



Montenegro Environment Policy Brief

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Introduction

This Environment Policy Brief¹ was carried out as a desk study in September 2007. The purpose is to summarize key environmental problems, outline linkages to poverty and economic progress, and describe the institutional arrangements to manage environment and natural resources in Montenegro.

Swedish development co-operation with Montenegro is guided by a strategy 2004 - 2007². The focus has been on supporting the country to adapt its institutional capacity and legislation to EU requirements. As of 27th August 2007, the Swedish government announced that the bilateral support to Montenegro will be phased out as a consequence of the Swedish land concentration process. In a period of phasing out it will be important to reassure a smooth transition and see to the sustainability of initiated activities.

Key environmental problems

According to the National Strategy of Sustainable Development of Montenegro³ (NSSD), key environmental problems include land degradation, water and air pollution, loss of biodiversity and eco-systems, especially in forest areas and in the coastal zone, and poor waste management.

Land degradation – There is limited availability of agricultural lands and conversion of land into urban and rural settlements and industrial and infrastructure facilities is fast. The destruction of good quality soil is caused by a number of human activities such as sand and gravel extraction, exploitation and processing of minerals (bauxite, coal, stone, zinc, lead), solid waste and tailings disposal, and production of brick and roof tiles from raw material collected by surface excavations in Tivatsko field, Berane, Kolasin, Pljevlja. All these activities lead to ecosystem degradation and threaten the soil quality as well as the biodiversity.

Water pollution and excessive water consumption - Most industrial and communal wastewaters are discharged into natural recipients without any treatment⁴. Untreated wastewaters from industries are also discharged into the public sewage systems. The number of people connected to sewerage is low; in the northern and central regions, about 60 % of the population lacks connection to a central sewage system and in the southern region (the

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² Sida, Landstrategi Serbien och Montenegro, September 2004 – December 2007

³ Government of the Republic of Montenegro, Government of Italy, UNDP, UNEP: "National Strategy of Sustainable Development of Montenegro" (NSSD), May 2006

⁴ The exception are some industrial plants and communal wastewaters in Podgorica

seaside) on average 35 % of households lacks such connection⁵. Five rivers situated close to big cities and heavy industries are considered heavily polluted⁶. Montenegro has abundant water resources, which has led to superfluous consumption. The country shows twice as high per capita public water consumption compared to the average in Western Europe. This has been exacerbated by low and subsidized water prices.

Air pollution – Major activities contributing to the deterioration of air quality are transports, industry, power generation and agriculture. Fluoride levels in Pogorica, Niksic and Pljevlja significantly exceed the allowable limits throughout the year (3-6 times). Other parameters occasionally exceeding allowed levels are SO₂ and NO_x. Concentrations of ground-level ozone also exceed allowable limits in several towns⁷. Montenegro needs to make considerable improvements in order to meet with air-related international agreements like the Convention on Long-Range Transboundary Air Pollution, UN Framework Convention on Climate Change and Vienna Convention on the Protection of the Ozone layer.

Biodiversity - Montenegro belongs to the top countries in Europe as for the number of different species per unit of surface area, and many of the species are endemic. Biodiversity, landscape values and coastal zones are pressed by an intense development of tourism, urbanization, pollution from wastewater and solid waste, etc. Currently, about 7.7 % of the territory is protected by law, including 4 national parks⁸. A significant part of the territory (~17 %) is internationally protected, representing exceptional natural or cultural values, like the *Tara River basin*, *Kotor* and *Risan Bay* and the national park *Durmitor*. The *Skadar Lake* is a recognized wetland area, in accordance with the Ramsar Convention. However, existing legal and institutional framework is not sufficient to protect these areas and natural resources.

Threats to forests - Forests and woodland cover 54 % of the total territory and represent natural values and eco-systems of great significance for the future development of Montenegro. Forest ecosystems are today exposed to multiple pressures through uncontrolled and excessive exploitation for instance by hunting, fishing, tourism, harvesting of medicinal and aromatic plants, and agro-forestry.

The coastal zone - Most space on the coast is already claimed by various economic activities such as tourism, fisheries, aquaculture, mineral extraction, agriculture, industry, port and maritime activities. This has led to a rapid economic development and urbanization along the coastline, involving a lot of illegal constructions and settlements. The lack of management capacity for sector co-ordination, implementation of spatial planning and enforcement of legislation has been detrimental to the coastal zone, in particular during the past decade.

⁵ REC and Federal Ministry of Agriculture, Forestry, Environment and Water Management in Austria: "Establishing an Environmental Fund", Working Paper, June 2006

⁶ Country Strategy Paper Montenegro 2007-2011, "Development Issues in Montenegro", prepared for Sida

⁷ In Berane, Budva, Herceg Novi, Kotor, Pljevlja, Podgorica, Tivat and Zabljak

⁸ Durmitor, Biogradska Gora, Lake Skadar and Lovcen

Negative effects are for instance pollution of waters and destruction of land, aquatic habitats and eco-system services.

Waste - The current system of waste collection and disposal has several short-comings. It does not provide for separate treatment for different types of waste (such as industrial, municipal or hazardous waste)⁹. The percentage of population covered by an organized waste collection is very low and re-use and recycling is not common. The iron industry near the city Niskic is identified as a hot spot of industrial waste, lacking adequate disposal facilities¹⁰.

Climate change – Montenegro is likely to suffer from climate change for instance through rising sea levels, increased temperatures, forest fires, changes in hydrological regimes which can cause damage to hydro-power production, etc. Estimations say that the climate change can cause between 15-40 % less precipitation¹¹ in Montenegro. Even more harmful to hydro power could be the increase of annual fluctuations, which to some extent are taking place already.

Poverty, economic development and environmental challenges

Montenegro has a population density¹² of roughly 50 persons per square km, which is low in comparison with other neighboring transition countries¹³. However, the character of the landscape makes it difficult to live in certain areas and a large part of the population is concentrated to the coast. Less than 1/3 of the population lives in the northern region, where people mainly make their living from agriculture and forest resources. About 10 % of the Montenegrin population is estimated to be below the poverty line¹⁴, while in the northern region up to 20 % of the population lives in poverty¹⁵. Thus, the poorer population groups seem to be more directly dependent on the sustainable use of natural resources.

GDP per capita in Montenegro was estimated at USD 3,800 in 2005, which is slightly less than the GDP per capita levels in the neighboring countries¹⁶. GDP real growth in Montenegro has risen over the past years from 2.3% in 2003 to 6.5 % in 2006. Montenegro is currently the fastest growing of all the Western Balkan countries. About 68 percent of total employment is in the service sector, 30 % in industry and 2 % in agriculture and fisheries¹⁷. After weak growth in formal employment for several years, the official unemployment declined significantly in 2006 from about 19 percent to about 14 percent¹⁸. However, there is also a large informal sector.

⁹ Estimated quantities of waste generated in Montenegro annually are: solid communal waste – around 185 500 t (19 000 t of it being hazardous waste), industrial waste – 175 000 t; red mud (KAP) – 370 000 t; mud 1 650 t; energy sector waste – 350 000 t; medicinal waste – 550 t. NSSD, 2006

¹⁰ Country Strategy Paper Montenegro 2007-2011, “Development Issues in Montenegro”, prepared for Sida

¹¹ Based on interview with Peter Nelson, Land Use Consultant (involved in SEA of Draft Spatial Plan and Energy Sector Strategy in Montenegro), 25 September 2007

¹² Land surface of 13 812 sq km and a population of 684 736 in July 2007, CIA Factbook

¹³ Population density comparison: Serbia ~ 115 p/sq km, Kosovo ~ 200 p/sq km, Macedonia ~ 83 p/sq km, Albania ~130 p/sq km, Bosnia Herzegovina ~ 90 p/sq km, Croatia ~80 p/sq km

¹⁴ 12.2 % in 2003, CIA World Factbook

¹⁵ World Bank, “Country Partnership Strategy for Republic of Montenegro FY07-10”, May 2007

¹⁶ GDP per capita: Serbia (incl Kosovo) ~ USD 4 400 in 2005, Albania ~USD 5 700 in 2006, Bosnia Herzegovina ~ USD 5 600 in 2006; CIA World Factbook

¹⁷ CIA World Factbook, 2004

¹⁸, World Bank, 2007

Key growth sectors

The Montenegrin economy is mainly based on services, representing about 60 % of all economic activity. **Tourism** is a key sector (1/4 of services) and a major source for growth, especially along the Adriatic coast. Efforts to maintain Montenegro's natural environmental beauty will therefore be critical to ensure continued growth in the tourist sector. The water supply is emerging as a particular constraint to tourist development along the coast and investments in waste water treatment will be necessary.

While **agriculture** comprises only 15 percent of GDP, it is an important source of livelihood, particularly for many poor families in northern Montenegro, and as an additional income source to many other households. The EU accession agenda has magnified the importance of agriculture in Montenegro's overall policy agenda. The government encourages the development of small and medium scale enterprises (SMEs) within the agriculture and forest sectors, stimulating for instance tourism, local food processing and agro-production with focus on the eco-label market. In this market, Montenegrin agriculture has a comparative advantage as the use of fertilizers and pesticides is very low. In addition, the agriculture sector in Montenegro is a relatively small water consumer.

Manufacturing, particularly the aluminum industry, makes up about one quarter of the total economy, and over half of the exports. Montenegro has benefited lately from the strong global demand for metals, and the biggest GDP growth in 2005 respectively 2006 came from metal manufacturing¹⁹. However, technologies with negative environmental impacts are still used in metal-processing and mining industries. Today there is no systematic monitoring of emissions from these industries, so it will be a big challenge to harmonize with European standards. The steel production and aluminum smelting industries are also large energy consumers.

The **energy sector** is central to Montenegro's economic development, both from a production and consumption perspective. Montenegro currently imports about 1/3 of its power needs²⁰. This has created a considerable trade deficit in recent years. The consumption of energy in Montenegro of today is very inefficient, and so is the pricing policy of energy products. The issue of enhancing energy efficiency is highlighted by the Energy Development Strategy and suggested as one of the corner-stones of the future energy policy. Montenegro has also agreed to a proposal of EU (January 2007) to "drastically increase energy efficiency and reduce energy consumption by at least 20 %".

Challenges within the energy sector

Historically, Montenegro has relied on domestic production of hydro and thermal power for electrical generation. Out of its total hydro-energy potential, Montenegro is today exploiting about 17 %²¹. This is why plans to build new hydro-power plants are particularly attractive to the government. However, a real concern is that parts of the River Tara's flow, which have been identified as highly potential hydro power sources, are located in the national park Durmitor. The case is similar with the River Moraca system, which has its run off in the UNESCO protected Skadar Lake. The plans are thus conflicting with other ambitions, like for instance the development of tourism (rafting, sports-fishing, eco-tourism in national parks,

¹⁹ Country Strategy Paper Montenegro 2007-2011, "Development Issues in Montenegro", prepared for Sida

²⁰ World Bank, 2007

²¹ Ministry of Economy of Montenegro, "Energy Development Strategy of the RoM by 2025 – Green Paper", June 2007

etc). Regarding environmental aspects of energy production there are today 3 hotspots in Montenegro: Pljevlja municipality (coalmining and thermo power plant), the Aluminium Plant in Podgorica (KAP) and the Steel Plant in Niksic. An optional plan to the building of hydropower in the River Tara basin and River Moraca, is the up-grading of the thermo-power plant (TPP) in Pljevlja and the construction of a new TPP in Berane, but this is connected to green gas emissions and is not optimal from that viewpoint²². Renewable energy sources are also scheduled to increase, but it will take time before they can contribute with the quantity of energy required by the rapid economic development at present.

Participation in the South East Europe regional energy market offers considerable potential for Montenegro, but will require further market orientation. For instance tariff prices must be increased to ensure cost recovery. Furthermore, Montenegro will have to adapt its public infrastructure to EU requirements and consequently, state subsidies for power as well as water supply and waste disposal will have to cease. The costs must be covered through increased tariffs. Tariff increases are likely to pose a considerable burden on the most vulnerable population groups, so measures to minimize the impact on the poor will be necessary.

The institutional context and the environment

After a referendum, Montenegro declared its independency from Serbia in 3 June 2006. Eventual membership of the EU is Montenegro's central priority. The signing of the Stabilization and Association Agreement in March 2007 was the first formal step in the accession process. Particular challenges for Montenegro include reinforcing democratic institutions, making comprehensive reforms to harmonize policies and legislation, and strengthening the limited administrative capacity to implement legal and regulatory framework²³.

The Government, with support from donors, is moving to harmonize the Law on Environment to EU standards and regulations. Environmental protection is the formal function of the Ministry of Tourism and Environment, which is to become the competent authority for Strategic Environment Assessment (SEA) when the Law on SEA comes into effect in 2008²⁴. Further, the Government has recently developed a National Strategy for Sustainable Development (NSSD), a Draft Spatial Plan and a number of sector strategies including subjects like energy, water supply, tourism and waste management.

The main objectives of NSSD are the development of SMEs and increase of employment especially through the development of mountain and eco-tourism, food production and sustainable forestry and the improvement of infrastructure including transports, water supply, sewage and electricity supply. The development of the tourism sector is receiving a lot of attention and is considered an economic priority. A pilot SEA on the Montenegro Draft National Spatial Plan was carried out in 2007. The plan acknowledges that there are some subject areas where proposals are likely to be controversial with regard to environmental concerns, namely energy, transport, agriculture and tourism.

The lack of secure land property ownership is regarded as a significant problem for investors in Montenegro. The problem arises from absence of good land titles information. The

²² Based on interview with Peter Nelson, Land Use Consultant (involved in SEA of Draft Spatial Plan and Energy Sector Strategy in Montenegro), 25 September 2007

²³ World Bank, 2007

²⁴ NSSD, 2006

Cadastral Office does not have adequate and reliable land information²⁵. The lack of transparency and public access to information makes land title transfers risky for investors, and complicates the approval activities of municipalities. There is a lack of administrative and institutional capacity at municipal level to perform these functions. This can result in over-exploitation of land and natural resources, and conflicts between different stakeholders.

The strengthening of institutional capacity along with strong political commitment is required for an effective implementation and enforcement of Montenegro's new environmental legislation and strategic plans. Significant environment investments will also be required to overcome air, water and soil pollution, and poor waste and water management. Environmental investments in northern Montenegro, including IBRD investments and GEF financing to strengthen the environmental management of the Tara and Lim River Basin, could help to encourage greater inland tourism and support Montenegro's efforts to meet EU environmental standards²⁶.

The World Bank is together with other donors financially supporting the sectors of tourism, environment, energy and water in Montenegro. The WB's tourism and environmental planning support will be coordinated with the German Government and UNDP. WB investments on water supply will also be coordinated with EBRD, which are financing an extension of the regional water supply system along the northern coast, and with the German Government, funding improvements for municipal water supply and reduction of water system losses²⁷. Further, the WB will support selective investments to support the Government's energy sector reform strategy, in line with the South East Europe Energy Community Treaty.

Montenegro is now party to the multilateral environmental agreements on Climate Change, Hazardous Waste, Law of the Sea, Marine Dumping, and Ship Pollution²⁸. The Government ratified the Kyoto Protocol in March 2007.

Issues for Sida to consider

- Will there be sectors or regions that lack international funding when Sida withdraws from Montenegro – are these sectors/regions important from a poverty reduction perspective or for sustainable natural resources management?

- Can Sida contribute to the discussion on establishing a tool for financing environmental projects (an Environmental Fund)? The Ministry of Agriculture, Forestry, Environment and Water management in Austria together with the Regional Environmental Centre for Central and Eastern Europe has initiated a Working Paper which deals with why and how an Environmental Fund should be established. They estimate that less than 0.1 percent of the GDP today is devoted to fund environmental protection programs.

²⁵ NSSD, 2006

²⁶ World Bank, 2007

²⁷ Ibid

²⁸ CIA World Factbook, 2007

- An Environment Protection Agency is under establishment in Montenegro – can Sweden provide technical assistance to the building up of such a function through other means than bilateral financial support? What about twinning activities with Swedish authorities?
- Montenegrin plans to develop hydro-power plants in national park areas are quite advanced – in what way could Sweden contribute with lessons learnt and experiences from the Swedish hydro power development and industry – in order to avoid irrevocable decisions or learn from mistakes? The production of solar energy and renewable energy sources is increasing rapidly in for instance Germany and Austria – maybe Montenegro should learn more from these experiences?

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