, as well as replacement of more than 10 thousand metres of pipes. The programme contributed to better water supply along the coast in 2005 and 2006 seasons, and showed that there were further possibilities for improvements through detection of losses and rehabilitation of network.

## Open issues

Information on the existing social capital and the structural changes of recent years, especially in the rural areas is limited. Most countries in the region lack a systematic analysis of their own competitiveness, taking into account natural and social capital.

The period of economic and social change has brought about changes in values system, including the rise of consumerism, depletion of solidarity and social/family networks and similar issues. This has led to a stark division between perceived winners and losers of transition.

Overall economic problems remain grave across much of the region; unemployment is high, discrepancies in economical power among regions and citizens are growing, trade imbalances are significant and rising, external debt is increasing, state intervention in the economy is significant and still includes examples of costly subsidies to loss making enterprises. The challenges of economies in transition make it hard to focus on social and environmental issues and longer-term policies for sustainable development.

In most countries and territories, intellectual input and dialogue about policies is increasing in the framework of donor assistance to the relevant institutions. The emerging public dialogue about future development options for the countries has yet to generate a vision that would be based on the value of existing natural and social capital and not the assumption of progress by becoming more like countries of Western Europe (in a sense of high consumption, resource intensive Western economies).

### Way forward

Strong economic growth and progressing integration of the region into the EU are set to bring the stability, security and prosperity that the population of the region is hoping for. However this process will only be successful, if it preserves and enhances the environmental and social capital rather than sacrificing it. The countries in the region need increasingly to use their unique positive characteristics to build a competitive advantage in Europe beyond low cost labour and resource extraction.

There is significant scope for stronger leadership in developing a positive vision of development that would focus on the quality of life of the citizens based on economic, social and environmental capital. This vision can be developed and implemented by strengthening the indigenous capacity for policy development and implementation.

### Further information

Bosnia and Herzegovina, Functional Review of the Return Sector in Bosnia and Herzegovina, Final Report March 2006, available on the Delegation of the European Commission to Bosnia and Herzegovina web site

[http://www.delbih.ec.europa.eu/en/reviews/Return\\_report\\_PDF/engFRRFinalReport.pdf](http://www.delbih.ec.europa.eu/en/reviews/Return_report_PDF/engFRRFinalReport.pdf)

UNDP, Human Development Report for Croatia: Unplugged: Faces of Social Exclusion in Croatia, 2006, available on

[http://www.undp.hr/upload/file/130/65078/FILENAME/WEB\\_engleska\\_verzija.pdf](http://www.undp.hr/upload/file/130/65078/FILENAME/WEB_engleska_verzija.pdf)

## 2.3 Stabilisation and Association, EU Accession

### The (environmental) challenge



With the European Union's increase from 12 member countries (in 1990) to 27 member countries (in 2007) the implementation of common environmental regulations spread across most of Western and Central Europe. And as the countries of South-Eastern Europe are preparing for accession, environmental regulations of the EU are and have been transposed and implemented in this part of Europe also.

### Introduction

EU Accession is a principal objective of all countries in South-Eastern Europe. The EU Accession Process entails the imperative that EU criteria are fulfilled in all sectors, including successful transposition and implementation of the environmental *acquis communautaire*. This requires capacity, time and significant financial resources, especially in environmental infrastructure.

In the past years the tone to the accession process in the SEE countries has mainly been given by the political aspects of the Copenhagen Criteria. After fulfilling the political criterion and receiving the Candidate Country status, Croatia and Macedonia FYR are now focusing on the transposition and compliance with the *acquis*. In remaining countries and territories, the challenge for the environmental sector is not just transposition, but also how it can make a positive contribution to political and economic development. The strategic policy choice is between waiting for the overall process to carry environmental policy with it, and taking leadership in terms of EU environmental policy requirements, thus actively contributing to the development of democracy and the market economy in the country.

EU Accession is strongly motivated by foreign relations policy, but the transposition and implementation of the environmental *acquis* will bring significant domestic benefits. These benefits will depend on the appropriate priorities and modalities of implementation based on the management and absorption capacity of national institutions. The most important benefits in terms of influencing overall future development come from implementing horizontal legislation that entails relatively small costs. Environmental infrastructure, on the other hand, has a high cost and long time schedule and priorities should take in to account affordability, and in most countries, very limited domestic funding and lack of human resources.

After successful membership negotiations with 12 countries leading to 2004 and 2007 enlargements, the EU has started accession negotiations with Turkey and Croatia, given Macedonia FYR candidate country status and offered a European perspective to the other countries of the South- Eastern Europe. To join the EU, a candidate must meet three Copenhagen criteria:

- » Political: stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities;
- » Economic: existence of a functioning market economy and the capacity to cope with competitive pressure and market forces within the Union;
- » Acceptance of the Community *acquis*: ability to take on the obligations of membership, including adherence to the aims of political, economic and monetary union.

According to the Enlargement Strategy and Main Challenges 2006 – 2007 (COM(2006) 649), EU enlargement policy is today based on three basic principles:

- » consolidation of commitments,
- » conditionality, and
- » communication.

Consolidation of the EU enlargement agenda means that the Union is cautious about assuming any new commitments, but honours its existing commitments towards countries already in the enlargement process. This commitment is a strong incentive for the countries to continue their reforms.

Rigorous but fair conditionality is applied to all candidate and potential candidate countries and territories. Every step forward depends on each country's own progress in meeting the necessary conditions at each stage of the accession process. This approach helps to consolidate reforms and to prepare new Member States to fulfil their obligations upon accession.

For enlargement to be a success, the EU must ensure the support of its citizens. Member States need to take the lead in communicating effectively the enlargement process and in particular the benefits that it offers for EU citizens. Democratic legitimacy remains essential for the EU accession process.

## Recent progress

The first priority on the course towards the EU in the environment sector has been to strengthen administrative capacity and co-ordination at national and local level. By the year 2000 all the countries in the region had established ministries of environment that are responsible for the development of legislation and policy, as well as for co-ordination of donor projects in the field of environment.

**Table 4: Progress of EU Accession**

Country / territory	Status of EU Accession
Albania	Stabilisation and Association Agreement signed in 2005
Bosnia and Herzegovina	Negotiations of the Stabilisation and Association Agreement started in 2005
Croatia	Membership negotiations started in 2005, screening finished in 2006
Macedonia FYR	Candidate country status 2006
Montenegro	Stabilisation and Association Agreement initialled in 2007
Serbia	Negotiations of the Stabilisation and Association Agreement continued in June 2007
Kosovo, UN administered territory under UN Security Council Resolution 1244	Pending resolution of status

With the support of the EU and other donors, the ministries of environment have emerged as leaders in international cooperation and transposition of the *acquis* despite the frequent changes in scope and organisation, the fact that the mandate of none of the ministries in the region covers the whole environment chapter of EU membership negotiations, and limits imposed on the increase of government administration by the IMF and ministries of finance.

All ministries developed National Environmental Action Plans or similar documents with one of the main goals being EU Accession. These were included into the general strategies for the adoption of the *acquis* in the countries that have already prepared such strategies. According to these plans, environmental legislation harmonised with EU regulations is being drafted and rapidly adopted by the Parliaments, usually consisting of framework laws covering horizontal issues and specific laws covering sectors and particular issues. In parallel, work on ratification of international conventions has been one of the important tasks for law makers and parliaments in the region during the 2000s.

Compared with other government sectors, environmental ministries in the region have developed excellent cooperation among themselves and with the EU Commission in the framework of the Regional Environmental Reconstruction Programme, the Environmental Security Initiative and other programmes supported by the UNDP, WHO, UNECE and bilateral donors.

All the countries already collaborate with the European Environment Agency in Copenhagen. Initially this collaboration was mainly dedicated to capacity building and has later evolved into full communication of national information systems with the EEA, resulting in full coverage of the region by the EEA Belgrade Report.

In the recent years focus started to shift from national institutions to capacity building of local and regional authorities and to implementation arrangements. The local capacity for environmental management is very limited except in the large cities. Regarding implementation, several financial analyses in different countries have shown that 15 to 20 years will be needed for construction of the environmental infrastructure with the assumption of a significant increase in the annual rate of investment.

### Regional Environmental Reconstruction Programme (REReP)

The Regional Environmental Reconstruction Programme (REReP) is an initiative under the Stability Pact for South-Eastern Europe that was shaped by the countries of the region themselves – including Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Former Yugoslav Republic of Macedonia, Romania, Serbia and Montenegro and Kosovo (currently under UN interim administration). REReP has been endorsed by environmental ministers from the region at the Ministerial Conference in Skopje in March 2000, together with the officials from the Stability Pact, which effectively made it the official environmental policy of the region. A Task Force comprising the ministers of environment for the countries of South-Eastern Europe, donors, international organisations, institutions and NGOs, guides its implementation. A Secretariat based at the head office of the REC in Hungary co-ordinates the programme. REC is active with project implementation, and it facilitates the dialogue among all REReP stakeholders and provides continual assessment of REReP's priorities.

The countries adopted the programme priorities and translated them into priority projects. They took the lead in project implementation and reporting to the REReP Task Force. The joint efforts to create a co-operative, regional approach to environmental reconstruction in South-Eastern Europe have resulted in significant progress in environmental management since its inception. REReP has become fully operational moving from donors' commitment to more than 100 implemented projects including both projects developed as part of the Quick Start REReP package and those supported through bi-lateral programmes, IFI loans or community instruments such as ISPA, CARDS and LIFE - Third Countries. After a

REReP Task Force reviewed its entire operating mechanism in 2003, REReP's focus was redirected to supporting stabilisation and association processes (SAP). Furthermore, it was firmly embedded into an evolving international framework to ensure its continued existence. REReP is now developing into a vehicle to assist South-Eastern Europe in the long-term goal of European Union integration.

The objectives of the programme are:

- » creation of functioning environmental institutions and the development of a sound, effectively enforced environmental legal and policy framework, which approximates with that of the EU;
- » strengthened civil society, in which the public has access to environmental information and participates in environmental decision making, and environmental awareness is enhanced;
- » measurably reduced levels of environmental pollution, with the corresponding health benefits;
- » minimised environmental pressures arising from economic recovery; and
- » genuine environmental regional cooperation on cross-border issues that meets the obligations of the SAP.

The revised programme structure targets four priority elements:

- 1) institution building;
- 2) support to environmental civil society;
- 3) support to environmental, regional cooperation mechanisms and cross-border projects; and
- 4) reducing environmental health threats and the loss of biodiversity.

The re-establishment of transboundary cooperation, the construction of new networks and South-Eastern Europe's commitment to full implementation of REReP's activities all contribute to mainstreaming of environmental concerns into reconstruction and stabilisation activities.

[www.rec.org/REC/Programs/REREP/](http://www.rec.org/REC/Programs/REREP/)

### Regional Ministerial Conference “Environmental Policies in the Context of European Integration” Miločer, Montenegro 2006

A representative group of Ministers and Ministry Representatives of Environment, Agriculture and Tourism from the SEE met on March 26 to 28, 2006 in Miločer, Montenegro with representatives of international organisations and EU Member States governments. The objective of the conference was to promote the cooperation between the governments in the region and to promote sustainable development by integration of environmental, economic and social policies. The Conference was hosted by the Ministry of Environmental Protection and Physical Planning of Montenegro, with the support of UNDP LO Podgorica and financial assistance of the Government of the Netherlands through the Foundation Open Society Institute.

The participants agreed on the following common vision for the SEE:

*The future of SEE is in the EU. The governance and performance of institutions according to EU standards will secure stability, rule of democracy, prosperity with social justice and high quality of*

*environment through policy integration and cooperation in the region. Through the introduction of EU environmental standards and construction of the required infrastructure, the region will improve the quality of environment and preserve its natural and cultural values, thereby improving the quality of life of the people and generating economic opportunities in terms of tourism and sustainable agriculture. Multifunctional agriculture will provide a base for rural development, preservation of environment and sustainable tourism services. The region will function as a prime tourism destination based on sustainable use of resources (space, water) and local products and services.*

In implementing this vision, a number of opportunities were identified for cooperation and sectoral integration among environment, agriculture and tourism, including:

- » Environmental integration in local territorial development (e.g. coastal zone management) aiming at sustainable tourism and urban development, supported by adequate environmental infrastructure and preservation of valuable agricultural land and activities;
- » Sustainable rural development linking sustainable agriculture, nature conservation measures such as protected areas or Natura 2000 sites, and sustainable tourism in order to achieve social, economic and environmental objectives in the countryside;
- » Marketing tourism in the region based on the natural and cultural heritage and its distinct agricultural products.

The participants supported the following future actions:

- » **Institutional strengthening of environmental institutions** to meet the future needs for policy development, implementation and cooperation within the region and the EU;
- » **Sustainable tourism initiatives** that will develop regional destination competitiveness to access European and international markets based on the quality of nature and culture in the region;
- » **Sustainable agriculture** that will provide a new meaning and additional funds to the rural areas based on integrated approach to rural development;
- » **Joint actions** with a focus on developing capacity for cross-sectoral approaches to sustainable development at the regional, national and local scale.

[www.undp.org.yu/montenegro](http://www.undp.org.yu/montenegro)

**Table 5: Planning for EU Accession**

Country / territory	Planning instrument for environmental accession
Albania	National Environment Strategy (final draft)
Bosnia and Herzegovina	National Environmental Action Plan, 2003 BiH Strategy for Integration in the EU, 2005
Croatia	National Programme for the integration of the Republic of Croatia into the EU (issued annually since 2003; since 2004, it contains environment chapter)
Macedonia FYR	National Strategy for Integration of the Republic of Macedonia to the European Union, September 2004 National Programme for Adoption of the <i>Acquis communautaire</i> , April 2007
Montenegro	National Environmental Approximation Strategy (under preparation, to be completed in 2007)
Serbia	Draft National Environmental Strategy (and Action Plan ) National Strategy for Serbia's Accession to the EU Annual Action Plans for the approximation of Serbia legislation with the EU regulations
Kosovo, UN administered territory under UN Security Council Resolution 1244	Kosovo Environmental Action Plan 2006 – 2010

### Open issues

As EU Accession is a priority, there is relatively good information on the processes of the transposition of laws and of national level institutional development. Information is more limited on the progress at the local and regional level, and in the business sector.

With the exception of Croatia and Macedonia FYR, that are well under way in implementation of EU requirements, the main barriers to progress in EU accession are the political and economic consequences of the wars and instability. These also have a negative impact on the importance given to the environmental *acquis* and similar issues in the national policy debate.

Because of the availability of significant donor funding, in some countries there is a perception that the environment could and should be paid for by the international community and that there is no need to allocate domestic resources to the sector. On the other hand the Croatian Fund for Environment Protection and Energy Efficiency invests roughly 120 MEuro annually for environmental projects. External financial and technical assistance plays an important role in the transposition process, but the lion's share of the compliance costs will eventually have to be borne by the citizens through the cost of environmental services. In relation to this, affordability also represents or will represent an important barrier to progress.

Frequent institutional changes and the distribution of environmental responsibilities among several ministries and government agencies sometimes make it difficult to develop, co-ordinate and implement a coherent accession strategy in the field of environment.

The administrative capacity of the national institutions is improving, but it is still insufficient for both transposition and implementation. The capacity of local and regional institutions is even more limited.

### Way forward

In order to secure sufficient resources for the implementation of the *acquis*, it is important to improve understanding of the magnitude and the complexity of the environment chapter at the level of government and the general public. Environmental policy should be seen as a domestic priority in terms of the benefits it brings to the population and the economy and in terms of costs.

Cooperation with the EU member states and other countries in the region has proved very useful in transferring experiences related to the accession process. Examples include donor projects, twinning and bilateral exchange of information and experience, and technical assistance projects. Bilateral and regional cooperation should be further strengthened.

Clear roles and responsibilities among institutions involved in environmental protection should be established. Preferably one ministry should be responsible for the whole environment chapter both in the

negotiation and inside the country. Alternatively a high level inter-ministerial steering group could be set up to direct, manage, co-ordinate and ensure efficient co-operative arrangements among all government institutions involved in the environmental approximation process.

Governments should be selective in planning and implementing administrative reform, strengthening rather than downsizing the institutions that have important new role to play in the accession process and later in the EU, such as ministries of environment. For example, after the start of EU negotiations Croatia has employed 20 new staff at the MEPPPC. The planning process should be compatible with the goals and timeframe specified in the European Partnerships for each of the SEE Countries and territories.

A strategy to attract and retain professionals with sufficient knowledge and skills required for EU Integration process in the government administration should be devised and implemented in all countries based on the experience of Croatia and Macedonia FYR.

### Further information

REC, Environmental Reconstruction and EU Approximation for SEE, information available on <http://www.rec.org/REC/Programs/REREP/Documents/RERePHighlights2005.pdf>

Bosnia and Herzegovina, Strategy for Integration in the EU, Directorate for European Integrations, 2006, available on <http://www.dei.gov.ba/en/pdf/strategijaIntegriranjaEN.pdf>

Government of the Republic of Macedonia, Secretariat for European Affairs, National Strategy for Integration of the Republic of Macedonia to the European Union, Skopje, May 2005, available on <http://www.sei.gov.mk>

Government of the Republic of Macedonia, Secretariat for European Affairs, National Programme for Adoption of the *Acquis communautaire*, Skopje 2004, available on <http://www.sei.gov.mk>

Government of the Republic of Montenegro, Ministry of International Economic Relations and European Integration, Innovated European Partnership Implementation Plan, March 2006

Commission of the European Communities: "Proposal for a Council Decision on the Principles, Priorities and Conditions contained in the Accession Partnership with Croatia", Brussels 9 November 2005, COM (2005) 556, SEC (2005) 1424

Republic of Serbia, National Strategy for the Accession to EU, 2005, available on [www.seio.sr.gov.yu](http://www.seio.sr.gov.yu)

## 2.4 Development of environmental legislation

### The (environmental) challenge



In many cases environmental progress and the use of integrated policy approaches are hampered by an ‘implementation gap’. While a range of multilateral agreements and declarations on environmental protection and sustainable development have been signed and adopted, a number of these do not see their subsequent full and swift implementation at the legislative level. Thus, continuing with a transition towards sustainable development, as reiterated in the ‘Environment for Europe’ process and amplified by the 2002 Johannesburg World Summit on Sustainable Development, will require a better balance of actions between those focused on specific environmental problems and those focused on internalising the externalities of sectoral activities – and their implementation.

### Introduction

The countries committed to the accession process have to integrate an extensive and complex body of EU and international obligations into their legislation. These obligations have been one of the main driving forces behind legal reform in the region. In transition countries, rapid transposition of legal requirements has created significant implementation gaps that should then be closed in time. One option facilitating the transposition process is to adopt framework environmental acts covering the horizontal issues in an integrated manner and delegating more detailed sectoral provisions to bylaws and the executive branch of the government.

Ideally, international and national policy objectives should be mutually supportive and both should be taken into account to integrate international obligations into the national legal framework. Efficient and effective transposition requires strong domestic capacity for policy and legal analysis comparable with that of the EU and international organisations. This capacity can only be developed gradually by introducing new legislation and policies, and gathering experience with implementation.

In some countries and territories, the ambition to transpose quickly the international requirements with limited available legal capacity has given rise to problems such as (lack of) co-ordination and harmonisation of legislation in a process when several legal texts are being drafted simultaneously by small numbers of experts. Consequently, frequent revisions of the new laws based on gathering track record of implementation agencies have been taking place.

The Sixth Community Environment Action Programme [1600/2002/EC] promotes the adoption of policies and approaches that contribute to the achievement of sustainable development in the Candidate Countries, building on the transposition and implementation of the *acquis*. The environmental *acquis* includes around 300 Directives, Regulations and Decisions in the following sectors:

- » Horizontal Legislation;
- » Air Quality;
- » Waste Management;
- » Water Protection;
- » Nature Protection;
- » Industrial Pollution Control and Risk Management;
- » Chemicals and Genetically Modified Organisms;
- » Noise;
- » Nuclear Safety and Radiation Protection (replaced by forestry as of the end of 2005);
- » Civil Protection;
- » Climate Change.

In addition to this the Kiev Declaration of 2003 explicitly invites the countries that haven't yet done so to sign and ratify the following international environmental conventions and protocols:

- » Aarhus Convention and its Protocol on Pollutant Release and Transfer Registers;
- » Espoo Convention on Environmental Impact Assessment in a Transboundary Context and its Protocol on Strategic Environmental Assessment;
- » Convention on the Protection and Use of Transboundary Watercourses and International Lakes;
- » Convention on Transboundary Effects of Industrial Accidents and their Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters;
- » Convention on Long-range Transboundary Air Pollution and its Protocols on Heavy Metals, Persistent Organic Pollutants and Protocol to Abate Acidification, Eutrophication and Ground-level Ozone;
- » Stockholm Convention on Persistent Organic Pollutants;
- » Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade;
- » Convention on Biological Diversity;
- » Cartagena Protocol on Biosafety.

**Table 6: Progress in transposition**

Horizontal legislation approximation achievements								
Horizontal law fields	Albania	FBiH	Republika Srpska	Croatia	Macedonia FYR	Serbia*	Montenegro*	Kosovo, UN administered territory under UN Security Council Resolution 1244
Environmental impact assessment	Largely (2003)	Partly (2003)	Partly (2002)	Largely (2004)	Largely (2005)	Fully (2004)	Fully (2005)	Largely (2004)
Strategic environmental assessment	Barely (2002)	Partly (2003)	Partly (2002)	Partly (2004)	Largely (2005)	Fully (2004)	Fully (2005)	Barely (2002)
Public participation	Not yet (2003)	Barely (2002)	Barely (2004)	Partly (2005)	Largely (2004)	Fully (2004)	Partly (2005)	Barely
Access to information	Barely (1999)	Barely (2003)	Barely (2003)	Largely (2003)	Largely (2005)	Fully (2004)	Partly (2005)	Barely (2003)
Environmental liability	Not yet (2003)	Partly (2004)	Largely (2004)	Partly (2005)	Partly (2004)	Largely (2004)	Partly (1997)	Not yet

Source: REC, Progress in Environmental Law Drafting in South-Eastern Europe, 2005

\* Assessment for Serbia and Montenegro made by their respective ministries of environment based on the set of new laws adopted in 2004 and 2005

## Recent progress

Recent years have seen rapid progress in legal drafting and adoption of environmental legislation in the SEE. Virtually all of the primary and most of the secondary legislation (the situation varies across countries/ territories) has been prepared, partly with support of EC-funded projects, with the purpose of harmonising it with the relevant EU directives. As a consequence of the start of membership negotiations, the drafting process has been most systematic in Croatia and in Macedonia FYR, while it is in the early phases in Kosovo, UN administered territory under UN Security Council Resolution 1244, owing to uncertainty of the political situation and the fact that the ministry is relatively new.

With respect to scope of the legislation the countries have mostly applied a mixed approach combining both framework (horizontal) and sectoral laws. The Framework Laws on Environment typically incorporate the basic principles of environmental protection, on the basis of which the relevant environmental management procedures are regulated, such as:

- » access to environmental information;
- » public participation in environmental decision-making, environmental impact assessment procedure;
- » precautionary principle;
- » polluter pays principle;
- » integrated environmental permits;
- » plans for control of industrial accidents;
- » control mechanisms available to environmental inspectors.

The sectoral laws include: laws on SEA and EIA; Integrated Pollution Prevention and Control; Waste Management; Non-ionising Radiation; Air Protection; Nature Protection; Ionising Radiation and Nuclear Safety; Packaging and Packaging Waste; Chemicals Management; Biocides; Protection from Noise; Sustainable Use of Resources etc.

#### Assistance in Environmental Law Drafting in South-Eastern Europe

In the framework of REReP, under the leadership of Bosnia and Herzegovina and with EU funding REC conducted a regional project on Assistance in Environmental Law Drafting between 2001 and 2005. The objectives of the project were:

- » to stimulate the drafting of environmental legislation in South-Eastern Europe that is as consistent as possible with EU approximation and other international environmental legal norms;
- » to facilitate the process for countries and entities to prioritise legislative drafting according to the needs and to identify necessary resources

The initiative covered four major areas:

- » the establishment and facilitation of a network of senior officials and legal experts;
- » the assessment of environmental law drafting needs in the SEE region;
- » legal assistance to countries and entities; and
- » topic-oriented regional workshops on environmental law.

The project resulted in:

- » Facilitated processes towards approximation with EU environmental legislation within SAP;
- » Increased regional cooperation on environmental law development to ensure regional strategic approach to legal drafting;
- » Transferred experience from EU new Member States to SEE;
- » Enhanced co-ordination and co-operation among the ongoing environmental law technical assistance projects in SEE, transfer of their outputs and experience;
- » Improved and realistic strategic approach to meeting approximation goals;
- » Prioritised SEE needs and focused assistance;
- » Provision of targeted international legal expertise in specific issues;
- » Specific legal acts drafted, commented and reviewed;
- » Regional report “Progress in Environmental Law Drafting in South-Eastern Europe” 2005.

<http://www.rec.org/REC/Programs/REREP/LawDrafting/Default.html>

**Table 7: Environmental legislation**

Country / territory	Environmental legislation transposing EU <i>acquis</i> adopted by parliament
Albania	Law Concerning the Creation and Operation of Land Protection and Administration Structures, 2001 Law on Fishing and Aquaculture, 1995, 2002 Law on Water Reserves, 1996, 2000, 2001 Law For Protected Areas, 2002 Law on the Protection of Transboundary Lakes, 2003 Law on Environmental Impact Assessment, 2003 Law on Environmental Protection, 2002 Law on Chemical Substances and Preparations, 2003 Law on Protection of Air from Pollution, 2002 Law on Environmental Treatment of Solid Waste, 2003 Law on Protection of Marine Environment from Pollution and Damage, 2002 Law concerning the Environmental Treatment of Polluted Waters, 2003 Law on Organization and Functioning of Local Governments, 2000 Law on Civil Emergencies, 2001 Law on Establishment of Coast Guard, 2002 Law on Service of Control for chemical Fertilisers, 1999 Law on Protection of Arable Land, 2004 Law on Regulatory Framework of the Sector of Water Supply and Collection and Treatment of Waste Waters, 1996, 2005 Law on Service of Plant Protection, 2005 Law on Efficiency of Energy, 2005 Law on Forest and Forest Service, 2005 Law On Administration of Hazardous Waste, 2006 Law On Protection of Biodiversity, 2006

Country / territory	Environmental legislation transposing EU <i>acquis</i> adopted by parliament
<b>Bosnia and Herzegovina</b>	Framework Environmental Law FBiH 2003, RS 2002 Law on Nature Protection RS 2002, FBiH 2003 Brčko District 2004 Law on Waste Management FBiH 2003, RS 2002 Brčko District 2004 Law on Eco Fund FBiH 2003, RS 2002 Law on Air Protection RS 2002, FBiH 2003 Brčko District 2004 Law on Waters RS 2006, FBiH 2006 Law on Spatial planning RS 2002, 2003, FBiH 2002, Brčko District, 2003, 2004 Law on Free Access to Information FBiH 2001, RS 2001 BH Law on Free Access to Information, FBiH 2000 Brčko District Law on Environmental Protection 2004 Brčko District Law on Water Protection 2004 Brčko District Law on Communal Affairs 2004
<b>Croatia</b>	Environmental Protection Act, 1994, 1999, Draft 2007 Nature Protection Act, 2005 Act on Waste Management, 2004, 2005 Act in Water Management, 2005 Act on Protection from Noise, 2003 Act on Air Quality Protection, 2004 Forestry Act, 2005 Act on Access to Information, 2003 Act on Flammable Liquids and Gases, 1995 Act on Transport of Dangerous Substances, 2003 Act on Agricultural Land, 2001, 2002 Construction Act, 2003, 2004 Act on Technical Requirements for Products and Certificate of Compliance, 2003 Civil Obligation Act, 1991, 1994, 1996, 1999 Criminal Code, 1997, 1998, 2000, 2001 General Administrative Procedure Act, 1991, 1996 Administrative Litigation Act, 1991, 1996 Physical Planning Act, 1994, 1998, 1999, 2000, 2002, 2004 Act on Fire-Fighting, 2004 Act on Protection and Rescuing, 2004 Act on Fire Protection, 1993, 2005 Act on Chemicals, 2005 Act on Genetically Modified Organisms, 2005 Maritime Code, 2004 Act on Ports and Sea Public Good, 2003

Country / territory	Environmental legislation transposing EU <i>acquis</i> adopted by parliament
<b>Macedonia FYR</b>	Law on Environment, 2005 Law on Free Access to Public Information, 2006 Law on Protection and Rescue, 2004 Law on Fire Fighting Services, 2004 Law on Ambient Air Quality, 2004 Law on Waste Management, 2004 Law on Drinking Water Supply and Urban Wastewater Drainage, 2004 Law on Concessions, 2002, 2003 Law on Nature Protection, 2004, 2006 Law on Protection from Noise in the Environment, 2007 Law on Physical and Urban Planning, 2005 Law on Energy, 2006 Law on Organic Agriculture Production, 2004
<b>Montenegro</b>	Law on EIA, 2005 Law on SEA, 2005 Law on IPPC, 2005 Waste Management Law, 2005 Law on Protection from Noise, 2005 Law on Free Access to Information, 2005 Law on Physical Planning, 2005 Environment Law, 1996, 2000 Law on Forests, 2000 Law on Hunting and Wildlife, 2005 Law on Sea Fishing, 2003 Water Law, 2007
<b>Serbia</b>	Law on Environmental Protection, 2004 Law on EIA, 2004 Law on IPPC, 2004 Law on SEA, 2004 Law on Public Information, 2003, 2005 Law on Waters, 1991, 1992, 1993, 1994, 1996 Law on Planning and Construction, 2003, 2006 Law on National Parks, 1993, 1994 Law on Mining, 1995, 2006 Law on Geological Investigations, 1995 Law on Forestry, 1991, 1992, 1993, 1994, 1996 Law on Hunting, 1993 Law on Fishery, 1994 Law on Production and Trade of Poisonous Substances, 1995, 1996 Law on Protection from Ionising Radiation, 1996 Law on Genetically Modified Organisms, 2001 Law on Agricultural Land, 2006 Law on Energy, 2004 Law on Standardisation, 2005 Law on Accreditation, 2005 Law on Metrology, 2005 Law on Planning and Construction, 2003

Country / territory	Environmental legislation transposing EU <i>acquis</i> adopted by parliament
<b>Kosovo, UN administered territory under UN Security Council Resolution 1244</b>	Law on Environmental Protection, 2002, 2003 Law on Air, 2004 Law on Water Protection 2004 The Waste Law, 2005 Law on Nature Conservation, 2005

There has been least progress with the new legislation on water and some of the natural resources due to the split responsibilities for water and natural resources and the complexity of transposing the Water Framework Directive. The reform of the water sector in Bosnia and Herzegovina progressed with the adoption of new entities' Laws on Water in 2006, which are aligned with the provisions of the EU WFD. Among others, the law provides for establishment of River Basin Offices for integrated water management.

**Table 8: Ratification of Multilateral Environmental Agreements (MEAs)**

	Albania	BiH	Croatia	Macedonia FYR	Montenegro	Serbia
Aarhus Convention	Ratified 2000		Ratified 2006	Ratified 1999		In progress
Protocol on Pollutant Release and Transfer Registers	2006	Signed	Signed	Signed		In progress
Espoo Convention on Environmental Impact Assessment in a Transboundary Context	Ratified 1991		Ratified 1996	Ratified 1999		In Parliament procedure (2006)
Protocol on Strategic Environmental Assessment	Ratified 2005	Signed	Signed	Signed 2003	Signed	In progress
Convention on the Protection and Use of Transboundary Watercourses and International Lakes	Ratified 1994		Ratified 1999			In Parliament procedure (2006)
Convention on Transboundary Effects of Industrial Accidents	Ratified 1994		Ratified 1999			In progress

	Albania	BiH	Croatia	Macedonia FYR	Montenegro	Serbia
Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters		Signed	Ratified 2000	Signed (1998)		In progress
Convention on Long-range Transboundary Air Pollution and its Protocols on Heavy Metals, Persistent Organic Pollutants and Protocol to Abate Acidification, Eutrophication and Ground-level Ozone	Accession 2005	1992 By succession	Ratified 1993	Ratified 1986 (1991), not all of the protocols ratified	Ratified 2001 (Convention and EMEP Protocol only)	Ratified 1986; EMEP Protocol ratified 1987
Stockholm Convention on Persistent Organic Pollutants	Ratified 2004	Signed	Ratified 2006	Signed	Signed	In progress
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade			Ratified 2007			In progress
Convention on Biological Diversity	Ratified 1994	Ratified 2002	Ratified 1996	Ratified 1997	Ratified 2001	Ratified 2001
Cartagena Protocol on Biosafety	Accession 2005		Ratified 2002	Ratified 2006	Ratified 2006	Ratified 2001
Convention on control of trans-border transportation of hazardous waste and their disposal (The Basel Convention)	Accession 1999	Ratified 2000	Ratified 1994	Ratified 1997	Ratified 2006	Ratified 2000

## Development of environmental legislation

	Albania	BiH	Croatia	Macedonia FYR	Montenegro	Serbia
Convention on protection of marine environment and coastal area of Mediterranean Sea (The Barcelona Convention)	Ratified 2000	1992 by succession	Ratified 1993		In progress	Ratified 1997
Convention on protection of ozone layer	Accession 1999 Accession of amendments 2006	1992 by succession	Ratified 1993	Ratified 1994	Ratified 2006	Ratified 1990
Convention on Climate Change (UNFCCC)	1994	Ratified 2000	Ratified 1996	Ratified 1998	Ratified 2006	Ratified 1997
Convention of preservation of wild animals, migrant species (Bonn)	Ratified 2000		Ratified 2000	Ratified 1999		In Parliament procedure (2006)
Conservation of European Wildlife and Natural Habitats (Bern)	Ratified 1998		Ratified 2000	Ratified 1999	In progress	In Parliament Procedure (2006)
Convention of Wetlands of international importance, in particular as habitats of waterfowl (The Ramsar Convention)	Ratified 1994	Ratified 1992	Ratified 1993	Ratified 1977	2001	Ratified 1977
Protection of the World Cultural and Natural Heritage Protection of the World Cultural and Natural Heritage	Ratified 1989	Ratified 1993	Ratified 1993	Ratified 1974	2001	Ratified 1974
International Trade in Endangered Species of Wild Fauna and Flora (Washington)	Accession 2003		Ratified 1999	Ratified 1999	2001	Ratified 2001

	Albania	BiH	Croatia	Macedonia FYR	Montenegro	Serbia
Convention on fight against desertification in those countries that suffer severely from dryness and desertification, in particular in Africa	Accession 2000	Ratified 2002	Ratified 2000	Ratified 2002	Ratified 2007	In parliament Procedure (2006)
Convention on Protection and Sustainable use of Danube River		Ratified 2005	Ratified 1996			Ratified 2003
Convention for the Establishment of the European and Mediterranean Plant Protection Organisation		Ratified 2005	1994			Ratified 2003

\* Montenegro became an independent country in 2006. According to the Constitutional Charter of Serbia and Montenegro, Serbia is the successor to all international agreements that Serbia and Montenegro (SFRY, FRY - predecessors of Serbia and Montenegro) were party to. Based on submitted statements of succession, Montenegro is now in the process of becoming a party to all the MEAs previously ratified (signed) by Serbia and Montenegro, SFRY and FRY. Years earlier than 2006 in the table stand for ratification of the given MEA by SFRY, FRY or Serbia and Montenegro.

The drafting and legislative process has often been steered by donor support. A positive result of this was a broad participatory approach to drafting and communication with relevant stakeholders within and outside the government. On the other hand, in some countries, the ambition of the ministries to demonstrate commitment and to generate a legal mandate for environmental institutions through legal drafting projects resulted in a significant number of legal acts awaiting implementation.

In the process of drafting new legislation, there has been little analysis of the capacities for its implementation. Given the past weak record with enforcement a significant implementation gap has been created both at central and local government levels. Some of the problems related to the large body of legislation which has been adopted in a short time period are:

- » Lack of co-ordination and cross-references between various laws;
- » Need for additional bylaws for the laws to be implemented;
- » Absence of practical enforceable provisions and the unclear relationship between different laws covering similar issues.

Because of this the laws are unevenly put into practice and in some cases even ignored. Effective implementation and enforcement of legislation is further hindered by a lack of human and other resources. To overcome this, Croatia has introduced a system where all newly adopted environmental legal acts, ordinances and regulations which are harmonised with EU *acquis* are co-ordinated and cross-referenced with various other laws and regulations.

### Open issues

So far detailed tables of concordance, giving an accurate assessment of transposition of the EU legislation, have been prepared only in Croatia and in Macedonia. In other countries such work is under way or has just started, so it is not yet possible to make detailed assessment of the level of transposition for the whole region. In late 2006, DG Environment started a progress monitoring project with all SEE countries aiming at producing the progress report based on tables of concordance and implementation questionnaires.

In most of the countries and territories, institutional division of responsibilities for the environmental *acquis* is an important obstacle to developing the policies and co-ordinated transposition of requirements into the national legislation. There is a lack of domestic environmental legal and policy analysis experts and the number of civil servants working on environmental policies and legislation is low in some countries and territories. This results in dependence on international technical assistance and poor co-ordination of legal drafts. Furthermore, participation of the public is not sufficiently and formally integrated into all policy and law making processes.

In some countries, the pace and modalities of integration of EU regulations and international environmental agreements is to some extent driven by availability of donor support and attempts to achieve quick progress in the EU Accession process. In the absence of a clear national strategy, this is increasingly leading to a situation where it is not possible to apply new laws in addition to already poor implementation of the existing ('old') environmental laws.

### Way forward

Countries and territories, with the support of donors, should now focus more on implementation of the existing legislation than on drafting and adopting all the legal acts in a very short period of time. National strategies for transposition and implementation should take a phased approach, taking into account that every phase takes time. The experience gained through implementation will also improve the future legislative processes.

The Ministries should form policy units combining economic and environmental policy analysis with legal expertise in order to be able to improve the quality of legislation in the future. Formal

mechanisms for public participation in environmental policy and law drafting, such as Parliamentary bodies who would consult NGO representatives on relevant issues, need to be put into proper practice and respected.

Major weaknesses in the enforcement capacity need to be addressed before the *acquis* can be effectively implemented. Data collection needs to be strengthened in a number of areas to enable the countries to adopt, implement and enforce legislation in a satisfactory manner. Separation of policy and executive functions can be also a useful step towards better enforcement.

There is a need to streamline the management of responsibilities currently fragmented among different ministries and bodies. In some sectors there is a need to define responsibilities clearly in order to ensure that existing legislation is implemented in the most efficient and effective way. At a local level particular care should be taken to ensure that local self-government units have the resources necessary to implement their responsibilities effectively.

### Further information

Bosnia and Herzegovina, Functional Review of the Environment Sector in Bosnia and Herzegovina, Final Report May 2005, available on the web site of the Delegation of the European Commission to Bosnia and Herzegovina

[http://www.delbih.ec.europa.eu/en/reviews/Environment\\_report\\_PDF/engFinalReport.pdf](http://www.delbih.ec.europa.eu/en/reviews/Environment_report_PDF/engFinalReport.pdf)

Government of the Republic of Macedonia, Secretariat for European Affairs, National Programme for Adoption of the *Acquis communautaire*, Skopje March 2006

Croatia, Strategy for EU Environmental Law Approximation: National Environmental Approximation Strategy (NEAS), September 2006, available on <http://www.seuela.hr/documentation.asp?lang=2>

National Strategy of Serbia for the Serbia's and Montenegro Accession Process to the European Union, 2005, available on <http://www.seio.sr.gov.yu/code>

## 2.5 Main challenges to implementation of the *acquis communautaire*

### The (environmental) challenge



In the next decades, environmental and SD strategies will more and more be put to the test: bridging the gap between policy decision and achievement of goals (i.e. the ‘implementation gap’). Co-ordination across strategies, and between global, international, regional, national and local programmes, plans and strategies will be the other challenge – especially as responses to long term environmental changes, such as climate change impacts. Strategies, conventions, programmes can only go so far. To bridge the gap it is equally important better to inform, train and educate about the environment and sustainable development the people at large and the young generation in particular as the future managers of tomorrow.

### Introduction

With the rapid adoption of new legislation, the demand for environmental investment is much bigger than the management capacity and funding available. Implementation of the *acquis* will require additional capacity, significant time and financial resources, especially in relation to: water; wastewater; integrated pollution, prevention and control (IPPC); large combustion plants (LCP); and waste management directives. In addition to the high costs of environmental investments, there is the need to integrate environmental objectives into other sectoral policies and programmes (this issue is dealt with in chapters 2.1, 2.2 and 3.1).

There is a significant allocation of EU Pre-accession and Cohesion Funds for this purpose, but in the end a major portion of the total funds will have to come from domestic sources. The question at present is how to secure and allocate these funds in an efficient and effective way. Today the absorption capacity in most countries is insufficient for the funds available, while even much larger amounts of funds will need to be invested over the next decade or two.

National institutions may secure budget funding, but other options include economic instruments, motivating polluters to improve their performance, effective enforcement, and handing control over the management of infrastructure and its development to regional and local authorities or even market based service providers. The final cost of investment in infrastructure and services depends significantly on the efficiency and effectiveness in their implementation. Major savings can be realised with careful planning and selection of technologies by the responsible institutions.

Having in mind the existing institutional starting point, apart from investments, the implementation of legislation in SEE requires development and/or strengthening of:

- » administrative structures and practices at the national and regional/local level, in the areas such as permitting or protected areas management;
- » enforcement structures and practices such as inspectorates;
- » monitoring and reporting procedures;
- » public services and accompanying infrastructure such as water supply, wastewater and waste management systems;
- » environmental management and cleaner technologies in the business sector.

According to the Sixth Community Environment Action Programme [1600/2002/EC] the enlargement process should sustain and protect the environmental assets of the Candidate Countries such as wealth of biodiversity, and should maintain and strengthen sustainable production and consumption and land use patterns and environmentally sound transport structures through:

- » integration of environmental protection requirements into Community Programmes including those related to development of infrastructure;
- » promotion of the transfer of clean technologies to the Candidate Countries ;
- » extended dialogue and exchange of experience with national and local administrations in the Candidate Countries on sustainable development and preservation of their environmental assets;
- » cooperation with civil society, environmental non-governmental organisations (NGOs) and business in the Candidate Countries to help raise public awareness and participation;
- » encouraging international financing institutions and the private sector to support the implementation of and compliance with the environmental *acquis* in the Candidate Countries and to pay due attention to integrating environmental concerns into the activities of the economic sector.

### Recent progress

With the privatisation, opening of international markets and foreign direct investment, environmental management in most large enterprises has improved significantly. So far, the main driving force for this has been general improvement of the quality of management and the pressure of the international market, rather than enforcement of new legislation. In some cases the leading industries have actually been asking the government to regulate and enforce environmental legislation in order for them to comply with requirements of international standards and codes of conduct such as ISO 14 000 or Responsible Care. On the other hand, some industries such as construction or small enterprises largely avoid compliance

and enforcement and in some countries and territories, environmental improvements due to privatisation and foreign direct investment are still not clearly visible.

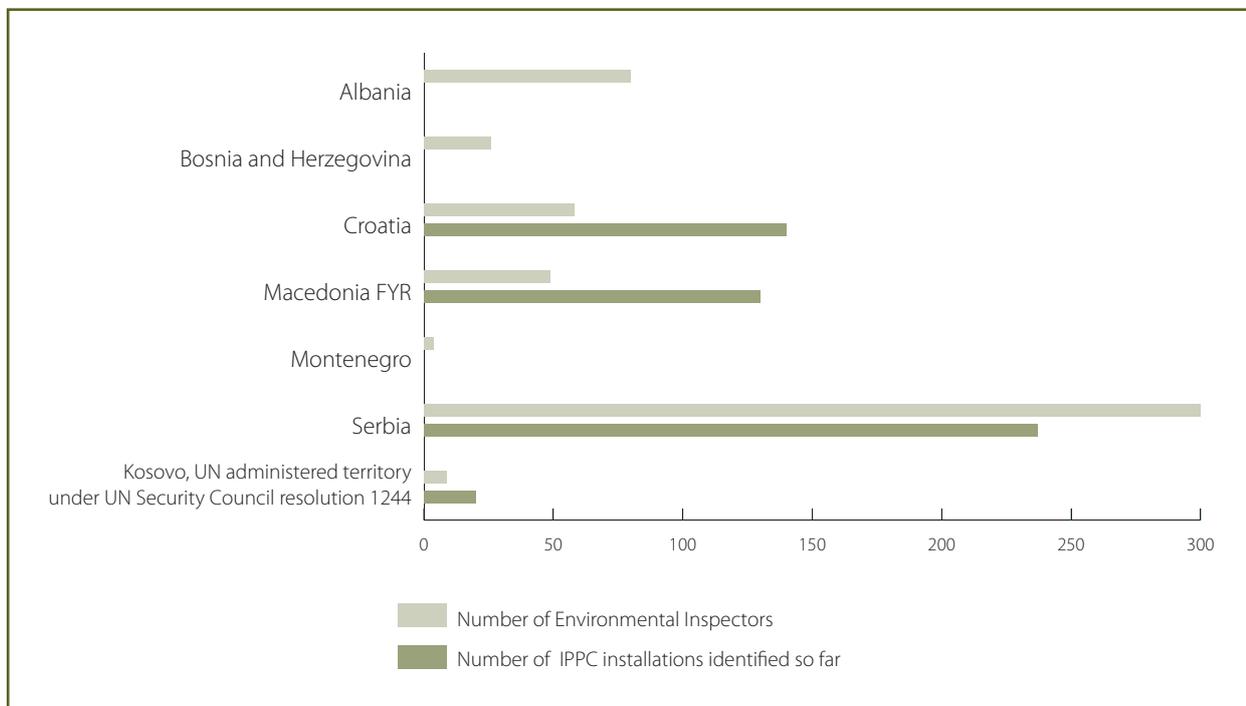
Responsibility for the delivery of local public services - water supply, sewerage and wastewater treatment, solid waste collection and disposal, district heating - mostly rests with municipalities or regions. Typically, services are delivered by municipal companies (utilities) which operate as autonomous entities separated administratively and financially from the municipal governments, while the decisions on changes in the tariff structure are subject to municipal approval. The financing of water supply and wastewater services is carried out by collection of fees. However, the prices set by the municipalities and the companies do not cover the costs and the sector is severely under-financed, which leads to further deterioration of the already poor infrastructure, or are subsidised by the regional or municipal government.

In order to overcome some of the limitations linked to technical capacities, establishment of Project Implementation Units, environmental funds or similar specialised institutions has been proposed or initiated in cooperation with the key donors and IFIs. As the financial capacities of the countries for investments in the infrastructural services are very limited, they rely significantly on the international assistance provided through the loans of the World Bank, EBRD, EIB, KfW or support from bilateral donors, and EC through its PHARE, CARDS and ISPA/ IPA programmes.

There is growing evidence that the rapid adoption of new laws has contributed to a growing implementation gap in the region. Effective implementation and enforcement of legislation is further hindered by a lack of human and other resources. For example, the number of professionals working in the environment and water sector in Bosnia and Herzegovina was 73 at all levels of administration (state and entity level – 31; canton level – 42 persons, not including the inspectors). In the case of Croatia institutional structures for the environmental functions of permitting, monitoring, inspection, enforcement and reporting are in place and to a high degree aligned with the EU requirements.

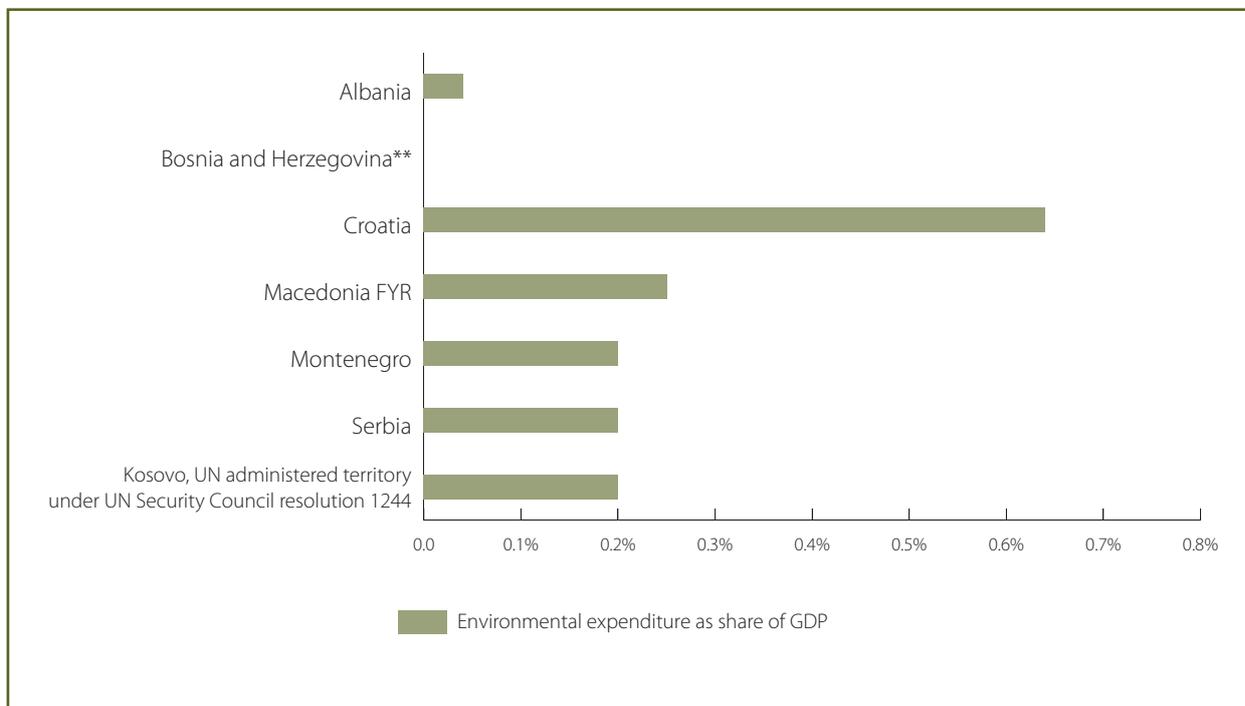
Each country has an environmental inspectorate either as part of the ministry of environment or a general inspectorate. The inspectorates in the region have been working together with the EU through the Environmental Compliance and Enforcement Network for Accession (ECENA) to exchange experience through a peer review process and provide training on good enforcement practice. In spite of the progress in terms of enforcement methods, the number of inspectors is insufficient compared with the workload in a context of a low compliance culture. The situation is made even more difficult with environmental responsibilities being split among several ministries and inspectorates.

Figure 4: Capacity for enforcement



New legislation requires an increasing number of environmental permits and consents. The issue here is the process of issuing integrated permits and of creating capacity to enforce the permits. In countries that have already enacted the IPPC legislation the implementation of permitting procedures has just started. Most of these are under the authority of the ministries, but some have also been delegated to regional and local authorities. Ministries have started to develop the necessary procedures and staff to deal with this process, but were slowed down in this by the limits imposed on the increase of the government administration. In some cases the possibility of giving this responsibility to environmental agencies has been under discussion, but the progress with their establishment has been slow and some ministries proved reluctant to give up decision making power in relation to individual permits. In other cases, integration of permits was resisted by other ministries. The limited experience gathered so far shows that problems in permitting for new and existing installations include the definition of the best available technologies according to the IPPC Directive, translation of the BREFs in to the national context and poor preparation of applications by the applicants.

Figure 5: Environmental expenditure as share of GDP\*



\* Data for Croatia refers to budgetary expenditure only – it does not include other public sources (such as outlays of the environment and energy efficiency fund)

\*\* Data for Bosnia and Herzegovina not available

CASE STUDY

### Environmental infrastructure investments in Croatia

Based on the national Waste management strategy and Waste management plan (in parliamentary enactment procedure), the Fund for Environment and Energy Efficiency provides significant domestic funding in the waste management sector in Croatia. According to the law on the Fund, it is in its mandate to finance “remediation and closure of landfills, waste minimisation and reduction at source, waste processing and recovery”. The main sources of Fund’s revenues are charges levied on environmental pollution and the use of environment.

So far, a total of 220 MEuro of grants have been approved for the introduction of waste management systems in Croatia:

- » Remediation of 234, out of 257 identified communal landfills to the amount of 205 MEuro. So far 28 landfills have been remediated & closed; 11 more are planned for closure before the end of 2007.
- » Closure of 512 illegal dumpsites, the Fund has so far approved 7 MEuro and closed 217 dumpsites.

- » Construction of 4 regional waste management centres (RWMC). So far, the Fund has contracted 8 MEuro, and further investment is planned to the amount of 183 MEuro where other counties will decide on RWMC locations, adopt them into physical plans and adopt county waste management plans, which are the basic pre-conditions that need to be in place for the Fund to be able to finance.

The Fund intends to prepare a plan for further construction of county/ regional waste management centres according to the national waste management plan, which is currently in procedure for adoption (April 2007).

[www.fzoeu.hr](http://www.fzoeu.hr)

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### Programme for Environmental Investment Projects in Macedonia FYR

After the closure of the Environmental Fund along with all other extra budgetary funds in Macedonia in 2003, the budget Programme for Environmental Investment Projects was initiated. The overall goals of the programme are:

- » Improving the environment in Macedonia thereby marking an important step towards meeting the EU requirements;
- » Establishing the co-ordinated preparation of projects by local self governments (LSGs) and the MoEPP in line with IPA requirements;
- » Achieving the greatest environmental benefits per unit of investment costs;
- » Mobilising the necessary national and local as well as other stakeholders' co-financing (including bilateral and other donors).

The identification of priority sectors is based on the following two principal criteria:

- » Volume of investment required to comply with EC legislation, and
- » Share to be invested in public infrastructure.

The first criterion reflects the extent of the environmental problem to be solved in financial terms. The second reflects the desire to prioritise the use of public over private assets (to avoid problems with State Aid constraints on the use of public funds). The total annual budget of the Programme is around 1,45 MEuro (2007).

[www.moep.gov.mk](http://www.moep.gov.mk)

The countries have integrated infrastructure investment programmes into their National Environmental Action Plans or adopted master plans (including financing strategies) for water supply, waste and wastewater management. Even though various scenarios and timeframes are sometimes offered through these documents, the necessary level of investments over the course of the next 20 years for all these areas significantly exceeds the current financial power of the countries and territories. World Bank calculations indicate that Croatia will need to invest between 6 to 12 billion Euro into environmental protection in order to bring it to EU standards in the next 20 year period. Investments in other countries could be even higher. In Montenegro, for example, the necessary level of investments for water supply, waste and wastewater management has been estimated at close to 0.9 billion Euro by 2025.

### Open issues

In most countries the estimates of compliance costs are based on general information and rough estimates. There are few studies where each individual legal instrument of the EU has been analysed in comparison to the current situation (transposition as well as implementation and enforcement). Similarly, there are very few studies looking into short and medium term priorities in line with the European Partnership documents, or institutional needs and estimates of financial needs in the short and medium-term. There is also lack of information on different implementation alternatives and their costs.

With the exception of Croatia, environmental budgets are extremely limited and sometimes cannot even take over the maintenance costs for infrastructure and services for which the investment was provided for by the donors. There is lack of investment planning and financial management (especially at regional and local level) leading to lack of information on the expected share of financial burden by the regional and local governments and their ability to meet it.

So far the ministries have been managing with the legal drafting and planning of the implementation more or less alone, involving other stakeholders such as municipalities and the business sector in a rather superficial manner. Opportunities for cooperation and co-ordination of implementation plans have been missed many times. Human resources at the national and local levels still need to be strengthened in order to be able to plan and manage projects required for implementation of the legislation.

In several countries and territories, ministries of finance along with the IMF have been blocking the establishment of environmental funds or similar specialised financial institutions that could provide funds and expertise for the investment projects.

The capacity of the public utility companies to develop projects, secure funding and manage project implementation is very limited. This, together with affordability concerns, is seen as the major challenge in providing for timely implementation of legal requirements and for an associated increase in the quality of services and improved environmental conditions.

The potential with which the business sector can contribute to effective environmental management is largely under-utilised. Some companies are still expecting that they should receive public subsidies for environmental clean up and are not ready to accept their own responsibility; therefore efforts are necessary to make businesses more accountable and more conscious of their environmental (and social) responsibilities.

### Way forward

The focus of national environmental institutions and donors should shift from legal drafting and institution building to implementation of programmes and projects. Realistic timeframes should be set for implementation of the most complex and costly parts of the *acquis*, which based on the experience of the EU member states include: the Water Framework Directive, the Integrated Pollution Prevention Control (IPPC) Directive, the Urban Wastewater Directive and the Landfill Directive. Lead time for institutional strengthening, monitoring, control and enforcement and financial resources should be planned and provided to allow effective and efficient implementation.

Information on the legal requirements and on implementation plans should be distributed widely and a broad transparent dialogue with stakeholders should be developed to facilitate the planning and implementation. This dialogue should be the basis for identifying and costing different alternatives, setting clear priorities and realistic time schedules that can be integrated into realistic strategies and implementation plans.

Specialised financial and management institutions should be established, comparable to reconstruction banks in Western Europe, that can professionally manage the investment programmes. Such institutions should be transparent in order to attract and combine domestic and international financial sources and use them in the most effective manner. Examples already exist in Croatia where both Croatian Bank for Reconstruction and Development and the Environmental Protection and Energy Efficiency Fund operate.

The capacity of the local and regional authorities and the business sector for project implementation should be strengthened and used as much as possible.

### Further information

Bosnia and Herzegovina, Waste Management Strategy, 2000

Croatia, National Environmental Strategy and Environmental Protection Plan, 2002

UNDP Montenegro, Functional Analysis of the Ministry of Environmental Protection and Physical Planning, 2006



### 3. Developing environmental institutions

#### 3.1 National environmental institutions and mechanisms for policy integration

##### The (environmental) challenge



In moving Europe towards sustainable development, sound environmental governance is needed to tackle the environmental challenges and safeguard Europe's environment. To do so, it will be necessary to adapt effectively to the dynamics and transitions..., and continue to integrate environmental values into all relevant areas of international cooperation – and to implement the international strategies agreed upon. Environmental and sustainability principles figure prominently in various international, regional, national and local policy agendas and plans.

##### Introduction

Effective policy development and implementation requires appropriate institutional capacity and structures. In SEE, environmental ministries have been established, but still don't have the full capacity required. In order to facilitate the achievement of EU Accession objectives, it would seem logical to consolidate the responsibility for the environmental chapter into one institution. In addition to the comprehensive ministry of environment, institutional options include division of environmental responsibilities among several ministries, combination of environmental with other portfolios as well as establishment of an Environmental Protection Agency, Environmental Fund, Inspectorate etc. at the executive level of administration. There is also a need for mechanisms of policy integration, where options include the use of general decision making procedures and the establishment of national councils for sustainable development. The successful choice of these options should lead to clear accountability, effective policy co-ordination and integration, motivation of the civil service and efficient sharing of workload between government and civil society (business, science and NGOs).

## Developing environmental institutions

It is one of the aims of the Sixth Community Environment Action Programme [1600/2002/EC] to ensure that environmental objectives, which should focus on the environmental outcomes to be achieved, are met by the most effective and appropriate means available. The 6th EAP also calls for environment policymaking based on participation and best available scientific knowledge pursued by means of the following priority actions:

- (a) development of improved mechanisms and of general rules and principles of good governance within which stakeholders are widely and extensively consulted at all stages so as to facilitate the most effective choices for the best results for the environment and sustainable development in regard to the measures to be proposed;
- (b) strengthening participation in the dialogue process by environmental NGOs through appropriate support, including Community finance;
- (c) improvement of the process of policy making through:
  - » ex-ante evaluation of the possible impacts, in particular the environmental impacts, of new policies including the alternative of no action and of the proposals for legislation and publication of the results;
  - » ex-post evaluation of the effectiveness of existing measures in meeting their environmental objectives.

**Table 9 : Environmental institutions at the national level**

Country / territory	Responsible for environment	Responsible for water	Environmental Agency	Environmental Fund
Albania	Ministry of Environment, Forests and Water Administration	Ministry of Environment, Forests and Water Administration	Agency for Environment and Forests Regional environment agencies	Proposed
Bosnia and Herzegovina	Ministry of Foreign Trade and Economic Relations, Department for Environment Federal Ministry for Environment and Tourism Ministry for Spatial Planning, Civil Engineering and Ecology of Republika Srpska Brčko District, Department for Utilities Ten Canton-level ministries in charge for environment	Federal Ministry of Agriculture, Water and Forestry Ministry of Agriculture, Forestry and Water of Republika Srpska Brčko District, Department of Agriculture, Forestry and Water management	In preparation	Established

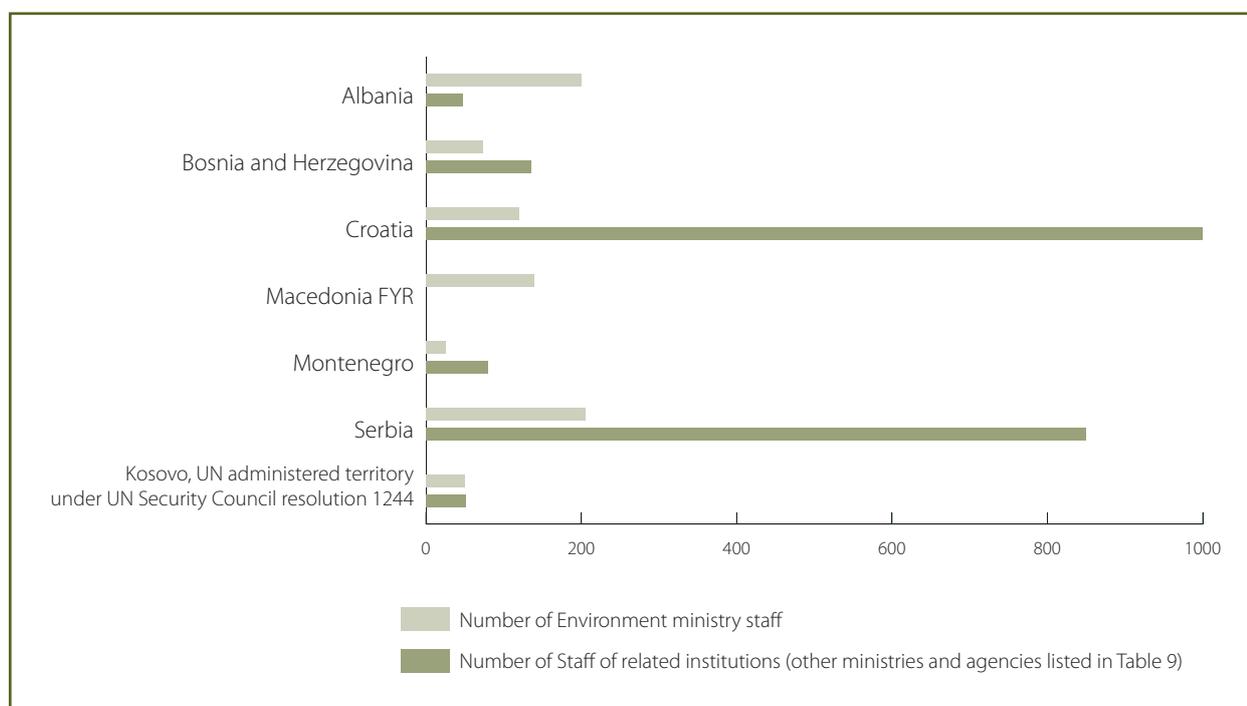
## National environmental institutions and mechanisms for policy integration

Country / territory	Responsible for environment	Responsible for water	Environmental Agency	Environmental Fund
Croatia	Ministry of Environmental Protection, Physical Planning and Construction Ministry of Agriculture, Forestry and Water Management Ministry of Culture Ministry of Economy, Labour and Entrepreneurship Ministry of Health and Social Welfare Ministry of the Sea, Tourism, Transport and Development	Ministry of Agriculture, Forestry and Water Management Ministry of Health and Social Welfare Ministry of Environmental Protection, Physical Planning and Construction Ministry of Culture Ministry of the Sea, Tourism, Transport and Development	Croatian Environment Agency	Environmental Protection and Energy Efficiency Fund
Macedonia FYR	Ministry of Environment and Physical Planning Ministry of Agriculture, Forestry and Water Economy	Ministry of Agriculture, Forestry and Water Economy Ministry of Environment and Physical Planning Ministry of Economy Ministry of Health Ministry of Transport and Communications	MoEPP/ Administration of Environment	Replaced by budget programme in 2003
Montenegro	Ministry of Tourism and Environmental Protection	Ministry of Agriculture, Forestry and Water Resources	Expected in 2007	Expected in 2007
Serbia	Ministry of Environmental Protection	Ministry of Agriculture Water Management and Forestry Ministry of Health	Agency for Environmental Protection	Environmental Fund
Kosovo, UN administered territory under UN Security Council Resolution 1244	Ministry of Environment and Spatial Planning	Ministry of Environment and Spatial Planning	Environmental Protection Agency	

### Recent progress

The establishment of internationally comparable government environmental institutions started in the early to mid nineties when the environment portfolio was elevated to the cabinet level and first ministries of environment were established. In all countries environment portfolios are nowadays combined with other sector portfolios such as physical planning, science, tourism and natural resources. These combinations have been changing. In Serbia, the environmental portfolio was transferred from the Ministry for Environmental Protection and Natural Resources to the Ministry of Science and Environmental Protection, Directorate for Environmental Protection in 2004 and in May 2007 the Ministry of Environmental Protection was re-established. In Croatia, competencies in the field of nature conservation were transferred from the Ministry of Environment to Ministry of Culture in 2004. Similarly, the Ministry of Culture in Montenegro plays a role in nature protection by performing administrative supervision over the Nature Protection Institute. The environment portfolio was subject to administrative restructuring in 2006 in Montenegro, when the former Ministry of Environmental Protection and Physical Planning was divided and environmental competences were shifted to the new Ministry of Tourism and Environmental Protection. In the Federation of Bosnia and Herzegovina, the environment sector moved from the urban planning sector and joined with tourism into the Ministry for Tourism and Environment in 2006. In most countries responsibility for water management has remained with the ministries of agriculture and forestry.

**Figure 6: Size of environment ministries**



\* The figure refers to the environment ministries / departments' staff at state, entity, canton and district level.

\*\* Includes staff working in the environment and water-related institutions, such as Hydro-meteorological Institute, Directorate for Waters, Public Water Enterprises, etc.

Since their establishment the ministries of environment, e.g. in Macedonia FYR, gathered teams of relatively young and dedicated experts who have been leading the environmental policy reform in the region. This has contributed to these ministries or departments of environment becoming leaders in terms of EU harmonisation and international cooperation, despite their small size.

After the establishment of the ministries, in all countries the possibility of establishing an environmental agency and an environmental fund has been considered. For the agencies, the objective is usually to secure a counterpart to the EEA in Copenhagen and to delegate some or all of the expert and executive functions to a non-political public body. The proposals for environmental funds are based on the objectives of collecting and redistributing pollution charges and on facilitating the funding of environmental investment projects. Although significant donor and ministry efforts were invested into the establishment of agencies and funds, the progress has been slow. Today Croatia, Bosnia and Herzegovina and Serbia have environmental funds. Albania and Kosovo, UN administered territory under UN Security Council Resolution 1244, have executive environmental agencies (and the same applies for the proposed model of Montenegrin agency), while the executive function is performed by a unit of the ministry in the other countries and territories. Croatia and Serbia have established environmental agencies whose mandate is limited to management of environmental information.

#### Serbian Environmental Protection Agency (SEPA)

The Environmental Protection Agency was established in 2004 as an institution within the Ministry for Science and Environmental Protection. The main functions of the EPA are development, harmonisation and management of the national environmental information system (especially regarding conditions of environmental media) and development of the cadastre of polluters, collection, processing and unification of environmental data, reporting on environmental conditions, updating data on the Best Available Technologies and practices, cooperation with the European Environmental Agency and Eionet, and reporting on environmental policy implementation.

The establishment, capacity building activities and development of cooperation and relations with the EEA and other international environmental institutions have been supported by the Environmental Capacity Building Programme (ECBP 2003), an EU funded project, managed by the EAR. Some of the main achievements in 2006 – 2007 were:

- » Establishing automatic air quality monitoring in towns of Bor and Smederevo (environmental hot spots – air pollution). The real time measurements are carried out automatically and are instantly published and accessible to the public on [www.sepa.sr.gov.yu](http://www.sepa.sr.gov.yu)
- » The Bylaw on Cadastre of Pollutants (CoP) has been drafted and a Cadastre of Pollutants developed by the SEPA. Eleven Serbian industries participated in the pilot and submitted data for CoP. The work is continuing in 2007.
- » SEPA together with ECBP 2003 consultants prepared an updated review of environmental monitoring status in Serbia, gap analysis and implementation plan (which data and when would be submitted from the network of monitoring institutions and when SEPA can further process and submit data to national and international organisations as required).

### Montenegrin Environmental Protection Agency

Preparations for the establishment of Montenegrin Environmental Protection Agency were carried out in 2006, in the framework of an EU funded project managed by the EAR. The establishment of the Agency is seen as a tool to:

- » help rationalise and improve efficiency of environmental administration;
- » contribute to the achievement of the concept of Montenegro as an ecological state;
- » separate policy and legislative functions from executive ones;
- » contribute to better co-ordination of environmental protection activities;
- » expedite accession of Montenegro to the EU by ensuring implementation of the environmental *acquis*.

The proposed model of the Agency envisages that the entire portfolio subject to the EU negotiations on environment chapter would constitute its area of work. Broadly speaking, the Agency's mandate would be implementation of environmental policies. More specifically, the proposed mandate of this institution includes:

- » environmental monitoring, including the establishment and maintenance of data bases related to the environment and dissemination of such information to the public;
- » reporting related to the EU environmental *acquis*, national requirements and environmental conventions;
- » environmental permitting;
- » inspection and enforcement of activities regulated under environmental legislation; and
- » communication of environmental information to interested stakeholders.

The Government is expected to adopt the legislation necessary to establish the Agency in 2007, and the EAR will support a follow up project aimed at developing its institutional capacity. Within the current project, construction of a building for the future EPA was also supported by European funds.

[www.vlada.cg.yu/eng/mintur/vijesti.php?akcija=rubrika&rubrika=256](http://www.vlada.cg.yu/eng/mintur/vijesti.php?akcija=rubrika&rubrika=256)

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### Macedonia's Environmental Information System

Starting in 1998, with a single computer and one person, Macedonia's National Environmental Information System (NEIS), under the Ministry of Environment and Physical Planning (MoEPP), has noted remarkably rapid development. The MoEPP, through its Macedonian Environmental Information Centre (MEIC), has managed the process of collection, processing, presentation and reporting of environmental data produced by the monitoring of all environmental media. Through significant international and bilateral support, Macedonia has achieved high level of environmental monitoring

and reporting performance, relying on modern IT and well trained and devoted staff. The available software and hardware tools enable the MEIC staff to create environmental reports, brochures and other materials both on regular basis and upon request. There is a need for further development, in terms of establishing a system of efficient, integrated relational environmental database.

On the basis of relevant, properly processed (systematised and standardised), comprehensive, accurate, transparent and publicly accessible information on the state, quality and trends in all segments of the environment (water, air, soil, noise, waste, ionising and non-ionising radiation, protected areas and objects of nature, and the environment and health), the MEIC reports to the domestic public (governmental institutions, NGOs, scientific and academic organisations, information media, individuals, etc.), as well as to international institutions and organisations, such as: the European Environment Agency (EEA), the United Nations Economic Commission for Europe (UNECE) and other UN agencies and programs, Eurostat, Conventions, etc.

Providing the relevant environmental information required for efficient environmental policy, the MoEPP, through its MEIC, aims to support the sustainable development of the country and the achievement of significant and measurable improvement of the quality of the environment, and thus the quality of living for the citizens of the Republic of Macedonia.

[www.moepp.gov.mk](http://www.moepp.gov.mk)

The reasons for the inadequate size of environmental institutions and slow progress in establishing environmental agencies and funds in some countries lie in indiscriminate reform plans to decrease or limit the size of the government administration and in reluctance of the ministries of finance to allow new extra-budgetary funds.

The fact that the environmental portfolio is split between several ministries and the need to integrate environmental objectives into broader sustainable development and sectoral policies call for mechanisms of inter-sectoral policy co-ordination. The countries mainly rely on general decision-making procedures (e.g. mandatory consultation with other parts of the administration when passing new laws, adopting strategies and plans). Co-ordination among different Ministries is limited, and a more integrated approach is necessary to ensure that environmental issues are adequately addressed. In Croatia, the negotiations team for the environmental chapter has proven to be a very useful mechanism for policy co-ordination. In recent years the National Council for Sustainable Development and the Office for Sustainable Development in Montenegro and the National Steering Committee for Environment and Sustainable Development in BiH play a more prominent role in policy integration.

### Open issues

Owing to the complicated and fragmented structures of environmental institutions, it is difficult to obtain clear information on responsibility for a particular issue. This presents an obstacle both in policy development and in implementation, e.g. in responding to requests of citizens and businesses.

The frequent changes in the assignment and division of the environment portfolio signal a low level of political importance and priority given to environmental issues in the region. Aside from the Croatian example of successfully integrating all the environmental institutions in the delegation for EU membership negotiations, the fragmentation of environmental responsibilities in all other countries in the region may cause problems as the EU accession process progresses and significant political decisions need to be made, involving trade-offs between different issues.

In order to reform historically large and ineffective administrations with tight public finances, governments often resort to indiscriminate cutting of government administration. This also affects and blocks the development of environmental institutions, which should be enlarged and invested in if they are to fulfil their growing legal mandates.

In most countries and territories, the boundaries between political and professional levels of administration are not clear and political interference in the employment of civil servants is still significant. Combined with a lack of decent salaries for the civil service, this also leads to “brain drain” from public administration.

### Way forward

Eventually all countries will have to strengthen their environmental institutions in order to meet EU requirements. For example the Croatian Ministry for Environmental Protection, Physical Planning and Construction keeps increasing the number of staff (20 new employees in 2007), while on a national level, a new Regulation on salaries of civil servants is going through the procedure.

The responsibility for all areas of environmental policy covered by EU environment chapter negotiations should be consolidated. If necessary, it should be combined with other cabinet portfolios that provide opportunities for synergies such as physical planning or resource conservation. Combinations with economic portfolios that use the environment as a resource (tourism, construction, agriculture) should be avoided.

An executive “environment agency” and environmental financing and investment functions should be institutionalised in the countries that haven’t done this yet. Several institutional options have been tried in the region and are available for this purpose, but it is most important that these functions are performed in an effective and efficient manner.

It is important that the policy integration mechanisms are developed further and especially that the practice of policy co-ordination and cooperation among government agencies becomes a norm rather than an exception.

### Further information

UNECE, Environmental Performance Review for Bosnia and Herzegovina, New York and Geneva, 2004, available on [http://www.unece.org/env/epr/studies/bosnia\\_and\\_herzegovina/welcome.htm](http://www.unece.org/env/epr/studies/bosnia_and_herzegovina/welcome.htm)

UNDP Montenegro, Functional Analysis of the Ministry of Environmental Protection and Physical Planning, 2006

### 3.2 Sub-national and local institutions

#### The (environmental) challenge



A transition towards sustainable development will require attention and action at all levels, local, regional, national, international and global as well as the involvement of all parties from government...

#### Introduction

All of the countries are in the process of decentralisation and delegating more powers to municipalities and different types of regional/sub-national administrative units. Responsibilities delegated to the local and regional level should be connected with appropriate human and financial resources, which is difficult in the circumstance of lack of public funds. In such a situation, appropriate division of responsibilities between the central and local government is even more important, as well as innovative and cost-effective ways of delivering the services to the citizens.

The Copenhagen criteria for EU membership require stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities. In order to secure the application of the subsidiarity principle the constitutions of the countries in the region have set out local and regional authorities and democratic institutions. At the REReP meeting in Skopje in 2003, the ministers and heads of delegations among other priorities stressed the importance of further capacity building on national and local level.

Table 10: Regions and municipalities

Country/ territory	Regional level	Local level
Albania	12 Regions	65 Municipalities 308 Communes
Bosnia and Herzegovina	Republika Srpska Federation of Bosnia and Herzegovina with 10 Cantons	65 municipalities in the RS 84 municipalities in the FBiH
Croatia	20 Counties Capital Zagreb	127 towns 429 municipalities
Macedonia FYR		City of Skopje 84 municipalities
Montenegro		21 municipalities
Serbia	Province of Vojvodina 26 districts (including Vojvodina districts)	166 municipalities
Kosovo, UN administered territory under UN Security Council Resolution 1244		30 + 3 pilot municipalities + 5 proposed new municipalities + 1 proposed enlarged municipality

### Recent progress

Local authorities in the region have traditionally played an important role in environmental protection, especially through the provision of utility services, physical planning and construction permitting. During the nineties, local institutions in most countries collapsed and have to be developed again in order to be able to fulfil new functions in a changed environment. Regardless of the differences in the constitutional structures all the countries in the region are in the process of de-centralisation, i.e. giving more power to regional and local authorities.

The administrative organisation in the environment sector in Bosnia and Herzegovina is quite complex. The Dayton Peace Agreement defined Bosnia and Herzegovina as a state composed of two entities, the Federation of Bosnia and Herzegovina and Republika Srpska both with the high degree of autonomy including the responsibility for environmental issues, and the District of Brčko. While the entity of Republika Srpska is more centralised with two levels of administration (entity and municipal levels), the entity of Federation of BiH is highly decentralised with the existence of ten Cantons. Moreover, the responsibility for environmental policy is shared between the Federation and Canton levels. In Croatia several environmental responsibilities are entrusted to the counties and in Serbia the province of Vojvodina has its secretariat for environment. Montenegro and Macedonia FYR have no regional level of administration and environmental competencies are executed at national and local (municipal) levels.

## Developing environmental institutions

Albania and Croatia have been building capacity at the regional level through Regional EPAs in Albania and several environmental institutions at the Counties in Croatia. Some of the countries that don't have regional administration have been applying a regional approach to waste and water management (examples include Macedonia FYR and Montenegro). In Macedonia the issuing of "B" integrated permits is delegated to municipalities.

Environmental competences typically delegated to the local level are:

- » Urban and rural planning and land use;
- » Licensing of building (facilities of local level significance) and other (local ) development;
- » Local environmental protection;
- » Service provision in relation to local public utilities and infrastructure including water supply, sewers and drains, sewage treatment, waste management, local roads, local transport and local heating schemes;
- » Public services including fire and emergency services;
- » Provision and maintenance of public parks and open spaces and cemeteries.

The capacity of regional and local environmental institutions is gradually growing although it is still insufficient to meet all the challenges of implementing the new legislation. Environmental departments or services in regions and municipalities employ small numbers of staff and are usually under-equipped. Their main activities include environmental reporting and communication, preparation (or taking part in the preparation) of local level physical and environmental action plans, preparation of local level environmental investment programmes and similar.

Bottom-up initiatives have been promoted through various donor projects, where local authorities go through capacity building actions and where as one of the results, they take a more co-ordinated and regional approach to various aspects of the development of their area. Such processes are rather sporadic and not necessarily co-ordinated by national governments, but they do have an important role in empowering local actors and contributing through this to further decentralisation.

**Table 11: Local Environmental Action Plans (LEAPs)**

Country/ territory	LEAPs adopted	LEAPs under development
Albania	25	2
Bosnia and Herzegovina	26	5
Croatia	30	
Macedonia FYR	24	11
Montenegro	2	3
Serbia	More than 40	Around 25
Kosovo, UN administered territory under UN Security Council Resolution 1244	1	4

Growing number of municipalities have gone through or have recently started the processes of Local Environmental Action Plan or Local Agenda 21, usually with the support of NGOs and international donors. However, progress with implementation of such plans is varying. There is also a growing number of regions and municipalities conducting or participating in environmental infrastructure investment projects usually under the leadership or in partnership with the ministries or other national institutions.

#### Local Environmental Action Plans

With the support of the Swedish International Development and Cooperation Agency (SIDA), REC and different actors, including Ministries of Environment and selected municipalities, in Albania, Bosnia and Herzegovina, Croatia, Macedonia, Serbia and Kosovo (refers to the UN administered territory under UN Security Council Resolution 1244) started a programme supporting the development of Local Environmental Action plans (LEAPs) in 2004. The programme provides support for the selected municipalities and exchange of experience between countries through national and regional components that are implemented together with civil society organisations and communities in the selected municipalities.

The objectives of the programme are:

- » Better mutual perception between the local authorities and the public on the involvement; public and civil society in local decision-making processes;
- » Increased dialogue and trust between the public and the local authorities;
- » Increased capacity of local authorities in the use of local financial and human resources and
- » increased chances of fundraising from central government and other potential donors;
- » Providing for examples of good local environmental planning.

The process succeeded in developing Local Environmental Action Plans for 6 Municipalities in Albania, 3 Municipalities in Serbia, 6 Municipalities in BiH and 6 Municipalities in FYR Macedonia. Around 2 MEuros were allocated for pilot investments in each municipality based on the priorities of their LEAP.

In **Bosnia and Herzegovina** various donors with technical assistance from the REC Country office are supporting the preparation of LEAPs. Austria supported the preparation of LEAPs for the municipalities of Fojnica, Srbac and Stari Grad Sarajevo. Within the programme supported by SIDA action plans are being prepared for Prijedor, Sanski Most, Živinice, Doboje, Maglaj and Novi Grad Sarajevo. The Netherlands provided funds for the preparation of cross-border LEAPs involving four municipalities: Bratunac and Rudo in BiH and Ljubovija and Priboj in Serbia.

In **Serbia** the work on the LEAPs component commenced with EU support in 2003 starting with the training of local LEAP facilitators. The main objective was to develop local environmental action plans in four municipalities (Bujanovac, Čačak, Valjevo and Vrbas) and in the District of Bor (comprising four municipalities Bor, Kladovo, Majdanpek and Negotin). At the same time, the process was used to develop capacities of local governments and decision makers, and to raise public awareness among certain target groups and the general public. The LEAPs were completed and approved by the municipal assemblies in 2005.

The solid waste management issue was identified as a priority in four municipalities. As a result the municipalities together with the EAR (who contributed 2.5 MEuro) financed procurement of waste collection and disposal equipment (trucks, containers, etc).

The approach used for this process was a wide participation of all relevant stakeholders and the general public. Full ownership of the LEAP by local governments and local communities is demonstrated through continuation of the process and successful implementation. The LEAP offices are still active in all municipalities. The Čačak LEAP office has been transformed into the Office for Sustainable Development and is extremely active, so far mobilising 85 MEuro for various sustainable development projects in energy saving, modernisation and upgrade of the district heating system, educational projects, and protection of the Danube.

In **Macedonia** more than 30 percent of municipalities have already developed LEAPs. According to the new environmental legislation, each municipality is obliged to prepare a LEAP. Within the SIDA programme, REC has developed a common methodology for preparation of LEAPs in the country. The Macedonian government adopted the official LEAP methodology in 2005 and started working toward introducing new practices in local planning.

Elaboration of the plans started in the 1990s and is still ongoing. The municipalities are obliged by law to implement the plans, monitor the condition of the environment and every sixth year make a revision of their plan. By starting to develop their LEAP, these municipalities have increased their own capacity for environmental management.

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

[www.rec.org/REC/Programs/LocalInitiatives/LEAP](http://www.rec.org/REC/Programs/LocalInitiatives/LEAP)

[www.valjevo.org.yu/valjevo/uprava/leap/index.php](http://www.valjevo.org.yu/valjevo/uprava/leap/index.php)

### Open issues

In spite of significant efforts to disseminate information and build the capacity of local and regional administrations, there is still lack of relevant information on environmental management at the local level that would be readily available and applicable in a specific context. The language barrier is an important issue for local experts trying to access internationally available information sources.

In some countries and territories, the process of de-centralisation is more driven by political concerns, such as ethnic balance, than by concerns of effectiveness and efficiency in providing local services. This leads to a slow pace of the de-centralisation process and a lack of clear vision and political will to focus on environmental management issues in the face of a long list of priorities.

Municipal public administration and public enterprises are responsible for water supply, wastewater treatment and solid waste management – tasks which they often have to address with quite limited financial and human resources. There is a strong need for institutional capacity building to enable local level institutions to address delegated competencies on Strategic Impact Assessment, Environmental Impact Assessment, integrated permitting, monitoring and inspection services, and financing local environmental infrastructure.

Political de-centralisation has not been supported by a fiscal de-centralisation everywhere, resulting in a chronic lack of funds for local authorities. In Croatia, there are several good examples of public-private partnerships for delivering communal services or construction of public buildings based on a national policy support for this approach. But in other countries local authorities and the public seem reluctant to embrace such innovative approaches to service provision because of political uncertainties and fear of corruption.

### Way forward

Decentralisation, i.e. delegation of environmental competencies and responsibilities to the regions and municipalities, should be negotiated to take into account:

- » Effective and efficient co-ordination between central and local level;
- » Allocation of appropriate funding to municipalities, thus enabling them to carry out their responsibilities fully;
- » Addressing the lack of human resources and capacity for municipalities;
- » Mechanisms to enforce municipal regulations.

Capacity building, training and education should be done more through various realistic pilot programmes which allow *acquisition* of much needed “hands on” experience, as opposed to the currently prevailing practice of too many weakly co-ordinated one-day seminars/ trainings, with no performance monitoring and evaluation, that lead to “training fatigue” of the employees and have rather limited impact

on improvement of employees' knowledge, skills and functional capacities. Preparation of the Local Environmental Action Plan is an important conceptual tool and its preparation should be continued. LEAPs may be especially successful when they are accompanied by concrete pilot actions, where certain measures are also implemented.

Clear national policies on the delegation of management and financing responsibilities for water, wastewater and solid waste sectors should be developed, as fragmented local rules and practices may negatively influence the willingness of the private sector to enter the market.

### Further information

CEC, COM (2006) 654, Proposal for a Council Decision on the principles, priorities and conditions contained in the European Partnership with Montenegro

Bosnia and Herzegovina, Law on Local Self-Governance of Federation of Bosnia and Herzegovina (Official Gazette No. 6/95; 14/97) and Law on Communal Affairs of Federation of Bosnia and Herzegovina (Official Gazette No. 20/90)

Bosnia and Herzegovina, Law on Local Self-Governance (Official Gazette No.35/99, 20/01, 51/01) and Law on Communal Affairs (Official Gazette No. 11/95; 51/02) of Republika Srpska

### 3.3 NGOs and private sector service providers

#### The (environmental) challenge



A transition towards sustainable development will require attention and action ... of all parties from government, business and civil society, by organisations and by individuals. The tools, means and capacity for this are still weak across Europe but progress is being made.

#### Introduction

The environmental NGOs and environmental service providers represent a significant share of the overall national capacities for environmental and sustainability policy development. Especially NGOs have developed very rapidly over the course of the recent years thanks to donor support, but the government institutions have been reluctant to rely on external services in performing their work. NGOs and the private sector are many times seen as competitors rather than providers that can complement the level and quality of services. Performance of national and local authorities could benefit from outsourcing some of the professional services to the private sector or NGOs. Contracting should be done in a way that the authorities maintain the ownership and responsibility for the results, that does not prevent building internal capacities of the government and that secures cost efficiency.

The supply of external services can be developed and regulated through:

- » Adequate procurement and granting procedures;
- » Registration of qualified service providers and/ or NGOs;
- » Integration of domestic service providers in donor-funded projects;
- » Establishment of transparent and effective mechanisms of providing support to NGOs;
- » Contracting the private sector, quality assurance (e.g. in EIA studies).

The Sixth Community Environment Action Programme [1600/2002/EC] calls for ensuring that environmental objectives, which should focus on the environmental outcomes to be achieved, are met by the most effective and appropriate means available.

Under the heading Involvement of Businesses and Social Partners the objective of the EU Sustainable Development Strategy [10917/06/CEC] is to enhance the social dialogue, corporate social responsibility and private-public partnerships to foster cooperation and common responsibilities to achieve sustainable consumption and production.

**Table 12: NGOs and service providers**

Country/ territory	Number of active environmental NGOs	Number of companies or experts registered for EIA
Albania	93	47
Bosnia and Herzegovina	Around 50	28
Croatia	150	50
Macedonia FYR	More than 100	Not applicable
Montenegro	30 – 40	Around 60* (less than 10 with substantial EIA experience)
Serbia	203	Around 100*
Kosovo, UN administered territory under UN Security Council Resolution 1244	30	0

\*All registered engineering firms are authorised to perform EIA

**Table 13: Environmental civil society organisations budgets and workforce in 2006**

Country/ territory	Number of ECSOs surveyed	Number of members	Number of volunteers involved	Number of full/ part time staff	Estimated total budget (Euro)
Albania	68	11 420	29296	253	83 7250
Bosnia and Herzegovina	87	54 628	5507	222	1 761 000
Croatia	70	16 739	6174	69	1 616 750
Macedonia FYR	50	7 466	3010	62	713 750
Montenegro	14	3 211	634	50	477 500
Serbia	114	35 434	19922	198	164 8000
Kosovo, UN administered territory under UN Security Council Resolution 1244	30	2 878	2601	105	382 500
<b>Total</b>	<b>433</b>	<b>131 776</b>	<b>67 144</b>	<b>959</b>	<b>7 436 750</b>

Source: REC, NGO Directory of South-Eastern Europe: A Directory and Survey Findings of West Balkan Environmental Civil Society Organisations, 2006

## Recent progress

Legal framework for free operation of NGOs and private enterprises was established in all countries by the year 2000. Approximately thousand environmental NGOs were formed in the region since 1990 and a significant number of them continue to operate (REC survey of 2006 mapped 433 environmental NGOs). The resource base for NGOs is still too narrow. Today most NGOs in the SEE depend on donations and grants from foundations, be they domestic, foreign or international. Only in Croatia, corporate donations represent a significant source of funding. In each country there is a limited number of NGOs that have significant professional capacity, are implementing projects and therefore have a possibility to influence policy and the public. REC research confirmed this, showing that NGOs are increasingly divided into a small group of professional NGOs and a majority of NGOs with limited funds and capacities.

In some countries/territories public authorities provide increasing support to NGOs. The Croatian ministry of environment provides grant support to NGOs through public calls for applications (50 grants each year) and Montenegrin municipalities dedicated 0.5 MEuro to supporting NGOs in 2006. The former Directorate for Environmental Protection of Serbia (now transformed into Ministry of Environmental Protection) had an annual budget for projects implemented by environmental NGOs. The Macedonian Government provides budget funds for projects of the civil society organisations and foundations.

**Table 14: Support to NGOs**

Country / territory	Budget for NGO grants by ministry of environment (Euro)
Albania	250 000
Bosnia and Herzegovina	Not available
Croatia	275 000
Macedonia FYR	50 000 – 70 000
Montenegro	None
Serbia	25 000
Kosovo, UN administered territory under UN Security Council Resolution 1244	None

The impact of NGOs on the general awareness of the public is rising but is still limited. The professional NGOs partner with Government in many ways, such as through working groups drafting government policies or awareness raising campaigns. The more professional NGOs also serve as service providers in some of the donor projects. Along with professionalisation, the involvement of volunteers in NGOs is increasing as for example in Serbia through various programmes of the USAID.

## Developing environmental institutions

In Croatia the NGOs and representatives of business associations are represented and actively involved in the EU negotiation process through the Working Group for Preparation of Negotiations for the Environment Chapter. In Bosnia and Herzegovina participation of environmental NGOs in policy development is envisaged through a representative in each entity's Environmental Advisory Council and in Montenegro, NGO representatives are members in the Sustainable Development Council. In 2007 the Government of Macedonia adopted a Strategy for collaboration with the civil society sector with an Action Plan 2007 – 2011. The Strategy provides a framework, mechanisms and policies for better inclusion of the citizens through their NGOs in decision making and policy development, improved access to information, creation of an enabling environment for advancement of the civil society sector, and development of culture of collaboration between the government and the CSOs.

### Sharri Net: an electronic network of environmental organisations

In Kosovo, UN administered territory under UN Security Council Resolution 1244, one of achievements is the establishment of the electronic network of environmental NGOs known as Sharri Net. The network has been established in 2002 (registered in 2003) to exchange environmental information among organisations. It is managed by a board consisting of six environmental organisations Eko Klina, MAR, Aquilla, Eko Trepça, Shoqata Ekologjike '99 and Drita e Krushës.

The network plays an important role in electronic communication with other environmental networks in South and Eastern Europe. It offers information for environmental organisations as well as for other organisations, internet services (web-design, post-box, posting lists) and electronic development of projects. One of the main products of the electronic network is the web site which is aimed at information dissemination about environmental activities in Kosovo and the region. Sharri Net establishes a free forum for exchange of information and supports networking, democracy and civil society.

[www.sharri.net](http://www.sharri.net)

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### Campaign for protection of Tara River

An NGO-led campaign was launched in 2004 in response to the government's decision to co-operate with Republika Srpska in building a hydropower dam on the Drina river. Had it been undertaken, the project would have created a large accumulation affecting a stretch of around 15 km of the Tara river in Montenegro, nearing parts of its canyon that are designated as a National Park and UNESCO World Heritage site. Tara river canyon – the second deepest in the world after the Grand Canyon – is considered an ecologically important area, and the whole river basin is designated as a Man and Biosphere Reserve.

More than 20 NGOs took active part in the campaign, organising a series of performances, public protests and petition signing. The campaign had a strong motto (“Necu baru, hocu Taru” – a demand not to turn this unique mountain river into a large puddle) and public relations approach. It succeeded in reaching and mobilising both the domestic and international public, and contributed to an unprecedented level of consensus in opposing the government’s intentions. The threshold of 6,000 signatures to the citizens’ petition necessary to ensure that the initiative will be considered by the Parliament was reached within a couple of days of petitioning, while the number of signatures during the whole campaign reached several tens of thousands. This led to eventual submission and adoption of parliamentary declaration for the protection of the river. Coupled with UNESCO recommendations, public pressure resulted in a government decision to drop the project.

[www.ngo-most.org/kampanje.php](http://www.ngo-most.org/kampanje.php)

Private institutes, consultancy firms and experts are playing an increasingly important but still minor role in the policy area. They provide services ranging from fundamental research to Environmental Impact Assessments and various policy papers. Some of them regularly participate in internationally funded projects, which are the most important market for consulting services at the moment. As the governments are not actively relying on external services, the supply of services is limited to covering existing demand, with not much space for newcomers.

The most obvious development of service providers is in the area of Environmental Impact Assessment. With the enactment of EIA procedures and registration of providers, tens of environmental consultancies have emerged. In countries that don’t have specific registration for EIA, these services are performed by the larger engineering and design firms, registered for preparation of technical project documentation in general, but only some of these have adequate EIA expertise.

### Open issues

There are no aggregate data on the volume or value of services provided by NGOs and the private sector (annual turnover, number of workplaces). Such information would allow more informed decision making regarding the promotion and development of the sectors. There is also no analysis/survey of the capacities or performance of NGOs as service providers.

The donor dependency of NGOs is high and therefore the sustainability of current levels of engagement is uncertain. Most NGOs are service-oriented, organised around short term, donor-funded projects, without strong constituencies, so they may dissolve or become inactive if they don’t succeed in receiving financial support.

## Developing environmental institutions

Most NGOs have insufficient organisation and management, including equipment and capital resources, fundraising and communication skills. They have difficulty recruiting members and engaging volunteers. The culture of volunteerism is being redefined only gradually, since many citizens want a break from the volunteerism of the past socialist system. In the REC survey however, NGOs said they had relative success in involving volunteers (they estimated as many as 67,144 volunteers were involved in their activities in the last years).

There is a generally negative attitude towards private sector service providers linked to a perception that they make profit out of environmental problems. Perceptions of corruption are also a deterrent to contracting private companies. Most investment in professional and implementation capacity is still made within the state and public sector institutions and agencies, even if it could be more efficient to encourage service provision and implementation of concrete project tasks to the NGOs and consultancy market while strengthening the overall strategic planning, co-ordination and quality control role of public authorities.

The environmental consulting sector is weak and heavily dependent on fluctuations in public funding and relationships with the government institutions both in the EIA and the donor project segment. There is widespread crowding out and price dumping by the public scientific or administrative institutions trying to earn some additional income on the market or by NGOs that are partly funded by public sources or donors which don't charge full costs for their services.

### Way forward

The specific roles of each sector (government, NGOs, consultancies i.e. private sector service providers, state budgeted scientific institutions and agencies) should be clarified, in order to increase the efficiency of the overall system and decrease the current situation of conflict and distrust.

More free circulation of human resources among these sectors would be highly beneficial to the efficiency of the whole system and for career development of individual professionals. This would depend on the stability of the NGO sector and its ability to provide a longer term perspective for professionals (including at least to some extent competitive salary and career development prospects).

The governments should develop mechanisms and a tradition of outsourcing services to the domestic NGOs and private sector following the example and applying the models from donor programmes, based on the principles of cost effectiveness, transparency and accountability.

With increase in prosperity across the region private contributions and corporate donations and sponsorships will become more important. They can be promoted through tax regulations and the overall credibility of the sector. But until the funding base is sufficiently wide and in order to decrease donor dependency, the already achieved NGO capacity should be supported by increased domestic granting and procurement through adequate procedures.

### Further information

Robert Atkinson, Funding gap grows in green movement, published in REC Green Horizon 2006, available on <http://greenhorizon.rec.org/archive/GH-3.4.pdf>

Bosnia and Herzegovina, Rulebook on the conditions for performing the activity of the legal entities in the domain of environment in Republika Srpska (Official Gazette RS, No. Official Gazette 2/03, 62/03, 34/04)

Bosnia and Herzegovina, Rulebook on conditions and criteria for the responsible authorities for preparation of an Environmental Impact Assessment study, the fee and other costs accrued during the procedure for environmental impact assessment (Official Gazette of Federation of Bosnia and Herzegovina No. 68/05)

Centre for the Development of Non-governmental Organisations, The Annual report on Co-operation between Local Governments and NGOs in Montenegro in 2005, 2006

Croatia, National Foundation for Civil Society Development, information available on <http://zaklada.civilnodrustvo.hr/>

### 3.4 Environmental financing

#### The (environmental) challenge



... traditional regulatory instruments are still widely used to deal with environmental issues, and impacts caused by general patterns of production and consumption are infrequently taken into account. Other instruments bringing together economic development and environmental concerns, such as economic market-based instruments and voluntary agreements, are being developed, but are not yet used to any large degree across the pan-European region.

#### Introduction

Full compliance with environmental requirements requires significant investment. In the context of lower GDP in transition economies financial resources are scarce and the ability of the population to pay more is limited. Securing appropriate funding for the investment and operation and maintenance of the environmental infrastructure and services, as well as for other investments into environmental improvements, is a major challenge.

All the governments in the region have received significant donor and IFI support for project preparation for environmental investment projects but there are only few cases in SEE where donors have funded investment projects. Some of the governments have had trouble in mobilising domestic resources. There have been attempts to set up environmental funds as specific mechanisms for environmental financing, but these were sometimes blocked by ministries of finance and (indirectly) the IMF. At the same time absorption capacity of the recipient institutions to manage and fully benefit from donor funds can be a serious bottleneck along with limited domestic investment in public environmental infrastructure. The options for addressing these issues include further development of public financial institutions and development of public-private partnerships.

Sixth Community Environment Action Programme [1600/2002/EC]:

Encouraging more effective implementation and enforcement of Community legislation on the environment

- » analysis of benefits and costs, taking into account the need to internalise environmental costs;
- » obtaining the best available scientific evidence, and the further improvement of scientific knowledge through research and technological development;
- » taking into account the objectives of the Programme in future financial perspective reviews of Community financial instruments;
- » calling on the European Investment Bank to strengthen the integration of environmental objectives and considerations into its lending activities in particular with a view to supporting the sustainable development of Candidate Countries ;
- » promoting integration of environmental objectives and considerations into the activities of other financial institutions such as the European Bank for Reconstruction and Development;
- » promoting a green public procurement policy, allowing environmental characteristics to be taken into account and the possible integration of the environmental life cycle, including the production phase, concerns in the procurement procedures while respecting Community competition rules and the internal market, with guidelines on best practice and starting a review of green procurement in Community Institutions.

## Recent progress

Owing to the poor economic situation and the low political priority given to the issues of the environment, the environmental expenditure of less than 0.3 % of GDP is typically (with the exception of Croatia) found across the SEE region. This is much lower than in the rest of Europe and needs to be significantly increased to secure the level of investment needed for compliance with the EU *acquis*. Currently the main sources of funding for environment are user charges for utility services, state and local budgets and international donors. The commercial banking and financing sector in these countries is still undergoing consolidation and privatisation and is not yet playing the role it could in providing investment capital.

Utility companies' user charges for water, waste water, waste management and other services have a long tradition in the region, but are insufficient to cover all the necessary investment and maintenance costs. Both national and local governments have been reluctant to increase them owing to social reasons. But even without a significant increase in fees, there is potential to improve the financial performance of traditionally inefficient communal utility enterprises and secure more funds for investments. Some progress is being made in this respect through donor and IFI projects targeting investments into municipal infrastructure.

## Developing environmental institutions

State and local budget allocations for the environment have been growing, but are still at a very low level compared with the needs. The recent environmental legislation in all countries provides for various economic instruments such as pollution and product fees. But there has been mixed success with collection of these fees and with channelling them into environmental expenditure. The level of pollution charges is not high enough to influence a polluter's behaviour and the collection rate of pollution charges is low owing to lack of enforcement and limited inspection capacities to control payment of fees and penalties.

**Table 15: Environmental budgets**

Country/ territory	Ministry of environment budget (MEuro)	EU CARDS Programme allocation for environment and natural resources (MEuro)*
Albania	12.5 (2006)	11.0 (2002 -2004)
Bosnia and Herzegovina	3.09 (2005)**	18.0 (2002 -2004)
Croatia	56 (2005)	10.5 (2002 -2004)
Macedonia FYR	5.40 (2005)	3.0 (2002 -2004)
Montenegro	3.24 (2005)	6.0 (2005-2006)
Serbia	7.2 (2006)	22.5 (2005-2006)
Kosovo, UN administered territory under UN Security Council Resolution 1244	4.14 (2006)	6.0 (2005-2006)

\*Source: [http://ec.europa.eu/enlargement/financial\\_assistance/cards/statistics2000-2006\\_en.htm](http://ec.europa.eu/enlargement/financial_assistance/cards/statistics2000-2006_en.htm)

\*\* Refers to the total budgets of the environment ministries at the entity level: RS (1.2 MEuro) and FBiH (1.89 MEuro), and does not include the cantonal budgets.

The public environmental expenditure is managed either by the ministries through environmental programmes within the budget, which are more and more based on multi-annual investment programmes, or by environmental funds. In all the countries attempts have been made to establish environmental funds as specialised environmental financing institutions. Currently only Croatia and Serbia have an operational environmental fund. The Macedonian fund was abolished in 2004 and replaced by a budget environmental investment programme. An environmental fund has just been established in BiH and establishment of one is pending in Montenegro.

## Environmental Protection and Energy Efficiency Fund in Croatia

Croatia established the Environmental Protection and Energy Efficiency Fund in 2003. It is an extra-budgetary legal entity, vested with public authority. The fund is primarily responsible to the ministries in charge of environment (MEPPPC) and energy issues (Ministry of Economy, Labour and Entrepreneurship).

The revenues of the fund are environmental charges such as: CO<sub>2</sub>, NO<sub>x</sub> charges, packaging charges, special environment charge for motor vehicles paid upon annual registration/ technical certification of vehicles, technological waste charge, and hazardous waste charge. According to the Fund's work plan for the period 2005 – 2008 it is to allocate 220 MEuro to projects in the following fields:

- » Closure and remediation of communal landfills;
- » Closure of 'wild' dumpsites;
- » Support to waste minimisation and avoidance;
- » Construction of waste management centres and preparation of waste management plans;
- » Waste recycling and recovery;
- » Remediation of hazardous waste landfill sites;
- » Protection and improving of quality of air, soil, water and sea;
- » Supporting cleaner production;
- » Conservation of biological and landscape diversity;
- » Supporting sustainable use of natural resources;
- » Supporting sustainable rural development;
- » Supporting sustainable economic development;
- » Supporting education, research and development studies;
- » Implementation of national energy programmes;
- » Supporting use of renewables;
- » Supporting sustainable construction;
- » Supporting cleaner transport;
- » Other environmental and energy efficiency programmes and projects.

The Fund provides loans, grants or subsidies through public tendering procedure. In 2004 and 2005, the Fund's allocations approved by the Parliament for programmes of environmental protection and energy efficiency were approximately 50 MEuro per year.

[www.fzoeu.hr/hrv/index.asp](http://www.fzoeu.hr/hrv/index.asp)

### Serbian Environmental Fund

The Fund for Environmental Protection was established in 2005 under the Law on Environmental Protection as an independent legal entity in order to provide financial resources for environmental protection in the Republic of Serbia. The Fund aims at generating funds from national and international sources taking into account the environmental objectives targeted by economic instruments. In planning and allocation of funds, the Fund applies the principles of objectiveness and responsibility, internationally recognised standards of good practice and transparency in its decision making. Currently the Fund collects revenues from two sources: control of trade of wild flora and fauna and environmental pollution taxes.

In 2005, the Fund for Environmental Protection collected 0.54 MEuro from the charges levied on trade of wild flora and fauna only. Pollution charges were introduced in December 2005 with the adoption of several decrees regulating ways of their calculation and criteria for refunding, waiving or reducing them.

In 2006, the planned income of the Fund was 7.77 MEuro. Out of this amount, 40.8% came from the tax on motor vehicles, 0.6% from charges on import of ozone depleting substance, 4.4% from charges paid for trading with wild flora and fauna and 54.2% from air pollution (SO<sub>2</sub>, NO<sub>x</sub>, dust) and waste generation and disposal charges.

The investment plan for 2006 was to allocate 82.3% of the collected funds for the construction of regional sanitary landfills, 4.14% for remediation of existing landfills, 2.24% for preparation of technical documentation for regional and local landfills, and the rest for other priorities.

[www.ekoserb.sr.gov.yu/fond](http://www.ekoserb.sr.gov.yu/fond)

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### Priority Environmental Investment Programme (PEIP)

Environmental sector requires significant capital investment into infrastructure. This presents a particular challenge for SEE countries as they lack readily available investment capital and market financing mechanisms. The PEIP programme has been developed and implemented within the framework of the Regional Environmental Reconstruction Programme for South-Eastern Europe (REReP). The overall objective of the PEIP is to reduce the pressure on the environment in the South-Eastern European (SEE) region through assistance to national governments and municipal authorities in strategic environmental investment planning, preparing environmental investment projects, and finding donors for their implementation.

The programme facilitates a process of strategic environmental investment planning by national

environmental authorities through identifying and prioritising necessary and relevant projects as well as appropriate project preparation, for which resources in the countries are limited.

PEIP extends support through institutional strengthening and capacity building and it is designed according to four principles:

- » **Regional:** project activities cover the SEE countries, including projects prioritised according to regionally agreed criteria;
- » **Process:** enabling the long-term process of compliance with the EU *acquis* and environmental improvement in the region, by providing a regional framework for investment planning and good practices;
- » **Stakeholders:** the project introduces a multi-stakeholder approach to investment planning, involving all key players into the process;
- » **Collaboration:** the project has developed working relations with key environmental initiatives working in the region, including DABLAS, Project Preparation Committee (PPC) and Infrastructure Steering Group for SEE (ISG), and the Danube Investment Support Facility (DISF).

The work covers the air, water, and waste sectors, which comprise the priority environmental investment-heavy projects in the region. The PEIP has produced the following outputs to date:

- » Identification of regional priority environmental sectors;
- » Creation of a database of environmental Critical Locations comprising 144 locations with multiple environmental problems in the SEE;
- » Performing analyses of national environmental priorities of SEE countries based on relevance to investment project-related development;
- » Compilation of a list of priority environmental investment projects comprising 79 high-priority projects in the region;
- » Since 2003, comprehensive guidance materials were developed to provide assistance to decision makers on national investment planning, local project proponents for project preparation, and to the donor community for designing financial assistance to the SEE region.

The Programme also provides valuable information to the donor community, including:

- » Background information on environmental and institutional needs and priorities;
- » The status of environmental investment planning in the region;
- » A pipeline of priority environmental infrastructure projects in a strategic framework.

[www.rec.org/REC/Programs/REREP/PEIP/Default.html](http://www.rec.org/REC/Programs/REREP/PEIP/Default.html)

## Developing environmental institutions

So far donor and IFI funding support has been crucial for the progress in environmental protection in the region. With the exception of Croatia, today in most countries donor budgets are comparable with the ministry budgets. In view of the needs for investment and the planned programmes such as the EU pre-accession instrument IPA, this is likely to remain so for some time even though domestic co-funding will gain more and more importance, as exemplified by the first four ISPA projects in Croatia. A key challenge will be to attract donor support and to use it in an effective manner. In order to improve co-ordination and effectiveness of donor funds, Macedonia has introduced a central database of donor projects. Addressing this challenge is to a large extent a matter of ensuring domestic co-funding, establishing appropriate institutional structures around environmental projects, and ensuring a sufficiently high quality of proposed projects in the first place.

**Table 16: Economic instruments**

Country / territory	List of economic instruments in use
Albania	<p><b>Water:</b></p> <ul style="list-style-type: none"> <li>» tariffs for water use and sewage;</li> <li>» administration and user fees for activities in transboundary lakes and on their shores;</li> <li>» fines for prohibited activities;</li> <li>» irrigation charges;</li> <li>» financial incentives (loans, exemptions of taxes and fees) to stimulate reduced water consumption or use and pollution abatement</li> </ul> <p><b>Waste:</b></p> <ul style="list-style-type: none"> <li>» waste disposal tariffs</li> </ul> <p><b>Packaging:</b></p> <ul style="list-style-type: none"> <li>» plastic container tax</li> </ul> <p><b>Transport:</b></p> <ul style="list-style-type: none"> <li>» import tax on cars (discourage more polluting, older diesel cars); carbon tax on motor fuels</li> </ul> <p><b>Use of natural resources:</b></p> <ul style="list-style-type: none"> <li>» charges for the use of forests, river beds, extraction of gravel, lime production, quarrying, etc;</li> <li>» hunting and fishing fees,</li> <li>» charges for the use of protected areas</li> </ul> <p><b>Non-compliance fines -</b></p> <ul style="list-style-type: none"> <li>» for the infringements of the legislation there are provisions for fines and penalties</li> </ul> <p><b>General environmental liability -</b></p> <ul style="list-style-type: none"> <li>» persons or entities that harm the environment by changing or damaging it are obliged to compensate for the damage</li> </ul> <p><b>Deposit refund schemes –</b></p> <ul style="list-style-type: none"> <li>» ad hoc voluntary schemes not covered by the laws (e.g. for glass bottles, steel collection, recycling of aluminium cans, etc.)</li> </ul>

Country / territory	List of economic instruments in use
Bosnia and Herzegovina	<p><b>Water:</b></p> <ul style="list-style-type: none"> <li>» Water abstraction charges (surface and underground waters utilisation)</li> <li>» Water user charges</li> <li>» Charges for water protection</li> <li>» Non-compliance fees for water pollution</li> </ul> <p><b>Taxes/ charges for sewage and wastewater</b></p> <ul style="list-style-type: none"> <li>» Sewage user charges</li> <li>» Charges for wastewater discharge into the sewage</li> </ul> <p><b>Waste disposal and management</b></p> <ul style="list-style-type: none"> <li>» User charges for municipal waste collection and disposal</li> </ul> <p><b>Deposit refund scheme</b></p> <ul style="list-style-type: none"> <li>» Beverage containers (glass)</li> </ul>
Croatia	<p>Charges on import of substances that deplete the ozone layer</p> <p>Water protection and water use charges</p> <p>Charges for use of environment</p> <p>Fee for utilisation of forest functions of general benefit (“Green Tax”)</p> <p>Charges for communal waste</p> <p>Charges for non-hazardous technological waste</p> <p>Packaging waste charges.</p> <p>Charges for hazardous waste</p> <p>Charges for waste tyres</p> <p>Special environmental charge for motor vehicles (annual obligatory “Eco-test”)</p> <p>SO<sub>2</sub> and NO<sub>x</sub> charges; CO<sub>2</sub> charge introduced in 2007</p> <p>Fuel excise tax</p> <p>Charge for renewable energy sources</p> <p>Exemptions from taxation, custom duties and other levies for environmentally friendly technologies and products</p> <p>Administrative fees for state, regionally or locally issued permits</p>

## Developing environmental institutions

Country / territory	List of economic instruments in use
Macedonia FYR	<p><b>Pollution and product charges</b> levied on:</p> <ul style="list-style-type: none"> <li>» environmental pollution;</li> <li>» pollution through use of products and substances (e.g. transport, packaging);</li> <li>» use of natural resources;</li> <li>» import of used products in the Republic of Macedonia; and</li> <li>» production or import of goods that are harmful for the environment or contain harmful substances.</li> </ul> <p><b>User charges (municipal services mainly):</b></p> <ul style="list-style-type: none"> <li>» waste disposal charge;</li> <li>» water supply;</li> <li>» wastewater discharge;</li> <li>» wastewater treatment;</li> <li>» irrigation.</li> </ul> <p><b>Fees (nature and biodiversity protection):</b></p> <ul style="list-style-type: none"> <li>» logging fees;</li> <li>» fishing fees;</li> <li>» hunting fees;</li> <li>» export of endangered or protected plants.</li> </ul> <p><b>Taxes:</b></p> <ul style="list-style-type: none"> <li>» on petrol and diesel;</li> <li>» import duty on vehicles that favours new vehicles;</li> <li>» vehicle taxes in general.</li> </ul> <p><b>Other energy related economic instruments:</b></p> <ul style="list-style-type: none"> <li>» surcharge for electricity generation from fossil fuels;</li> <li>» oil derivatives charges.</li> </ul> <p><b>Penalties and fines for non-compliance</b></p> <p><b>Exemption of import duties</b> for equipment directly used for environmental protection</p> <p><b>Deposit-refund schemes</b> apply only to certain types of packaging (glass bottles, plastic bottle gaskets etc.)</p>
Montenegro	<p>Fuel excise tax</p> <p>Fossil fuel tax</p> <p>CFC tax</p> <p>Air emission charges</p> <p>Water protection charge</p> <p>Hazardous waste charge</p> <p>Vehicle taxes and vehicle eco-charge (paid at vehicle registration)</p> <p>Charges for the use of natural resources (forest, fishing, extraction of materials from water courses, water abstractions)</p> <p>User charges (water, wastewater, waste)</p>

Country / territory	List of economic instruments in use
Serbia	Pollution charges on emissions of SO <sub>2</sub> , NO <sub>x</sub> and PM Charges on import of ozone depleting substances Charges on production and disposal of hazardous and non-hazardous waste Use of motor vehicles taxes Charges for trading of wild flora and fauna Charge for utilisation of natural protected areas Water abstraction charges Sewage and wastewater charges Drainage and irrigation charge Charges for excavation of gravel, sand and other materials from watercourses Forest utilisation charges (wood and wood products, lease of forest land, use of forest land as pasture) Charges for conversion of agricultural land to other use Charges for land use for a limited time period
Kosovo, UN administered territory under UN Security Council Resolution 1244	None

## Open issues

At present, there is little systematic collection of information on environmental expenditure in most countries and territories. The information on public funding, donor assistance and revenues collected through environmental charges are scattered and difficult to compare. There is almost no information on the expenditure by industry and private sector.

There is a lack of analysis on costs and benefits of environmental policies and their implementation, and the existing economic instruments are mainly not effective enough in fulfilling their purpose of pollution prevention.

The perception that environmental expenditure is a cost rather than an investment that can contribute to economic growth is changing slowly in the context of restricted public spending and competing priorities. In most countries, at the same time, the environment is seen as something that should be paid for by the international community, resulting in reluctance to increase domestic funding allocations to the levels necessary to cover the needs.

Many industries are not aware of their legal obligations and with the existing system of economic instruments have no incentives to improve their performance.

## Developing environmental institutions

User charges constitute a major part of the overall supply of environmental finance, the largest volume of them coming from water supply. However, there are widely acknowledged deficiencies in the current functioning of the charge systems. The key problems are:

- » Low political willingness to increase tariffs to the full cost recovery level;
- » Low collection rates;
- » Low willingness and ability to pay by the consumers;
- » Lack of appropriate enforcement measures;
- » Poor management of infrastructure and communal utility enterprises.

Some countries are still slow in developing specialised environmental financing institutions such as environmental funds that could allocate and manage funds efficiently and effectively.

### Way forward

Establishing an effective system of environmental financing, including improvements in general public expenditure management, is necessary for all the countries in the region. Environmental liabilities should be adequately addressed in the process of privatisation. The polluter/ user pays principle should be fully implemented. A system of economic instruments should be further developed to provide strong incentives for pollution reduction. For example, implementation of the polluter pays principle in Croatia has been a way of sensitising the industry regarding their legal (environmental) obligations and providing incentives to improve their performance.

The ongoing development reforms in areas such as banking, accounting, auditing and property enforcement will have positive derived effects on financing of environmental improvements. But the overall environmental expenditure will have to increase significantly to meet the commitments under the EU accession process. If planned and managed on a sound analytical basis, these expenditures will generate both environmental and economic benefits for the countries.

NEAPs can be made more operational by including cost benefit analysis, budgets, sources of funding and institutional responsibilities in order to initiate the implementation of identified actions. Financing plans based on cost-benefit and cost effectiveness analysis should be developed for the investments required to meet European standards, particularly in the field of water and solid waste, as well as investments required to tackle pollution at existing hot-spots.

### Further information

REC, Priority Environmental Investment Programme, 2006 available on

[http://www.rec.org/REC/Programs/REREP/PEIP/docs/peip\\_invest\\_challenge\\_book.pdf](http://www.rec.org/REC/Programs/REREP/PEIP/docs/peip_invest_challenge_book.pdf)

EEA Technical report No 8/2005, Market-based instruments for environmental policy in Europe, 2005

CEC, COM (2001) 304, The Challenge of Environmental Financing in the Candidate Countries

Bosnia and Herzegovina, Technical Assistance to the Establishment of an Environmental Fund, Final Report May 2006

UNDP, Identification of the Financial Sources for the Implementation of the National Strategy for Sustainable Development of Montenegro, 2006

### 3.5 Access to information and public participation

#### The (environmental) challenge



Never before have people been as networked as today. It is to be expected that increased access to new communication and networking tools will in the future significantly reshape policy making and implementation, also in the area of environment.

#### Introduction

Access to information and public participation represent the cornerstones of any environmental sustainability policy. The countries of SEE have been in the process of ratification and implementation of the Aarhus convention, and the public institutions have started integrating access to information and public participation into their procedures and practice.

The introduction of the Aarhus convention into the national legal and administration systems can follow two basic approaches:

- » Regulating access to information and public participation through the environmental law and applying it in the environmental sector regardless of other sectors; and
- » Introducing general laws on access to information and participation in decision making applying to all institutions and introducing general procedures of impact assessment etc.

An important question has been to which institutions and how rules on access to information and public participation apply. For example, are public enterprises managing natural resources or those having activities with significant environmental impact also subject to the Aarhus convention, how much is charged for environmental information, and similar. Other important issues are how actively to provide all of the information that should be made accessible and publicly available while there are gaps in collecting and sharing the information, how to ensure information flow among the agencies and to the public, and how to secure the same standard in practice within individual institutions.

## Developing environmental institutions

To improve collaboration and partnership with consumer groups and NGOs and promote better understanding of and participation in environmental issues amongst European citizens, the Sixth Community Environment Action Programme [1600/2002/EC] requires:

- » ensuring access to information, participation and justice through early ratification of the Aarhus Convention by the Community and by Member States;
- » supporting the provision of accessible information to citizens on the state of and trends in the environment in relation to social, economic and health trends;
- » general raising of environmental awareness;
- » developing general rules and principles for good environmental governance in dialogue processes.

**Table 17: Legal framework for access to information**

Country / territory	Ratification of the Aarhus Convention	Law on access to information
Albania	2000	1999
Bosnia and Herzegovina	Under preparation	2000
Croatia	2006	2003
Macedonia FYR	1999	2006
Montenegro		2005
Serbia	Under preparation	2003, 2005
Kosovo, UN administered territory under UN Security Council Resolution 1244	Pending final status resolution	2003

### Recent progress

Not all the countries have ratified the Aarhus convention yet, but they are all preparing for this (strategies for the implementation of the Aarhus convention exist for all countries) or taking it into account in the development of relevant legislation. The process is closely linked with EU accession and the transposition of Aarhus Convention related EU directives.

The framework laws on environmental protection adopted in recent years incorporate the principles and key implementation procedures for public participation and access to information. Also the spatial planning laws contain provisions for public participation in the planning and permitting processes. Similarly, most countries adopted legislation on EIA, SEA and IPPC, which incorporate

provisions on public participation in decision-making in line with the EU directives and the Aarhus requirements. Where this has not yet happened, it is being planned in the next few years (e.g. IPPC law in Albania or Kosovo, UN administered territory under UN Security Council Resolution 1244) or if adopted, will enter into force in 2008 (Montenegro). Several countries have also adopted general Freedom of Information Acts stipulating that every public institution is obliged to provide response to public queries, if the law does not prescribe differently. However, implementation of access to information acts is not progressing equally across the region. In Montenegro, for example, the civil sector and the EC are voicing concerns over the implementation of the 2005 Law on Access to Information noting that in the administration's responses to requests for information, there is extensive referral to exceptions (such as state or commercial secret).

Providing access to environmental information is an important function of the Environmental Agencies (e.g. in Croatia and Serbia) or environmental information systems managed by the ministries (e.g. Macedonia FYR).

### CASE STUDY

#### Croatian Environmental Agency

The Croatian Environment Agency was established in June 2002 with the obligation to analyse and interpret the environmental data and provide the information needed by the state administration, the Government and the Parliament for efficient implementation of environmental policy. The Agency is defined as an independent inter-sectoral public institution that shall:

- » ensure, encourage and facilitate collaboration and exchange of information among the national administrative, professional and scientific communities;
- » create, develop, co-ordinate and maintain the state-of-the-art information system;
- » ensure efficient and controlled exchange of information with the EU bodies and institutions;
- » ensure availability of information at different levels to all stakeholders, from general population to professionals.

In addition to these basic tasks, the Agency is active on a much wider scale as it takes a pro-active part in planning and development of new environmental protection initiatives and follow-up of the environmental action plans and projects through:

- » Harmonisation and co-ordination of data forms and information systems;
- » Co-ordination and planning of all parts of the system;
- » Data/information management co-ordination on different levels: general public/scientific community/bodies comprising the information system /state and administrative bodies,
- » Development of neutral reports, not for any particular ministry, by individual topics (by themes, regions, indicator impacts, etc.).

The Agency is organised as a single legal entity, with the rights and responsibilities it has under the law, Charter, and its founders' decisions. Currently it has 23 staff.

[www.azo.hr](http://www.azo.hr)

### Public Relations Office in Macedonia

Established in 1999, the Office is a link between the Ministry of Environment and Physical Planning and the public. The basic principle behind its activities is the two-way communication with the public, i.e. provision of information for and receiving information from the public. The basic role of the Office or its main goals include:

- » Providing for transparency and public access to information regarding different aspects of environmental protection;
- » Promotion of environmental education for the purpose of better understanding of the environment, through participation in different scientific and educational programmes;
- » Increase in public awareness and understanding of important environmental issues and options of possible solutions, in order to improve environmental conditions;
- » Obtaining useful information from citizens and organisations possessing personal and specialised knowledge of environmental resources and issues, which can not be obtained in any other way;
- » Information on decision making concerning environmental priorities and solutions reflecting public opinion;
- » Development of a network of individuals who could take an active part in resolving environmental problems;
- » Enabling support for specific environmental programmes or policies.

The activities of the Public Relations Office comprise publications, organisation of environmental campaigns, events, grass-root activities with a specialised Eco-Bus and educational activities. A rich library on various environmental topics is also available to the public.

[www.moepp.gov.mk](http://www.moepp.gov.mk)

A variety of the projects focused on raising public awareness and participation in environmental policy and decision-making and implementation is carried out through the REC REReP projects. In this framework, strategies for implementation of the Aarhus Convention have been developed in several countries along with implementation guides. Capacity building/ training programmes have been implemented to address the priority needs regarding implementation practices at national and local level (with the exception of Croatia, which has been only partly covered by these projects). Most environmental projects supported by the EU and other donors have a component aimed at increasing public awareness and participation.

Table 18: National sources of environmental information

Country / territory	Websites providing free access to environmental information
Albania	<a href="http://www.moe.gov.al">www.moe.gov.al</a> <a href="http://www.albania.rec.org">www.albania.rec.org</a> <a href="http://www.mjedisot.org">www.mjedisot.org</a> <a href="http://www.ccalb.org">www.ccalb.org</a> <a href="http://www.ekolevizja.net">www.ekolevizja.net</a> <a href="http://www.qke-al.info">www.qke-al.info</a>
Bosnia and Herzegovina	BiH Ministry of Foreign Trade and Economic Relations, <a href="http://www.mvteo.gov.ba">http://www.mvteo.gov.ba</a> Government of Republika Srpska, Ministry of Urban Planning, Civil Engineering and Ecology of Republika Srpska, <a href="http://www.vladars.net">http://www.vladars.net</a> Federal Ministry of Environment and Tourism of Bosnia and Herzegovina, <a href="http://www.fmoit.gov.ba/">http://www.fmoit.gov.ba/</a> Brčko District Government, <a href="http://www.bdcentral.net/">http://www.bdcentral.net/</a>
Croatia	<a href="http://www.azo.hr">www.azo.hr</a> <a href="http://www.mzopu.hr">www.mzopu.hr</a>
Macedonia FYR	<a href="http://www.moep.gov.mk">www.moep.gov.mk</a> <a href="http://www.gov.mk">www.gov.mk</a> <a href="http://www.sei.gov.mk">www.sei.gov.mk</a>
Montenegro	<a href="http://www.mturizma.vlada.cg.yu">www.mturizma.vlada.cg.yu</a> <a href="http://www.meteo.cg.yu/sektori.php?sektor=3">www.meteo.cg.yu/sektori.php?sektor=3</a> <a href="http://www.ceti.cg.yu/index_en.html">http://www.ceti.cg.yu/index_en.html</a>
Serbia	<a href="http://www.ekoserb.sr.gov.yu">www.ekoserb.sr.gov.yu</a> <a href="http://www.sepa.sr.gov.yu">www.sepa.sr.gov.yu</a> <a href="http://www.beoeko.com/sr/merenja01a.asp">www.beoeko.com/sr/merenja01a.asp</a> , <a href="http://www.hidmet.sr.gov.yu/ciril/osmotreni/kvalitet_vazduha.php">www.hidmet.sr.gov.yu/ciril/osmotreni/kvalitet_vazduha.php</a> <a href="http://cdr.eionet.europa.eu/rs/eu/eiodata/envrrprmg">cdr.eionet.europa.eu/rs/eu/eiodata/envrrprmg</a>
Kosovo, UN administered territory under UN Security Council Resolution 1244	<a href="http://www.rec.org">www.rec.org</a>

Through technical assistance projects, notable progress has been made with respect to stakeholders' participation in the development of policies and programmes, but participation of NGOs and civil society in permanent co-ordination committees and/or working groups that have significant influence on the environmental policy making has been low. Also, public participation in project level decision-making has not become yet a general practice.

### Open issues

A lot of environmental information is missing as a consequence of the lack of systematic monitoring effort. Existing information is hard to access and search owing to the lack of a harmonised and integrated approach by the agencies responsible for collecting, processing and sharing information. Only initial steps towards the development of Pollution Release and Transfer Registers (PRTR) have been made so far.

## Developing environmental institutions

In the past, information has been too often treated as confidential without proper reason and justification, and such an attitude continues despite the fact that generally, legal provisions are in place to guarantee free access. For example, public institutions that have in their mandate provision of information to the public invest more effort in complicated approval procedure for getting limited sets of data than what should be required for a systematic and satisfactory comprehensive solution such as regularly updated, web supported, GIS-like presentation of information, at the level which would satisfy the interests and needs of the majority of interested stakeholders. This problem is further complicated by the lack of clear reporting requirements and tradition for the polluters as well as by uncoordinated responsibilities of different agencies.

The technocratic tradition of decision making continues to set unnecessary obstacles to public participation at the operational level owing to a lack of understanding that access to information and public participation actually benefit the political process. On the other hand the relatively low interest and awareness of citizens about their right to participate in decision making results in insufficient pressure and proactive initiatives from the side of NGO community for establishing dialogue with the key governmental agencies and reaching more regular cooperation.

Implementation of the access to justice pillar of Aarhus is slow, jeopardising the overall enforcement of access to information and public participation rights. Reasons for this vary across the region and may include: the ongoing judicial reforms; lack of confidence in the judiciary; financial and other barriers and the lack of free legal assistance and support to public advocacy organisations in the environmental field; low awareness and lack of knowledge about environmental laws and Aarhus related issues among the judiciary, NGOs and the public.

### Way forward

The countries that haven't done so should ratify/accede to the Aarhus Convention as soon as possible. All countries should fully implement it in their legislation and especially in practice.

The mechanisms which have already been integrated for access to information and public participation should be used both by the authorities and the public as a real opportunity and input into decision-making (especially in EIA, SEA, IPPC); in parallel their efficiency needs to be improved.

Further capacity building is required for civil servants on the purpose and practice of access to information and public participation in order to motivate them and support them in introducing the communication culture into their daily work.

### Further information

Bosnia and Herzegovina, Laws on Free Access to Information adopted at State and entity levels (Official Gazette Bosnia and Herzegovina No. 28/00; Official Gazette of Federation of Bosnia and Herzegovina No. 32/01; Official Gazette of Republika Srpska No. 20/01)

Croatia, Information Catalogue available on <http://www.mzopu.hr/default.aspx?id=5945>

REC, information available on <http://www.rec.org/REC/Programs/PublicParticipation.html>

### 3.6 Education for sustainable development

#### The (environmental) challenge



Nowadays, Education for Sustainable Development (ESD) implies a focus on participatory and democratic processes seeking consensus and understanding among different groups of people and countries in dealing with local and global issues, using holistic approaches.

It is clear from the socio-demographic trends, that the younger population profiles of the EECCA and SEE countries represent a great potential for taking forward the sustainable development agenda for the future through education. However, lifelong learning, including awareness raising and training for adults, is crucial if the SD concept is to permeate fully through European societies.

It will be vitally important to capitalise on this potential to promote sustainable development across the region.

#### Introduction

For the medium to long term, education for sustainable development is crucial for improving the general attitude of the public towards environment and sustainable development in general, and for the development knowledge required for the management of sustainability. General information about sustainable development should be integrated into all levels of the education system. University education should provide adequate knowledge and skills to perform the various functions in environmental and sustainability management, and possibilities for life long learning in the field of environment and sustainability should be provided.

Some of the main options for integrating environment and sustainability into the education system are:

- » Initiatives by the ministry of environment or by the ministry of education;
- » Introducing education for sustainable development as a voluntary activity in the various levels of schools (Eco-schools, Green Pack, GLOBE);
- » Integrating environment and sustainable development into the curricula of the existing subjects and programmes;
- » Introducing new subjects or study programmes dedicated to the environment and SD;
- » Government, local authorities, utility companies or NGOs taking initiative for various aspects of capacity building within the general public.

The aim of the UNECE Strategy For Education for Sustainable Development, adopted at the High-level meeting of Environment and Education Ministries in Vilnius in 2005, is to develop and incorporate ESD into formal education systems, in all relevant subjects, and in non-formal and informal education.

The objectives of this Strategy, which will contribute to the achievement of the overall aim, are to:

- (a) Ensure that policy, regulatory and operational frameworks support ESD;
- (b) Promote SD through formal, non-formal and informal learning;
- (c) Equip educators with the competence to include SD in their teaching;
- (d) Ensure that adequate tools and materials for ESD are accessible;
- (e) Promote research on and development of ESD;
- (f) Strengthen cooperation on ESD at all levels within the UNECE region.

### Recent progress

The ministries of environment and education as well as NGOs are working on the introduction of formal and informal programmes of environmental education. All National Environmental Action Plans, or other strategic documents addressing the environment, include education. Adoption of the Vilnius strategy has further strengthened the cooperation among the relevant ministries in the countries and territories. For the region, the Workshop on Sustainable Consumption and Production and Education for Sustainable Development was held from 5 – 6 December 2005 in Zagreb, organised by the Croatian administration in collaboration with the Centre for Cleaner Production in Croatia, under the auspices of the Central European Initiative and United Nations Environment Programme.

Over the past decade, environmental topics have been introduced into school and kindergarten curricula under various programmes and projects. In the curricula of primary and secondary schools environmental issues are dealt with within subjects such as nature and society, biology and basic science.

**Table 19: University environmental programmes**

Country / territory	Name of the programme
Albania	<ul style="list-style-type: none"> <li>- Environmental engineering at the Construction Faculty of Tirana University, Tirana (BSc diploma)</li> <li>- Environmental engineering at the Mechanical Engineering Faculty of Tirana University, Tirana (BSc diploma)</li> <li>- Environmental Science at Agronomy Faculty, Agriculture University, Tirana (BSc and MSc diplomas)</li> <li>- Environmental Science at Natural Sciences Faculty, Tirana University, Tirana (MSc diploma)</li> </ul>

Country / territory	Name of the programme
Bosnia and Herzegovina	<ul style="list-style-type: none"> <li>- University of Banja Luka</li> <li>- Faculty of Technology, Department for Environmental Protection (Bachelor degree)</li> <li>- Faculty of Mathematics and Natural Science, Department of Ecology (Bachelor degree).</li> <li>- University of Sarajevo</li> <li>- Faculty of Mechanical Engineering, Environmental Management (Masters degree)</li> <li>- University of Tuzla</li> <li>- Faculty of Technology, Department for Environmental Engineering (Bachelor and Masters degrees)</li> </ul>
Croatia	<ul style="list-style-type: none"> <li>- Bachelor, master and doctoral degrees in environmental engineering and environmental protection at the Faculty of Sciences and Faculty of Chemical Engineering and Technology of Zagreb University; Pedagogical Faculty of Osijek University; Split University</li> <li>- Various environmental curricula incorporated in graduate and postgraduate studies at the Faculty of Electrical Engineering, Faculty of Mechanical Engineering, Faculty of Economy, Faculty of Civil Engineering of Zagreb University</li> <li>- International interdisciplinary postgraduate studies on environmental management – Zagreb University, Institute “Ruđer Bošković” and American Chamber of Commerce</li> <li>- Graduate and postgraduate studies in forest ecosystem protection at the Faculty of Forestry, Zagreb University</li> </ul>
Macedonia FYR	<ul style="list-style-type: none"> <li>- Bachelor of Interdisciplinary Studies in Environmental Engineering at the Faculty of Mechanical Engineering at the St. Cyril and Methodius University in Skopje</li> <li>- Private Faculty of Business Economy (FBE) Graduate Level: Curriculum Environment Major: Environmental Economics – Sustainable Development; Postgraduate Studies (MA) in Environmental Economics – Sustainable Development</li> <li>- FON University, Skopje: Graduate Studies in Environmental Management</li> <li>- Postgraduate studies in Environmental Management offered at several faculties at the St. Cyril and Methodius University in Skopje, and other universities in the country</li> </ul>
Montenegro	<ul style="list-style-type: none"> <li>- Graduate studies: Faculty of Biology, University of Montenegro in Podgorica (ecology)</li> <li>- Postgraduate studies: Faculty of Biology and Faculty for Technology and Metallurgy, University of Montenegro in Podgorica (ecology, biodiversity, sustainable development)</li> </ul>
Serbia	<ul style="list-style-type: none"> <li>- University of Belgrade, Faculty of Biology, Faculty for Technology and Metallurgy – Environmental Protection</li> <li>- University of Singidunum – Faculty for Environmental Protection</li> <li>- University of Niš – Faculty for Occupational and Environmental Protection</li> <li>- University of Novi Sad, Technical Faculty – Environmental Engineering</li> <li>- University of Kragujevac, Faculty of Biology – Environmental Studies</li> <li>- More than 20 faculties set up departments or study groups for teaching environmental issues, both at graduate and postgraduate level</li> </ul>
Kosovo, UN administered territory under UN Security Council Resolution 1244	<ul style="list-style-type: none"> <li>- Bachelor and master degree on Ecology and Environmental Protection in Faculty of Mathematics and Natural Science and in Faculty of Architecture and Civil Engineering</li> </ul>

## Developing environmental institutions

At the university level, there are some special programmes in the region. Multi-disciplinary postgraduate programmes have been introduced at some universities in the region, providing opportunities for the continued education of environmental specialists.

Informal environmental education is not systematically co-ordinated and structured. Numerous awareness raising campaigns and promotions have been organised by NGOs or as part of donor projects. For example, upon a 2001 initiative of Sarajevo University, teachers' training notes for secondary schools on "Exploring Europe's Environment," prepared by the EEA and the World Wide Fund for Nature (WWF), were translated into the national languages and 300 copies were circulated throughout the country. The University organised a seminar for some 100 teachers from Sarajevo and six cantons of the Federation of Bosnia and Herzegovina on these notes.

Publishing activities have been oriented mostly to the youngest population. There have been many radio and TV programmes, articles in magazines and newspapers on environmental issues. Although they vary in quality and success, these programmes are making a significant contribution to the general awareness of the public. Another – still under-utilised – opportunity to contribute to the overall 'education for sustainable development' efforts across SEE countries and territories is to explore global initiatives (such as UN Decade of Education for Sustainable Development) and use Biosphere Reserves as 'learning sites' for local sustainable development.

### Green Pack

One of the best examples for the environmental education in school is the Green Pack, a multi-media environmental education curriculum kit primarily intended for secondary school teachers and their students, although it can also be used at other levels of education. It has already been introduced in Poland, Hungary, Czech Republic, Russia, while work is ongoing in Turkey, Macedonia etc. For Albania, the Pack was finalised in October 2006 and is entering school curricula at the beginning of 2007.

Each Green Pack is adapted to a particular country, with national and regional information supplementing the core material. National experts are consulted to determine the level of the materials according to the needs of the target country. The exception is an English-language version that contains general information on the European environment. Rather than focusing on the accumulation of knowledge in particular environmental areas, the Green Pack emphasises the development of new values in students and a new model of behaviour at school, at home and in society. It focuses on particular aspects of environmental protection and sustainable development and includes a variety of educational materials, including:

- » a teacher's handbook with lesson plans, fact sheets and work sheets for students;
- » a video cassette with animated clips and educational films;
- » an interactive CD-ROM with extensive information on various environmental topics;

- » a role-playing game based on environmental dilemmas; and
- » other printed materials (specific to country versions).

In this context students are, above all, partners with the teachers in the accomplishment of various activities, discussions, role-playing and decision making. The main messages of the Green Pack are also effectively disseminated to other members of the family and society via the students and teachers.

The package in Albania has been distributed to 1,800 secondary schools and is now in the school curricula for 7th grade children. The teachers are trained by REC Albania together with the National Centre for Training on the main inputs of this package and how to use it as an interactive document.

In the framework of the Stara Planina cross border cooperation project, a demonstration of the interactive Green Pack education tool was made to Bulgarian and Serbian teachers present at the summer crafts camp in Chiprovtsi, July 2004. Green Packs were given to all eight schools present, to be used in their future activities.

[www.rec.org/REC/Programs/Greenpack/About.html](http://www.rec.org/REC/Programs/Greenpack/About.html)

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### UNESCO Biosphere Reserves: 'Learning sites' for sustainable development

Originally launched in 1971 as a research project, the UNESCO Man and Biosphere (MAB) Programme has developed world-wide as an inter-governmental platform to develop conceptually and operationally relevant frameworks for local sustainable development. The Programme has been benefiting from a world-wide network of 'learning sites', the Biosphere Reserves (BRs). In 1995, the Seville Strategy has given the impetus to promote BRs as sustainable development models; one of the consequences having been that the MAB Programme has been used more and more in many countries as reference and monitoring systems for participatory approaches to conservation with local communities, with a view to promoting a process of development based on «soft» technologies and local knowledge and value-added products and services (quality economies, labels of origins, "model forests").

With the launching of the UN Decade of Education for Sustainable Development (DESD) in 2005, a specific niche for the MAB Programme was identified, to reinforce the use of BRs and their networks as learning sites for sustainable development by (a) using BRs as sites for Science for Sustainability support sites (sites where evidence-based policy making is encouraged) for Society, testing approaches to manage changes and interactions between social and ecological systems, including conflict prevention and management of biodiversity; and (b) sharing the practices and

values of BRs as well as better define their services, products and tools to sustainable development for national decision makers and the international community.

In the SEE countries, the current picture of the BRs presence and functioning is still unbalanced – ranging from countries with many sites, as Bulgaria, to countries with none, as Albania, BiH and Macedonia FYR. But, in addition to the first designations (the large majority being traditionally interpreted as just another category of protected areas) a recent ‘rediscovery’ of the BR ‘model’ as a very valuable tool to foster local sustainable development initiatives and promoting trans-boundary ‘green diplomacy’ processes, can be observed.

[www.unesco.org/mab](http://www.unesco.org/mab)

### Open issues

The co-ordination between environment and education ministries in preparing joint programmes is rather limited and it is difficult to find information on the extent to which environment and sustainable development are integrated in the curricula, and what are the effects.

Most training modules and courses or projects on various environment-related themes are short and superficial.

Educational institutions for sustainable development lack sufficient capacity to ensure appropriate quality and continuity over a longer period of time.

### Way forward

Environmental educational strategies should be prepared based on an assessment of the existing programmes and courses on environmental education, aiming at further extension, mainstreaming and institutionalisation.

Further progress requires both improvements in quality (of programmes, arguments, teaching, proposed alternatives) and organisation. In practice this requires the present extra-curricular environment activity to become part of the formal curriculum, as a specific subject and as a dimension of other subjects, such as biology, geography, civic studies, history and economics.

To give effect to this change teacher training will need to include environmental issues, appropriate teaching modules will need to be developed and educational materials made available, including access to information that is relevant for the age groups concerned.

The NGO sector should be more involved in the development and integration of environmental educational programmes. The role the media can play in education/ awareness raising is largely under-utilised, and efforts should be made to improve this (improving at the same time the way media report on environment and sustainable development issues).

### Further information

Bosnia and Herzegovina, Functional Review of the Education Sector, Final Report, March 2005, available on [http://www.delbih.ec.europa.eu/en/reviews/Education\\_report\\_%20PDF/eng0FinalReport.pdf](http://www.delbih.ec.europa.eu/en/reviews/Education_report_%20PDF/eng0FinalReport.pdf)

Government of the Republic of Montenegro, National Strategy for Sustainable Development, 2007

Croatia: Devernay, B.; Garašić, D.; Vučić, V., Odgoj i obrazovanje za okoliš i održivi razvoj – priručnik za nastavnike i odgajatelje, Društvo za unapređivanje odgoja i obrazovanja, Zagreb, 2001

UNESCO and the UN Decade of Education for Sustainable Development, information available on [http://portal.unesco.org/education/en/ev.php-URL\\_ID=27234&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/education/en/ev.php-URL_ID=27234&URL_DO=DO_TOPIC&URL_SECTION=201.html)



## 4. Managing natural assets for sustainability

### 4.1 Urbanisation and migrations

#### The (environmental) challenge



The flows of people in an increasingly globalised world reflect not only changes to countries' economies and distribution of industry but also their political, social and even cultural transitions. Several characteristic key trends of migration and internal mobility can be identified, including (a) migration across the pan-European region along gradients of political stability or economic prospects, (b) in-country migration from rural into urban areas often driven by employment opportunities, and (c) internal mobility of retirees seeking a better or cheaper lifestyle (often in Mediterranean countries). ... Countries in South-Eastern Europe ... have experienced large increases in urban population. The largest increases in this region have occurred in Albania ... seeing the proportion of people living in urban areas increase by around 8% ... (World Bank Data).

#### Introduction

The countries of SEE have experienced major internal and outward migrations in the last 15 years owing to the war and the effects of economic restructuring. In general, the direction of migration was from the mountains and rural areas towards the cities and coast. In this situation a rapid increase in urban population is creating a major burden on public services and infrastructure, while physical and urban planning cannot keep up with the urban sprawl.

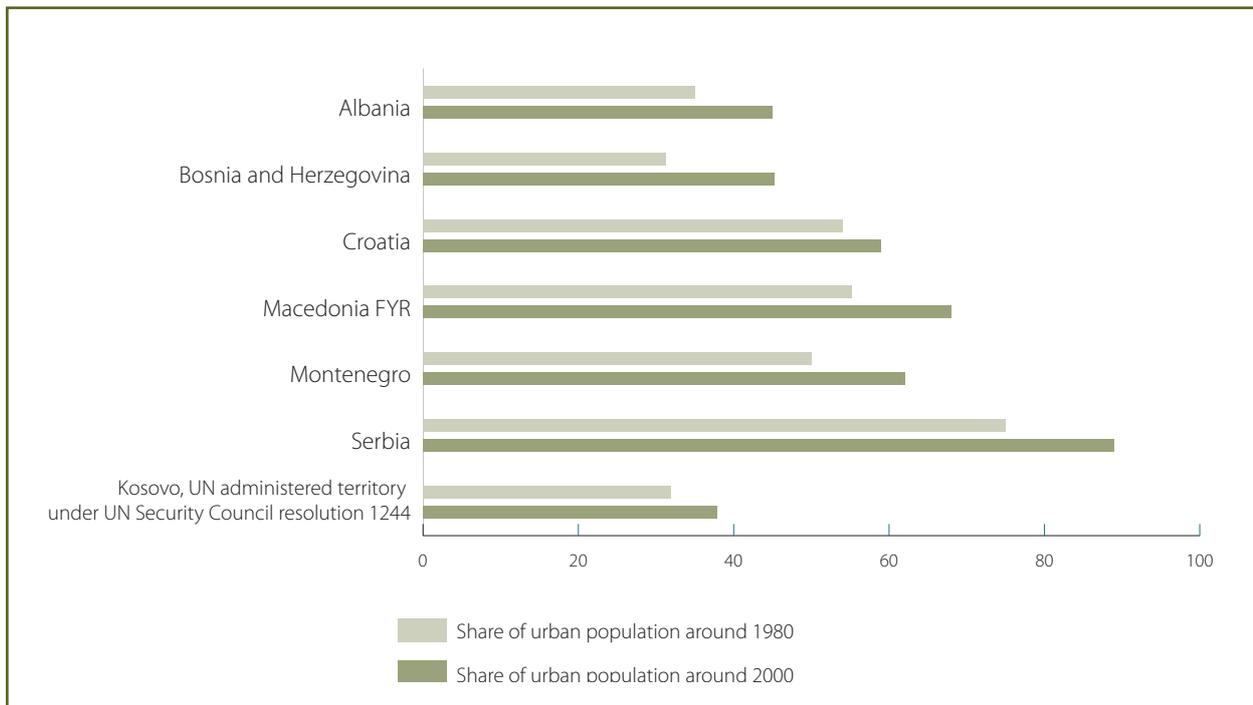
Options for accommodating the increase in population in the cities and along the coasts and securing sustainable use of space include:

- » Securing an effective and efficient system of physical planning that is transparent, participatory, based on clear criteria and sound information and analyses;
- » Simplifying permitting processes and at the same time ensuring better enforcement;
- » Making local utilities and environmental services a national priority;
- » Strengthening the capacity of local authorities and service providers;
- » Major investment in service upgrades;
- » Policies to bring development to rural areas.

Sixth Community Environment Action Programme [1600/2002/EC]:

- » promoting best practice with respect to sustainable land use planning, which takes account of specific regional circumstances with particular emphasis on the Integrated Coastal Zone Management programme;
- » promoting best practices and supporting networks fostering the exchange of experience on sustainable development including urban areas, the sea, coastline, mountain areas, wetlands and other areas of a sensitive nature;
- » enhancing the use, increasing resources and giving broader scope for agri-environment measures under the Common Agricultural Policy;
- » encouraging Member States to consider using regional planning as an instrument for improving environmental protection for the citizen and promoting the exchange of experience on sustainable regional development, particularly in urban and densely populated areas.

Figure 7: Urban vs. rural population



\* Source: Human Development Report 2006

### Recent progress

The socialist governments in former Yugoslav republics favoured an intensive industrialisation, which caused rapid urbanisation in the sixties and seventies. During this time, Albania kept a large share of population in the countryside until the democratisation in 1991 when the Law on Free Migration was adopted and at the same time housing controls collapsed. The wars in former Yugoslavia in the nineties that caused major internal displacement of persons and cross border refugee flows further contributed to the migration from the countryside to the cities.

In most countries and territories, these developments have left cities facing major problems of service and infrastructure provision. Many suburban areas have developed illegally, without urban infrastructure and services, particularly in areas with higher economic opportunities and in tourism development areas (especially along the coast). As a result, some of the natural and landscape values that represent an important comparative advantage of the region are threatened and the quality of life in urban areas decreased owing to overcrowded neighbourhoods and inaccessibility of infrastructure and amenities. Transport problems in urban centres have also been exacerbated, as well as risks associated with natural disasters. Urban areas are facing the problems of increased volume of generated waste, air pollution (impacts of heating and transport), change in land use, etc. The most difficult areas are the ones where the poorest population is living, as basic hygienic requirements are not being met and the environment is seriously degraded.

At the same time the process of over-urbanisation without proper planning, as well as population migration, has caused great decrease in the agricultural sector. The best agricultural land in the valleys and plains is being lost to urban development while land in the mountains is abandoned as people leave for the cities.

The physical and urban planning system has not been able to cope with these processes. The urban plans of the past were not realistic and were more technical documents responding to investor initiatives than instruments regulating dynamic development. In some countries the institutional capacity for urban planning is inadequate and there is lack of well trained staff in the local administrations.

**Table 20: Spatial planning instruments (documents)**

Country territory /	State level	Local level
<b>Albania</b>	Spatial plans for parts of the territory (related to specific areas or investments)	Local spatial plans for different administrative units (municipalities/ communes)
<b>Bosnia and Herzegovina</b>	Spatial Plan of Bosnia and Herzegovina (1981 – 2000) is currently in force in the entity of Federation of Bosnia and Herzegovina  Republika Srpska adopted Spatial Plan for the period 1996 – 2015	Republika Srpska: area and municipality spatial plans Federation of BiH: Spatial plans for cantons, cities of Sarajevo and Mostar, and for significant areas Urban plans at municipal and city levels
<b>Croatia</b>	National spatial planning programme 1999 and national spatial planning strategy 1997 County level: 20 county-level spatial plans, and spatial plan of the capital Zagreb Physical plans of areas with special characteristics	Detailed town and municipal spatial plans General urban plan Urban physical development plan Detailed physical development plan
<b>Macedonia FYR</b>	Spatial Plan of the Republic of Macedonia (2004)	Municipal general and detailed Urban Plans Municipal development plans
<b>Montenegro</b>	National Spatial Plan (1997, draft 2007), Spatial Plans for the Special Purpose Areas covering national parks and public maritime domain (narrow coastal zone)	Municipal spatial plans Municipal general and detailed urban plans
<b>Serbia</b>	Spatial Plan of Serbia, 1996	Regional spatial plans, Plans for areas of special interest, Spatial municipal plans, general urban plans (for towns), urban plans of detailed regulation
<b>Kosovo, UN administered territory under UN Security Council Resolution 1244</b>	Kosovo Spatial Plan (draft) National park spatial plans	Municipal development plans, urban development plans Rural development plans are in process of development

In order to deal with this problem, governments in the region have adopted new laws on physical planning and construction. With these laws they on one hand provide a possibility of legalisation of existing buildings while on the other hand they attempt to make the planning and permitting system more effective.

In this process only in Serbia more than 400,000 illegal premises were reported. The reinforcement of legal controls on the development process coupled with decentralisation of responsibilities to local authorities has already provided some opportunities for better urban management.

#### Albanian Agency for Legalisation and Urbanisation of Informal Areas

In 2005 the new government of Albania established the Albanian Agency of Legalisation of Illegal Buildings. The Agency has created the network and prepared the mechanisms for registration of illegal buildings and started the process of legalisation and resolution of land ownership. By mid 2006 200,000 self declarations out of expected 230,000 for all the country have been collected. By the end of 2006 some regions in Albania have almost finished the registration of illegal buildings which will be followed by the verification process, to be done by air imagery, undertaken by private companies.

The next phase will be the legalisation process, according to the legislative framework, where all illegal buildings in protected and environmentally sensitive, as well as in historic and cultural areas, will be demolished. It is assumed that by the end of legalisation process, there will be no more illegal construction in Albania and all administrative units and ministries will have prepared the regulatory and management plans, which will be implemented according to the new standards.

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#### Housing for low-income refugees and other vulnerable households in Serbia

With the support of UN-HABITAT Serbia, central government, local governments and the Italian government, the provision of housing to refugees and other vulnerable groups started in 2003. Six hundred seventy housing units will be provided with different tenure options, sustainable and transparent cost recovery and subsidy schemes in the municipalities of Čačak, Kraljevo, Kragujevac, Niš, Pančevo, Stara Pazova and Valjevo. Out of the total number, 530 (80%) flats will be newly constructed under the responsibility of Municipal Housing Agencies. Remaining 140 (20%) units will be a result of alternative solutions to new constructions and/or solutions mobilising innovative partnerships.

The size of new housing units will be between 25 m<sup>2</sup> and 50 m<sup>2</sup> in two to four storey, multi-family buildings with basic standards. Two different options for new housing units will be developed with different cost-recovery and subsidy schemes: publicly subsidised rent, and property transfer option. The share of the two options will be decided at the local level, after evaluation of individual repayment capacities based on an accurate survey of applicant beneficiaries. Cost recovery is the basic principle for sustainable development of the social housing system but different subsidies will be applied to make it affordable to targeted beneficiaries.

[www.unhabitat.org.yu/pdfs/nhc\\_eng.pdf](http://www.unhabitat.org.yu/pdfs/nhc_eng.pdf)

### Regulation on protected coastal zone development and conservation in Croatia

Urbanisation pressures along the Croatian coast – particularly for real-estate development (secondary homes) – have increased, causing adverse environmental impacts, urban sprawl and loss of character of many traditional settlements. In response to this, the Regulation on protection of the coastal area was adopted in 2004. The Regulation introduced binding restrictive criteria for designation of construction land and secured the coastal belt of 70 and 100 meters enabling public access and common use of the seashore. The Regulation also requires preparation of urban regulation plans as a prerequisite for any new development. Even in the zones designated for development, no construction is allowed unless the road access and basic infrastructure is provided according to the urban plan. The Regulation has been strictly enforced in the new generation of municipal spatial plans and by now almost 90% of coastal municipalities have adopted these plans or are in the process of issuing final approval.

In recent years the Government succeeded in stopping illegal construction through measures such as strict refusal of connecting of new buildings to communal infrastructure and charging fines before legalisation where this is allowed by spatial plans. In cases of illegal construction on the very seashore or in protected areas, a number of illegal buildings have been pulled down. An important instrument in restoring the full rule of law is the requirement for a compliance permit as a condition to register ownership of new structures in the land register. Furthermore, it is required that an access road to the new development is completed before the compliance permit is issued.

[www.mzopu.hr/default.aspx?id=3712](http://www.mzopu.hr/default.aspx?id=3712)

So far only the Croatian government has taken a strong stand against illegal building, in the form of pulling down illegal buildings, both in coastal area and urban zones of bigger centres. The decision has proven to be a good one, as in the meantime, both construction and trade of illegal building has significantly decreased. The main driver for this action is the very obvious fact that an uncontrolled situation is detrimental to the general public interest, as it leads to accelerated deterioration of the environment.

### Open issues

Basic data such as Geographic information system (GIS) databases on actual land ownership and land use are only gradually becoming available to the physical planning and land management authorities.

Considering the importance and urgency of the problem, urban development is not sufficiently present on the political agenda in most of the SEE countries/ territories. Policy makers as well the general public would benefit from clear and convincing current data on trends such as urban sprawl and developments along the coasts.

The physical planning system in countries and territories other than Croatia has been too slow in relation to the dynamics of the processes on the ground. As a consequence many opportunities of systematic development are lost when planning has to accommodate new reality on the ground. The physical planning and permitting system cannot always cope with the tremendous economic and political pressure for new construction and shaping the plans in favour of major investors. In planning decisions at all levels, short-term economic concerns often take precedence over the longer-term sustainability.

### Way forward

Better planned development in the long term is more beneficial to all. The gaps between the demand for new construction and the provisions of physical plans and between new buildings and public service infrastructure will be gradually closed through improved information systems, physical and urban planning and new investments in the infrastructure. In order to do this and to raise effectiveness and efficiency, the physical and urban planning system should move from its traditional defensive position with numerous procedures and documents to a pro-active system that will provide enough designated land and infrastructure to meet the demand in suitable areas. Positive trends and practices have been observed in some countries of the region – they should be sustained and replicated to those countries and territories where physical and urban planning system is still not playing the role it should play.

A more pro-active system will require better inter-sectoral cooperation to ensure efficient permitting procedures, exchange of information and the integration of biodiversity, natural and cultural heritage concerns into all relevant sectors. Capacity building on how to deal with urban development will be needed for institutions involved in nature and biodiversity, natural and cultural heritage conservation.

### Further information

Bosnia and Herzegovina, Federal Law on Physical Planning (Official Gazette of Federation of Bosnia and Herzegovina, No. 52/02) and Law on Physical Planning of Republika Srpska (Official Gazette of RS, No. 84/02)

Government of the Republic of Montenegro, National Strategy for Sustainable Development, 2007  
Republic of Serbia, Law on Planning and Construction, Official Gazette, No 47/2003 and 34/2006

## 4.2 Agriculture and land abandonment

### The (environmental) challenge



Agriculture provides essential services to human society through the production of food and biomaterials, rural employment and the management of landscapes and biodiversity. On the other hand, it also exerts significant pressures on natural resources via the consumption of water and chemical inputs, its influence on soil resources, water quality and climate gas emissions. Minimising the environmental pressures from agriculture and maximising its positive external outputs is a key challenge of societies throughout Europe and central Asia.

### Introduction

Natural conditions provide for three distinct agricultural zones within the SEE region:

- » intensive cereals and animal production in the continental part and valleys,
- » extensive sheep and cattle production in the mountains, and
- » intensive production of Mediterranean cultures and horticulture production in the coastal regions.

The traditional agriculture in the SEE is undergoing fundamental changes owing to economic and social change and more recently under the influence of the EU agricultural policies. On one hand a lot of land has been abandoned, while on the other hand there has been further intensification in farming and food processing. In certain areas (e.g. mountain pastures, coastal area, etc.) land abandonment is causing loss of biodiversity while intensive agriculture also has negative environmental impacts. Even if a significant share of the pre-accession instrument IPA is planned for rural development, it is very unlikely that countries in the region can compete with the intensive agriculture production of the EU. This due to the fact that holdings are too small, and the farming methods and technologies are rather backward from the perspective of industrial agriculture. However, existing traditional low intensity agriculture also has its niche both on the market of agricultural products and within the wider context of sustainable rural development.

The key question for the future is how the SEE countries will implement the EU Common Agricultural Policy (CAP). Will they put emphasis only on the intensive agriculture and food processing industry, or will they promote rural development and traditional agriculture – including establishment, production and marketing of the regional brands / traditional products – and organic farming as a priority.

The CAP places an increasing emphasis on non-productive functions of agriculture and issues like agri-environment, more comprehensive approach to rural development, etc. So implementing the CAP is also an important opportunity and driving force towards further integration of environmental concerns in the development of the sector.

The Sixth Environment Action Programme [1600/2002/EC] calls for:

- » a thematic strategy on soil protection, addressing the prevention of, inter alia, pollution, erosion, desertification, land degradation, loss of land to development, and hydro-geological risks taking into account regional diversity, including specificities of mountain and arid areas;
- » promoting the integration of conservation and restoration of the landscape values into other policies including tourism, taking account of relevant international instruments;
- » promoting the integration of biodiversity considerations into agricultural policies and encouraging sustainable rural development, multifunctional and sustainable agriculture, through:
  - » encouraging full use of current opportunities of the Common Agriculture Policy and other policy measures;
  - » encouraging more environmentally responsible farming, including, where appropriate, extensive production methods, integrated farming practices, organic farming and agrobiodiversity, in future reviews of the Common Agricultural Policy, taking account of the need for a balanced approach to the multifunctional role of rural communities.

### Recent progress

Despite the past migration trends, the wars of the nineties and the transition processes that have accelerated the urbanisation and left many farms abandoned, some of the countries still have a large rural population. The average size of rural holdings is small, usually around 2 ha, which leads to big differences in agricultural practices within countries and territories. The wars of the nineties and the transition processes have accelerated the urbanisation and population migrations, leaving many farms abandoned. Also farmland is being lost to construction of residential, industrial buildings and infrastructure and in some countries like BiH and Croatia significant share is contaminated with land mines. Despite good natural conditions for farming and a high rate of unemployment, a significant portion of the arable land is abandoned and all countries in the region are currently net importers of food.

**Table 21: Employment and GDP in agriculture**

Country / territory	Share of employment in agriculture %	Share of GDP from agriculture %
Albania	58	23
Bosnia and Herzegovina	20.6	11.5
Croatia	2.7	6.8
Macedonia FYR	13.9	12
Montenegro	2.3 - 4	11.3
Serbia	17.3	19.2
Kosovo, UN administered territory under UN Security Council Resolution 1244	17.3	25

The environmental impact of the current level of agricultural activities is lower than in the past. The level of mechanisation in small-scale agriculture is also low, so that with relatively light machines and mainly handwork there is a low impact on the environment. The main sources of pollution are animal farms, especially large-scale pig and poultry breeding units.

In all countries ministries of agriculture are responsible for agricultural policy. Their main challenge has been the process of harmonisation and approximation to EU requirements. In the foreseeable future, this should eventually lead to implementation of the EU Common Agriculture Policy. In the meantime, the agricultural sector has to face numerous problems like institutional transformation, privatisation and unstable market conditions. In line with the priorities of the EU, countries have adopted legislation in the veterinary, phytosanitary and food safety areas. They have adopted or are in the process of adopting national policy documents that include sustainable agriculture and rural development as their main objectives along with adaptation to the EU CAP.

Croatia already established the agency that would be responsible for agricultural payments and is planning to introduce an agri-environment programme according to the National Programme for Agriculture and Rural Areas and intends to allocate part of IPARD funds to the implementation of actions designed to improve the environment and the countryside.

## NGO involvement in preparation of legal framework and promotion of organic food production in Montenegro

Several activities that resulted in the adoption of organic agriculture legislation were championed by a local NGO Gea. Following the adoption of a legal framework for organic agriculture in 2004 and 2005, the NGO selected the trade name/logo for organic products. All of the activities were closely co-ordinated and carried out in co-operation with the Ministry of Agriculture, Forestry and Water Resources. Since 2005, the Ministry's organisational structure comprises a unit for organic agriculture. The National Agency for Certification and Control of Organic Produce (Monteorganica) has been established in 2006.

Education of producers and capacity building of future inspectors for organic agriculture were also undertaken with the involvement of the NGO sector. During the last four years, NGOs have played an important role in disseminating information on organic agriculture through organisation of round tables and seminars, publication of an organic agriculture manual, preparation of leaflets and other materials, media, etc. Furthermore, NGOs have been active in researching opportunities for marketing the organic production.

As a part of its 2006 budget for rural development measures, MAFWR has set aside some funds to support the development of organic agriculture. However, the incentives for organic production are still far below the required level. At the same time, promotional and educational activities are still needed in all areas – from mobilising producers to market creation.

[www.vlada.cg.yu/vijesti.php?akcija=vijesti&id=6460](http://www.vlada.cg.yu/vijesti.php?akcija=vijesti&id=6460)

[www.orgcg.org/org/index.php](http://www.orgcg.org/org/index.php)

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## Cooperation between municipalities of Western Stara Planina in Serbia and Bulgaria

The West Stara Planina (West Balkan) mountains are situated on the border between Bulgaria and Serbia covering 4,000 square kilometres with 200,000 inhabitants on both sides of the border. They are divided in four municipalities in Bulgaria: Belogradchik, Berkovitza, Chiprovtsi and Chuprene, and four municipalities in Serbia: Dimitrovgrad, Zaječar, Knjaževac and Pirot. Both sides of the border face severe development problems.

In the period 2002 – 2006 the Regional Environmental Center (REC) with the support of the Swiss Agency for Development and Cooperation co-ordinated a number of activities (as a part of a wider project pertaining to several cross-border locations) aiming to promote transboundary cooperation through the management of common natural resources. The following activities were carried out:

- » Regional studies (socio economic analysis, survey of water resources, forest practices, biodiversity data, etc);

- » Capacity building of local stakeholders (project proposal writing, forest seminar, training workshop on agriculture);
- » People to people events (exhibitions, festivals, fairs, etc.);
- » Three West Stara Planina forums;
- » Educational activities (teachers round table, logo competition);
- » Green Pack training (see section 3.6, etc.);
- » Ecotourism activities (action plan, hiking trials, etc.);
- » Environmentally-friendly agriculture activities;
- » LEAP activities (LEAP training, study tours, development of LEAPs).

The main results were improved cooperation in the management and protection of key transboundary sites, new local organisations and cross-border exchanges among local people, organisations and people interested in the management of shared resources, technical networks to support the effective management at the regional level and their integration into broader networks at regional and international levels.

[www.rec.org/REC/Programs/REReP/Biodiversity/planina/wsp.html](http://www.rec.org/REC/Programs/REReP/Biodiversity/planina/wsp.html)

### Introducing agri-environment programmes in Croatia

Under the project “National and Pilot Agri-Environment Programme for Croatia” implemented from 2002 to 2004, a national working group for agri-environment was set up and all key aspects in this area were addressed. The result of the project was a proposal for national and pilot AE-programmes. The follow-up project started in 2006 and is aiming at building know-how on agri-environment programmes in Croatian Natura 2000 areas.

The total state support budget for agriculture, fishery and forestry in 2003 was approximately 300 MEuro, out of which some 98% has been earmarked for production support subsidies and 2% for rural development measures. The major contribution of the subsidy scheme to environmentally friendly farming is the payment of subsidies for organic farming and traditional and protected breeds. The Law on Organic Agriculture was adopted in 2001 and supplemented by several regulations. All registered organic farmers (both in conversion and fully converted) are entitled to subsidies. Depending on the type of production, these are 30% to 140% higher than those for conventional farming.

The rural development aid scheme consists of three sub-schemes supporting:

- 1) marketing activities enabling a successful product launch;
- 2) the preservation of traditional and protected breeds; and
- 3) development of rural areas in general.

Organic agriculture has been recognised as an option and a possible competitive advantage of the region. Many small private farms have good preconditions to start organic production activities, owing to the low level of fertilisers and pesticides use over recent decades. Initial steps have been made in this respect, such as law on ecological agriculture and draft national strategy for organic farming in Croatia or the Law on Organic Agriculture adopted by Montenegro in 2004. Currently organic farming is mainly promoted by NGOs who provide the advisory and certification services as part of European networks, but broader state support and marketing initiatives are still missing. In 2003 the Croatian Government introduced subsidies to support organic farming (400 Euro/ha of arable land). This has had a great impact on the development of the sector and the area under organic management in 2003 has increased tenfold as compared to 2002. Croatia has a fully functioning domestic inspection and certification system.

### Open issues

In several countries the information on land ownership and current land use is very difficult to obtain as the land information systems are still under development. Owing to the effects of wars and transformation of ownership during transition, the land cadastres and land registers have not been updated. The consequence is that ownership is not always clear and land transfer mechanisms don't allow easy transfer of ownership and tenancy.

In Croatia and BiH a significant share of agricultural land was "contaminated" by numerous minefields and remains inaccessible for cultivation. Approximately one third of the minefields were laid on agricultural land and mines still occupy 140 000 - 180 000 ha (almost 10%) of Croatia's cultivated land.

There is a general lack of institutional capacity to develop, co-ordinate and monitor agricultural policies and legislation, with regard to EU integration and international agricultural trade policies and legislation. There is relatively good understanding of past Common Agricultural Policy but very limited know-how regarding future EU policies in this area.

The funding for agricultural policy is limited and does not allow for the introduction of comprehensive systems of agri-environmental measures (e.g. compensation payments for environmental services of farming). This is something that most new EU members started with their own resources, but full and large-scale implementation only followed when EU funding became available. In this context, the national agricultural policy mainly focuses on competitiveness of large agriculture and food processing enterprises rather than on broader issues of rural development. There is little information on and concern for agricultural production for home use and the informal market of agricultural products.

There is limited knowledge/ experience in organic farming techniques. Local markets for organic products are not developed. There is little cooperation with other sectors within the context of sustainable rural development, such as tourism, which could provide additional market and higher value added to the product by moving it further along the production chain.

Rural transport infrastructure is underdeveloped, while agricultural machinery and equipment are in generally poor condition. For example in Serbia, agricultural land is cultivated using 425,000 double-axle tractors, 261,000 single-axle tractors, 25,000 combines and more than 3 million machine tools. The average age of tractors is 12 years, while combines average 15 years of age.

### Way forward

Except for the large-scale agricultural businesses, it will be difficult for SEE farmers to compete on the already saturated EU common market. Because of this, the primary objective of agriculture policy should be towards wider sustainable rural development. In this context, environmental concerns and services in the sector should be mainstreamed, including optimisation of the use of fertilisers and pesticides.

Production of high quality traditional local and regional products “with the story” that support the local value added chains based on tradition and tourism, and are distinctive on the global market, should be promoted and supported. In this context, special priority should be given to promotion of organic production, for which demand on the EU market is growing rapidly.

Pilot agri-environment measures should be introduced as early as possible, to help farmers adapt to the future EU support context and to preserve the natural values that could be lost in the process of indiscriminate intensification.

### Further information

Bosnia and Herzegovina, Functional Review of the Agriculture Sector, Final Report, October, 2004, available on [http://www.delbih.ec.europa.eu/en/reviews/Agriculture\\_report\\_PDF/Agriculture\\_en.pdf](http://www.delbih.ec.europa.eu/en/reviews/Agriculture_report_PDF/Agriculture_en.pdf)

Government of the Republic of Montenegro, Ministry of Agriculture, Forestry and Water Resources, Montenegro’s Agriculture and the European Union - Strategy on Food Production and Rural Development, 2006

Republic of Serbia, Ministry of Agriculture’s web site on <http://www.minpolj.sr.gov.yu>

### 4.3 Nature and biodiversity

#### The (environmental) challenge



Biodiversity is being lost in the pan-European region (particularly in farmland, mountain regions and coastal zones) as a result of land use changes, urban sprawl, infrastructure development, acidification, eutrophication, desertification, overexploitation, both intensification and abandonment of agriculture, as well as climate change. As a result more than 700 European species are currently under threat, 43% of European bird species have an unfavourable conservation status and the situation has deteriorated since 2000 throughout the region.

#### Introduction

The region is very rich in biodiversity, covering four different European bio-geographical regions: Mediterranean, Alpine, Continental and Pannonian with numerous well preserved ecosystems. The turbulent developments of the past decade and a half have brought a number of threats to biodiversity including: urbanisation, land abandonment, overexploitation of resources due to poverty, intensification of agricultural and forestry practices, changes in water regime due to construction of dams and irrigation, pollution and others. Most threatened in the short term are coastal zones, rivers and wetlands and in the longer term the mountain meadow ecosystems are also considered vulnerable.

Conservation of biodiversity in the SEE is therefore important for the achievement of the Kiev Resolution on Biodiversity (KRB) to halt the loss of biodiversity in the pan European region in the framework of the Pan-European Biological and Landscape Diversity Strategy (PEBLDS). Biodiversity is an important asset that the region is bringing to the EU, but it is threatened by the rapid economic development and societal change of the last decade. In this context the main open questions are:

- » How to preserve rich biodiversity in time of economic hardship?
- » How to prevent pressures and threats to biodiversity from new urban and industrial development?
- » How to manage natural succession and preserve valuable habitats threatened by land abandonment?
- » How to create effective models combining conservation and sustainable development to secure long term conservation of nature?

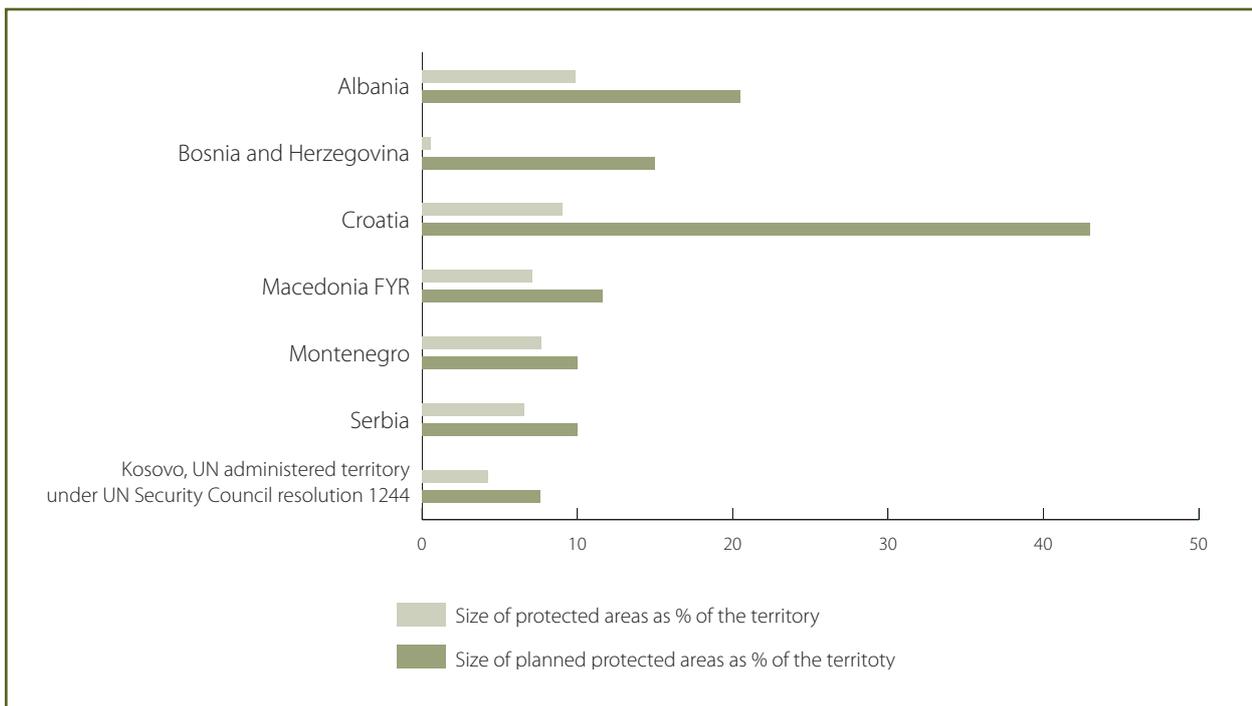
There are several options available for effective biodiversity conservation, including:

- » Development of strong expert nature conservation institutions, as well as ones in the field of implementation and enforcement;
- » Development of networks of protected areas including Natura 2000;
- » Integration of biodiversity conservation into sectoral policies (agriculture, forests, water, marine and coastline).

The Sixth Community Environment Action Programme [1600/2002/EC] aims at:

- » halting biodiversity decline with the aim to reach this objective by 2010, including prevention and mitigation of impacts of invasive alien species and genotypes;
- » protection and appropriate restoration of nature and biodiversity from damaging pollution;
- » conservation, appropriate restoration and sustainable use of the marine environment, coasts and wetlands;
- » conservation and appropriate restoration of areas of significant landscape values including cultivated as well as sensitive areas;
- » conservation of species and habitats, with special focus on preventing habitat fragmentation;
- » promotion of sustainable use of the soil, with particular attention to preventing erosion, deterioration, contamination and desertification.

Figure 8: Protected areas



\* By the year 2015

### Recent progress

In order to preserve the biodiversity of European importance in the region, most countries have adopted modern laws on nature conservation in recent years, already taking into account the EU Birds and Habitats Directives. They have become parties to international conventions such as the Convention on Biodiversity, CITES, and Bern. Biodiversity strategies according to the CBD have been developed in

all the countries and territories, except Montenegro and Serbia who are starting with their preparation. Biodiversity and nature conservation have been integrated into national development strategies and environmental action plans.

**Table 22: Nature conservation institutions**

Country/ territory	State level institutions mandated with nature conservation
Albania	Agency for Environment and Forests Directorate for Nature Protection / Ministry of Environment, Forestry and Water Administration Museum of Natural Sciences, Tirana University Botanical Garden, Tirana University Agricultural University of Tirana
Bosnia and Herzegovina	Institute for protection of cultural and natural heritage of Republika Srpska Faculty of Science, University of Sarajevo Faculty of Natural Science and Mathematics, University of Banja Luka
Croatia	Ministry of Culture - Directorate for Nature Protection State Institute for Nature Protection
Macedonia FYR	Office for Environment (within the Ministry of Environment and Physical Planning), National Parks
Montenegro	Ministry of Tourism and Environmental Protection – Sector for Environment Institute for Nature Protection National Parks Authority
Serbia	Ministry of Environmental Protection Institute for Nature Protection National Parks Institute for Biological Research, Belgrade Institute for Botanical Garden of the Faculty of Biology, Belgrade Natural Museum, Belgrade Institute of Forestry, Belgrade
Kosovo, UN administered territory under UN Security Council Resolution 1244	Institute for Nature Protection

The institutional set-up for nature conservation has undergone significant changes with ministries of environment, and the Ministry of Culture in the case of Croatia, taking the responsibility for biodiversity policy and its implementation, replacing or in addition to the previously established institutes for natural heritage. The number and size of protected areas has been increasing, although the share of protected land is still low compared to the needs and EU targets for the Natura 2000 network. Management practices and planning have been or are being improved in existing protected areas through a number of donor projects.

The distribution of protected areas is heavily biased towards forest habitats and under-represents marine coastal, littoral and wetland habitats. A number of protected areas have been established or are under preparation in a transboundary context, including: Neretva River Delta, Skadar Lake, Ohrid Lake, Prespa Lake, Prokletije mountains, Djerdap, Balkan mountain, Tara mountain, Danube river... International organisations WWF, IUCN, UNESCO, FAO, UNDP, Council of Europe, UNEP, SNV and Euronatur have joined forces in the Dinaric Arc Initiative (DAI) and proposed the Framework Convention on the Protection and Sustainable Development of South-Eastern Europe Mountain Regions aiming at preservation of the wealth and integrity of the Dinaric Arc and other mountain regions in SEE. They support the establishment of networks of protected areas, initiatives and other activities for the conservation of its biological diversity and the sustainable management of its resources. This Initiative generated the WWF MedPO project 'Dinaric Arc Ecoregion – 2012 Protected Areas Programme', including Durmitor – Tara – Prokletije Green Belt.

#### Biodiversity conservation in Livanjsko Polje, Bosnia and Herzegovina

The Livanjsko Polje, which is one of the best-preserved Karst Poljes (flat and fertile depression surrounded by slopes of limestone) of BiH, is situated in the Canton 10 (Livno Canton). According to the Ramsar Convention, Livanjsko Polje is the greatest wetland of the country and the largest Karst Polje world-wide. It has also been described as an important bird area by the EU Bird Directive. It is of unique international value for the Corncrake. For the SEE Peninsula the site is of great conservation interest as it has maintained unique bog, marsh and grassland habitats important for several breeding birds as Montegue's Harrier, Lesser-spotted Eagle, Redshank, Snipe and Great Bitten.

The objective of the project is protection of Livanjsko Polje through mainstreaming biodiversity conservation practices through a variety of productive activities. Another objective is generation of knowledge applicable to the conservation and sustainable use of similar ecosystems in Bosnia and Herzegovina.

[www.undp.ba](http://www.undp.ba)

#### Skadar / Shkodra Lake between Albania and Montenegro

Skadar/Shkodra Lake is one of the large Balkan lakes and together with the Bojana/ Buna River, it is an important wetland ecosystem on the border between Albania and Montenegro. The Lake is both nationally and internationally designated as a protected area. It is a home of Dalmatian Pelican and an important international nesting area for waterfowl.

Since 2000 and with the support of the Swiss Agency for Development and Co-operation (SDC), REC has been working to establish a "cross-border protected area of Skadar/Shkodra Lake and Bojana/ Buna River, which provides sustainable development and benefits the local population". The work

has focused on enhancing cross-border co-operation, dialogue and partnerships between Albania and Montenegro, and it represented the first such project between the two countries.

The results so far include:

- » Protection of the Albanian part of the Lake as IUCN category IV in November 2005 and as Ramsar site in February 2006, in addition to the already existing National Park and Ramsar designations in the Montenegrin part;
- » Several meetings and events involving high level representatives of both countries were held and joint Declarations were signed promoting the values of the Lake and joint management approaches;
- » Memorandum of Understanding and establishment of Joint Lake Forum with 13 members (6 on Montenegrin and 7 on Albanian side);
- » Co-operation among local authorities in the two countries was also facilitated through project activities.

The communities previously separated by one of the most closed borders in Europe (re)started their cooperation on a neutral platform. The management of shared natural resources has mobilised local authorities and gave them new opportunities and roles in trans-boundary processes and local development. Through co-ordinating at local, national and international levels significant synergies among the actions happening in the region were realised.

All the activities carried out in the previous period paved the way for the GEF project Skadar/Shkodra Lake Integrated Eco-system Management, which is now in the final stages of preparation.

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### **Trans-boundary Prespa Park between Albania, Greece and Macedonia FYR**

The watershed of the Prespa Lake encompasses parts of Albania, Greece and Macedonia FYR, and is under threat from unsustainable human exploitation of natural resources and inappropriate land-use practices. Part of the soil and water has become contaminated, some forest-cover has been lost and land eroded. These problems have been exacerbated by a prolonged drought and tectonic activity which have contributed to a significant decrease in the water level of the Prespa Lake.

The whole Prespa region is home to a diverse flora and fauna that is important from a European and global conservation perspective. The lakes and wetlands are rich in endemic species and are important breeding and feeding sites for numerous species of birds. They support the world's largest breeding colony for the globally vulnerable Dalmatian pelican and the endangered Pygmy cormorant. Three National Parks exist in the region and the Lake itself is a Ramsar site.

In response to the need for an integrated approach to the Prespa Park region's conservation problems, UNDP co-operates with the ministries of environment, local governments, and NGOs from the three riparian countries in the framework of the Trans-boundary Prespa Park Project.

The project is supported by the Global Environmental Facility (GEF), German KfW and SDC. The objective is to promote and implement ecosystem management interventions in the Prespa Lake's Basin of Macedonia, Albania and Greece that integrate ecological, economic and social goals. It aims to conserve globally significant biodiversity and to reduce pollution of the trans-boundary lakes and their contributing waters.

The main concept behind this project is to make ecosystem objectives and priorities a part of sectoral practices/policies such as agriculture, fisheries or forestry. This will strengthen the ability to restore the health of the ecosystem. The piloted ecosystem oriented approaches to spatial planning, water use management, agriculture, forest and fishery management, conservation and protected area management, will furthermore contribute to conserving biodiversity. Upon completion of the project in 2010 it will have made a considerable contribution to the preservation of the ecological system of the Prespa Park region.

[www.undp.org.al](http://www.undp.org.al)

[www.undp.org.mk](http://www.undp.org.mk)

[www.moe.gov.al](http://www.moe.gov.al)

[www.moep.gov.mk](http://www.moep.gov.mk)

[www.medwet.org/prespa/](http://www.medwet.org/prespa/)

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### Conservation and sustainable use of biodiversity in the Dalmatian Coast through Greening Coastal Development (COAST) in Croatia

To ensure that the development of the Croatian Coast is based on conservation of landscape and biological diversity, the UNDP and GEF are supporting the strategy effectively to mainstream conservation and sustainable use into the activities and practices of large numbers of private-sector stakeholders and consumers in key economic sectors in Dalmatia: tourism, fisheries, mariculture, agriculture and banking/ finance.

The strategy has four inter-related components aiming at:

- 1) Demonstrating biodiversity-friendly development in four small but globally important productive landscapes;
- 2) An improved investment climate for biodiversity friendly enterprises with the private sector more willing to invest in biodiversity-friendly production, with a special focus on SMEs and the banking sector to increase the supply of biodiversity-friendly loans;
- 3) Increased compliance with existing biodiversity-related regulations in tourism, fisheries, agriculture and other sectors with negative impacts on biodiversity; improvements in protected area regulations, and strengthened capacity to enforce biodiversity-related planning regulations;
- 4) An enabling environment at national level, including policy and legislation, that appreciates, supports, institutionalises and disseminates biodiversity-friendly development of coastal areas.

In addition to the individual protected areas, the countries have started work on ecological networks such as the Emerald network according to the Bern Convention and the initial steps towards the Natura 2000 network according to the EU Birds and Habitats Directives. In following up the Kiev Resolution on Biodiversity, the SEE countries have been very active in international cooperation on conservation. A number of activities have been taking place in the SEE region to address the targets in the KRB on forests and biodiversity, agriculture and biodiversity (Workshop on identification of High Nature Value Farmland), protected areas and ecological networks (Mapping of the Pan European Ecological Network - PEEN for the SEE), biodiversity monitoring and indicators (Workshop on Streamlining European 2010 Biodiversity Indicators project under EEA, PEBLDS in Macedonia FYR). Croatia hosted the “Biodiversity in Europe” Conference in 2006 for the preparation of the pan European input to the Conference of the Parties to the Convention on Biological Diversity.

In the recent years the countries of the region have also recognised the importance of their common mountain ecosystem and are working towards a common initiative under the leadership of Macedonia FYR to bring numerous ongoing initiatives by governments, local communities, NGOs and international organisations into a framework of regional cooperation.

### Open issues

Although a significant amount of information is available about the quality and quantity of biodiversity in the region, the existing information is not sufficient for effective establishment and management of the Natura 2000 network. More work needs to be done to establish inventories of relevant species and habitats, as well as to transform existing scientific data into policy-relevant information.

Understanding of possibilities for synergies among conservation and economic development objectives is low resulting in a lack of integrated approaches to sustainable management of ecosystem resources. In most countries and territories, there is a lack of effective inter-sectoral cooperation in the field of protection of biodiversity, and a lack of integration of biodiversity protection into sectoral development policies. Despite some recently developed legislation introducing the mechanisms for integration of biodiversity issues into sectoral plans, such as the 2005 Nature Protection Act in Croatia, biodiversity protection concerns are not sufficiently integrated into other relevant sectors (agriculture, forestry, transport, tourism) in practice.

Implementation of physical and urban plans, construction permits, as well as management system for collection and trading of wild flora and fauna are inadequate to meet conservation objectives.

Human and financial capacities of the relevant governmental institutions are constrained, especially when it comes to field work and implementation of specific nature conservation projects. Also the funds for NGO projects, which can play a very important role in managing and protecting biodiversity, are insufficient to exploit all the opportunities for conservation in the region.

The systems and resources for efficient management of protected areas are still developing, and where they are insufficient, poor enforcement and negative trends that can endanger some of the important biodiversity

values in the region are recorded. There is insufficient local participation in establishing protected areas. Modest or non-existing dialogue and lack of clarity in arguments often result in inefficient and ineffective consensus building processes and subsequent (unsatisfactory) management solutions.

### Way forward

More efforts should be invested in raising awareness regarding the value of the attractive biological and landscape diversity and various natural resources (rarely inhabited, often almost pristine space, forests, water) which are still preserved and form an important comparative/ competitive advantage of this area in the context of wider European and global society and economy. A high level of biodiversity may well prove to be one of the key competitive advantages of the region in the mid term, be it in terms of a resource for tourism and quality of life, or in terms of adaptation to climate change.

Trans-boundary co-operation in managing nature and biodiversity in the context of integrated sustainable development should be further strengthened. One opportunity for such cooperation is the proposed SEE Mountains Initiative and Framework Convention on the Protection and Sustainable Development of South-Eastern Europe Mountain Regions, building upon lessons learnt from implementation of the Alpine and Carpathian Conventions. The countries could adopt a convention providing for conservation of the rich ecological network of the region along with its rich cultural heritage and economic opportunities. However, bottom up and top down approaches need to be balanced to achieve lasting results. For this purpose, key stakeholders and the public need to be further engaged in the process, and their participation in decision-making has to be ensured.

In the national policy context, nature protection should be raised to the level appropriate for one of the key strategic assets i.e. given high priority. Communication, co-ordination and cooperation of all relevant institutions should be improved based on successful experience from individual projects. Institutional responsibility for nature conservation should be streamlined under the ministries of environment, and further efforts made to strengthen nature conservation institutions and develop policy instruments.

### Further information

USAID Office for Montenegro, Biodiversity Assessment, 2005

Bosnia and Herzegovina, Third National Report on Implementation of the Convention on Biological Diversity submitted on 11 November, 2005, available on

<http://www.biodiv.org/world/map.aspx?ctr=ba>

Croatia, Third National Report to the Convention on Biological Diversity, submitted on 7 February 2007, available on <http://www.biodiv.org/doc/world/hr/hr-nr-03-en.pdf>

Government of the Republic of Macedonia, National Biodiversity Strategy and Action Plan, January 2004, available on <http://www.moe.gov.mk/CHM/mdefault.asp>

## 4.4 Water

### The (environmental) challenge



Since 2002 floods in Europe have caused ... displacement of about half a million people and at least 25 billion Euro in insured economic losses. In addition to weather conditions unwise river basin management plays a significant role for the occurrence of floods.

Leakage losses from distribution networks are high in many countries (EECCA, SEE and southern Europe). It is not unusual that more than one third of the supplied water is lost before delivery. In many EECCA and western Balkan countries there has been a significant decline in the level of water quality monitoring over the last 15 years.

Despite the rather high connection rate the wastewater in some EECCA and Balkan countries is not treated but discharged directly to receiving waters, either because there is no wastewater treatment plant, or due to the poor functioning of existing plants.

### Introduction

The region is rich in freshwater resources owing to its geography including rivers, lakes as well as sensitive karstic and gravel aquifers. Rivers flow to the Black Sea, Adriatic, and Aegean all of which are enclosed seas vulnerable to eutrophication (especially the Black Sea). The upstream parts of the rivers are mostly clean, whereas the downstream sections are often polluted by urban and industrial wastewater, improper waste disposal and runoff from agriculture. These pressures are sometimes combined with risks of pollution from historic hot spots. The shallow karstic and gravel aquifers are also exposed to excessive extraction and pollution from agriculture and untreated sewage in the rural areas.

Water is a major resource of the SEE, managed by different sectors and authorities in each country and territory. The main issues are:

- » How to secure a high level of protection of surface and groundwater, preventing pollution and promoting sustainable water use?
- » How to secure funds for needed investments for water infrastructure and protection from pollution?
- » What is the appropriate institutional structure and division of responsibilities in water management?

The policy options for management of water include:

- » Various possibilities for institutional structures and cooperation between different institutions;
- » River basin management according to the Water Framework Directive;
- » Privatisation and/or corporatisation of water services including public private partnerships and concessions for water use;
- » Cross border cooperation for management of river basins and water bodies.

The Sixth Community Environment Action Programme [1600/2002/EC] aims at sustainable use and high quality of water by:

- » ensuring a high level of protection of surface and groundwater, preventing pollution and promoting sustainable water use;
- » working towards ensuring full implementation of the Water Framework Directive, aiming at a good ecological, chemical and quantitative water status and a coherent and sustainable water management;
- » developing measures aimed at cessation of discharges, emissions and losses of Priority Hazardous Substances, in line with the provisions of the Water Framework Directive;
- » ensuring a high level of protection of bathing water, including revision of the Bathing Water Directive;
- » ensuring the integration of the concepts and approaches of the Water Framework Directive and of other water protection directives in other Community policies.

**Table 23: Access to water and sanitation**

Country / territory	Population with sustainable access to an improved water source (%) 2004	Population with sustainable access to improved sanitation (%)
Albania	96	91
Bosnia and Herzegovina	97	95
Croatia	100	100
Macedonia FYR	95.6	95.6
Montenegro	98	96
Serbia	88.3	81.7
Kosovo, UN administered territory under UN Security Council Resolution 1244	61	65

Source: UNDP Human Development Report 2006

## Recent progress

Because of the long tradition and importance of water management, the institutions and responsibilities for water management are very complex. In most countries primary responsibility for water policy lies with ministries of agriculture, while ministries of environment are sharing a part of responsibility for water quality and municipal services. Executive, and in some cases also policy functions are with the water administrations or directorates, who manage watercourses in terms of flood control, gravel extraction and similar. These institutions have significant autonomy and collect revenues from water charges. Executive function for water supply and wastewater lies mostly with municipalities and their utility companies.

**Table 24: River basin management**

Country / territory	River basin management institutions	River basin management plans
Albania	Regional Water Basin Directorates, under the authority of Ministry of Environment, Forests and Water Administration	Regional Environmental Action Plan for Drini River Delta
Bosnia and Herzegovina	Established offices for Vrbas River Basin (Banja Luka and Jajce) and Bosna River Basin (Doboj and Zenica)	First River Basin Management Plans to be prepared by 2012 in accordance with laws on water in the entities
Croatia	Croatian Waters	Yes
Macedonia FYR	Not assigned according to the WFD	No
Montenegro	Not operational yet	No
Serbia	Regional water management utilities	Water Management Strategy, 2001 Danube basin management plan (preparation ongoing, expected by 2009) International Commissions for Tisa and Sava rivers active in developing management plans
Kosovo, UN administered territory under UN Security Council Resolution 1244	River basin authority is under development	No

In Serbia, for example, the competence for water management is divided. Although the Ministry of Environmental Protection (previously Ministry for Science and Environmental Protection) is in charge of all pollution related aspects of water management, water quantities remain within the competence of the Ministry of Agriculture, Forestry and Water Management, and drinking water under the Ministry of Health. Responsibilities for urban water supply services are delegated to the municipalities and their public utility companies.

Because of this complexity (which is typically found across the region), legal and institutional reform has been slower in the water sector than in other areas of environmental policy. In each country several donor projects have contributed to the formulation of new water policies and institutions. Several draft Water Acts aiming to transpose the Water Framework Directive are going through the legislative procedure in the region and generating the toughest discussion about the responsibilities and institutional reform.

The urban water services including supply of drinking water and wastewater disposal were severely affected by the wars, instability, and economic crisis, resulting in a lack of maintenance and deterioration of the infrastructure. This is why drinking water quality is inadequate in many places and water losses are large (even over 50%). Slow development of water supply infrastructure and large water losses from existing systems result in frequent water supply shortages on Croatian and Montenegrin coasts during the tourist season. Cities and towns have sewer systems but there are very few urban wastewater treatment plants in operation. The water infrastructure, including wastewater treatment plants, will be the most costly part of the implementation of the EU *acquis*. Also in this area donors and IFIs have been very active starting the first generation of infrastructure investment projects.

At the same time, the importance of freshwater bodies for recreation (bathing) and tourism has been increasing with some of the lakes and rivers protected under nature conservation legislation (e.g. Ohrid, Prespa and Skadar/ Shkodra Lake, Krka and Plitvice in Croatia etc.). According to the criteria of the Bathing Water Directive, the quality of bathing waters is adequate in most of the watercourses/ lakes in the region.

### Sava River Basin Initiative

In June 2001 the Stability Pact launched the Sava River Initiative to provide a forum for the four Sava countries: Bosnia and Herzegovina, Croatia, Slovenia and Serbia. An International Framework Agreement for the Sava River was signed by the four environment ministers in Slovenia in December 2002. A key feature of this agreement was the creation of the International Sava River Basin Commission, which was established in Zagreb, Croatia on June 1, 2004. The Commission is responsible for the implementation of the agreement which was ratified by all four countries by June 2004. The aims and objectives of the Commission are to:

- » Rehabilitate and develop the navigation of the Sava Basin and its main tributaries in the region, Drina and Una;

- » Secure sustainable development, utilisation, preservation and management of the Sava Basin water and related resources;
- » Preserve and protect the environment, biodiversity and aquatic condition of the Sava Basin;
- » Within the Sava Basin, promote the social and economic welfare of riparian States and Communities and the well being of all riparian people.

The European Commission has committed to support the management of the Sava River Basin and to help the establishment of co-operation mechanisms among the countries of the Sava River and its basin. The pilot project River Basin Plan for the Sava River (2.3 MEuro) aims to develop an integrated river basin management plan for the river and to establish a regional working group. The UNDP/ GEF Danube Regional Project is supporting the development of the pilot River Basin Management Plan.

<http://www.savacommission.org/>

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### **Saving Dojran Lake between Macedonia FYR and Greece**

The survival of the Dojran Lake is under threat owing to the overuse of water for agricultural needs. With 43 km<sup>2</sup> and average depth of 3 – 5 metres the Lake used to have the highest rate of fish production in Europe. Fishing was traditionally done using Cormorants. From the wooden houses built on the lake, the fishermen used trained birds to drive the fish into their nets. From 1978, the Lake lost about 5 million m<sup>3</sup> of water for agricultural needs. This has severely reduced the size of the Lake, endangered its species and the traditional way of fishing.

Between 2000 and 2003 the Ministry of Environment and Physical Planning of the Republic of Macedonia with the support of UNESCO undertook systematic efforts to stop the decline of the Lake. The financial resources of the international institutions and Macedonian Government have been used for monitoring of the Lake and recharge of water from the wells system in Gjavato.

Currently the European Agency for Reconstruction is supporting the work on Dojran in the framework of overall improvement in management of trans-boundary water resources. Some of the specific objectives related to Dojran Lake are:

- » identification of the reason for lowering of Dojran Lake and potential measures to recover lake levels and improve water quality;

- » establishment of a regular monitoring system and exchange of monitoring information on all measured components of the water balance of Vardar and Dojran Lake between Macedonia and Greece;
- » planning the management monitoring programme, including specific measures to recover Dojran Lake water levels.

It is expected that a report on water balance in Dojran Lake will be prepared along with a report on information exchange between Macedonia and Greece to enable successful joint monitoring. The final achievement should be an agreed methodology between the two countries for development of a management Plan for the Vardar river basin.

On many rivers, hydropower schemes have been developed in the past, providing a significant share of electricity for the region, the largest being the Iron Gate on the Danube between Serbia and Romania. In the recent years the development of hydropower schemes has gained a new momentum with possibilities of foreign direct investments and increasing demand for electricity in the EU and owing to the fact that some countries of the region are currently dependent on imports. This development threatens further to alter hydrology and water ecosystems in the region, where the most prominent examples include the Tara River – a cross border watercourse (parts of which are protected) between BiH and Montenegro, the Drava and Dobra rivers in Croatia, and the Neretva and Trebišnjica rivers in Bosnia and Herzegovina.

### Open issues

In most countries water monitoring is not performed according to the programmes and legal requirements. The information collected is not compatible with the EU monitoring requirements and none of the Core Set of Indicators related to water are readily available. There are also problems with access to existing information.

Several institutions are sharing responsibility for water in each country. This is causing lack of consistency in water management and frequent institutional conflicts regarding specific issues. The countries have started work on implementation of the EU Framework Water Directive including river basin management, but the progress has been slowed down by the institutional complexity, conflicting interests regarding different water uses and lack of efficient mechanisms to resolve them. So far insufficient political will to secure the needed level of cooperation and co-ordination among all stakeholders in the river basin management has been demonstrated.

The costs of water and wastewater infrastructure development are high compared with the existing level of service fees and water pollution charges, affordability and willingness to pay. The result of this is chronic under-investment in water related infrastructure that is further worsened by the fragmentation and relatively small size of utility companies governed by individual municipalities.

### Way forward

For the EU accession process it would be beneficial to integrate the policy responsibility for water management with the rest of the environmental portfolio. Regardless of this, transparency, communication between institutions, co-ordination and cooperation in water management should be improved.

Gradually, the legislation needs to be fully harmonised with the EU *acquis* in order to serve as a base for management and protection action; the institutional structures for this management and protection need to be reinforced properly to implement the legislation. In addition, adequate water monitoring systems need to be set up, appropriate funding for these systems needs to be secured, and clear responsibilities assigned making sure that monitoring information is widely available.

Catchment-based management plans which address all aspects of water use are an essential tool in the management process and for determining how best to implement legislative obligations.

A substantial amount of funding is necessary to put the EU requirements into practice.

In addition to the need for long term strategic planning and action, the specific problems of hot spot impacts must also be addressed.

### Further information

Bosnia and Herzegovina, River Basin Management Project, Final Report, 2005

Bosnia and Herzegovina, Laws on Water (Official Gazette Republika Srpska No. 50/06; Official Gazette Federation of BH, No. 70/06)

## 4.5 Marine environment

### The (environmental) challenge



Eutrophication remains a problem in all enclosed seas and sheltered marine waters across Europe. Also, over-fishing and destructive fishing practices are still widespread in all European seas. And while major accidental oil spills have generally decreased in European seas, oil discharges from regular activities, such as transport and refineries, are still significant.

### Introduction

Sea is a very important ecosystem and resource for Croatia, Montenegro and Albania, whereas the sea of BiH is very small. In all these countries the pressure on the marine environment is increasing, including development of infrastructure, fishing, shipping and tourism. The question is how effectively to preserve ecosystems and to use marine resources in a sustainable manner.

There are various policy options in conserving the marine environment:

- » Integrated legislation and institutions for management of marine resources;
- » Coastal zone management plans;
- » Cross border cooperation – e.g. Adriatic-Ionian initiative.

The EU Sustainable Development Strategy 2006 aims at improving management and avoiding overexploitation of renewable natural resources such as fisheries, biodiversity, water, air, soil and atmosphere, restoring degraded marine ecosystems by 2015 in line with the Johannesburg Plan (2002) including achievement of the Maximum Yield in Fisheries by 2015.

The Sixth Environment Action Programme [1600/2002/EC] aims at ensuring a high level of protection of bathing water, including revising the Bathing Water Directive.

Table 25: Quality of sea

Country / territory	Number of blue flags 2006	Marine protected areas (share of territorial sea)
Albania	0	0%
Bosnia and Herzegovina	0	0%
Croatia	121	3.28%
Montenegro	13	0%

### Recent progress

Albania, Croatia and Montenegro have started working systematically to protect and preserve the marine environment and resources. Croatia is working on the Adriatic project comprising 47 sub-projects for the construction of municipal infrastructure facilities and installations. Implementation is co-ordinated by Croatian Waters in cooperation with local self-government units (177) and the ministry of environment. It is financed from a loan granted by the World Bank, as well as from Croatian Waters, state and local self-government budgets. The Counties are gradually integrating coastal zone management plans into their spatial plans, with dominant issues being coastal development (apartments, tourism infrastructure) on the terrestrial side, and mariculture and nautical tourism on the marine side. In order better to control rapidly increasing pressure and protect its coastal area, which also includes the important littoral part of the marine environment, Croatia passed the Regulation on protected coastal area development and conservation in 2004. Specially protected and managed area includes all islands and a narrow coastal strip stretching 1,000 m on the land and 300 m on the marine side from tidal wave line.

### Trilateral Adriatic Sea contingency plan

A sub-regional contingency plan for prevention of, preparedness for, and response to major marine pollution incidents in the Adriatic Sea has been prepared within the Trilateral Commission for the protection of the Adriatic Sea and coastal area from pollution. Since 2001, the Plan has been one of the priority areas of cooperation within the Adriatic-Ionian Initiative and it was signed at the 14th Conference of the Parties of the Barcelona Convention in November 2005. The Plan was prepared with technical support from REMPEC (Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea), part of UNEP/MAP.

The aim of the Plan is to establish a mechanism for cooperation of designated institutions in Croatia, Italy and Slovenia in preventing pollution from ships and, in cases of emergency, combating pollution of the Mediterranean Sea. The Plan outlines mechanisms for harmonisation and joining of actions for prevention, and for reaction in cases of sudden pollution of the sea that could affect waters, coasts and joint interests of the countries, or for cases of insufficient capability of each country to react autonomously. The Plan sets out the scope of cooperation, responsibilities, chain of command, communications system, arrangements of routes of ships and planes, types of, and conditions for, aid provision, financial and administrative measures for cooperation. Each country acts, within its area of jurisdiction, according to its national contingency plan.

Since 2004, other countries have become interested to extend the contingency plan to the whole Adriatic-Ionian Initiative region, after their national contingency plans have been established and endorsed.

[http://www.cop14.si/en/doc/contingency\\_plan.pdf](http://www.cop14.si/en/doc/contingency_plan.pdf)

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### Lošinj Dolphin Reserve in Croatia: establishment of the marine protected area

In July 2006 the Ministry of Culture of the Republic of Croatia declared the establishment of the Lošinj Dolphin Reserve on 241 ha of land and 52,335 ha of sea for protection of the residential community of bottlenose dolphins (*Tursiops truncatus*) in the Cres - Lošinj archipelago. Under the Croatian Law on Nature Protection it is designated as Special Zoological Reserve subject to the strictest type of protection regime. Initially, the area received “preventive protection” with protection from the development of any new human activities, for a maximum of three years. This will allow the establishment of a management body and the preparation of a management plan for the permanent Reserve. After these three years the designation will become permanent through a Decree of the Government.

The Lošinj Dolphin Reserve represents the first MPA dedicated specifically to the protection of one dolphin population in the Mediterranean. It is the biggest marine protected area in the entire Adriatic, totalling 526km<sup>2</sup>. Together with bottlenose dolphins, this Reserve will help conserve a number of other endangered and protected species of flora and fauna found within the designated area. Wintering sites of the loggerhead turtle (*Caretta caretta*), sea grass (*Posidonia oceanica*), coral biocenoses and nesting sites of the common European Shag (*Phalacrocorax aristotelis*). Moreover, recent research identified 152 species of marine flora, 303 species of marine invertebrates (7 strictly protected, 9 protected) and 112 species of fish (19 endangered species in Croatia) within the area. The area is known also for important underwater archaeological sites particularly the site where the Greek bronze statue, a priceless replica of Lizep's Apoksiomenos, was found.

[www.blue-world.org](http://www.blue-world.org)

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### Development of Strategy for Integrated Coastal Zone Management in Montenegro

A Montenegrin Strategy for Integrated Coastal Zone Management is under preparation and is expected to contribute to necessary regulatory and institutional changes, a clear division of competencies and better vertical and horizontal co-ordination among the relevant actors. The process was initiated in 2005. It is supported by GTZ, and it involves a wide range of national and local level stakeholders. The Barcelona Convention, relevant national legislation and the Spatial Plan for Special Purpose Area for Public Maritime Domain are recognised as an overall framework for the development of this Strategy, the main purpose of which will be to serve as an instrument to achieve sustainable development in the coastal zone.

In 2005, the diagnosis part of the preliminary ICZM Strategy was completed to serve as a starting point for drafting the full-scale document (that has continued through to 2007). The Diagnosis identified problems and analysed their root causes, while highlighting possible solutions. It relied on information collected from various existing documents, through interviews and working groups comprising a wide range of stakeholders. The Diagnosis highlighted both qualities (strengths) and inadequacies (weaknesses) of the existing governance and environmental management system in the coastal zone.

[http://montenegro.synergies-environnement.eu/index.php?option=com\\_content&task=view&id=17&Itemid=33](http://montenegro.synergies-environnement.eu/index.php?option=com_content&task=view&id=17&Itemid=33)

Montenegro has declared the public maritime domain in the form of a special purpose area covering a narrow coastal belt along the entire shoreline with the surface of some 60 km<sup>2</sup>, and an area of the territorial sea of some 2,500 km<sup>2</sup>. A specialised institution – Public Enterprise Public Maritime Domain – has been set up to manage this area. A new Spatial Plan for the Public Maritime Domain was adopted in 2007, and it includes a proposal for designation of certain sites (areas around Platamuni, Old Ulcinj, Katići islands, Donkova, Velika Seka and Resovo brdo cliffs) as marine protected areas. Currently, preparation of a national strategy for Integrated Coastal Zone Management is ongoing and is expected to contribute to necessary regulatory and institutional changes, a clear division of competencies and better vertical and horizontal co-ordination among the relevant actors.

**Table 26: Coastal zone management plans**

Country/ territory	Coastal zone management plans
Albania	Integrated Coastal Zone Management Plan 2002 Integrated Coastal Zone Management project supported by the WB for the period 2005 – 2010
Bosnia and Herzegovina	
Croatia	Gradually developed within spatial plans of coastal Counties Zadar County sea-use and management plan
Montenegro	ICZM Strategy under preparation Public Maritime Domain Spatial Plan

Monitoring programme for sanitary quality of beach water has a long tradition in Croatia and the beaches participate in the Blue Flag programme under the EU Bathing Water Directive. Montenegro has also taken part in the Blue Flag programme in recent years.

**Table 27: Fisheries**

Country/ territory	Total catch in 2000 (ton)	Total catch in 2004 or 2005 (ton)
Albania	3 290	6 416
Bosnia and Herzegovina	Not available	Not available
Croatia	20 971	34 661
Montenegro	Not available	Not available

All the countries along the Adriatic participate in UNEP's Mediterranean Action Plan and are, or in the process of becoming, parties to the Barcelona Convention on the protection of the Mediterranean. In 2005, in accordance with the Barcelona Convention Protocol Concerning Cooperation in Preventing Pollution from Ships and, in Cases of Emergency, Combating Pollution of the Mediterranean Sea, Croatia, Italy and Slovenia prepared sub-regional contingency plan for the Adriatic Sea (details in the case study above). Montenegrin national contingency plan is currently being developed (with intentions to become a part of the sub-regional plan).

### Open issues

Despite numerous programmes and projects, monitoring of oceanographic, physical, chemical, and biological parameters of the sea is not conducted in a comprehensive and continuous manner, and the data necessary for integrated management is only partially available. There is insufficient understanding about the general status of the marine ecosystem. Situation is different in Croatia, where provisions of Multilateral Environmental Agreements, including the ones on monitoring, are observed and implemented.

The strategic vision, leadership and framework for sustainable use and preservation of marine ecosystems of the Adriatic are complicated by the differences in the level of economic development and individual country strategies. This results in difficulties in international negotiations about the fair use of marine resources and protection of the Adriatic.

Many vested interests in the fisheries sector, both in international and national arena, hinder attempts to achieve consensus about sustainable management of the marine resources of the Adriatic Sea, which leads to over-fishing and all related negative consequences for the marine environment.

Although being recognised in all countries as an important natural resource with value, only in Croatia is a part of the Adriatic marine ecosystem currently protected, in contrast to the significant share of land area under protection in all the countries. Croatia is also considering the extension of its national ecological network to marine ecosystems.

### Way forward

The communication, exchange of information, co-ordination and general institutional structures for planning and management of the marine environment, including establishment of adequate monitoring programmes, should be further developed by building up on the existing national structures and on the work done under international projects.

A network of marine protected areas should be established to balance the increasing pressure on the marine environment and improve the carrying capacity of the overall marine ecosystem.

A comprehensive sustainable fisheries regime for the Adriatic Sea should be identified, negotiated, implemented, monitored and enforced.

Negative impacts of land based pollution should be mitigated by development of the necessary sewer and wastewater treatment infrastructure.

### Further information

Croatian Environmental Agency & Institute for Oceanography and Fishery: "Sea, coast, fisheries and aquaculture" project; information available on the Croatian Environmental Agency web page [http://baza.azo.hr/projekt\\_more/index.htm](http://baza.azo.hr/projekt_more/index.htm)

Government of the Republic of Montenegro, Ministry of Environmental Protection and Physical Planning, Spatial Plan of the Special Purpose Area Public Maritime Domain, 2007

### 4.6 Forests

#### The (environmental) challenge



Biodiversity conservation receives more and more attention in the forestry and agriculture sector, but sustainable use is not yet fully achieved everywhere. The total wood harvest stays well below the annual increment, but illegal logging and human induced forest fires remain substantial issues in respectively the EECCA region and the Mediterranean.

#### Introduction

Forests are a major habitat and natural resource in SEE. Many people in rural areas depend on work in forests and with forest products for their livelihood and supply. Sustainable forest management practices for production of wood have a long tradition in the region, but have come under various pressures with the changes of the nineties and the ongoing transition. The main policy issues at present are:

- » How to secure optimum performance of the various functions of forests (economic, social, environmental); and
- » Ownership and institutional arrangements for forest management.

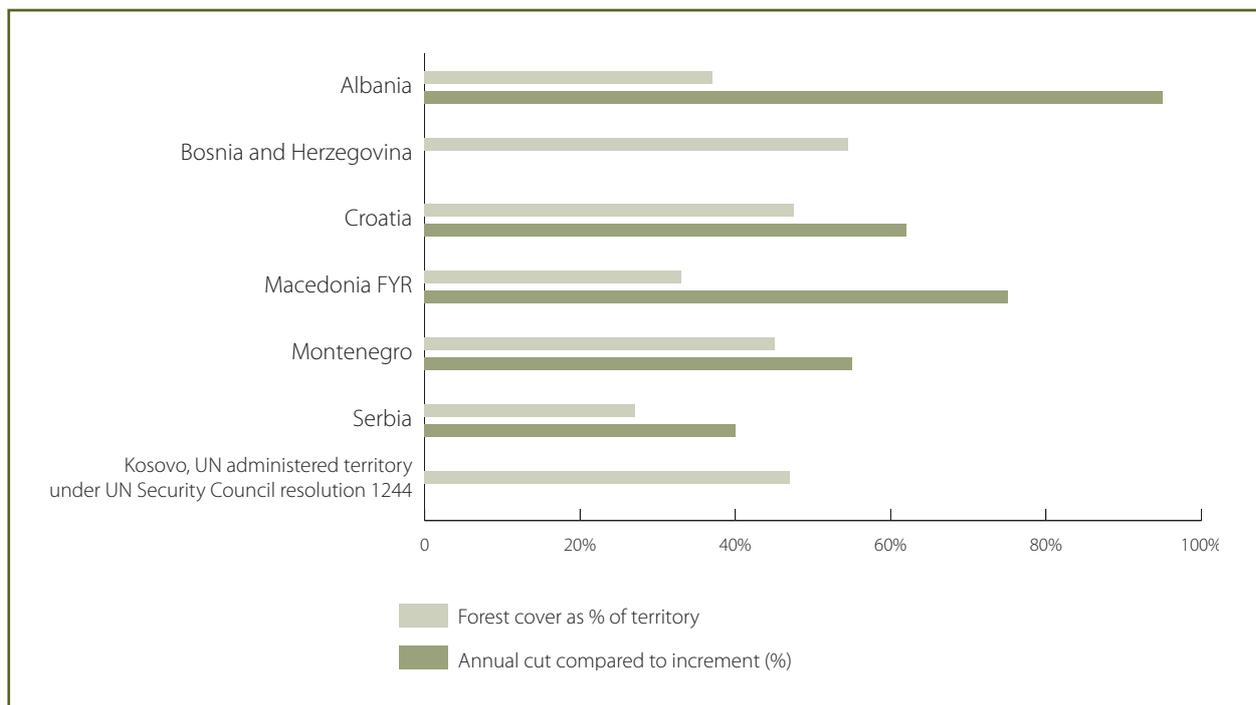
During the socialist system the forests were mostly publicly owned. With the restitution, a choice had to be made whether to keep forests in public ownership or to privatise them. In this process the countries had to choose an institutional model to enable integrated companies for forest management planning, control, logging and wood processing. In doing this they also had to take into account changing needs for forest functions such as biodiversity conservation, recreation, adaptation to climate change etc.

The Sixth Community Environment Action Programme [1600/2002/EC] calls for implementing and further developing strategies and measures on forests in line with the forest strategy of the European Union, taking into account the principle of subsidiarity and biodiversity considerations, incorporating the following elements:

- » improving existing Community measures which protect forests, and implementing sustainable forest management, inter alia, through national forest programmes, in connection with rural development plans;
- » placing increased emphasis on the monitoring of the multiple roles of forests in line with recommendations adopted by the Ministerial Conference on the Protection of Forests in Europe and the United Nations Forum on Forests and the Convention on Biodiversity and other fora;

- » encouraging effective co-ordination among all policy sectors involved in forestry, including the private sector, as well as the co-ordination of all stakeholders involved in forestry issues;
- » stimulating an increase in the market share for sustainably produced wood, inter alia, through encouraging certification for sustainable forest management and encouraging labelling of related products;
- » continuing the active participation of the Community and of Member States in the implementation of global and regional resolutions and in discussions and negotiations on forest-related issues;
- » examining the possibilities to take active measures to prevent and combat the trade in illegally harvested wood;
- » encouraging consideration of the effects of climate change in forestry.

**Figure 9: Forest cover and use**

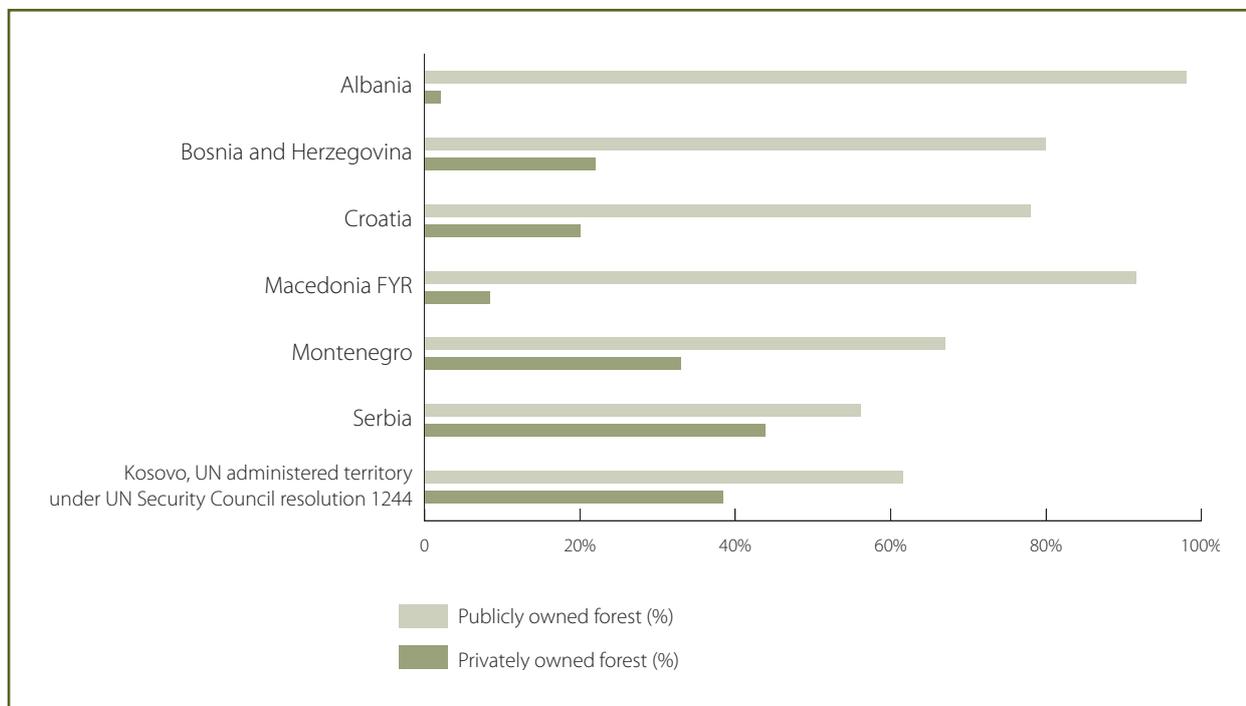


\*FAO data and forecast till 2020

### Recent progress

In all SEE countries ministries of agriculture and forests are responsible for forests and forestry. Since 2000 most countries have adopted new laws on forests and national forest policies, based on recommendations adopted by the Ministerial Conference on the Protection of Forests in Europe.

Figure 10: Forest ownership



Overall, forests are managed sustainably with annual cuts significantly below the annual increment. Croatian state forests received the Forest Stewardship Council certificate. Montenegro is preparing for certification of the sustainability of its forest management. Other efforts the country is making in this area include drafting of a new law, preparation of forestry policy and forest inventory, and building of management capacities.

Nevertheless, examples of unsustainable practices (overlogging in certain areas, impoverishment of forests, illegal cutting, and poorly negotiated concessions) are recorded in some countries. About 200,000 ha of forests in BiH are contaminated by land mines and the high demand for wood in the aftermath of the conflict is putting increasing pressure on the long term sustainability of forest ecosystems in Kosovo, UN administered territory under UN Security Council Resolution 1244.

Compared to the rest of Europe, a high share of wood is used as fuel. This provides an interesting opportunity to maintain the share of this renewable energy source by improving the energy efficiency of the existing technology, rather than promoting it after it loses its market share to gas and fuel oil.

**Table 28: Forest management strategies and plans**

Country/ territory	State level	Regional and local level
Albania	Draft National Environmental Strategy	Regional Strategies for Development Regional MDG Strategies and Report
Bosnia and Herzegovina	Medium-term Development Strategy, Chapter on Forestry	Long-term Forestry Management Plans – in Federation of BiH at the cantonal level, in Republika Srpska at the municipal level (i.e. on the level of forestry management units)
Croatia	Forest Management Basis for the Area of the Republic of Croatia Forest Management Programme (under preparation)	16 regional forest management plans and ca 1,350 forest units management plans
Macedonia FYR	National Strategy for Sustainable Forestry (2005)	23 Forest Management Plans
Montenegro	National Forestry Policy (under preparation)	14 regional forest plans
Serbia	Strategy of Forestry Policy	None
Kosovo, UN administered territory under UN Security Council Resolution 1244	Draft Forest Sector Development Plan for Kosovo	

The majority of forests in the region are publicly owned which may be the reason why institutional reform in the forest sector has been rather slow. Most forests are still managed by integrated public enterprises at national (Croatia, Kosovo, UN administered territory under UN Security Council Resolution 1244, Macedonia FYR, Serbia, Montenegro) or regional level (BiH). This approach secures the funding for the forest management system from the sale of wood, but raises concerns about conflict of interest between the public and commercial functions of the forest public enterprises. So far only Montenegro has introduced a concession system for logging, separating it from the management planning and control. In 2006, Croatia introduced a Forest Extension Service to support management of private forests.

Forest fires are a significant problem in the region, especially in the dry habitat types.

### Forest Stewardship Council certificate in Croatia

The Croatian Forests public enterprise (“Hrvatske šume”) was awarded a Forest Stewardship Council (FSC) forest management certificate on October 17, 2002, after a two-year process of adjustment to the FSC criteria. Considering the size of the country, this is Croatia’s most important international certificate, which confirms that all state forests in Croatia are managed in line with environmental, social and economic criteria. Croatia now has one of the largest FSC certified forest areas in Europe, amounting to 2 million hectares and accounting for 78% of the country’s forested areas. These forests and forest land are managed by the state enterprise “Hrvatske šume” d.o.o. Zagreb. In the last few years, 58 chain of custody certificates were issued to mills, manufacturers and distributors.

The Enterprise had to meet three sets of criteria pertaining to forest management in order to receive the certificate:

- » environmental criteria, including regulations on the protection and preservation of biological diversity, protection of nature and careful use of pesticides;
- » social criteria, which bind the Government to respect the interests of local communities, to protect workers’ rights and occupational safety; and
- » economic criteria, which include planning, acceptable forest management methods and stimulation of local businesses.

The certificate has been awarded for a period of five years and is subject to three-year monitoring. Forest certification is a voluntary, market-driven process. As a voluntary system, it should be regarded as a complementary instrument for improving forest management.

<http://www.vlada.hr/bulletin/2002/november/ecc-mirror.htm>

<http://www.unece.org/trade/timber/mis/market/market-63/croatia.pdf>

<http://www.hrsume.hr/?NewsID=4267&LanguageID=172&CategoryID=300&bnr=6692>

## GIS in forestry in Montenegro

UNDP Montenegro supports sustainable development by enabling informed decision making in the management of natural resources through environmental GIS. In forestry, the objective was to assist with changes in forest management methodology. Following privatisation of the Forestry Institute (previously in charge of forestry planning and monitoring of state owned forests), the Ministry of Agriculture, Forestry and Water Management created a Central Management and Monitoring Unit (CMMU) to perform these functions. This Unit worked closely with UNDP to develop GIS capacity and improve the efficiency of forest inventories.

Through the inventory and planning in the pilot area of Mušovića Rijeka (1,500 ha), elementary GIS procedures were established and a management plan was created. Staff of the CMMU have been trained in scanning, geo-referencing and input of sections from paper maps. Preparations for the inventory based on topographic maps and satellite images have also been undertaken. All of this, together with forestry data from the inventory, enabled creation of the data model for a geospatial forestry database and its validation. In parallel, the MEPPP received assistance with the application of GIS to the management of protected areas and with digitising Emerald sites maps.

<http://www2.undp.org.yu/montenegro/home/archive/index.html>

<http://www2.undp.org.yu/montenegro/sd/index.html>

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## Sustainable forest management in Bosnia and Herzegovina

Two companies from Bosnia and Herzegovina, “Gornje Bosansko” (“Sarajevo šume” from Federation BiH) and “Visočnik” (“Šume Republike Srpske” from Republika Srpska) received Certificates from the Forest Stewardship Council (FSC) in October 2006. Both companies were part of the project supported by the Netherlands government entitled “Introduction of certified forest production in BiH”. The objective of the project was to contribute to sustainable forest management and through the certification process to increase exports of forest products.

REC Bosnia and Herzegovina, News No.39, 2006

<http://www.rec.org.ba/biltenjesenzima06.pdf>

### Open issues

Owing to the institutional and methodological discontinuity there is a lack of up-to-date forest inventories and of reliable data on the status of forest health in some countries.

The public forest services depend on revenues from logging to cover the costs of their operations. This leads to wood extraction as a primary priority and to less attention being paid to the environmental and social functions of the forests. Integration of environmental and nature conservation objectives into forest planning and practice is hindered by separated institutional responsibilities.

### Way forward

Countries need to accept that the forests have more functions than just wood production and that the income from wood alone cannot sustain high quality forest management in the long term. Public funding for forest management and control in both public and private forests is well justified.

Countries need to consider the institutional structures in the forest sector from the point of view of the economic, social and environmental objectives of their forest policies, and secure impartial and equal treatment of public and private forests.

Forest certification provides an opportunity to promote sustainable forest management in the region and improve the economic benefits from forest products.

In the area of monitoring and addressing problems of forest illnesses, transboundary co-operation and exchange of data should be enhanced. On the national level, there is a need to improve communication and co-operation among relevant institutions in some countries, and to have more transparency in all of the areas relevant to forest management.

### Further information

FAO, Global Forest Resources Assessment 2005, Country Report for Bosnia and Herzegovina, available on <http://www.fao.org/forestry/site/fra2005/en>

Government of the Republic of Montenegro, Ministry of Agriculture, Forestry and Water Resources, data on preparation of national forestry strategy available on <http://www.minpolj.vlada.cg.yu/vijesti.php?akcija=rubrika&rubrika=224> and <http://www.nfpcg.com/>

Ministry of Agriculture, Forestry and Water Economy of the Republic of Macedonia and FAO, National Strategy for Sustainable Forestry, 2005

Republic of Croatia, National Forest Policy and Strategy, Official Gazette 120/2003

## 4.7 Tourism

### The (environmental) challenge



Tourism contributes to the economic and social development of several regions and destinations all around Europe. As an activity heavily relying on environmental resources, tourism may affect the state of the environment and lead to significant environmental impacts.

### Introduction

Tourism is generally seen as an economic sector that can significantly contribute to accelerated economic growth or sometimes as a quick solution to the economic problems of the region. On the other hand, it also causes environmental and social problems such as construction in ecologically important areas like coastlines, and increasing traffic with its negative effects of congestion and pollution.

The countries can develop mass tourism through allowing uncontrolled construction of holiday apartments, second residences or focus on economic benefits such as workplaces through development of hotels and higher quality experiences and services by controlling the supply of the tourism offer, as Croatia and Montenegro have already opted for/ are trying to do. The key to securing sustainable tourism is a strong system of physical planning in the tourism regions and forward looking destination management. One possible choice in the SEE is also eco-tourism.

According to UN WTO (2004), sustainable tourism development guidelines and management practices are applicable to all forms of tourism in all types of destinations, including mass tourism and the various niche tourism segments. Sustainability principles refer to the environmental, economic and socio-cultural aspects of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability.

Thus, sustainable tourism should:

1. Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
2. Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.

3. Ensure viable, long-term economic operations, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

Sustainable tourism development requires the informed participation of all relevant stakeholders, as well as strong political leadership to ensure wide participation and consensus building. Achieving sustainable tourism is a continuous process and it requires constant monitoring of impacts, introducing the necessary preventive and/ or corrective measures whenever necessary.

Sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists, raising their awareness about sustainability issues and promoting sustainable tourism practices amongst them.

The Plan of Implementation included in the WSSD Final Report, agreed by Heads of State at Johannesburg in 2002, promotes non-consumptive and eco-tourism as part of sustainable tourism development in order to increase the benefits from tourism resources for the population in host communities while maintaining their cultural and environmental integrity and enhancing the protection of ecologically sensitive areas and natural heritage.

Sustainable tourism development and capacity-building should contribute to the strengthening of rural and local communities. This would include actions at all levels to:

- (a) Enhance international cooperation, foreign direct investment and partnerships with both private and public sectors, at all levels;
- (b) Develop programmes, including education and training programmes, that encourage people to participate in eco-tourism, enable indigenous and local communities to develop and benefit from eco-tourism, and enhance stakeholder cooperation in tourism development and heritage preservation, in order to improve the protection of the environment, natural resources and cultural heritage;
- (c) Provide technical assistance to developing countries and countries with economies in transition to support the development of sustainable tourism businesses, and investment and tourism awareness programmes, to improve domestic tourism, and to stimulate entrepreneurial development;
- (d) Assist host communities in managing visits to their tourism attractions for their maximum benefit, while ensuring the least negative impacts on and risks to their traditions, culture and environment, with the support of the World Tourism Organization and other relevant organisations;
- (e) Promote the diversification of economic activities, including through the facilitation of access to markets and commercial information, and participation of emerging local enterprises, especially small and medium-sized enterprises.

[www.world-tourism.org/sustainable/top/concepts.htm](http://www.world-tourism.org/sustainable/top/concepts.htm)

[www.world-tourism.org/sustainable/wssd/final-report.pdf](http://www.world-tourism.org/sustainable/wssd/final-report.pdf)

**Table 29: Number of tourists and income from tourism**

Country/ territory	Number of overnight stays (2005)	Income form tourism MEuro (2005)
Albania	588 000	500*
Bosnia and Herzegovina	994 661	70
Croatia	51 420 950	6 000
Macedonia FYR	1 970 041	Not available
Montenegro	5 211 847	217
Serbia	6 592 622	296
Kosovo, UN administered territory under UN Security Council Resolution 1244		

\* Includes income from overnight stays, transport and other services provided to tourists.

### Recent progress

The region as a whole has a major potential for tourism development owing to its natural and cultural values and to the proximity of the EU market. After the nineties, which have been disastrous for tourism, Croatia, Bosnia and Herzegovina, and Montenegro have already returned or are on the road to return to their position as major destinations as testified by their advertising in international media. Today tourism in Croatia contributes to around 20% of GDP and is largely based on guests from EU member states (76 %). In Montenegro, tourism contributes 16.5% to the GDP and is poised to grow to 25% by 2015. Other countries are also seeing a rapid growth in tourism.

On the Adriatic coast the development pressure is very high. Although both Croatia and Montenegro adopted tourism legislation and national policy documents, development of sustainable tourism remains a challenge. Tourism is a source of increasing pressures on natural resources, especially on biodiversity, physical space, drinking water and transport infrastructure in the coastal zone and other attractive locations, through construction, increased resource use (drinking water, congestion) and pollution (waste, wastewater). A number of actions and measures such as Blue Flag labels have been implemented in order to improve the quality of the environment related to tourism and the tourism offer itself.

**Table 30: Tourism strategies**

Country/ territory	National tourism strategies	Sustainable tourism strategies
Albania	Tourism Development Strategy 2002 – 2012	
Bosnia and Herzegovina	Republika Srpska, Long-term Tourism Development Strategy 2002 – 2020	
Croatia	Development Strategy of Croatian Tourism till 2010 Tourism marketing strategy 2001 - 2005 Strategy of Cultural Tourism (2003)	
Macedonia FYR	Under development (to be adopted at the beginning of 2008)	
Montenegro	Master Plan for Tourism Development until 2020 (2001, update currently under way)	Strategic Framework for Development of Sustainable Tourism in Northern and Central Montenegro (2004)
Serbia	Strategy of Tourism	
Kosovo, UN administered territory under UN Security Council Resolution 1244		

Croatia and Montenegro also take the lead in a lively public policy debate on the dilemma between mass and sustainable tourism. In Montenegro, this is partly due to the fact that environmental issues were not fully integrated through the process of formulation of the ‘first generation’ of tourism development plans. These are now under review and the concept of carrying capacity as well as environmental assessments and similar tools are part of the policy. For the mountain regions the focus is on nature-culture tourism, developing the necessary infrastructure for hiking and biking, all outdoor sports and recreations activities, expansion of capacity for eco-tourism, integrating national parks, hidden attractions and scientific nature exploration. Other countries in the region are currently under less pressure from mass tourism but could learn from the experience of Croatia and Montenegro as their tourism grows. Bosnia and Herzegovina, for example, offers many possibilities including mountains, adventure tourism, thermal spas, cultural and rural tourism; Međugorje, close to Mostar, is a well-known Catholic pilgrimage destination.

Increasingly, eco-tourism is being recognised as a priority for the development of tourism and rural areas. Numerous projects are aiming at developing eco-tourism initiatives as a model of economic development that is compatible with environmental and social sustainability. However, owing to lack of policies with clear objectives for the development of eco-tourism, these projects are mainly important in raising awareness about this sector.

## Selective types of tourism in Croatia

The Ministry of Sea, Tourism, Transport and Development has been systematically developing policy and activities under the umbrella of “selective types of tourism”, based on the Development Strategy of Croatian Tourism till 2010. These include several programmes to support the development of rural tourism:

- » Grant programme for conservation, restoration and inclusion of natural and cultural heritage in tourism services/offer in underdeveloped tourism areas. In the period 2000 – 2006, 264 projects have been financed with a total of 3.1 MEuro.
- » Loan programme “Support for Success” with the specific programme “Under ancient roofs” targets the SMEs (accommodation with maximum 40 rooms or 20 apartments and minimum quality of three stars). The Ministry subsidises 1 to 4% of interest rate with 2 years of grace period and 20 years payback period. Since 2002, 340 loans have been realised through commercial banks to the amount of 164 MEuro, with 70% of loans to the coastal area and 30% inland.
- » Programme for increasing the competitiveness of tourism market: grants to NGOs for co-financing various education and training programmes on rural tourism.
- » Support programme for developing thematic tourist routes/ itineraries: 0.34 MEuro allocated for 2007; 120 applications have been received.
- » Support programme for authentic Croatian souvenirs: 0.14 MEuro allocated for 2007; 340 applications have been received.
- » Loan programme for rural tourism: 0.41 MEuro allocated for 2007 for interest rate subsidy programme in cooperation with the national guarantee agency HAMAG, national development bank HBOR and commercial banks; the programme aims to develop tourism as a secondary activity on farms, to increase the quality of life in rural areas, to conserve the identity and tradition of rural areas and to create rural tourism destinations.
- » Co-financing of projects funded from international sources.

[www.mmtpr.hr/UserDocsImages/070322-ILOK\\_2007.pdf](http://www.mmtpr.hr/UserDocsImages/070322-ILOK_2007.pdf)

### Radimlja – cultural, historical and tourist pearl of Bosnia and Herzegovina

The historic site of the necropolis of stećak tombstones of Radimlja is located in Vidovo polje, 3 km west of Stolac, on the Čapljina – Stolac road. It consists of 133 stećak tombstones, the majority of which dates from the 15th and 16th century. The area has several examples of different types of monuments of considerable cultural and historical value, and provides a snapshot of the historical complexity of the Stolac region and of the town itself. Radimlja necropolis is one of the most valuable monuments of the mediaeval period in Bosnia and Herzegovina.

Japanese government and the UNDP supported development of the tourism potentials in Stolac and reconstruction of the recreational centre in Radimlja. The approach taken is that tourism as an economic sector presents a powerful developmental tool. Bosnia and Herzegovina is rich with natural and cultural heritage that can be employed in terms of ecological, adventure and historical tourism. These resources can become a means of the overall social development, and as such, they present an important mechanism for income generation and poverty reduction.

### Open issues

Apart from Croatia and Montenegro that have well established systems, the majority of the countries lack reliable statistical data on the tourist industry which is necessary for the planning and prioritisation process. Information on visitor preferences, especially regarding preserved natural and cultural heritage and clean environment, should be assembled and used for raising awareness of the importance of nature and environmental protection for tourism.

Development of sustainable forms of tourism is hampered by a number of structural obstacles such as underdeveloped environmental and other infrastructure, distribution of accommodation facilities (concentration in the coastal zone), and unfavourable conditions for tourism development in rural areas. In this context pressures to achieve quick and strong growth in tourism industry may offset efforts to develop forms of tourism that are more environmentally friendly and sustainable.

Developers, regulators and decision makers sometimes lack knowledge and understanding of lessons to be learned from past development and future trends of tourism around the Mediterranean, in particular regarding social, economic and environmental impact of tourism and ways of maximising benefits for the local economy. The consequence of this are wide debates regarding tourism strategy in countries where tourism is well developed in contrast to the lack of policy and regulatory frameworks for the tourist industry in less tourism oriented countries and territories.

Perception of tourism as the economic panacea has detrimental effects on other economic activities (e.g. agriculture, fishery, arts and crafts), the development of which is very important for balanced sustainable regional development, but also for an attractive tourism sector.

## Way forward

Awareness regarding the positive and negative effects of tourism should be increased. Tourism should be seen as part of diversification of the economy, not as the ultimate goal in itself. Strong physical planning and environmental regulation is required to assure visitor satisfaction and efficient provision of public services in tourism areas.

In order to develop high quality tourism with low environmental impact, strategic vision, framework, leadership, and planning should be strengthened. This includes:

- » Improving education, training, and foreign language proficiency of people working in tourism;
- » Establishing and presenting on maps systems of scenic routes, hiking and biking paths (summer and winter use) and implementing uniform systems for sign-posting, signalisation, markings and symbols;
- » Upgrading and connecting the cultural monuments to this system of hiking and biking paths;
- » Zoning of nature protected areas according to sensitivity level and “carrying capacities/ limits of acceptable change”.

Sustainability indicators should be developed and monitored, involving all stakeholders in all destinations. In the countries that haven't done so yet, tourism legislation and co-ordinated national policies should be developed.

## Further information

Republic of Croatia, Development Strategy of Croatian Tourism till 2010

UNDP, Strategic Framework for Development of Sustainable Tourism in Northern and Central Montenegro, 2004

JICA, The Study on Sustainable Development through Eco-Tourism in Bosnia and Herzegovina, Final Report, March 2005



## 5. Improving the living environment

### 5.1 Environment and health

#### The (environmental) challenge



Pollution of air, water and soil, is affecting the health of Europe's citizens and undermining advances in the quality of life across the region. Despite remarkable reductions in air pollutant emissions, atmospheric pollution (in particular current levels of fine particles and ozone) still poses a significant threat to human health and the environment as a whole. Similarly, although water quality seems to have improved in rivers across the region, some large rivers and many smaller watercourses remain severely polluted. In addition even now more than 100 million people in the pan-European region do not have access to safe drinking water and adequate sanitation. Also, the production and use of chemicals raises health concerns.

#### Introduction

In the context of the large volume of transposition and implementation of EU legislation it is difficult to set priorities. Good country specific understanding of threats to human health can help set priorities and maximise the benefits of environmental policy to the population. Lack of such understanding can lead to high expenditures with little real effect.

The main environmental health hazards in the region are linked to:

- » air pollution (both outdoor pollution from major industries, mining and transport, as well as indoor pollution from e.g. smoking, heating);
- » incidence of unsafe drinking water in certain areas/ time periods;
- » improper management of waste and wastewater; and
- » insufficient occupational (in particular in major industries) and transport safety.

Governments and businesses have different options when selecting criteria to set priorities for policies and expenditure. They may use health effects as an important criterion in cases where there is a good understanding of risks to health and the possibilities to mitigate them.

The Sixth Community Environment Action Programme [1600/2002/EC] calls for:

- » achieving better understanding of the threats to environment and human health in order to take action to prevent and reduce these threats;
- » aiming to achieve within one generation (2020) that chemicals are only produced and used in ways that do not lead to a significant negative impact on health and the environment, recognising that the present gaps in knowledge of the properties, use, disposal and exposure of chemicals need to be overcome;
- » substitution of chemicals that are dangerous by safer chemicals or safer alternative technologies not entailing the use of chemicals, with the aim of reducing risks to man and the environment;
- » reducing the impacts of pesticides on human health and the environment and more generally to achieve a more sustainable use of pesticides as well as a significant overall reduction in risks and of the use of pesticides consistent with the necessary crop protection. Pesticides in use which are persistent or bio-accumulative or toxic or have other properties of concern should be substituted by less dangerous ones where possible;
- » achieving quality levels of ground and surface water that do not give rise to significant impacts on and risks to human health and the environment, and to ensure that the rates of extraction from water resources are sustainable over the long term;
- » achieving levels of air quality that do not give rise to significant negative impacts on and risks to human health and the environment;
- » substantially reducing the number of people regularly affected by long-term average levels of noise, in particular from traffic (which, according to scientific studies, cause detrimental effects on human health) and preparing the next step in the work with the noise directive.

**Table 31: Phase-out of lead in petrol**

Country/ territory	Year when lead was (will be) phased out
Albania	2007
Bosnia and Herzegovina	2010
Croatia	2006
Macedonia FYR	2004
Montenegro	Lead not phased out
Serbia	Lead not phased out
Kosovo, UN administered territory under UN Security Council Resolution 1244	Lead not phased out

## Recent progress

Before 1990 the overall air quality in industrialised areas and major urban centres was poor: large energy and metallurgy plants generated much pollution. The overall recession and decline in industrial activities have significantly relieved pressure from industry on air quality, but in places where new technologies haven't yet been introduced, the problems are re-emerging.

The increasing number of second hand vehicles has resulted in an increased pressure of traffic on air quality, and this is expected to continue in the coming years. The average age of the vehicle fleet is over 10 years, with presence of vehicles 15 or more years old.

Many people in the region rely on village water supply systems, their own wells or on possible springs or surface water sources. The risk of pollution of these private wells or surface water is generally high, owing to discharge of untreated wastewater into groundwater/ water streams and to other sources of pollution. Drinking water quality in many places does not fulfil international standards.

There are few, albeit growing in number, operational wastewater treatment plants in the region. Problems with waste management are linked with problems deriving from illegal landfills, which pose a great potential for generating serious health problems.

### CASE STUDY

## Dealing with impacts of lead pollution in Veles Macedonia

Since the inception of the Lead Smelter Plant in 1973 Veles has been an environmental hot spot in the Republic of Macedonia. According to the NEAP (1996) and NEHAP (1999) it is considered top priority for the elimination of environmental health risks to the exposed population caused by the emissions of lead, cadmium and zinc.

Between 2001 and 2004 a multidisciplinary study to assess the exposure risk to lead and to assess the health impact on schoolchildren was conducted by the Republic Institute for Health Protection with the involvement of several other Macedonian and Bulgarian institutions. The pollution of soil and some agricultural products was found to be three times higher than Maximum Allowed Concentration (MAC) of 100 mg/kg. In the vicinity of the Plant, the concentrations detected were as high as 23 times more than the MAC. In 2003 the average annual concentration of lead in the ambient air was 0.22 µg/m<sup>3</sup> in Veles, and blood lead level was 16.51 µg/dl in 31 school children (age 12.8) from Veles.

Based on the results of the study, the Lead Smelter Plant has been closed down and an environmental health impact assessment is under way. In order to reduce the health risks to children further actions are planned including:

- » Rehabilitation of the polluted soil in the vicinity of the Lead Smelter Plant to prevent any further contamination of the region;

- » Provision of early diagnosis and medical treatment of vulnerable groups, especially children at risk;
- » Establishment of a programme for monitoring of the environmental pollution by heavy metals and recovery;
- » Continuation of the assessment of the environmental impacts on health in the Veles region due to high lead contamination of the soil, as well as of the agricultural products that enter into food chain.

In order to secure future sustainable development of the municipality the local environmental association “Vila Zora” with the support of REC prepared the Local agenda 21 for the municipality of Veles in 2004 and 2005. The proposal, which was developed by a citizen’s committee, made up of 22 representatives from the local authority, business sector, institutions and NGO sector, was approved by the municipal council. Upon the initiative of “Vila Zora” and several thousand citizens, the municipal council also supported the Declaration for Veles as the first GMO-free zone in Republic of Macedonia in 2006.

[www.vilazora.org.mk](http://www.vilazora.org.mk)

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### Preparation of radon map for Montenegro

With funding from the Montenegrin Government, the University of Montenegro, Centre for Ecotoxicological Research (CER) and Slovenian Jozef Stefan Institute started developing the radon map of Montenegro in 2002, aiming to provide baseline information on the concentration of radon across the country to serve for planning and construction purposes. The work includes measuring radon concentrations in housing and cross-referencing concentrations with construction dates of buildings, construction materials used and geological characteristics of the terrain.

The first phase of the project has been completed, with measurements taken at around 600 out of the planned 1,000 locations. The distribution of dosimeters for the areas outside urban settlements was in one housing unit per 5 x 5 km grid, while in urban areas dosimeters were located in houses/apartments within 500 x 500 m grid (or in some cases within 750 m x 750 m grid). Nitro-cellulose detectors (CR 39) were used, and dosimeters at each location were replaced every half a year in order to allow for calculation of mean annual values.

Besides this project, regular radioactivity monitoring programme is being carried out by the CER for Ministry of Tourism and Environmental Protection. The programme encompasses all the environmental

media, drinking water, food and construction materials, as well as radon concentrations in living and working premises. Within this programme, high concentration of radon was detected in some of the pre-school and elementary school buildings in Podgorica in 1999 and 2000. Remediation measures (construction works) followed immediately, bringing concentrations below permitted limits.

<http://www.mturizma.vlada.cg.yu/vijesti.php?akcija=vijesti&id=17708>

<http://www.ceti.cg.yu/projects.html>

Over recent years all of the countries in the region except Montenegro and Serbia have developed and adopted a National Environmental Health Action Plan in cooperation with the WHO and some are continuing with the preparation of Local Environmental Health Action Plans. All of the countries except Montenegro and Serbia have also phased out lead from petrol.

In the framework of the implementation of EU legislation, some countries have started developing registers of polluters or emission inventories. Macedonia introduced Environmental Health Impact Assessment. The Macedonian Ministry of Health is introducing reforms in the management of public health and promoting education in environmental health and public health at the Medical Faculty Skopje and B.EN.A. (Balkan Environmental Association) Training Centre for Environmental Health Professionals.

**Table 32: Environment and health action plans**

Country/ territory	NEHAP, CEHAP year
Albania	2000
Bosnia and Herzegovina	NEHAP 2002 CEHAP under preparation
Croatia	NEHAP CEHAP under preparation
Macedonia FYR	NEHAP 1999 and 2006 CEHAP 2006
Montenegro	
Serbia	
Kosovo, UN administered territory under UN Security Council Resolution 1244	

### Open issues

Public health statistics are not well developed, and there are no combined data for health and environment. This is of particular concern for areas where pollution from industries, mining, improper waste management or similar issues represents a threat to human health.

The general understanding of the health effects of environmental pollution and lifestyle by the broad public and decision makers is still inadequate. In addition to the traditional health risks the “modern” lifestyle is spreading, leading to more sitting, less physical activity, more stress, fast food, etc. – which all bring additional health risks.

The health systems are geared more towards curative measures, while prevention is rather underdeveloped.

Owing to the economic situation, the funds to modernise industry, develop public infrastructure and car fleets are limited.

### Way forward

Lead should be phased out from petrol in line with the Pan-European Strategy to Phase Out Leaded Petrol adopted in Aarhus in 1998. It is also essential to reduce sulphur levels in fuels to 50 ppm or below (especially in diesel fuels) in order to reduce increasing vehicular emissions of fine particulates and to allow for the use of advanced emission controls.

National Environmental Health Action Plans should be developed in the countries that haven't yet done this, and implemented as a matter of urgency.

The ministries in charge of environment and health should work together with public health institutions to determine priority environmental health risks, develop well targeted policies and campaigns to remove them, as in the case of phasing out lead from petrol, and integrate environmental health objectives into overall development plans. Health effects should be used as an important factor in setting priorities and schedules for adoption and implementation of EU environmental standards.

### Further information

The Pan-European Programme on Transport Environment and Health,  
<http://www.thepep.org/CHWebsite>

Protocol on Water and Health, <http://www.unece.org/env/whmop1/highlights.htm>

Bosnia and Herzegovina, Functional Review of the Health Sector, Final Report, 2005, available on [http://www.delbih.ec.europa.eu/en/reviews/Health\\_report\\_PDF/engFinalreport.pdf](http://www.delbih.ec.europa.eu/en/reviews/Health_report_PDF/engFinalreport.pdf)

WHO, European Environment and Health Committee, Mid-term Evaluation of the Implementation of Strategy Adopted in Budapest - Progress Report after the Fourth Ministerial Conference on Environment and Health (due in 2007, national reports available on <http://www.euro.who.int/eehc>)

WHO, The Environmental Health Indicators for Europe – a Pilot Indicator-based Report, 2004, available on <http://www.enhis.net/PilotReportWHO.pdf>

UNECE, Environmental Performance Review for Federal Republic of Yugoslavia, 2002

### 5.2 Legacy of war and instability

#### The (environmental) challenge



Even when transitions are relatively smooth and void of conflict, they entail considerable political, societal and economic adjustments that shape the way environmental challenges can be and are addressed. Thus, those areas that witnessed major changes or even armed conflicts over the past two decades felt and still feel the impacts, as not only lives were lost, but also national assets and infrastructure destroyed, causing pollution as a result of damage to industrial as well as military installations. Large numbers of people remain displaced within their own countries, or have become refugees.

#### Introduction

Wars and instability have been one of the defining factors in the SEE region in the period between 1991 and 2001. Armed conflicts have a multitude of direct and indirect effects on the environment and the people. Some of the first comprehensive analyses of these effects have actually been conducted in this region by the Environment and Security Initiative since 1999.

The most important consequences of the conflicts in the region include:

- » Direct effects of war, including land mines and depleted uranium contamination;
- » Derelict and/ or destroyed industrial hot spots representing a pollution risk and an important barrier to economic social and environmental development;
- » Migration processes that left depopulated rural areas lacking human resources for rural development on one side, and increased pressure on receiving urban areas on the other side;
- » Newly formed borders that create barriers to effective management of common ecosystems such as of river basins or mountain ranges.

In post conflict reconstruction and reconciliation, environmental management represents an important rallying point, being a trans-boundary issue by definition and being in the common interest of all parties. However dealing with the actual consequences of the conflicts may take a long time and significant effort, e.g. in the case of land mines, integration of refugees or redevelopment of industrial hot spots. Consequences of the conflict will remain an important issue in national and regional environmental policies for some time to come.

Under the “Meeting our international responsibilities” objective, the EU Sustainable Development Strategy commits to:

- » Encourage the establishment and defend the stability of democratic institutions across the world, based on peace, security and freedom; and
- » Actively promote sustainable development world-wide and ensure that the European Union’s internal and external policies are consistent with global sustainable development and its international commitments.

**Table 33: De-mining and decontamination**

Country / territory	Area de-mined (km2)	Sites decontaminated of DU (number)
Albania	12	
Bosnia and Herzegovina	200	
Croatia	93	
Macedonia FYR	21	
Montenegro		1 (Cape Arza)
Serbia	10% of total mined territory	4 (Bratoselce, Borovac, Pljačkovica, Reljan)
Kosovo, UN administered territory under UN Security Council Resolution 1244	12.5 (by the end 2005)	

### Recent progress

The most important direct environmental effects of the wars are land mines and contamination with depleted uranium. Large areas of BiH, Croatia and Kosovo, UN administered territory under UN Security Council Resolution 1244, are still covered with land mines and unexploded ordnance. In BiH the total surface area known or suspected to be dangerous is 1,889 km<sup>2</sup>, i.e. 3.7% of the total area of the country. The ongoing process of mine clearing is more and more effective, but is still slow and costly. It will take a long time before all minefields are cleared. Until all mines and other unexploded ordnance are cleared, they will discourage opportunities for reconstruction, agriculture, nature protection, recreation and so on. This is one of the key obstacles to increasing the return of the displaced and refugees and an important barrier to development of the affected areas.

NATO forces used special ammunition containing depleted uranium (DU) in the air strikes, especially during the Kosovo war in 1999. About 31,000 projectiles were used in Kosovo, UN administered territory under UN Security Council Resolution 1244, with the total amount of approximately 9.3 tons of DU spread. UNEP found presence of DU contamination also in Serbia, Montenegro and BiH. UNEP found no widespread ground contamination in the investigated areas. However, localised ground contamination was found in areas not more than 150 meters away from the zone of DU ammunition impact. Apart from the DU impact holes, which were highly contaminated, contamination was usually found to be below the natural uranium level. The corresponding radiological and chemical toxicological risks were calculated to be insignificant.

Since there are also scientific uncertainties regarding the long-term behaviour of DU in the environment, UNEP called for precautionary measures to be taken, including the removal of slightly radioactive DU residues from the surface, decontamination – especially of buildings – where feasible, and the provision of information to local populations on precautions to be taken if DU is found.

### ENVSEC

Peacefully resolving the overriding political, economic and social concerns of our time requires a multifaceted approach, including mechanisms to address the links between the natural environment and human security. UNDP, UNEP, OSCE, NATO, UNECE and REC have joined forces in the Environment and Security (ENVSEC) Initiative to offer countries their combined pool of expertise and resources towards that aim.

The ENVSEC Initiative works to assess and address environmental problems, which threaten or are perceived to threaten security, societal stability and peace, human health and/ or sustainable livelihoods, within and across national borders in conflict prone regions. The Initiative collaborates closely with governments, particularly foreign, defence and environment ministries, national experts and NGOs. Together with the stakeholders ENVSEC has carried out assessments and published reports illustrated by maps, for understanding the linkages between environment and security in the political and socio-economic reality of South-Eastern Europe, the Southern Caucasus and Central Asia. Based on the assessments, the Initiative develops and implements work programmes aimed at reducing tensions and solving the identified problems. Through extensive regional consultations and multi-stakeholder participation the initiative seeks to:

- » Identify environment and conflict hotspots by carrying out desk and field assessments;
- » Present the results of the assessments in graphically rich maps, reports and web site and draw the attention of politicians and people to situations and hot spots where risks are high;
- » Help societies to deal with priority issues by raising awareness, building capacities and strengthening institutions;

- » Support concrete action and catalyse specific solutions for the identified security-relevant environmental problems on the ground.

These challenges are being tackled through a combination of political, socio-economic and environmental insights as well as the capacity and skills of the six partners. ENVSEC also collaborates with think tanks and research institutes to increase the understanding of the interdependency of natural resources, socio-economic development and political stability.

In South-Eastern Europe, the ENVSEC partners continue to promote environmentally sound mining practices through training, assessment and rehabilitation projects. The consortium is implementing several demonstration projects for rehabilitating mining legacies and building local capacities both in governance (mining regulators) and technical fields. ENVSEC is also promoting cross-border cooperation on nature protection through the establishment of protected areas and parks.

[www.envsec.org](http://www.envsec.org)

### Clean-up at the four 'hot spots' in Serbia

In the framework of the ENVSEC Initiative, UNEP has implemented 16 physical works projects at the four hot spot sites in Serbia: Pančevo, Novi Sad, Kragujevac and Bor. In addition, other international partners provided bilateral support for a further six projects from the Feasibility Study portfolio, meaning that a total of 22 projects have been implemented to improve the environmental situation and significantly reduce risks to human health and well-being.

While the main focus has been the physical works needed to mitigate environmental problems and associated health risks, institutional strengthening and capacity building has been a major theme running throughout the Clean-up Programme. Stronger environmental management is needed to ensure that short-term economic gains are not detrimental to the longer-term prospects for environmentally sustainable development. To this end, numerous training courses, workshops and awareness raising events were organised in parallel with the clean-up operations.

The environmental authorities in Serbia together with UNEP conducted a joint final assessment of the environmental conditions at the four hot spot sites. The key findings are summarised below. The UNEP report also provided clear recommendations for the required follow-up, and identified overall priorities for the future. In view of the progress made with site remediation, the report concluded that Kragujevac and Novi Sad were no longer considered as 'environmental hot spots'.

**Pančevo:** While conflict-related concerns have been significantly reduced, important environmental problems have yet to be addressed. Among the four environmental hot spots, Pančevo was the one to suffer most damage during the Kosovo conflict. Consequently, more than half of the Clean-up Programme funds was used for projects at this site.

**Novi Sad:** The risk of serious contamination affecting drinking water supplies has been substantially reduced and conflict-related environmental impacts are being systematically monitored.

**Kragujevac:** The environmental impacts arising from the conflict have been mitigated successfully.

**Bor:** The conflict-related environmental consequences have largely been dealt with but were relatively minor in comparison with the wider, pre-existing environmental problems affecting the area.

Implementation of the UNEP Clean-up Programme was made possible by contributions of Denmark, Finland, France, Germany, Ireland, Luxembourg, the Netherlands, Norway, Sweden, and Switzerland.

<http://postconflict.unep.ch/index.php?prog=serbia>

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### **De-mining in Kosovo, the UN administered territory under UN Security Council Resolution 1244**

In December 2005, Handicap International ended its de-mining activities in Kosovo, UN administered territory under UN Security Council Resolution 1244, after six years of operations. In 2005, de-mining operations cleared more than 4.3 square kilometres of land in Kosovo, a 10 percent increase on productivity in 2004, destroying 719 antipersonnel mines, 30 anti-vehicle mines, 977 cluster bomblets and 1,378 other items of unexploded ordnance (UXO).

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### **Direct De-mining Project (DDP) in Bosnia and Herzegovina**

Since 2003, UNDP BiH, in cooperation with the Government of Italy, the Mine Clearance Organization of INTERSOS and the Government of BiH, has been conducting the Direct De-mining Project. Until the end of 2006, four phases clearing 600,000 m<sup>2</sup> have been conducted. Within these activities the mine clearance was conducted at the following locations: Vrelo Bosne, Trebević, Bjelašnica, Briješće, Faletići, Semizovac, Zabrdje, Hadžići and a location in Herzegovina, the returnee village of Kuće Lončara. All these locations are of key strategic and economic importance, because of their tourist perspective or the presence of inhabited housing units.

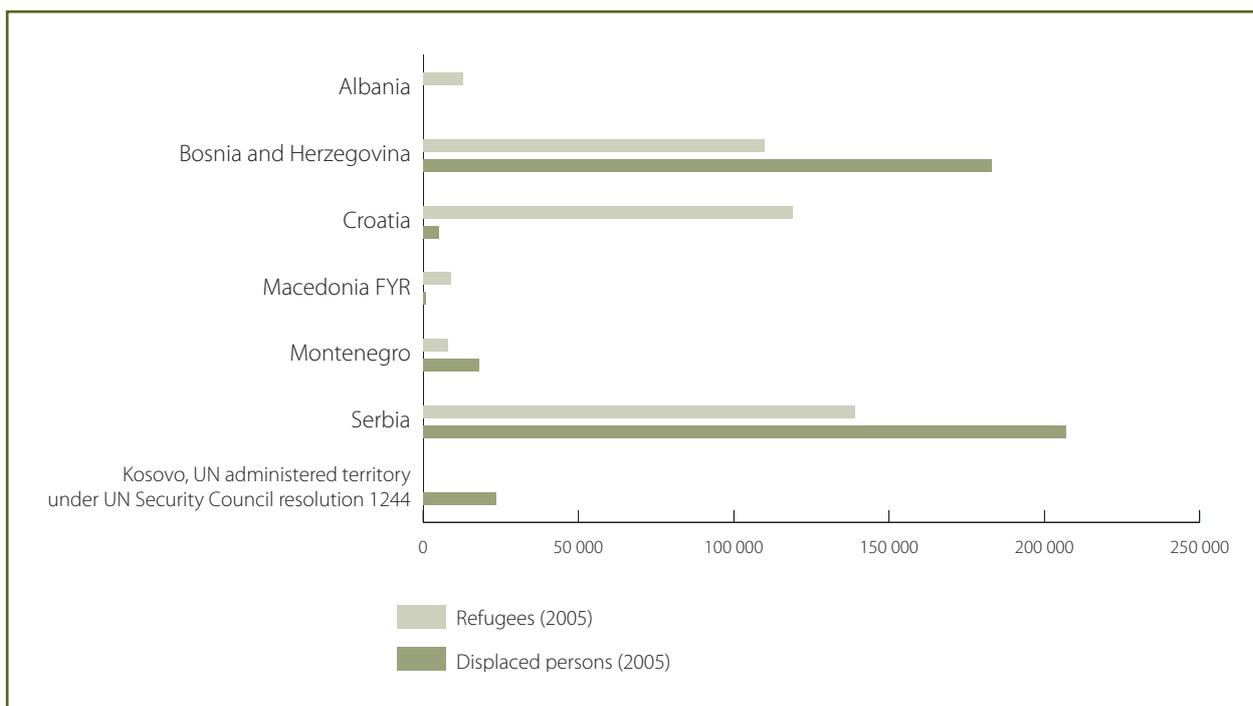
[www.bhmac.org](http://www.bhmac.org)

The indirect impacts of war include displacement of persons and refugees, and destruction or collapse of industries.

The situation of displaced persons and refugees remains a problem in some countries. From 1992 to 1995, almost half of BiH's approximately 4.35 million inhabitants fled or were forcibly displaced from their homes. Slightly less than a million remained in BiH as displaced persons; more than a million people became refugees in other countries and territories. According to the UNHCR statistics at the end of October 2006, the total number of refugees and DPs who have returned to/ within BiH is approximately one million, with less than half of these returning to their place of origin. The rate of the returns and ensuring full minority rights and protection is still an ongoing concern.

The return of the displaced population is slowed down by the fact that usually there are very few opportunities for employment in the area of return – old industry is gone and nothing new has replaced it. In addition, during 5 to 15 years of displacement, displaced people start with their life at another place, usually in urban areas with a higher possibility of employment, which decreases the probability of return of the younger, more active population. As well as economic reasons, safety considerations still play a role in the deliberations of displaced populations whether to return to some areas (this in particular refers to the return of displaced people to Kosovo, UN administered territory under UN Security Council Resolution 1244).

**Figure 11: Refugees and displaced persons**



## Improving the living environment

Overall industrial production and mining have left the countries with a legacy of several contaminated and degraded sites, while adequate policies and resources for clean-up are lacking. Governments have taken over the responsibility to carry out remediation measures linked to historic pollution. However, no substantial progress was made towards implementation of such measures.

The industrial locations affected by conflicts often had an earlier record as pollution hot spots. In spite of clean up successes, further efforts by both local and national environmental authorities will be required at several sites. The ongoing privatisation process may offer new opportunities for investment in new, more environmentally friendly technologies. A number of municipalities where the remediation of hot spots was carried out have developed Local Environmental Action Plans (LEAP) thus enhancing and strengthening local environmental planning and management (e.g. Bor and Bujanovac in Serbia).

The challenges of transition, including the scarcity of public and private funds, present a major obstacle to more resources being directed for more intensive rehabilitation of the war affected areas. This means that the remediation will remain a mid- to long-term problem and an obstacle to sustainable development of the affected areas.

The demographic consequences of the conflicts can never be completely remedied. Not all refugees and displaced persons can be expected to return, especially the young generations that can find new economic opportunities elsewhere. This particularly affects depopulated areas where it is hard to restore the social capital when it is mainly the older population that returns. Such a situation further polarises the level of economic and social development between the urban and rural areas in the region.

### Way forward

De-mining activities including clearance and education as well as caution related to depleted uranium should continue in the long term by domestic institutions.

In cases of industrial hot spots and communities affected by population displacements, local environmental action plans (LEAPS) and Local Agendas 21 represent an important tool to strengthen local environmental management and planning, priority setting for remediation of historical pollution, and for development of social capital.

Trans-boundary environmental cooperation has been strong compared with cooperation in other sectors and has contributed to the stabilisation in the region. This cooperation should continue on the issues of common interest such as trans-boundary ecosystems and pollution or exchange of experience with similar problems. Regional cooperation can also be seen as an important element on the way towards membership and cooperation in the framework of the European Union.

### Further information

UNEP, UNDP, OSCE, NATO, and REC, Environment and Security Initiative,  
<http://www.envsec.org/>

UNEP, South-Eastern European Mining Related Risks: Identification and Verification of “Environmental Hot Spots” (draft report), 2006

UNEP, “Depleted Uranium in Bosnia and Herzegovina: Post-Conflict Environmental Assessment”, May 2003

### 5.3 Climate change

#### The (environmental) challenge



Impacts of climate change on society and natural resources are already occurring both Europe and world-wide - and are projected to become even more pronounced. And even if global emissions of greenhouse gases are drastically reduced, some unavoidable climate change impacts make adaptation measures urgent.

#### Introduction

All countries in the region are parties to the UN Framework Convention on Climate Change of 1992. Albania, Croatia, Macedonia FYR and Montenegro ratified the Kyoto protocol between 2004 and 2007, and other countries are in the process of preparing its ratification. Croatia belongs to the group of countries in transition (Annex I of UNFCCC) and the remaining countries are in the group of Non-annex I countries. Although with undefined final status, Kosovo, UN administered territory under UN Security Council Resolution 1244 – through UNMIK, is an equal signer of the “Energy Community Treaty for the SEE Countries”, and is obliged to begin the implementation of the Kyoto Protocol.

Even if the absolute and per capita contribution of the region to global greenhouse gas emissions is relatively small, there are significant opportunities for emission reductions in the countries owing to the current high energy intensity, reliance on brown coal for energy production, low energy efficiency of the domestic sector and high potential for renewable resources such as solar, biomass, hydro and wind. If it can seize the opportunities, the region could benefit significantly from emissions trading (Croatia) and the Clean Development Mechanism. The consequences of climate change are also important for the SEE countries and territories. The changing weather patterns are already felt in form of droughts, flooding and increasing frequency of forest fires.

The Sixth Community Environment Action Programme [1600/2002/EC] calls for, *inter alia*:

- » Implementing international climate commitments including the Kyoto Protocol;
- » Reducing greenhouse gas emissions in the energy and transport sector, industrial production and other sectors by encouraging the use of renewable energy sources, Combined Heat and Power, increased energy efficiency, more efficient and cleaner forms of transport, eco-efficiency practices and techniques in industry, etc;
- » Using other appropriate instruments such as fiscal measures.

**Table 34: GHG emissions**

Country/ territory	Carbon emissions per capita (metric tons)	Total net GHG emissions t CO <sub>2</sub> eq
Albania	1.0	7 061
Bosnia and Herzegovina	4.9	
Croatia	5.3	14 494
Macedonia FYR	6.5	13 000
Montenegro	5.1	3 100
Serbia	6.2	60 000
Kosovo, UN administered territory under UN Security Council Resolution 1244		4 506
OECD	11.2	
Central and Eastern Europe and the CIS	6.2	

### Recent progress

Most countries have prepared their greenhouse gas inventories and submitted their First National Communications on Climate Change; others are in the process of preparing them. Macedonia and Albania are currently preparing their Second National Communication on Climate Change. Croatia has prepared and submitted its Second, Third and Fourth National Communication of the Republic of Croatia under the United Nations Framework Convention on Climate Change and has prepared draft National Strategy for Implementation of UNFCCC and the Kyoto Protocol.

**Table 35: Ratification of the UNFCCC**

Country/ territory	Ratification of the FCCC	Ratification of the Kyoto Protocol
Albania	1994	2005
Bosnia and Herzegovina	2000	2007
Croatia	1996	2007
Macedonia FYR	1997	2004
Montenegro	2006	2007
Serbia	2001	
Kosovo, UN administered territory under UN Security Council Resolution 1244		

## Improving the living environment

The countries in the region have started preparing and implementing policies to reduce their emissions. Croatia is encouraging activities and projects dealing with renewable energy sources, energy efficiency, sustainable and environmentally friendly construction and clean transport. Albania is in the process of establishing an energy efficiency centre. All countries are promoting renewable energy sources in their energy policies/ strategies or developing specific plans for the use of renewable sources, yet the use of renewables overall remains at a rather low level. Work on the preparation of Clean Development Mechanism (CDM) projects has been initiated in most countries and is in different stages across the region. In February 2007, the Macedonian Government adopted the National Strategy for Clean Development Mechanism for the First Commitment period 2008 – 2012, developed with the support of UNDP and in collaboration between UNDP, the Ministry of Environment and Physical Planning and REC.

Although in some countries greenhouse gas emissions have dropped significantly between 1990 and 2000, recently emissions have been growing in all countries in the region.

### Energy efficiency housing project in Bosnia and Herzegovina

UNDP BiH aims to introduce low cost methods of saving energy when building or reconstructing buildings, thus mitigating the emissions of greenhouse gases while at the same time reducing the operational costs and increasing the comfort level of the buildings.

The project is focused on dissemination of know-how and hands-on experience by training local municipal officials, representatives from housing maintenance companies and homeowner associations in energy efficient design, principles, management and planning. Based on the training component, 1 to 3 buildings will be selected and reconstructed according to an energy efficiency plan that is to be developed during the practical part of the training. A feasibility study will also explore the potential for using individual small biomass-fired boilers for local wood waste in rural households.

[www.undp.ba](http://www.undp.ba)

## Improving energy efficiency of the residential and service sectors in Croatia

Since 2004, the Government of Croatia and UNDP have been working together to develop an active and sustainable market for energy efficiency (EE) products and services. In the context of the underdeveloped EE market in Croatia with almost non-existing demand for EE products and services, they are targeting both supply and demand side of the market, and conducting public information, awareness and social marketing activities. The activities comprise:

- » Free energy audits (FEAs),
- » Project Development Fund (PDF),
- » Partial financial guarantees fund (PGF),
- » Technical assistance, and
- » Information and promotion campaign.

The initial focus of the project is on the residential and service sectors. The emphasis is on disseminating information on profitable EE projects, promoting the results of successful implementation, and stimulating replication of similar projects. The experiences and lessons learnt from implementation of the energy efficiency measures are collected and analysed, to provide direct input to the ongoing policy development work of the Government of Croatia, as well as to leverage increasing financing for such investments.

<http://www.energetska-efikasnost.undp.hr>

## Open issues

There is a lack of data and accurate information on GHG emissions, particularly in Serbia, Montenegro, BiH, and Kosovo, UN administered territory under UN Security Council Resolution 1244, where such data are very fragmented and GHG inventories have not yet been finalised/ institutionalised. There are also very few long-term climate data series in the region and no analysis on vulnerability and adaptation strategies in some countries.

Once ratified, the Convention and the Kyoto Protocol require efficient and well co-ordinated institutional structures with adequate human and financial resources necessary for their implementation. A very close cooperation with other sectors and institutions, in particular with the ministries for energy and industry, is crucial in this segment. In some countries, the relevant sectors (energy, industry, transport, agriculture, forestry, and others) have limited capacity for analysis, strategic planning and management. As a result, there is no coherent foundation on which to integrate specific climate change mitigation and adaptation actions, while climate change is still seen as an international problem rather than a real issue in the domestic context.

### Way forward

Work on adaptation strategies should start immediately focusing primarily on issues of water management (drought and flood risks) and the vulnerability of ecosystems (fire). These strategies need to be integrated into the relevant sectoral strategies such as physical plans, water and forest management plans.

The current “popularity” of the climate change issue can be used for more general environmental awareness raising campaigns focusing on the local implications of climate change and promotion of more environment-friendly lifestyles, energy efficiency and use of renewable energy sources.

Adequate resources need to be devoted to the administration of commitments to both Convention and Protocol. The recommendations of the ongoing projects that assess capacity for the implementation of UN conventions will need to be implemented, including the establishment of permanent organisational structures within the institutions dealing with climate change. Cooperation mechanisms between the environment, energy and industry ministries need to be strengthened at all levels by identifying focal points on climate change in the relevant institutions.

### Further information

Bosnia and Herzegovina, Decision on Ratification of the UNFCCC (Official Gazette Bosnia and Herzegovina, No. 19/00)

Draft Second National Communication of the Republic of Macedonia to the UNFCCC, 2007

Republic of Macedonia, National Strategy for Clean Development Mechanism for the First Commitment Period 2008 – 2012, available on [www.undp.org.mk](http://www.undp.org.mk) and [www.moep.gov.mk](http://www.moep.gov.mk)

Climate change project web site in Macedonia, [www.unfccc.org.mk](http://www.unfccc.org.mk)

Draft GHG Inventory for Montenegro, prepared within the project supported by the Italian Ministry of Environment, Land and Sea, 2005

Second, Third and Fourth National Communication of the Republic of Croatia under the UNFCCC, available on [http://klima.mzopu.hr/UserDocsImages/CROATIA\\_National\\_Communication.pdf](http://klima.mzopu.hr/UserDocsImages/CROATIA_National_Communication.pdf)

## 5.4 Energy

### The (environmental) challenge



Reliable and affordable energy supply is a condition for economic growth. At the same time energy production and consumption is a major cause of environmental pressures, including greenhouse gas and air pollutant emissions, across the wider European region.

### Introduction

The energy intensity of SEE countries is high and a lot of energy comes from coal. In recent years there has been a high demand for energy in Europe (electricity, oil), and there are significant ongoing investments in generating capacity in the SEE, sometimes aiming at export. At the same time, fuel wood is still a very important heating source. In the context of concerns such as energy security, adequate access to energy services, particularly in rural areas, and modernisation of energy infrastructure, it is unclear whether the SEE will be able to reduce its energy intensity in the near future.

There are many different ways to secure adequate energy supply and enhance the environmental performance of the energy industry. The countries may make choices such as:

- » Privatisation of the energy industry or securing public funding for investment;
- » Produce energy for export and provide transit for energy (power lines, oil and gas pipelines) or mainly serve the domestic markets;
- » Enforcing environmental rules or turning a blind eye to secure continued supply;
- » Energy reform—unbundling of production and transmission or keeping consolidated national operators.

One of the objectives of the SEE Energy Community Treaty, signed in 2005, is to improve the environmental situation in relation to Network Energy market and the related energy efficiency, to foster the use of renewable energy, and to set out the conditions for energy trade in the single regulatory space. *Inter alia*, each Contracting Party to this treaty is obliged to:

- » implement the *acquis communautaire* on energy, environment, competition and renewables;
- » accede to the Kyoto Protocol;
- » implement the IPPC, EIA, birds and large combustion plants Directives and the Directive on sulphur content of certain liquid fuels;
- » secure compliance with the *acquis communautaire* in the construction and operation of new generating plants.

**Table 36: Energy use**

Country / territory	Electricity consumption per capita (kWh in 2003)
Albania	1 743
Bosnia and Herzegovina	2 636
Croatia	3 733
Macedonia FYR	3 794
Montenegro	7 296
Serbia*	1 900
Kosovo, UN administered territory under UN Security Council Resolution 1244	5 840
OECD	8 777
Central and Eastern Europe and the CIS	3 432

\*Data for Serbia for 2001

### Recent progress

Most countries in the region are net importers of energy. The energy sector represents one of the most important and most polluting sectors of the economy. The main domestic sources of electricity generation in the region are lignite and hydropower whose share varies from country to country. Lignite-fired power plants, and the oil and oil derivatives industry are among the most severe polluters in the region. Hydropower plants transform the hydrology and ecology of the rivers on which they are located. Natural gas and oil derivatives are mostly imported. Wood is used extensively as a furnace fuel. It is generally used in low efficiency stoves that release greenhouse gases and poly-aromatic hydrocarbons that create cancer risks.

Since the nineties, significant investment has taken place in improving the efficiency and environmental performance of the energy industry in some countries. Owing to growing demand and issues of security of supply, new generating capacities are being planned in all the countries and territories.

Significant progress has been achieved in creating new legal and institutional frameworks for the energy sector and in implementing energy market reforms. All countries are party to the Athens process and the Energy Community Treaty. In line with this treaty national energy strategies have been prepared or are under preparation, independent regulators are being introduced and transmission is being unbundled from electricity generation and retail.

As part of national strategies or as separate initiatives, plans for energy efficiency and renewable energy sources are being developed. Apart from hydropower development, these initiatives have so far been implemented on a pilot or project demonstration level. Croatia has made progress with several projects for more efficient gas power plants, improvement of district heating systems, small and mid-sized projects on energy efficiency and application of renewable energy sources in industry, the public sector and agriculture. Wind power plants have gradually become a normal profitable business, and biofuel production is getting momentum.

Energy efficiency (together with increased use of renewable energy sources) is of major interest to all countries in the region, both from political and economic aspects, as well as a tool that can contribute to decreasing energy and trade deficits. The potential sources of renewable energy include small hydro, solar, geothermal, wind and biomass. However, utilisation of these sources to their full potential will require improvements in legal and technical frameworks, as well as specific incentives.

There are also significant environmental concerns linked to the development of some of the renewable resources such as hydro and wind power. In addition to being costlier than fossil fuels, they may have a negative impact on protected areas and on water ecosystems and regimes. This has to be taken into account in planning and permitting projects.

**Table 37: Energy strategies**

Country / territory	State energy strategy, year	Strategies for energy efficiency and renewables
Albania	National Energy Strategy and Action Plan, 2003 (updated 2007)	Under preparation
Bosnia and Herzegovina	Under preparation	
Croatia	Energy strategy, 2002	Masterplan under preparation
Macedonia FYR	No	Energy Efficiency Strategy by 2020 (2004)
Montenegro	Under preparation	Energy Efficiency Strategy (2005) Small hydro-power strategy (2006) Study on potential for renewables (2007)
Serbia	Energy Development Strategy until 2015, 2005	Provisions for further development included in the Strategy Implementation Programme of the Energy Development Strategy
Kosovo, UN administered territory under UN Security Council Resolution 1244	Energy strategy 2005 – 2015	Programme for energy efficiency and renewable energy resources for the period 2007 – 2009

**Table 38: Selected economic instruments - energy**

Country/ territory	CO <sub>2</sub> tax	Budget for promotion of energy efficiency and renewables
Albania	CO <sub>2</sub> tax (applied to motor fuels)	US\$ 100 000 each year for solar
Bosnia and Herzegovina	No	
Croatia	CO <sub>2</sub> emissions charge	Yes, through Croatian Fund for Environment and Energy Efficiency
Macedonia FYR	No	Incentives
Montenegro	Fossil fuel tax	Donor sources only
Serbia	No	Yes
Kosovo, UN administered territory under UN Security Council Resolution 1244	No	

### Energy Community Treaty

An initiative for the establishment of an integrated electricity market in the South-Eastern European countries (SEE) came jointly from the European Community, the Stability Pact for South-Eastern Europe and the participating countries and territories. They expressed its “best endeavours to achieve an integrated regional market” by signing the Memorandum of Understanding (MoU), which was further developed into a legally binding framework. The Energy Community Treaty (ECT) was signed by 25 EU member states and SEE countries in Athens on 25 October 2005.

The treaty aims to create a stable regulatory and market framework which will be able to attract investments into the natural gas and electricity sectors and ensure reliable power sources. This should be achieved with the gradual implementation of the *acquis communautaire* in the areas of energy, environment, competition and renewables by the signatory parties. The institutions of the Energy Community are the Ministerial Council, the Permanent High Level Group, the Regulatory Board, the Fora and the Secretariat.

Upon ratification by the European Community and six Contracting Parties (Albania, Bulgaria, Romania, Macedonia FYR, Croatia, Serbia and Kosovo, through UNMIK), the treaty entered into force on 1 July 2006, creating the largest internal market in the world. Montenegro ratified the Treaty in October 2006.

## Open issues

Relative to the other themes/ sectors, the energy sector traditionally has fairly developed information system.

There is a need for conducting a comparative assessment of the existing environment and energy legislation with the directives specified in the Energy Community Treaty. Furthermore, implementation of the Treaty will have a significant impact on the social and economic situation of a country, in terms of energy pricing. However, that information is missing. In addition, there is lack of reliable data on RES potentials.

There is a serious risk that the advantage of the region in terms of low energy use per capita (which is found in most countries) will be lost if current development patterns are sustained, even though the technologies for more sustainable energy management are already available. Awareness and information on available energy efficiency and renewables technologies and measures and their financial benefits is limited within the various end user groups. The capacity to initiate, support and implement efficiency and renewables projects is still limited.

Only limited funds are available for investment in small-scale energy efficiency and projects to exploit renewable energy sources. At the same time significant funds are being invested in large-scale energy infrastructure such as generating plants and transmission infrastructure.

## Way forward

Energy policy and energy legislation should encourage a more sustainable and economical energy system based on renewable energy sources, co-generation of heat and power and end-use energy efficiency. The main opportunities for energy efficiency and renewables in the region are in the areas of:

- » improving insulation of houses and the technology of heating with wood;
- » solar heating of water;
- » small and micro hydropower;
- » maintaining high share of rail and public transport instead of road and private transport;
- » bio-diesel; and
- » improving energy efficiency or phase-out of energy consuming industries.

Energy prices need to be gradually adjusted to reflect the real cost of production, including investment and external costs. At the same time vulnerable consumer groups should be protected through needs-based social assistance programmes.

## Improving the living environment

Further rehabilitation of the thermal power, industrial and heating sector should increase energy efficiency and address current pollution to meet EU emission levels and climate change requirements.

### Further information

- » Government of the Republic of Macedonia, Energy Efficiency Strategy by 2020, 2004
- » Government of the Republic of Montenegro, Ministry of Economy, Energy Efficiency Strategy, 2005

## 5.5 Industry

### The (environmental) challenge



The marked difference in economic development and trade flows across the pan-European region can also be understood to be a *de facto* 'export' of environmental burdens to countries with higher reliance on raw mineral extraction and processing, and other branches of industry commonly associated with high environmental pressures and emissions to air, soil and water.

### Introduction

Industry has been one of the main polluters in the past and significant funds need to be invested in its clean-up. All the countries in the region have undergone or are still undergoing the processes of privatisation. These processes have a fundamental effect on the assignment of responsibility for the environment and sustainable development based on the "polluter pays" principle. In some countries the introduction of new technologies and environmental management systems has achieved environmental results more quickly than regulations.

In the past, the countries have relied on a combination of subsidies and enforcement to reduce pollution from industry. Now other options such as environmental management systems, flexible permits and economic instruments are also available. Appropriate integration of environmental and social concerns into the privatisation process can significantly improve the performance of privatised companies. On the other hand, there are public concerns about the actual performance of privatised companies and effectiveness of control mechanisms in the new context. In privatisation the governments have several options of dealing with environmental and social concerns, such as:

- » Keeping past environmental liability with the government;
- » Assigning environmental liability to the new owner taking this into account in the cost of the privatisation deal;
- » Providing compensation for strategically important assets (land in national parks, infrastructure) rather than restitution to former owners.

After privatisation it is very important to adopt and enforce a robust set of environmental rules and regulations (physical planning, IPPC, EIA) and to promote voluntary approaches (such as EMAS), which are all among the obligations of the SEE countries in the EU approximation process.

The Sixth Community Environment Action Programme [1600/2002/EC] calls for improving collaboration and partnership with enterprises and their representative bodies and involving social partners, consumers and their organisations, as appropriate, with a view to improving the environmental performance of enterprises and aiming at sustainable production patterns. This requires:

- » promoting an integrated product policy approach throughout the Programme that will encourage the taking into account of environmental requirements throughout the life-cycle of products; and
- » encouraging voluntary commitments or agreements to achieve clear environmental objectives, including setting out procedures in the event of non-compliance.

In view of the significant extractive industry in the SEE, the 6th EAP mentions in particular the need to promote sustainable management of extractive industries with a view to reduce their environmental impact.

**Table 39: ISO 14 000**

Country/ territory	ISO 14 000 certifications from 2001 and 2005
Albania	1
Bosnia and Herzegovina	47
Croatia	321
Macedonia FYR	13
Montenegro	8
Serbia	127
Kosovo, UN administered territory under UN Security Council Resolution 1244	

Sources: ISO Survey 2006; Montenegro: Ministry of Economic Development

### Recent progress

Heavy industry including mining and metallurgy dominated the economies of the region before the changes. Since the nineties the construction and service sectors have expanded dramatically, including commercial activities, tourism and recreation. In environmental terms, the changes of the last decade and a half have left a legacy of historic pollution, but a significant decline in pollution from active industry owing to restructuring and the introduction of new technologies and management approaches. However, some industrial regions still comprise the most polluted areas in Europe.

Because of the dramatic changes in the industrial sector and its high economic and social importance, the countries have only started seriously to regulate its environmental performance in recent years. Through the introduction of framework environmental legislation and more specific transposition of the IPPC directive and EIA procedure, environmental permits and self-monitoring are being introduced gradually. Work has started on the identification of installations that will be subject to IPPC and development of pilot projects for introduction of Best Available Techniques, in many cases supported by donors. In parallel, significant administrative capacity needs to be put in place to manage the system. All countries that have advanced with IPPC implementation introduced transitional arrangements for existing installations in the form of agreed timed action plans that are the basis for temporary permits and are controlled by environmental inspections. At the same time, a growing number of regulations based on EU standards is gradually taking a grip on industrial pollution.

A major share of previously state or socially owned companies in the region is already privatised, or is in the process of restructuring and privatisation. The governments have conducted this process mainly with the aim of improving the economic performance and in some cases attracting foreign direct investment. Various methods of privatisation have been used in the region, including voucher offer, tender, auction, direct sale or a combination of the above methods. At least on paper environmental responsibility has been taken into account in the deals, but in practice the institutions conducting privatisation haven't co-operated well with the environmental authorities.

In many cases new owners have brought in a new environmental governance culture and in this way set new standards and acted as a role model for other operators by significantly improving environmental performance and investing in clean-up. But there are also examples where privatisation was unsuccessful both in terms of preserving the workplaces and improving the environment.

Specific for the region are large polluting industries in mineral extraction, metal processing and energy production. Many of these companies have obsolete technologies and are overstaffed, and although they are not attractive in business terms, for the governments it has been an imperative to maintain their operation and as many jobs as possible. This explains why the bodies responsible for privatisation have been unwilling to integrate conditions related to clean-up and other environmental measures into privatisation agreements. In most such cases, governments have retained the responsibility for the past pollution and the new owners are responsible for compliance with the environmental standards in the future.

In Macedonia FYR the privatisation contract requires the owner to prepare a detailed environmental plan, including clean-up actions, as part of the business development plan, which would move the company towards EU environmental standards. This plan should be in compliance with the existing environmental protection legislation. It is not clear to what extent these environmental requirements are complied with in practice.

While the obsolete industries were looking for government or donor subsidies for environmental clean-up, the leading companies in the region started introducing environmental management ahead of government regulation or in joint initiatives with the government bodies. A growing number of companies

in the region have received ISO 14000 certificate. The concept of Corporate Social Responsibility is also relatively quickly gaining in popularity.

The transposition of the EU *acquis* also includes EMAS and eco-labels. Eco-labels were introduced quite early in some of the countries but had limited success due to the small size of the markets and lack of domestic consumer demand. On the other hand many exporting industries have obtained eco-labels valid in major European markets. Across the region, donor supported projects transposing and implementing the IPPC, Seveso, EMAS and eco-label directives and regulations include preparation of polluters registers, conducting environmental audits, preparation of pilot compliance plans involving best available technologies in various sectors, and issuing integrated permits. These pilot projects have been received positively by industry.

### Integrated Pollution Prevention and Control (IPPC) in Macedonia FYR

In the Republic of Macedonia FYR the principles of integrated pollution prevention and control (IPPC) have been fully transposed in the framework Law on Environment of 2005. Bylaws and other regulations have also been adopted covering the inventories and classification of installations, application and permit issuance procedures and the content of integrated environmental permits. In addition to the permits required by IPPC directive issued at the national level (so-called 'A' permits), a second level of integrated 'B' environmental permits for smaller installations has been introduced to be issued by municipalities.

All existing installations in the country have to apply for an adjustment permit in the period 2006-08. New installations compliant with the current standards may apply for integrated permits immediately, whereas existing installations should submit a request for harmonisation, followed by an adjustment plan as a condition to continue the operation. The adjustment plan contains measures, phased solutions and deadlines for fulfilment of the conditions for acquiring the integrated environmental permit. The deadline for full implementation of the adjustment plan i.e. full compliance with BAT is 2014. The three years for application are divided in six half-year periods in each of which one of six sectors of industry has to apply. The first six-month period was reserved for the metals production and processing sector.

An EU CARDS project is supporting the MoEPP and other state administrative bodies in the process of IPPPC implementation. The project focuses on preparation of the first pilot integrated environmental 'A' permits (including adjustment plans) for five major industrial installations in the country. At the same time, two horizontal and six sector specific BAT Guidance Notes have been prepared. The third project component is support to local governments in establishing the inventory of installations requiring "B" permit.

## Integrated Pollution Prevention and Control (IPPC) in Bosnia and Herzegovina

With the support of the EU, the environmental authorities of BiH are preparing for the implementation of regulations on integrated pollution prevention and control. The overall objective of the project is to minimise adverse impacts on human health and the environment as a result of industrial activity through the use of Best Available Techniques (BAT) in the industrial sector and strengthening of the implementation of the Law on Environmental Protection. As a first step, a Polluters Register software database was developed. Environmental audits will be carried out in 30 food and beverages installations (brewery, dairy, meat processing, vegetables processing and slaughterhouses) which will ensure first-hand information on the current level of technological and environmental performance.

<http://www.heis.com.ba/home.php?kategorija=11&podkategorija=>

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## Regional hot spots remediation programme

A joint partnership between UNDP, the Netherlands Government and participating countries has resulted in the “Strengthening capacities in the Western Balkan countries to address environmental problems through remediation of high priority hot spots” programme. The approach of the three years, 11 MEuro programme is to improve environmental conditions and quality of life for citizens living in and around a number of polluted areas through least cost measures, improved local and national policy dialogue and supply of domestic professional services in the environmental sector. The programme therefore focuses on environmental clean-up and remediation of polluted industrial hot spots that have already been identified as high priority but where limited progress was seen so far due to complexity of issues and the costs involved.

The overall objectives of the project are to increase capacity of the national and local governments in the Western Balkan to implement sustainable environmental policies in accordance with EU standards, and to strengthen regional co-operation in the region towards solving problems of cross border contamination from industrial and mining activities. The following three components are envisaged under the programme:

1. clean-up projects;
2. demonstration and information sharing; and
3. strengthening supply of professional consultancy services.

The hot spot sites were selected during the programme preparation phase from those already identified by the ENVSEC Initiative or national authorities as top priority locations. Based on expressed interest by local/ national authorities, final selection of hot spots in each participating country/ territory was conducted through consultation between the UNDP, relevant national authorities, local Netherlands' Embassies, and the civil society. The following criteria were used for selection:

- » Trans-boundary effects of the hotspots;
- » The possibility to attract other donor funding;
- » The possibility to establish partnerships, including public-private partnerships;
- » Readiness of local authorities and relevant stakeholders to take leadership in the sustainable environmental management of their community.

Based on these criteria the following locations were selected for intervention:

Albania: Stockpile of toxic chemicals at Bajza railway station in Shkoder;

Bosnia and Herzegovina: Ugljevik mine and thermal power plant (north-eastern part of the country) and Tuzla as one of the most polluted areas in BiH;

Macedonia FYR: Bucim mine in the mountainous area of Radoviš municipality and Lojane Chromium and Antimony Beneficiation Plant and abandoned mine located near the border with Serbia and Kosovo, UN administered territory under UN Security Council Resolution 1244;

Montenegro: abandoned metal mining complex in Mojkovac (northern part of the country);

Serbia: section of Danube-Tisza-Danube Canal passing through municipalities of Vrbas and Kula in Autonomous Province of Vojvodina;

Kosovo, UN administered territory under UN Security Council Resolution 1244: Trepča - a major lead-zinc mining area in the northern part of the province.

[www.undp.org.yu/montenegro](http://www.undp.org.yu/montenegro)

### Open issues

There is no systematic analysis on the effect of privatisation in the selected industries on their environmental performance. Information on the feasibility of compliance of industrial sectors with EU legislation and what would be the positive and negative consequences for the economic development of the country is only being collected by some recent ongoing projects in the region.

Privatisation strategies have not been communicated well. Negotiations and treatment of the environment have not been handled with necessary transparency so far, which gave rise to mistrust and has created a negative public perception of the privatised companies.

The success of privatisation in improving environmental performance of enterprises will mostly depend on the implementation and enforcement of the environmental legislation based on the IPPC and other EU directives. So far the co-ordination mechanisms between the environmental institutions and those responsible for the privatisation process are insufficient. Environmental issues are not listed as one of the priorities in the process of privatisation and are not perceived as such by the relevant institutions.

There is a general public perception of corruption in privatisation deals leading to mistrust in the environmental performance of privatised companies. The industrial sector is often seen as an enemy by the environmental administration and NGOs, which results in unused opportunities for partnerships.

The commercial sector is insufficiently informed and educated about sustainable development and the impact of its activities on the environment. The 'polluter pays principle' is sometimes understood by the environmental authorities and by the industry only as the duty to pay environmental charges rather than covering the costs of environmental compliance. This leads to expectations of government subsidies for environmental clean-up or delays in enforcement of legislation for companies that claim lack of funds.

The environmental inspectorates lack human and technical resources to conduct regular communication and enforcement activities with industry. In some countries this is further complicated by unclear responsibilities for chemicals and GMOs.

## Way forward

The countries should consequently introduce, communicate and implement the relevant EU legislation such as IPPC, Seveso, EMAS, Eco-label, REACH and others. In doing this, responsibilities for implementation should be clearly assigned and not duplicated. The obligations of industrial installations should be communicated early, comprehensively and if possible in one place.

The business/ private sector can and should make a major contribution to meeting overall environmental objectives. It is important that the state develops mechanisms to control private/ business sector performance effectively and stimulates environmentally friendly and socially responsible behaviour through a combination of policy instruments, thus allowing companies to reach the objectives at least cost.

Communication between the government administration, industry and civil society regarding environmental issues should be improved. More should be invested in voluntary initiatives such as introduction of EMS and even more comprehensive framework/ corporate governance culture of Corporate Social Responsibility (CSR). Experience shows that there is an increase in the competitiveness of companies that adopted CSR, especially if they are export oriented.

Privatisation and environmental authorities should co-operate closely through the following measures:

- » Introducing clauses on past environmental liabilities into privatisation agreements;
- » Enterprises and industries listed for privatisation should carry out environmental audits;
- » The new owners should be required to prepare compliance plans in parallel with the privatisation agreement; the plan should specify the measures and timeframe in order to comply with standards and regulations;
- » The privatisation authorities should have environmental specialists on their staff.

To avoid suspicion and speculation in the privatisation process, more transparency and third party verification should be introduced in the privatisation deals and in monitoring their results.

### Further information

Bosnia and Herzegovina, Law on Privatisation of state capital in enterprises of Republika Srpska (Official Gazette Republika Srpska, No. 24/98, 62/02, 65/03)

Bosnia and Herzegovina, Law on Privatisation of Companies of Federation of Bosnia and Herzegovina (Official Gazette Federation of BiH, No. 27/97, 8/99, 32/00, 45/00, 54/00, 61/01, 27/02, 33/02, 44/04).

Government of the Republic of Montenegro, National Strategy for Sustainable Development, 2007

## 5.6 Transport

### The (environmental) challenge



Energy consumption and greenhouse gas emission in SEE and NWE are growing rapidly along with the general growth in transport but also because of a shift towards road transport, which is less energy efficient than rail transport. In EECCA emissions have decreased, but less than transport volumes indicating a reduction in average fuel efficiency.

Emission of air pollutants cause problems for air quality, especially in cities, but improved vehicle technology is available, and is gradually being introduced into the market of the EECCA countries and territories, albeit with a significant delay compared to the EU countries.

### Introduction

Transport has increased rapidly after the end of war in the SEE and is becoming one of the main sources of pollution and emissions of CO<sub>2</sub>. Public transport and railways are declining while road transport is increasing following also the rapid development of road networks.

There are a number of choices in terms of transport policy such as preference for modes of transport (public – private, rail – road) etc. Investments in transport infrastructure are mostly coming from public sources and international institutions and the choice of infrastructure also determines the long-term impact of transport. There are many possibilities for economic instruments to regulate transport (excise taxes, road tolls, parking fees, CO<sub>2</sub> tax etc.). One option is presented by the Eurovignette Directive stipulating the maximum user fee per year considering the environmental standard of the vehicle. It also provides options for increased charges to regulate the volume of transport and reduce pollution in vulnerable and polluted regions.

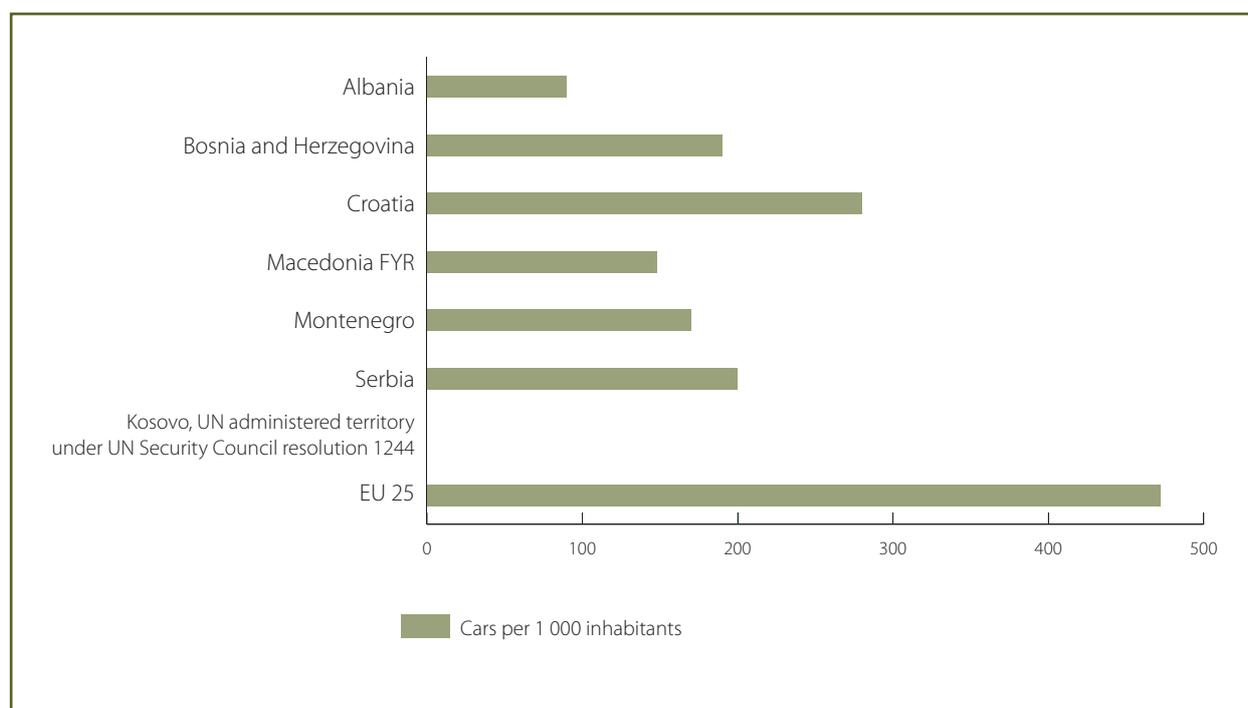
One of the overall objectives of the EU Sustainable Development Strategy is:

- » To ensure that our transport systems meet society's economic, social and environmental needs whilst minimising their undesirable impacts on the economy, society and the environment.

Relevant operational objectives and targets under this objective are:

- » Decoupling economic growth and the demand for transport with the aim of reducing environmental impacts;
- » Achieving sustainable levels of transport energy use and reducing transport greenhouse gas emissions;
- » Reducing pollutant emissions from transport to levels that minimise effects on human health and/or the environment;
- » Achieving a balanced shift towards environment-friendly transport modes to bring about a sustainable transport and mobility system;
- » Reducing transport noise both at source and through mitigation measures to ensure overall exposure levels minimise impacts on health;
- » Modernising the EU framework for public passenger transport services to encourage better efficiency and performance by 2010;
- » In line with the EU strategy on CO<sub>2</sub> emissions from light duty vehicles, the average new car fleet should achieve CO<sub>2</sub> emissions of 140g/km (2008/09) and 120g/km (2012);
- » Halving road transport deaths by 2010 compared to 2000.

Figure 12: Personal transport



### Recent progress

Since 1990 and especially in the last decade personal mobility in the region has increased dramatically. In a boom of car ownership the number of personal vehicles has more than doubled in all countries and territories, mostly in the form of second hand vehicles imported from Western Europe. For example, in Bosnia and Herzegovina it is estimated that the number of vehicles increased from 570,000 to around 900,000 between 1990 and 2000. The average age of the vehicle fleet is around 10 years, with presence of vehicles of 15 or more years old. But comparing the number of cars per capita with other countries in Europe, it is likely that the vehicle fleet will grow further in the next decade.

Table 40: Transport strategies

Country/ territory	State transport strategy, year	Local or regional transport plans and strategies
Albania	Albanian National Transport Plan, 2005 (undergoing a revision in 2007)	Tirana city, 2000
Bosnia and Herzegovina	Transport Master Plan for Bosnia and Herzegovina, 2001	
Croatia	Transport Development Strategy of the Republic of Croatia, 1999	Zagreb City Transport Master Plans for 2005, 2010 and 2020

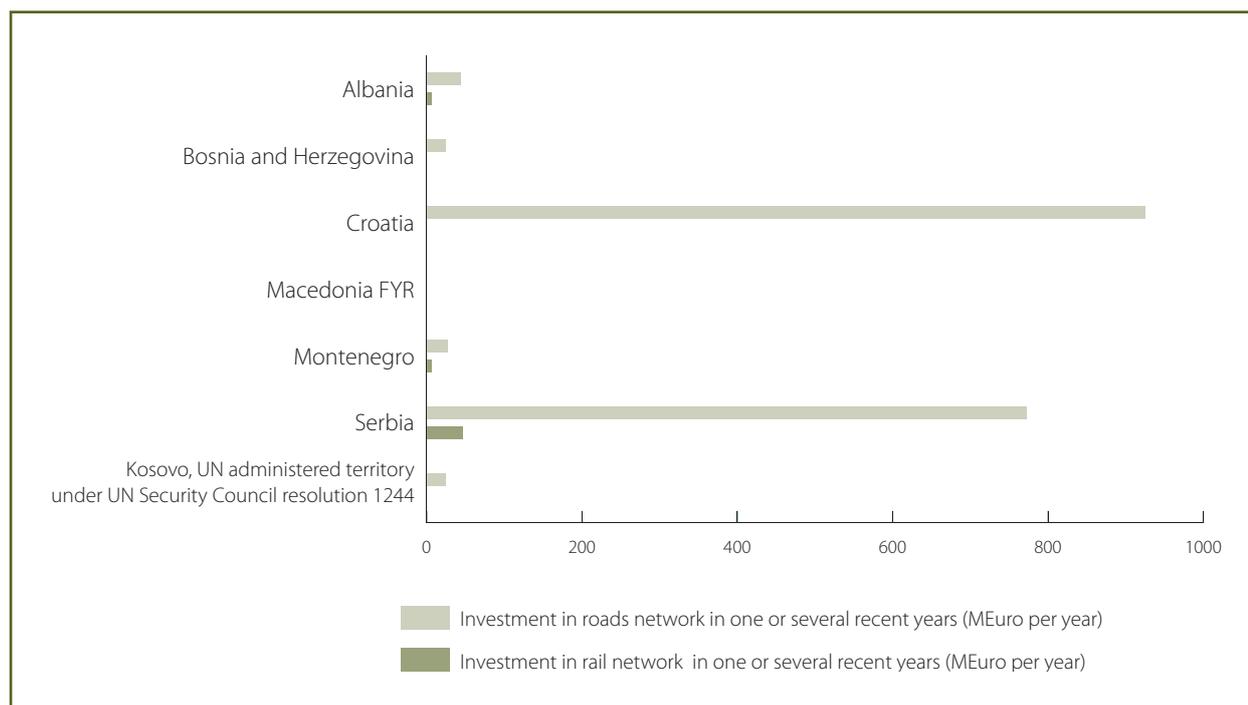
## Improving the living environment

Country/ territory	State transport strategy, year	Local or regional transport plans and strategies
Macedonia FYR	Planned in 2007	
Montenegro	Transport Development Strategy, draft 2006	
Serbia		
Kosovo, UN administered territory under UN Security Council Resolution 1244	Multi Modal Transport Policy of Kosovo, 2006	

In response and support to the increase in demand for personal mobility country transport strategies rely heavily on roads, confirming the current trend. Most of the investment in the transport sector has been in the improvement of the road networks. Within this, significant funds have been invested into long distance highway corridors, encouraged also by the international community as a precondition for economic integration of the region and communication among neighbours.

At the same time public transport and railways have been neglected, receiving only a fraction of the investments in the roads networks. This results in a decline of rolling stock and infrastructure and dropping passenger numbers.

**Figure 13: Transport investments**



Most emissions from the transport sector arise from road vehicles. A characteristic of the vehicle fleet is its old age, making it exceptionally polluting in comparison with other European countries. Urban areas are the worst affected by pollution, noise, congestion and the deterioration of urban infrastructure. Owing to poorly organised public transport and the increased number of vehicles, traffic jams in urban centres have become a daily phenomenon.

Much of the increased freight transport has been taken over by the roads with trucks causing additional pollution and burden on the infrastructure. Under-invested and poorly organised railways are not able to compete in a market that demands high flexibility and strict timing in the transport of goods.

In recent years the national transport policy documents are paying more attention to an appropriate mix of transport modes increasing and integration of environmental issues. Investments into railways are beginning to increase again in some of the countries and territories, but a majority of the funds still goes towards construction of roads.

Based on environmental and transport legislation several enforcement mechanisms and transport related economic instruments have been introduced, including:

- » Phasing out of lead from petrol;
- » Ban on the import of certain categories and age of cars;
- » Progressive introduction of an emissions testing scheme;
- » Fuel excise taxes;
- » Environmental charge on vehicle registration;
- » Parking fees;
- » Road tolls.

These policy measures have a certain effect, but it will take a near total replacement of the vehicle fleet and at least stabilisation of the modal split between public and private transport to reduce the negative environmental impact of the road transport in the region.

### Exploring mobility management in Sarajevo

The Ministry of Labour and Social Affairs of Canton Sarajevo provides subsidies for tickets to all retired and blind people in the city for public transportation. The Ministry of Transportation and Communications encourages cycling and walking by prohibiting car traffic between 5 p.m. and 12 PM in the city centre during the weekends. The local government is also planning to introduce flexible working hours to reduce congestion and overcrowding of public transport at peak hours. Furthermore, the Ministry for Urban Planning and Environment reports on air quality in the city and supports initiatives to increase awareness on sustainable transport issues.

### Bio-diesel in public transport and bike lanes in Belgrade, Serbia

In 2003, the Public Transport Company “ Belgrade “ (GSP) served on a daily basis a total of 132 lines (12 tram, 8 trolleybus, 112 bus) with 1,248 vehicles and realised 70,194,778 vehicle kilometres. During 2006, GSP “Beograd” seriously worked on testing of alternative fuels and/ or possibilities to decrease fossil fuels (oil) consumption. The testing was carried out in the period spring – August and results of the “Test exploitation of bio-diesel in the system of public transport of Belgrade” were presented to the public. Bio-Pex project has shown that bio-diesel can be successfully used as a driving fuel in the bus subsystem of public transport in Belgrade. The testing performed by GSP “Beograd” represents the first step in the future mass application of this alternative fuel. In the forthcoming period, GSP “Beograd” will aim to collect experience of EU companies which regularly operate the bio-diesel vehicles, as to have more complete insight into bio fuel usage. Adoption of a law on bio-diesel fuel production, usage and quality will help regulate the matter and enhance its implementation.

There are approximately 10,000 bikes in Belgrade, mainly used for recreation. Out of this number, around 1,000 bikes are used for daily transportation. Currently, there are three bike lanes with total length of approximately 30 km. In 2006, a ring bike lane of 7.5 km around Ada Ciganlija river island and sports-recreational centre in Belgrade was completed. The bike lane goes from the entrance to the island, along sport courts through the forest and along Makiš side. It is also suitable for rollers and skateboards. In December 2006, upon the initiative of New Belgrade municipality, the decision has been made to upgrade existing and extend new bike lanes to a total of 50 km. The routes were selected and after resolution of urban planning issues, the works are planned to start in the near future.

[www.gsp.co.yu/english/activities.htm](http://www.gsp.co.yu/english/activities.htm)

[www.gsp.co.yu/beobus-projekat.pdf](http://www.gsp.co.yu/beobus-projekat.pdf)

[www.beograd.org.yu/cms/](http://www.beograd.org.yu/cms/)

### Open issues

There is no quantitative information regarding the share of passengers carried by public transport compared to personal transport or the trends of this share. There are few data available about air pollution from roads as the monitoring systems lag behind the increase of road traffic and resulting emissions.

The private car is seen as a status symbol and symbol of prosperity. This is an important factor in the low awareness of the negative environmental effects of road transport on the general population. On the other hand the quality of public transport is poor and does not present an attractive alternative to the car. As a result those who can afford a car choose the constant traffic jams over cycling, walking, and using public transport.

There is a large number of old vehicles and owing to a lack of capital for their replacement, the overall pollution from cars is high and set to continue for the foreseeable future.

Because of the symbolic importance of the car, there is lack of political will, strategic vision and leadership for strong policies that could preserve the current relatively high share of public transport – e.g. significant investment in public transport in parallel with increasing costs of using cars in city centres. On the other hand, the construction industry has a vested interest in road construction.

### Way forward

With car ownership around 50% of the EU average, the countries in the region still have an opportunity to secure high level of transport efficiency whilst preserving a high share of public transport. However this can only be achieved through a systematic preference for investment in improvement of the quality of public transport combined with awareness rising among citizens regarding the impact of car usage on the environment and quality of life, and promotion of the alternatives (cycling, walking, public transport).

Programmes for reduction of air pollution in urban areas according to the EU Air Quality Directive should be introduced as soon as possible in the major urban centres, based on more detailed monitoring of pollution from road transport (NO<sub>x</sub>, ozone, particulates).

The latest environmental standards for vehicles and fuel should be introduced as soon as possible along with a schedule and incentives to phase out obsolete vehicles from the fleet.

In freight transport railways should be given preference over road by investing in improved rail services and road pricing for trucks according to the Eurovignette Directive.

### Further information

Government of the Republic of Montenegro, Ministry of Transport, Draft Transport Development Strategy, 2006

Bosnia and Herzegovina, World Bank Report No. 36156-BA: Addressing Fiscal Challenges and Enhancing Growth Prospects, Transport Chapter, September 2006, available on <http://www.worldbank.org.ba>

### 5.7 Waste

#### The (environmental) challenge



Total waste generation is increasing across the entire Pan-European region. Municipal waste increases on average by 2% annually, and more in the EECCA countries and territories. The increase in economic activity and consumption is a much stronger driver than different waste prevention initiatives.

Landfill is still the most common method of waste management, particularly for municipal waste. However, increasing amounts of municipal waste are now diverted from landfills as a result of regulations and targets. EU and EFTA countries have succeeded in making a policy shift and now focus more on utilising the resources in waste. In the EECCA and SEE countries and territories, recycling tends to concentrate on industrial waste, driven by economic forces.

#### Introduction

Waste management services and infrastructure in the SEE are poor compared with those of the EU. Also public opinion is not yet supportive of advanced waste management practices such as separate waste collection. The challenge the countries are facing is how to develop a waste management system that would be in compliance with the EU legislation, yet would at the same time be at an affordable cost to the consumers and businesses. In responding to this challenge they are pursuing the options of larger regional waste collection and disposal schemes, constructing new landfills and other waste management infrastructure such as incinerators or composting facilities, strengthening and improving management of waste service companies, public private partnerships, opening the waste market to the private sector, raising public awareness and utilising economic instruments to minimise waste and stimulate recycling (e.g. packaging).

The 6th Community Environmental Action Programme calls for:

- » better resource efficiency and resource and waste management to bring about more sustainable production and consumption patterns, thereby decoupling the use of resources and the generation of waste from the rate of economic growth and aiming to ensure that the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment;
- » achieving a significant overall reduction in the volumes of waste generated, through waste prevention initiatives, better resource efficiency and a shift towards more sustainable production and consumption patterns;
- » a significant reduction in the quantity of waste going to disposal and the volumes of hazardous

waste produced while avoiding an increase of emissions to air, water and soil;

- » encouraging re-use;
- » for wastes that are still generated: the level of their hazardousness should be reduced and they should present as little risk as possible; preference should be given to recovery and especially to recycling; the quantity of waste for disposal should be minimised and should be safely disposed of; waste intended for disposal should be treated as closely as possible to the place of its generation, to the extent that this does not lead to a decrease in the efficiency in waste treatment operations.

**Table 41: Waste**

Country/ territory	Municipal waste per capita (kg/year)	Hazardous waste (tons/year)*
Albania	255	2 531
Bosnia and Herzegovina	452	8 636
Croatia	271	35 543
Macedonia FYR	250	9 000
Montenegro	292	19 200
Serbia	292	460 000
Kosovo, UN administered territory under UN Security Council Resolution 1244	161	54 8900

\* Data may not be readily comparable since waste categorisation is not harmonised across the region.

## Recent progress

Industrial waste, which used to dominate in quantity, has decreased owing to the decline in the industrial sector, but resource intensive industry still produces relatively large quantities of industrial and hazardous waste in addition to the historically accumulated waste that is a problem yet to be solved. The amount of municipal waste, construction waste, packaging, end of life vehicles and similar waste streams have been on the increase in the region due to increases in packaging, construction and consumerism. The share of population served by an organised waste collection schemes has been increasing, but is still too low to prevent unauthorised disposal that is common especially at the outskirts of smaller settlements. Waste that is illegally disposed of is often washed or blown away into the environment, contaminating adjacent land and watercourses. There are numerous designated landfill sites that are not in compliance either with national or EU standards, but an increasing number of them are being reconstructed or built

in line with those standards.

In the recent years, all the countries in the region adopted new solid waste legislation which is in general in line with the EU *acquis* and strategic policy documents in this field. These strategies all aim at:

- » prevention and minimisation of waste generation;
- » extending coverage of municipal waste collection to the entire population;
- » construction of a limited number of regional landfills;
- » introduction of national schemes for packaging and other specific waste according to relevant EU Directives;
- » application of 'polluter pays principle' for industrial waste.

The new legislation and application of the Basel convention has also enabled the operation of specialised international waste management companies in the region in the field of secondary raw materials and export of hazardous waste for processing in OECD countries.

**Table 42: Waste management framework**

Country/ territory	Waste management plan at the state level	No. of hot spots with historic waste
Albania	Draft National Plan for Waste Management, 1999	14
Bosnia and Herzegovina	Waste Management Strategy, 2000	15
Croatia	In preparation	
Macedonia FYR	National Waste Management Plan 2006 -2012, 2005	16
Montenegro	Master Plan, 2005	3
Serbia	National Waste Management Strategy, 2003	28
Kosovo, UN administered territory under UN Security Council Resolution 1244	None yet, but planned	36

Significant domestic and donor funds have been invested in development of strategies and pilot implementation schemes. The main activities so far have been linked to improving the technical equipment of utility companies collecting waste and to preparatory studies and construction of landfills (including rehabilitation of the existing waste disposal sites).

Waste management is commonly recognised as number one priority in the environmental sector and in some countries significant efforts and resources have been invested in addressing the problem, e.g. remediation and closure of 150 dumpsites in Croatia. The Croatian Environmental Fund is planning to invest 72 MEuro in remediation and closure of non-sanitary landfills and 4 MEuro in closure of 'wild' dumpsites in the period 2005 – 2008.

An important obstacle to faster implementation in the field of municipal waste is the low level of affordability for the general population and for municipalities who are mainly responsible for waste services. This also results in a very low application of separate waste collection, which is limited to high value secondary raw materials and often performed informally by marginal social groups. In case of regional landfills, one of the problems is also to obtain political agreement on the location of the landfill in an individual municipality.

**Table 43: Municipal waste**

Country/ territory	Share of population covered by collection	Number of landfills according to EU standards
Albania	~ 60%	0
Bosnia and Herzegovina	~ 60%	4
Croatia	80%	Not available
Macedonia FYR	~ 80%	None
Montenegro	55 – 60%	2
Serbia	60 – 70 %	5
Kosovo, UN administered territory under UN Security Council Resolution 1244	50%	8

In order to secure capital for investments and technical capacity, some municipalities and communal enterprises have started the privatisation process or the establishment of public private partnerships. In order to provide more cost-effective and professional services, the regions Trebinje, Doboj-Tešanj and Livno in Bosnia and Herzegovina, with financial support from the EC, have prepared Regional Waste Management Plans that contain short- and long-term objectives. Within the project, a study on possible public-private partnerships was also developed. Moreover, the activities for rehabilitation and waste management at a regional level are being carried out for the regions of Banja Luka, Tuzla, Mostar, Bijeljina, Bihać and Sarajevo with the support of the World Bank.

### Waste management in Serbia

The Government of the Republic of Serbia has adopted a National Waste Management Strategy (2003) and the new Law on Waste Management has been prepared according to relevant EU directives and is currently under the procedure for adoption.

In 2004 and 2005 the Directorate for Environmental Protection spent 1.1 MEuro for implementation of the Strategy and Law on:

- » Development of technical documentation for sanitation and closure and recultivation of existing dumpsites for 41 municipalities;
- » Sanitation and remediation of existing dumpsites in 4 municipalities;
- » Development of technical documentation for construction of 10 regional landfills, for 54 municipalities.

In 2005 and 2006, on the basis of public tender, the Environmental Fund co-financed projects worth 3.4 MEuro for the construction of regional landfills and remediation of existing landfills and dumpsites. Within the National Investment Programme to be financed from the Republic of Serbia's privatisation revenues, several environmental projects will be financed in the period 2006 – 2007, including 4 projects in the field of waste management totalling 11 MEuro.

[www.ekoserb.sr.gov.yu](http://www.ekoserb.sr.gov.yu)

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### Landfills in Kosovo, UN administered territory under UN Security Council Resolution 1244

After having only dumpsites before the conflict, Kosovo, UN administered territory under UN Security Council Resolution 1244, has a total of 29 municipal landfills today. Out of this number, 26 have already been rehabilitated and 15 have been or will be closed after the European Agency for Reconstruction (EAR) and other donors have supported the reconstruction or construction of nine new sanitary landfills in:

- » Peja/Peć (operational since 2001),
- » Zveqan/Zveçane (opened in 2003),
- » Prizren (operational since October 2004),
- » Prishtine/Priština (opened in November 2006),
- » Gjilan/Gnjilane,
- » Dragash/Dragaš,
- » Kacanik/Kaçanik,
- » Podujeve/Podujevo, and
- » Fushë Kosovo/Kosovo Polje.

These 9 landfills are constructed according to EU minimal landfill standards and will serve about 2,000,000 citizens. Five of these are regional landfills serving multiple municipalities.

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### Management of packaging and packaging waste in Croatia

Starting in 2006 Croatia successfully implemented the Ordinance that regulates packaging and packaging waste management on the basis of the updated Waste Act from 2004 and the Waste Management Strategy of 2005. The ordinance specifies the obligations of the producers, importers, and sellers in the process of production, marketing and use of packaging.

The Ordinance gives the implementing responsibility for the system to the Fund for Environmental Protection and Energy Efficiency. It introduced a full cost recovery mechanism in accordance with the 'polluter pays principle', prescribing three types of compensations: disposal compensation – compensation according to packaging material and for every unit of product; returnable compensation – compensation for stimulating the return of used drinks and beverages packaging (these expenses have a temporary character and are being repaid to the product producer when a product is sold); and stimulating compensation – drinks and beverages packaging compensation that should stimulate the producers to use reusable packaging. Producers pay the compensation to the Fund upon placement of the packed product on the market.

The Ordinance prescribes that for every returned unit of drinks and beverages packaging at shops, the consumer will receive approximately 7 Euro cents. This has proven to be an extremely successful motivating factor for the consumers. Until October 2006, 642 million units of drinks and beverages packaging were returned, equalling to 73,044 tons of packaging waste (14,252 t of PET, 57,414 t of glass and 1,377 t of Al/Fe compared 2,000 t of PET and 14,000 t of glass collected in previous years). To prevent a transboundary black-market in packaging waste a new set of guidelines stipulates that returnable compensation will be paid out only for packaging that is marked with a "return compensation 0.5 Kn" label.

[www.mzopug.hr](http://www.mzopug.hr)

[www.fzoeu.hr](http://www.fzoeu.hr)

### Open issues

Waste statistics remain a problem, owing to the fact that most waste generators and utility companies are not reporting continuously and accurately on the types and quantities of generated and collected/disposed wastes.

It is difficult to set up the complex waste management schemes required by EU legislation. Public administrations have limited capacity for developing regional waste management projects in view of the numerous institutional and political obstacles. The capacity to develop action plans and feasibility studies could be provided by specialised agencies (like the Environmental Fund in Croatia), service providers (public or private) or a domestic consulting market, given availability of funding.

Low tariffs and collection rates are a major problem in modernising waste management practices, making it difficult to develop them without subsidies. Lack of revenues makes it difficult for waste management utilities to cover operation and equipment maintenance costs, let alone invest in developing their human resources, modernising collection equipment and disposal facilities, or developing waste separation and recycling programmes.

Poor past waste management and limited funds for new investments and appropriate compensation contribute to the NIMBY (Not In My Backyard) syndrome in the location and design of new waste management facilities, especially in case of regional schemes.

The legal regulations and fines for violating them are in place, but the fines are not high enough and enforcement not efficient enough to ensure compliance with the law.

### Way forward

The countries should continue aligning their national waste management systems with the EU in line with the financial capacity of the population and public authorities. In doing this, opportunities within the waste service market should be explored such as transferring responsibilities for planning and investments from public authorities to service providers and the private sector.

Synergies with horizontal legislation such as IPPC, EIA and SEA, REACH and product safety also provide important opportunities for achieving waste management objectives.

Public awareness regarding waste management should be raised along with the introduction of improved services and economic incentives to improve waste management practices and increase recycling.

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## 6. Conclusions and recommendations

### 6.1 Conclusions

Throughout the nineties and into the 21st century, the countries of the SEE region were going through a period of dissolution and instability. With the peace agreements reached, all the SEE countries and territories declared their commitment to accession to the EU as a main strategic goal. At the same time, the achieved level of economic development and the social situation as well as the development dynamics differ across the region; some of the countries of South-Eastern Europe are lagging significantly behind some of the EU member states.

In the period since the peace agreements the countries have focused first on post conflict reconstruction and building institutional infrastructures for democracy and market economy. This process has been strongly supported by donor financial and technical assistance. In most countries the first post conflict priorities were issues of return of refugees and displaced people together with rehabilitation of basic infrastructure, such as water supply, electricity and accommodation. The collapse and restructuring of industry resulted in improvement of its environmental performance but new problems are emerging such as the demographic decline of rural areas and the pressure of uncontrolled urbanisation around the cities and along the coasts. From before 1990, the region had inherited extensive public service systems such as health, education and social security. In the time of economic hardship, these systems are under severe pressure.

Many state and socially owned industries collapsed, resulting in reduction of ongoing pollution, but leaving behind hot spots of historical pollution. After the privatisation and rapid development of the service sector economic growth has resumed, but the significant environmental benefits of new investment are yet to be seen, unemployment is high, discrepancies in the economical power of regions and citizens are growing, trade imbalances are significant and rising, external debt is high, state intervention in the economy is significant and often counter-productive from the sustainability point of view (including costly subsidies to loss making enterprises).

With donor support the governments embarked on the process of building institutions and development of the policy and legal frameworks. Countries in the region developed and adopted national environmental action plans and other sectoral strategies dealing with the environmental dimension of sustainability. New environmental legislation was adopted aiming for compliance with EU directives and international agreements, but its implementation is still in early stages. The environment sector has been one of the leaders in the overall reform process in the region and the main achievements in this process have been:

- » The countries have made major progress in drafting and adoption of legislation, and in the development of national environmental institutions including ministries, environmental protection agencies and environmental funds;

## Conclusions and recommendations

- » Most Multilateral Environmental Agreements have been ratified in the region including the Convention on Climate Change and the Kyoto Protocol;
- » The EU environmental *acquis* and Multilateral Environmental Agreements MEAs have played an important role in the process of environmental improvement in the region, in domestic and international co-operation on issues of sustainable development and in the overall process of democratisation;
- » The countries have developed and adopted comprehensive policies and programmes in the environment sector (including National Environmental Action Plans (NEAPs), National Environmental Health Action Plan (NEHAPs,) waste, water and wastewater master plans setting road maps for implementation of the EU *acquis*) and are in the process of setting sustainability objectives at the national level;
- » There is an evident move towards integration of environmental and sustainable development objectives in the policies of economic sectors such as energy, tourism, transport, agriculture;
- » A growing number of implemented environmental investment projects are paving the way for implementation of the recently adopted legislation;
- » Significant environmental responsibilities have been transferred to local authorities who are increasingly taking an active role in environmental policy development through Local Environmental Action Plans and municipal utility companies;
- » The NGO sector is progressing steadily and is gradually becoming capable of undertaking significant projects and actions, thereby influencing environmental decisions. Environmental NGOs actively participate in regional and national networks;
- » Availability of environmental information is improving, leading to increased public participation in environmental (and in general) policy making;
- » There are numerous initiatives in capacity building and education for environment and sustainable development, including technical assistance with policy formulation and implementation;
- » Regional co-operation in the environment sector has been strong especially in environmental enforcement and compliance.

## 6.2 Recommendations

### Move from legislation to implementation

Although most environmental legislation is in place, implementation has been slow in most countries and therefore progress in protecting the environment and managing natural resources is not yet evident. Weaknesses in the enforcement capacity need to be addressed before the *acquis* can be effectively implemented and there is a need to ensure more substantial political and financial (first of all from domestic, but also from other available sources) support for the environment and sustainable development. A prioritised step-by-step approach should be used in the sequencing of reforms and harmonisation with EU standards in the environmental sector based on policy debate involving Government, local communities, NGOs, the business sector. Priorities should be based on environmental and economic benefits such as health and resource conservation, available resources and capacity of institutions.

### Continue the development of environmental institutions at the national level

Environmental portfolios at the national level should be consolidated to facilitate the process of harmonisation and negotiations with the EU and to give adequate weight to the environmental ministry within the government. The administrative capacities of national environmental institutions should be further reinforced in a concerted longer term effort, especially in the field of policy analysis, formulation and implementation, and enforcement.

### Increase environmental investment

Effective compliance with EU legislation requires a high level of investment and considerable administrative effort, especially in the areas of waste management and water treatment. So far there has been limited success in ensuring the appropriate levels of domestic funding and financing mechanisms for environmental projects in most countries/ territories. At the moment, investments in environmental infrastructure are very low and mostly depend on international funding, with some exceptions. The very low share of environmental expenditures in state budgets needs to be complemented with an increase in investment and expenditure by the polluters and users. It will need to be increased to 1.5 to 2.0 % of GDP in order to comply with the requirements of the *acquis* within the next two decades. Adequate domestic environmental financing mechanisms securing transparency, cost effectiveness and management efficiency such as environmental funds or budget programmes are needed to accommodate the increase in expenditure, to manage investment projects effectively and provide absorption capacity for donor funds such as EU IPA. Environmental expenditure information should be collected and shared in a consolidated way.

### **Invest in cross – sectoral co-operation**

Current divisions of responsibilities among the state administrative bodies are an obstacle to effective decision making and the overall success of reforms. National mechanisms for the integration of environmental aspects into other policies have had limited success, particularly at the level of strategic documents and in sectors where the link with the environment is clear, such as spatial planning, energy/energy efficiency, health, agriculture and research. Significant continued efforts are needed to integrate environmental objectives into sectoral policies and their implementation. Further development of mechanisms and institutions that can provide for more integrated approaches and better co-ordination is required especially on the issues such as climate change and energy, sustainable development of coastal zones and mountain regions, physical planning, biodiversity conservation, rural development, forest, water, coastal zone and marine resource management.

### **Strengthen the local governments so that they can assume environmental responsibilities**

Local governments should be further strengthened, by legislation and long term support mechanisms, to increase their human resources and their capacity, financial resources and authority to develop and implement local environmental policies and investment projects.

### **Develop partnerships with stakeholders**

Stakeholders including NGOs, businesses and private sector service providers should be involved more in the development and implementation of policies, taking the workload from the national and local public authorities where appropriate. The partnerships with stakeholders should include capacity building, environmental management in industries, co-operation with the civil sector in the areas of public participation and access to information, provision of environmental services and public private partnerships in investment and operation of environmental infrastructure.

### **Information management and environmental data collection**

There are still institutions that fail or refuse to share and provide full access to environmental information. Environmental data collection needs to be strengthened further to enable the countries to adopt, implement and enforce policies and legislation in an effective and efficient manner. The management and accessibility of environmental information should be further improved based on the Aarhus Convention, especially in sectors other than environment.

### **Make education for sustainable development relevant to the situation in the countries**

Significant efforts are under way in education on environment and sustainable development, but are often related more to the global situation and requirements than to the specific characteristics and circumstances in the region. Based on domestic environmental information, policy analysis and scientific research the education programmes should be tailored to the present and future needs of the countries and territories.

### **Use the EU accession process to achieve sustainable development objectives including Millennium Development Goals**

The EU accession process in the field of environment should not be limited to implementation of the environmental *acquis*. Ministries of environment should use the opportunity to integrate environmental and sustainability objectives of the EU into overall development policies with the support of the EU and other donors and in this way achieve the Millennium Development Goals for their countries.

### **Continue and extend regional co-operation**

Successful regional environmental co-operation should be deepened and extended to include:

- » Regional co-operation in the framework of Stabilization and Association Process;
- » Implementation of UNECE multilateral environmental agreements;
- » Enhancing regional cooperation in the field of climate change;
- » Implementation of the Energy Community Treaty;
- » Biodiversity conservation and ecological networks;
- » Conservation and sustainable use of the Adriatic ecosystem;
- » Protection and sustainable development of mountain areas;
- » Watershed management such as the Sava River Commission;
- » Environmental management and investments at the local level;
- » Co-operation with other sectors such as agriculture and tourism;
- » Stronger and more dynamic co-ordination of donor assistance;
- » Transfer of experiences between the countries in the region and from the neighbouring EU member states.



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## 8. List of abbreviations

AE-programmes	Agri-environment programmes
Al/Fe	Aluminium/ iron
B.EN.A.	Balkan Environmental Association
BAT	Best Available Techniques
BiH	Bosnia and Herzegovina
BR	Biosphere Reserves
BREFs	BAT Reference Documents
CAP	Common Agricultural Policy
CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CEHAP	Children's Environment and Health Action Plan
CER	Centre for Eco-toxicological Research (Montenegro)
CFC	Chlorofluorocarbons
CIS	Commonwealth of Independent States
CITES	Convention on International Trade with Endangered Species
CMMU	Central Management and Monitoring Unit (Montenegro)
CO	Country Office
CO <sub>2</sub>	Carbon Dioxide
CoP	Cadastral of Pollutants (Serbia)
CSOs	Civil Society Organisations
CSR	Corporate Social Responsibility
DABLAS	Initiative for co-operation for the protection of water and water related ecosystems of the wider Black Sea Region
DAI	Dinaric Arc Initiative
DDP	Direct De-mining Project
DG	Directorate General of the EC
DISF	Danube Investment Support Facility
DPs	Displaced Persons
DSED	UN Decade of Education for Sustainable Development
DU	Depleted Uranium
EAP	Environment Action Programme
EAR	European Agency for Reconstruction
EBRD	European Bank for Reconstruction and Development
EC	European Commission
ECBP	Environmental Capacity Building Programme (Serbia)

## List of abbreviations

ECENA	Environmental Compliance and Enforcement Network for Accession
ECSOs	Environmental Civil Society Organisations
ECT	Energy Community Treaty
EE	Energy Efficiency
EEA	European Environment Agency
EECCA	Eastern Europe, Caucasus and Central Asia
EfE	Environment for Europe
EFTA	European Free Trade Association
EIA	Environmental Impact Assessment
EIB	European Investment Bank
Eionet	European Environment Information and Observation Network
EMAS	Environmental Management and Audit Scheme
EMEP	Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe Convention on Long-range Transboundary Air Pollution
Emerald	Ecological network made up of 'areas of special conservation interest' launched by the Council of Europe as part of its work under the Bern Convention
EMS	Environmental Management System
ENVSEC	Environment and Security Initiative
EPA	Environmental Protection Agency
ESD	Education for Sustainable Development
EU	European Union
EU CARDS	Community Assistance for Reconstruction, Development and Stabilisation Programme of the EU
Eurostat	Statistical Office of the European Union
FAO	Food and Agriculture Organization of the United Nations
FBiH	Federation of Bosnia and Herzegovina
FEA	Free Energy Audits
FRY	Federal Republic of Yugoslavia
FSC	Forest Stewardship Council
FYR	Former Yugoslav Republic
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GHG	Greenhouse Gas
GIS	Geographic Information System
GMO	Genetically Modified Organisms
GSP	Public Transport Company (Serbia)

GTZ	German Technical Cooperation (Deutsche Gesellschaft für Technische Zusammenarbeit)
HAMAG	Croatian National Guarantee Agency
HBOR	Croatian Bank for Reconstruction and Development
HDR	Human Development Report
ICZM	Integrated Coastal Zone Management
IFI	International Financing Institutions
IMF	International Monetary Fund
IPA	Instrument for Pre-Accession Assistance
IPARD	IPA component for Rural Development
IPPC	Integrated Pollution Prevention and Control
ISG	Infrastructure Steering Group for SEE
ISO	International Organization for Standardization
ISPA	Instrument for Structural Policies for Pre-accession
IT	Information Technology
IUCN	World Conservation Union
JICA	Japan International Cooperation Agency
KfW	German Development Bank (Kreditanstalt für Wiederaufbau)
Kn	Croatian currency kuna
KRB	Kiev Resolution on Biodiversity
KWh	Kilowatt-hour
LCP	Large Combustion Plants
LEAPs	Local Environmental Action Plans
LIFE	EU financial instrument supporting environmental and nature conservation projects
LO	Liaison Office
LSGs	Local Self Governments
MAC	Maximum Allowed Concentration
MAB	UNESCO Man and Biosphere Programme
MAFWR	Ministry of Agriculture, Forestry and Water Resources (Montenegro)
MDG	Millennium Development Goals
MEA	Multilateral Environmental Agreement
MEuro	Million Euro
MedPO	WWF Mediterranean Programme Office
MEIC	Macedonian Environmental Information Centre
MEPPP	Ministry of Environmental Protection, Physical Planning (Montenegro)
MEPPPC	Ministry of Environmental Protection, Physical Planning and Construction (Croatia)
MoEPP	Ministry of Environment and Physical Planning (Macedonia FYR)

## List of abbreviations

MoU	Memorandum of Understanding
MPA	Marine Protected Areas
n.a.	Not available
NEAP	National Environmental Action Plan
NEAS	National Environmental Approximation Strategy (Croatia)
NEHAP	National Environmental Health Action Plan
NEIS	National Environmental Information System (Macedonia FYR)
NGO	Non-governmental Organisation
NIMBY	Not In My Back Yard
NO <sub>x</sub>	Nitrogen oxides
NWE	North-Western Europe
OECD	Organisation for Economic Co-operation and Development
OSCE	Organization for Security and Co-operation in Europe
PAR	Public Administration Reform (Bosnia and Herzegovina)
PDF	Project Development Fund
PEBLDS	Pan-European Biological and Landscape Diversity Strategy
PEEN	Pan European Ecological Network
PEIP	Priority Environmental Investment Programme
PET	Polyethylene terephthalate (used in plastic packaging beverage, food and other liquid containers)
PGF	Partial Financial Guarantees Fund (Croatia)
PHARE	One of the three EU pre-accession instruments to assist the then applicant countries of Central and Eastern Europe
PIC	Peace Implementation Council (Bosnia and Herzegovina)
PM	Particulate Matter
PPC	Project Preparation Committee
PPP	Purchasing Power Parity
PRTR	Pollution Release and Transfer Register
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals the EU chemicals Regulation from 2006
REC	The Regional Environmental Center
REMPEC	Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea
REReP	Regional Environmental Reconstruction Programme
RES	Renewable Energy Sources
RS	Republika Srpska
RWMC	Regional Waste Management Centres (Croatia)
SAA	Stabilisation and Association Agreement

SAP	Stabilisation and Association Process
SCP	Sustainable Consumption and Production
SD	Sustainable Development
SDC	Swiss Agency for Development and Co-operation
SDR	Standard Death Rate
SEA	Strategic Environmental Assessment
SEE	South-Eastern Europe
SEPA	Serbian Environmental Protection Agency
SFRY	Socialist Federative Republic of Yugoslavia
SIDA	Swedish International Development and Cooperation Agency
SMEs	Small and Medium-sized Enterprises
SNV	the Netherlands Development Organization
SO <sub>2</sub>	Sulphur dioxide
UN	United Nations
UN WTO	UN World Tourism Organization
UNCED	UN Conference on Environment and Development
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNEP/MAP	UNEP/ Mediterranean Action Plan
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UN-HABITAT	United Nations Human Settlements Programme
UNHCR	UN Refugee Agency
UNMIK	United Nations Mission in Kosovo
USAID	United States Agency for International Development
US\$	US Dollar
UXO	Unexploded Ordnance
WFD	Water Framework Directive
WHO	World Health Organization
WSSD	World Summit on Sustainable Development
WWF	World Wide Fund for Nature



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