



WWF PROTECTED AREAS FOR A LIVING PLANET – DINARIC ARC ECOREGION PROJECT

STUDY ON FORESTRY AND NATURE PROTECTION IN MONTENEGRO



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This Study is a part of the WWF Protected Areas for a Living Planet – Dinaric Arc Ecoregion Project, and provides recommendations related to the key problems in management of protected areas and forestry sector that affects implementation of the CBD Programme of Work on Protected Areas.

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Study on Forestry and Nature Protection in Montenegro

EXECUTIVE SUMMARY

Forests are the most extensive ecosystem in Montenegro, covering approximately 45% of its territory. Unfortunately, extremely small part (3%) of the protected forest areas remained fragmented and do not properly represent the country's forest habitats, species associations and ecosystem processes. Because of this, and until establishing Natura 2000 (ecological network in Montenegro) some critical forest habitats will continue to remain outside the formal protected area estate and come under increasing pressure from overcutting, unplanned land use, urban development, and spread of tourism enterprises.

Existing legislation and institutional framework do not provide a satisfying level of efficiency in executing duties in the area of biodiversity. The two key pieces of legislation relevant to planning and administration of protected forest areas in Montenegro are the Nature Protection Law and the Law on Forests, whereas this Study tried to analyze the problems in legal enforcement of these two laws and options for their harmonization. Montenegrin institutions responsible for forests management and protection are facing the challenge to improve the current condition of all forests to ensure a balance of protection, environmental, social and economic functions, also to ensure the sustainability which is responsible and comprehensive task. Level of efficiency in planning and implementation of measures and activities aimed at forests protection and management is directly linked to the number of professional and administrative staff in the area of protection of nature/biodiversity, so this is also the area where strong political commitment on strengthening human resources must exist.

Based on research, this Study provides set of recommendations, whereas: review of the status of existing protected areas of nature, establishment of managers for all categories of protected areas of nature, and defining of optimum management models (based on participatory approach) represent the basic measures for protection of forest ecosystems and nature protection in general.

INTRODUCTION

At the seventh meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) Programme of Work on Protected Areas (PoWPA) was adopted. Of historic significance, this Programme of Work represents one of the most comprehensive and specific protected area commitments ever made by the international community. 188 governments have made a legally binding pledge to meet the goals and timelines made under the PoWPA. The overall objective of the Programme of Work is to establish and maintain, “comprehensive, effectively managed and ecologically representative systems of protected areas”.

At the NPC meeting in November 2010, key problems that protected areas in Montenegro have with other sectors were identified. Among them, unsustainable and illegal use of forest natural resources were identified.

In a view of CBD POWPA implementation and future EU accession, Montenegro should develop mechanisms that will comply with instruments developed in European Union, in order to establish and manage its protected area system in a more sustainable manner.

Explored relations among different actors, administrative and legal issues in forestry and nature protection in this Study indicate the need for harmonization of existing legal mechanisms and development of new ones that would ensure responsible governance in both sectors.

The study “Forestry and nature protection in Montenegro” aims to help the ministry responsible for protected areas to improve its protected area management system through a cross-sectoral dialogue.

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I PROTECTED AREAS AND FORESTS ECOSYSTEMS IN MONTENEGRO

Proclaiming Montenegro as the Ecological State in 1991 has given the framework for future development of the Republic of Montenegro as the environmentally friendly society. Forests are fundamental not only to biodiversity conservation but also to sustainable development efforts. They offer numerous species of value to people, for medicine, food and housing, as raw materials for subsistence use or sale. They also offer environmental services such as the recycling of nutrients, soil stabilization, filtering water, absorbing carbon dioxide etc. As global attention is focused on climate change, it is noteworthy that forested protected areas which account for over 40% of the global protected area estate hold a tremendous source of carbon. Thus, in the context of climate change, improving management in these protected areas and creating new forest protected areas are subjects that are increasingly capturing global interest.

Total area of the Republic of Montenegro is 1,381.200 ha, of which, according to the statistical indicators 743.609 ha or 54% refers to forests and forest land, and about 60% of population is connected to the village and areas that are abundant with forests.

According to the value of forest areas, level of conservation, regulation, diversity, management and impact on environmental protection, even taking into account areas damaged in the past, Montenegrin forests are among the most quality forests in Europe.

Forests cover 621 thousand hectares of total area, while barren forest land covers 123 thousand hectares. State owned forests cover 500.000 ha or 67%, while private forests make 244.000 ha or 33%. Total growing stocks in forests of Montenegro are estimated to around 72.000,000 m³, of which 29.5 million m³ or 41% are conifers and 42,5 million m³ or 59% broadleaves. According to functions, the forests intended for timber production involve 348.000 ha or 81% of all forests¹.

It is notable to mention that protection forests are determined at 66 thousand ha or 16%, while forests of National Parks cover 12.975 ha or 3%, which means that great amount of forest outside protected areas is exposed to the different management regimes often unsustainable. The total increment in all forests is estimated at 1.5 million m².

During the last decades forest biodiversity has suffered heavily in Montenegro. After World War II there was a period of 'industrialization' of forestry when the highest-quality timber was logged and almost all of the most valuable forest complexes were destroyed. These hot spots are mostly settled outside of the protected areas, but very often on or nearby its borders and rarely on the steep terrains. Unfortunately, there are no reliable data on changes in the distribution of different forest types in protected areas in Montenegro and its borders over the last 50 years. Some data for all Montenegro do exist on timber volumes extracted in the

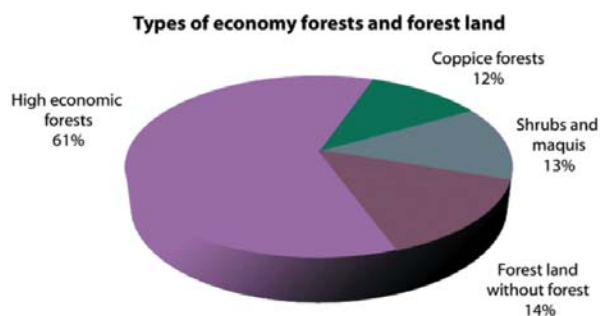


Figure 1: Types of economy forests and forest land (source, National Forest and Forest Land Administration Policy)

¹ Forests for the Future of Montenegro, National Forest and Forest Land Administration Policy, Government of Montenegro April 2008.

² Forests for the Future of Montenegro, National Forest and Forest Land Administration Policy, Government of Montenegro April 2008

period 1947 – 1951 - around 1,200,000 m³/year of timber was logged in Montenegro; in the 1970s this fell around 900.000m³/annually and by the end of the 1980s approximately 800.000m³/annually were harvested. The amount logged in the 1990s fell due to the regional conflicts, but illegal logging (1998-2000) was pronounced in the border regions with Kosovo. Logging in Montenegro is currently estimated at about 700,000-815,000 m³/year.

Growth and protection of biodiversity are insufficiently taken into account in forest management. The lack of education and the limited awareness of biodiversity are evident at all levels of organizations, both in state and in privately owned forests.

1.1. Forest ecosystems and its characteristics



Photo 1: Green Home ©

Forests are the most extensive ecosystem in Montenegro. Natural forests cover approximately 45% of territory of Montenegro which makes it one of the most forested countries in Europe. Coniferous species, largely Fir *Abies alba*, Spruce *Picea excelsa* and Mugho Pine *Pinus mugo*, dominate the forests of higher altitude. Forests of fir and spruce *Abieto-Picetum* occupy a wide area of the mountains in northern Montenegro in the zones of Kovač, Ljubišnja, Durmitor, Sinjajevina, Krstac, Smiljevica and Hajla mountains, as well as in enclave forms in Prokletije, Bjelasica, Maglić and other mountains. There is

important forest of *Picetum abieti montenegrinum*, a Spruce community in Mount Ljubisnja. There are also forests with Balkan endemic pines Macedonian pine and Whitebark pine. Macedonian pine *Pinus peuce* is present in Prokletije and to a smaller degree on other Montenegrin mountains (Bjelasica and other). Whitebark pine *Pinus heldreichii* appears in the zone of Prokletije and on the mountains in the central part of Montenegro (Štitovo, Komovi...). Endemic species Mountain maple *Acer heldreichii* appears in the forests of high mountains of the northern and central part of Montenegro. Mainly beech trees are widespread in higher areas, at altitudes of 700 to 1 800m. Even though rarer, oak, mainly mixed forests can also be found. Chestnut forests – of chestnut *Castanea sativa* are specific for sub-Mediterranean part of Montenegro but with discontinuous distribution (several localities in the Bay of Kotor, northern slopes of Rumija - Ostros, Livari). Characteristic fauna of forests in Montenegro includes the Wolf *Canis lupus*, Brown Bear *Ursus arctos*, and

Forest Category	Conifers (m ³)	Broadleaves(m ³)	Total	%
1. Commercial Forests	26,499,651	26,602,225	53,101,876	89.1
2. Protective Forests	778,545	3,814,995	4,593,540	7.7
3. National Parks	1,077,439	858,025	1,935,464	3.2
4. State Forests (1+2+3)	28,355,635	31,275,245	59,630,880	82.8
5. Private Forests	1,171,920	11,253,899	12,425,819	17.2
Total (4+5)	29,527,555	42,529,144	72,056,699	100.0

Table 1: Wood mass in Montenegrin forests (source National Forest and Forest Land Administration Policy)

Wild Boar *Sus scrofa*, along with many species of birds such as Owls (*Strigiformes*), Woodpeckers (*Picidae*) and species of Warbler (*Sylviidae*), with most of the forest avifauna of the Western Palaearctic represented.

Despite extensive logging in the past, some forest areas, such as Durmitor, Bjelasica and Prokletije, still retain relatively pristine forests and are under protection.

1.2. Protected areas

Establishment of the National Protected Areas Network made up of the existing and planned areas for protection, makes an integral part of the Government of Montenegro policy aimed at ensuring protection of all representative types of forest habitats, ecosystems and plant and animal species. For a long period of time the projection of the National Protected Areas Network was associated with the Spatial Plan of Montenegro (SP MN).

The National protected areas network is currently covering 124 964.24ha, or 9.047% of the territory of Montenegro, of which five national parks: Durmitor, Skadarsko jezero, Lovcen, Biogradska gora and the recently proclaimed NP Prokletije with biggest share of Montenegrin territory (101 733ha). The remainders are over 40 protected areas within categories: monument of nature; special natural features area and (general and special) reserves. Even though (SP MN) proposals have been determined for putting under protection more areas in the category *Regional Park*, or *Park of nature*, to date not a single protected area has been determined in this category³.

During several recent decades there was stagnation in putting under protection the planned protected areas of nature, especially those covering larger areas. Namely, all the newly established protected areas of nature from this period cover relatively modest surfaces and did not contribute significantly to the share of nationally protected areas in Montenegro.

On the other side, the Nature Protection Law ensured putting under protection of endemic, rare and endangered plant and animal species. Today 415 plant and 430 animal species have been put under protection regime⁴. Also, protection of rare, significant monumental trees has traditionally been an integral part of the activities for protection of biological diversity, so a number of trees of olive, oak, and other have been put under protection over time.

Based on implementation of international treaties (conventions, protocols) in the area of biodiversity protection that

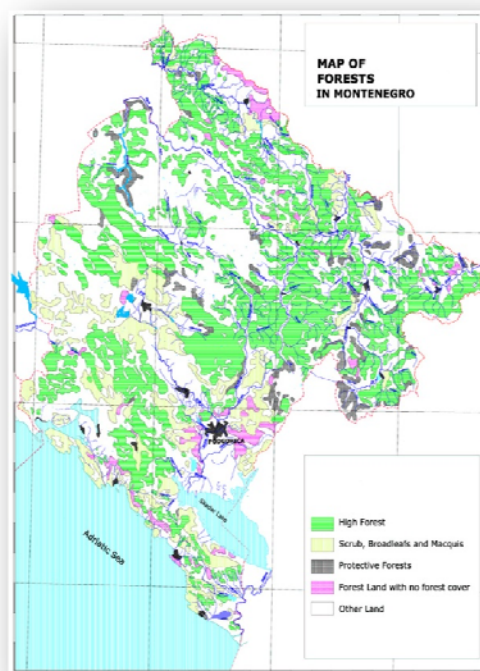


Figure 2: Map of forests distribution (source: Spatial Plan of Montenegro)

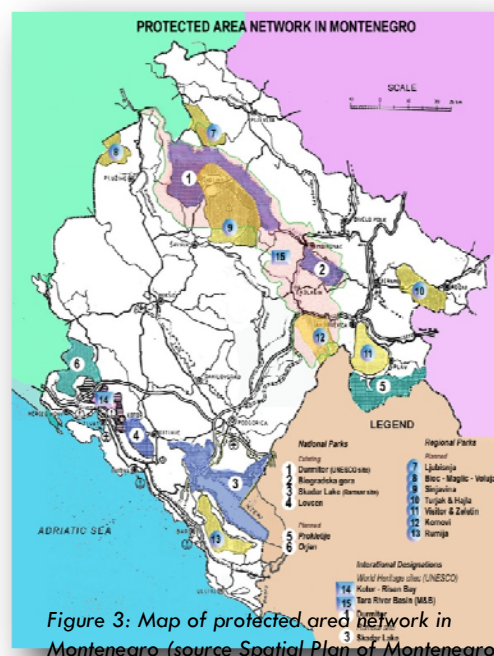


Figure 3: Map of protected area network in Montenegro (source Spatial Plan of Montenegro)

³ There have been four attempts to create regional parks at the territory of the municipality Plav: **Plav Lake; Ali Pashas Springs – Grenada and Ropajana** with the canyon Grlija; Hridsko Lake and Vistor Lake, for which the appropriate regulation was adopted (Decision on proclaiming the regional parks at the territory of the municipality Plav ("Official Gazette of RMNE", No. 24/03 – municipal regulations), but they have not been established.

⁴ Decision on putting under protection particular plant and animal species (Official Gazette of Montenegro 76/06)

Montenegro ratified or took over by succession from previous federations/joint states, the following areas are under protection:

- The National park Skadar Lake (40.000 ha) has been under protection as a Ramsar area as wetland areas of international importance especially as a waterfowl habitat based on Ramsar Convention (Convention on preservation of wetland areas of international importance especially as waterfowl habitat). This area has been recognized since 1989 also as an Important Bird Area - IBA) because it meets criteria 1, 2 and 3.
- The National Park Durmitor with the Tara canyon (33 895 ha) is under protection as the World Natural Heritage (UNESCO List of World Natural and Cultural Heritage), following the fulfillment of criteria N (II), (III) and (IV) of the Convention on the Protection of World Natural and Cultural Heritage (UNESCO) with a strict protection regime (the river Tara canyon and the forest reserve "Crna Poda")
- The river basin of Tara (182.899 ha) has been protected as the World Biosphere Reserve (Programme "Man and Biosphere" - M&B, UNESCO), based on the Convention on the Protection of World Natural and Cultural Heritage (UNESCO).
- Kotor – Risan Bay (15.000 ha) has been under protection as a natural and cultural resource of world importance (UNESCO List of World Natural and Cultural Heritage), based on the provisions of the Convention on the Protection of World Natural and Cultural Heritage (UNESCO).

When, notwithstanding the existence and form of management, the nationally (124 964,24ha) and internationally (143 594 ha) protected natural assets (protected areas of nature) are assembled, excluding doubling/overlapping, the total area put under protection amounts to 268 558.24 ha which accounts for **19.44%** of the state territory⁵.

Among the existing and the planned protected areas, there are also those of cross-border character. At the moment only Skadar Lake, which Montenegro shares with Albania. Spatial Plan of Montenegro put forward a proposal for establishment of new cross-border protected areas of nature, primarily through extension of borders of the National Park Durmitor and its connection with the national park Sutjeska in Bosnia and Herzegovina and the planned Regional Park Bioc – Maglic – Volujak in Montenegro. Possibilities for new protected cross-border areas have been recognized also in the establishment of new national parks: (I) NP Orjen in Montenegro that could be connected with the areas of Orjen and Sniježnice in B&H and Croatia and (II) NP Prokletije which could be connected with the neighboring areas in Albania (Theti, Bjeshkët e Nemuna), Kosovo and Serbia.

Ecological Network of Montenegro – Implementation of the Ecological network was regulated by the Nature Protection law (2008) that include Natura 2000 sites identified on the base of EU directives for Habitats (1992) and Wild Birds (1987), So far, work on establishing Ecological Network of Natura 2000 sites is in identification phase (Re: project Montenegro and Natura 2000 - Institute for Nature Protection, WWF and Daphne, see text about Natura 2000 in chapter Analyse of stakeholders)

⁵ National Biodiversity Strategy with the Action Plan for the period 2010 – 2015

The EMERALD Network – The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and the legislation of the European Union regulate the protection of the threatened species and habitat types which are emphasized in the biogeographical regions on the state territory. The EMERALD Network consists of 32 sites (see map below) - areas of special interest for the protection (ASCI) which should be established by the member countries present of the Bern Convention. For the EU member countries, the Emerald Network is similar to the NATURA 2000 network. Creation of the EMERALD Network in Montenegro started in 2005 within the project funded by Council of Europe and implemented by the Ministry of Environmental Protection and Physical Planning in cooperation with the Council of Europe and Montenegrin experts. During 2008, project was finished and the standard forms were completed for most of the Emerald Network sites in Montenegro (central EMERALD database is in the Institute for the Protection of Nature). Meanwhile, EMERALD data base has been reviewed (quality control check) by Council of Europe and then improved / updated.

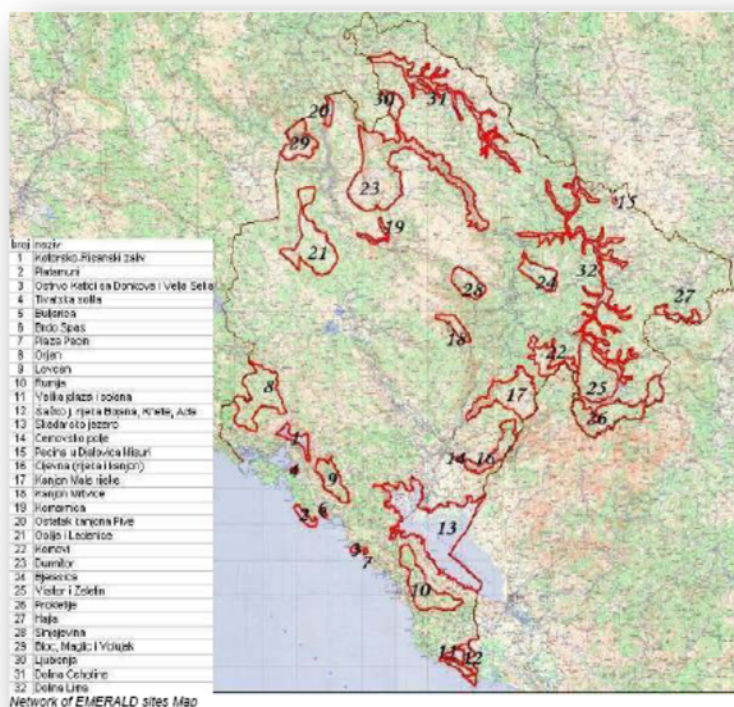


Figure 4: Map of EMERALD sites in Montenegro (source Institute for Nature Protection of Montenegro)

1.3. Hunting fauna

Montenegro also has a rich mammal fauna and includes Carnivores (e.g. Wolf (*Canis lupus*), Brown Bear (*Ursus arctos*), Red Fox (*Vulpes vulpes*), Lynx (*Lynx lynx*), Otter (*Lutra lutra*)), Ungulates (e.g. Wild Boar (*Sus scrofa*), Red Deer (*Cervus elaphu*), Roe Deer (*Capreolus capreolus*), Chamois (*Rupicapra rupicapra*)), Rodents, including *Pitymus thomasi*, found only around Podgorica (Ber, Vranici) and in Vilusi and several species of Bats, then some Marine Mammals (common Dolphin (*Delphinus delphis*), Striped Dolphin (*Stenella coeruleoalba*), Bottlenose Dolphin (*Tursiops truncatus*)). The highest mammal diversity occurs in the mountainous and forested north of the country. Apart from some research on individual species, e.g. Brown Bear (*Ursus arctos*), and some groups, e.g. Bats in the Ulcinj and Arsenal areas, and hunting population estimates by hunting societies that are not independently verified, there are no data on the size of mammal populations in Montenegro.

II MAIN PROBLEMS AND CHALLENGES IN FORESTRY AND NATURE PROTECTION

Generally, knowledge of the forest biodiversity of Montenegro is quite weak, with many loopholes, lack of inventories, as well as data on population dynamics, ecosystems and levels of genetic variation of many species. This limits the devising and making of adequate measures of protection, primarily for endangered species in Montenegro, and the general lack of data on biodiversity limits the monitoring of ecological changes. In addition, there is little direct information about whether forest resources are being used in a

sustainable way, which is a reflection of an insufficient level of state monitoring in this area. On the other hand, there are certain indicators that forests and its products are being over-exploited and natural resource management is not based on a solid model of sustainable use. This part of the Study was assessed during the two days interview organized with forestry experts from the national parks and institute for nature protection, NGOs located and having experience in protected areas and representative of the Ministry for Agriculture and Rural Development.

2.1. Threats that should be addressed

Forests in protected areas are affected by two different processes: natural degradation processes and degradation of forests due to anthropogenic activities

2.1.1. Natural degradation processes

Soil erosion - Forest areas that are placed at the steep slopes next/near rivers are vulnerable to threats such as soil erosion and landslides. However, erosions processes are prevailing. Spatial distribution and mapping of erosion areas has been done at the scale 1:300.000, which can be used for general planning but not for detail planning at level of practical projects. Areas affected by erosion are sparsely distributed in both forest and non-forest zones including high-mountain (alpine) meadows (> 1.700 meters ASL) and active screes. In areas distant from the access (forest) roads, these processes are very difficult to stop or mitigate.⁶ Consequently, these processes in the forest areas are causing a lot of damage to other ecosystem services that depend on functioning of forests, such as stability of aquifer, control of flooding, stability of vulnerable soils, biocenosis, etc. This is diminishing possibilities/potentials to alleviate still high poverty rate of local population in North of Montenegro. Distribution and intensity of landslides is following erosion processes. Concerning heavy landslides, most recent one was on 23 November, 2006, in the Black Pine Nature Reserve “Crna Poda” (NP Durmitor, Tara River Basin Biosphere Reserve) that washed out 150.000 m³ of the soil from a slope next to the brook “Zuta prla”.

Forest fires - Forest Administration keeps the prescribed records on forest fires per management units and by this the average surface of fire inflicted territories in the period 2003-2007 was 4.800 ha and the average number of fires was 53. In the last 15 years, more than 1.000 large forest fires were recorded in Montenegro, whereas an area of around 15.300 ha was burned and approximately 500.000 m³ of timber damaged or destroyed. The National Strategy for Emergency Situations has determined primary hazards at the territory of the state. One of priority hazards is fire, with forest fires as its subtype.

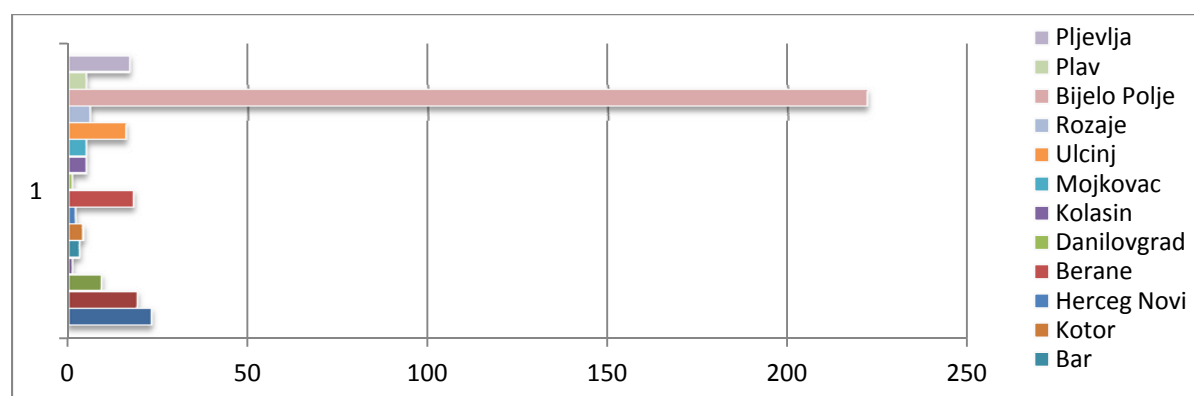


Table 2: Forest fires in hectares in 2009 (source: Environmental Protection Agency of Montenegro)

⁶ Processes are result of bad forest planning and management, especially in planning and implementing preventive erosion measures

Damage from fires has been caused huge material losses in some forest complexes and contact zones of the National Parks. Forests that are highly endangered by the fire were: the Black Forest area and Barro Lake basin Mliniski streams, Zabojsko zones around the lake, Crna Poda, Tara canyon and Susica river basin.

Abiotic factors causing damages - Among the abiotic factors most important are air pollution, acid rain and adverse climatic and edaphic factors. There are new data on the impact of pollutants on forest ecosystems, so studies from the 1987 -1990. have shown that damage to forests is very strong and dominating for fir, spruce, beech, black and white pine. Sporadic "Acid Rain" and the amount of deposition of pollutants particularly sulphur and nitrogen partially crossed the critical limit for the occurrence of damage in forest ecosystems. On another hand, in comparison with other countries in the region and in Europe, forest protected areas can be considered as relatively clean. This is supported by the fact that there is a preserved and very high quality coniferous forests of high ecological value and with a distinct mechanism for auto-regulation. Periods with other causes, influenced the reduction in growth of trees. With increasing damage to trees (healthy to dry) increases the loss of gain, up 42.4% when was stated in spruce mortality (1981. do 1989.)

Data on the impact of pollutants on forest ecosystems are not sufficient to explain the phenomenon of "forest dieback". Therefore, they should be linked to other factors such as climate change, and the presence of improper management of diseases and pests.

Among the **biotic factors** important should be given to the pathogenic and saprophytic fungi (*Nectria coccinea* and *Nectria galligena*, *Phellinus pini*, *Cytospora friesii*, *Herpotrichianigra*, *Lachnellula fuscang uinea*) that cause disease and made a lot of damage in forest protected areas, or present a potential hazard. One of the most endangered species is pine, mostly in the Tara canyon, then the location of Crna Poda (review concluded that almost 45% of trees infected and affected by varying degrees of destruction and decay), in the canyon and Susica and pine culture around Zabljak (caused drying over 90% of trees).

Next endangered tree species are white pine, fir and spruce stands i.e. in the zone of military resort to Zabljak percentage of damaged trees (pull outs, lack or irregular growth) of fir is greater than 35% and more than 20% in spruce.

The degradation of trees and other factors involved, e.g. Scolytidae.

2.1.2. Degradation of forests due to anthropogenic activities

Several negative impacts can be assessed related to the Degradation of forests due to anthropogenic activities done by local population, tourists and passers-by: illegal logging, damage to individual trees, the damage from forest fires and grazing.

The surrounding population causes considerable damage. Because the former rights on the joint use of rural and tribal forests, pastures and watering places, there are difficulties in cooperation between national parks and rural population who feel that their rights under the National Parks are refused, so resisting implementation of the national park plans. Also rapid development and bad management in tourism led to the forest jeopardizing by trampling and destruction of young growth, cutting the tops of conifers, bark damaging, fires and illegal waste dumping etc.

Forestry – logging of forests is main human activity causing loss or degradation of natural forest areas. Apart from illegal cutting⁷ for fuel wood or just for the sale of logs, degradation of the forests is in the correlation with level of development of Forestry / Forest industry. On the other side, changes (loss, degradation, conversion etc) in the forest areas are not monitored from the side of an impartial / neutral body. Consequently, reliable statistic on the size of forest areas changes into degraded habitats has not been provided, so far. Also, mapping of changed / converted forest areas is missing for whole country.

One of the key problems related to the illegal and planned forest cutting are linked to the contact zones of the national parks. Management bodies from the national parks are not authorized to act in contact zones. There are often overlapping economic forests/forest units exploited by concessionaires in different management regimes (even if protective regime is planned by Spatial plan of special purposes for all national plans individually).

Forest cut in protected areas are reduced to the necessary needs for the local population, approved by the Park management and under the supervision of foresters.



Photo 2: Opstanak ©

Apart from the forestry, loss or degradation of natural forest areas could be caused by **massive infrastructure** such as planned Highway Bar – Boljare – Beograd, small hydro plant projects (i.e. River Mrtvica, Mala Rijeka, four dams on Moraca River, Komarnica...) , high voltage energy cables and transmission lines that will pass through protected areas and high valuable forests.

Unsustainable use of forest resources -
Due to high poverty rate and depopulation in the project area, economy of local population is relying on the use of natural resources. Forestry is

important for both, economy and biodiversity conservation, and consequently for various sectors such as water engineering, sustainable land use planning, rural development etc. Apart from (Forestry Directorate) approved annual cut, illegal logging and cutting of wood for fuel, including the areas in PAs is widespread. The harvest of non-timber forest products, such as mushrooms, eatable wild fruits, medicinal and pharmaceutical herbs is done without control and plan for sustainable use. Hunting of boars, wolfs, chamois, foxes, rabbits, bears, grouses and other game is primarily performed for sport but threatening populations of these species (some of which are rare and threatened). Often, hunting takes place right outside of administrative boundaries of the NPs (Durmitor and Biogradska gora) where the parks administrations do not have any legal jurisdiction.

⁷ During 2010 in state owned forests in Montenegro was cut illegally more than 6.760 m³ of timber, while and in same period at private owned forests was exploited more than 1.100 m³ of timber. Due to illegal cutting in 2010 were submitted 162 claims and 134 for unknown persons for 4800 m³ in total, source yearly Report, Ministry of Agriculture and Rural Development 2010.

Sometimes, illegal hunting occurs within the NP boundaries⁸. Legal enforcement is very low, counting of game species is not neutral and there is a lack of warden capacity to provide efficient control and monitor. Hunting is still considered a recreational activity, more than a revenue generating activity or an activity oriented to tourism. Membership fees in hunting organizations are mainly low⁹, investments into hunting districts modest, and national hunters mainly do not pay any compensation for each game they kill.

Fishery is usually performed for sport and recreation, but illegal fishery activities are sporadically. While traditional agriculture has no adverse impacts on biodiversity there have been reduced grazing activities on mountain pastures. Unsustainable use of biological resources is leading to significant deterioration of key biodiversity components such as forests and mountain grasslands. In general, intensity of the threat is considered as permanently present and increasing.

2.2. Weaknesses in the systems of protected natural resources management

The system of protected areas of nature in Montenegro is facing numerous weaknesses and problems. Even the forests are dominant, the largest part of protected areas cover small territory which accounts for their fragmented distribution. The remaining unprotected high natural values forests, especially at the bordering areas of national parks and northern part of the country suffer great pressures of legal but badly planned cutting. Sufficiently harmonization of plans between the forestry, environmental and protected areas sector leave a huge space for misuse of the legal system. At the map right is showed overlapping of the national park Durmitor and forest unit for borders and borders of forest unite economically exploited. Unfavorable position of boundaries of protected areas of nature in relation to the vicinity and directions, in which settlements, infrastructure and other constructions spread, makes forests biodiversity vulnerable and isolated. On another hand, there is still missing expert information based on which the boundaries, category and protection regime of new and existing protected areas of nature could be determined. Other numerous weaknesses of the current system of forest protected natural resources refer to: lacking or incomplete biodiversity inventories; lacking or inadequate staff who frequently do not possess sufficient expert, operative and/or managerial capacities necessary for protected areas;

2.3. Lack and non-available detailed data on forestry

Most of taxonomic groups are poorly investigated which influences quality and effects of the measures undertaken

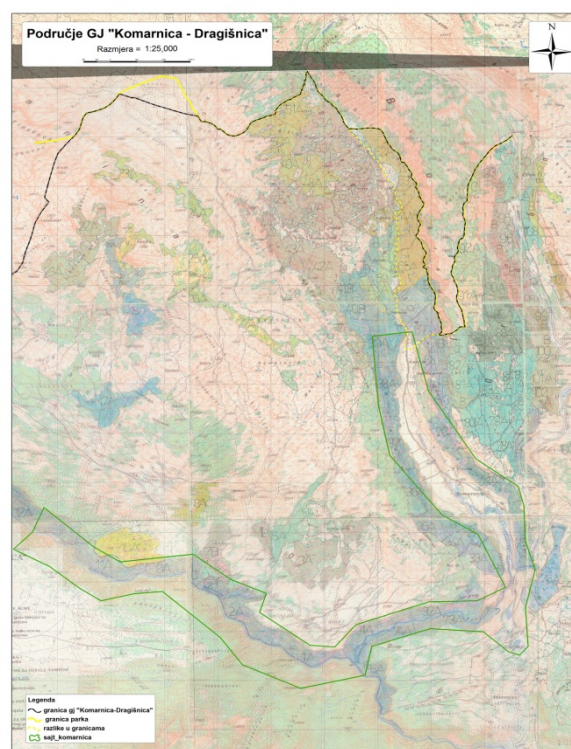


Figure 5: Map of Forest Unit Dragisnica-Komarnica overlapping with National park Durmitor borders, (source Ministry of Agriculture and Rural Development 2010)

⁸ Report of the international mission on visit to the National Park Durmitor and Tara River Basin, UNSECO 2005

⁹ ~50 - 100 EUR annually.

for biodiversity protection. A lot of information remain unpublished, or if published they are not available to the public (internal reports within the institution, the results of research projects, master and doctoral theses, specialist papers in professional publications that are not for general public distribution). There are no publicly available databases for specific taxonomic groups, and there is no "red book" of rare and endangered species. Existing Biodiversity Monitoring Program does not provide sufficient information about the state, factors of threats and threats to biodiversity.

National Forest Inventory is still under preparation but Forest Inventory Database – including data on the condition of forest under the category of commercial forests was finalized in November 2010 and include 3 505 clusters distributed in quadrants 2x2km and 7 000 digitalized maps.

These data can serve as indicators where more detailed researches must be done at field. There is a lack of inventory of invasive species too.

2.4. Extension of the forest protected areas

Extremely small portion of the forest protected areas from 3% are remained fragmented and not adequately represent the forest country's habitats, species associations and ecosystem processes. Despite a strong political commitment to consolidate the existing, and establish new, protected areas the extent of the protected area system has not met the national targets set in the Spatial Plan, National Strategy of Sustainable Development and the Biodiversity strategy due to: (I) the absence of a national strategic approach to the expansion of the protected area estate; (II) limited knowledge of, and experience in, establishment and management processes for other (i.e. not national park) categories of protected areas; (III) public resistance to the expansion of the protected area estate due to their ongoing lack of relevance to the socio-economic and recreational needs of the country. (IV) limited incentives to encourage use rights holders and land owners to incorporate land into a protected area; (V) ongoing disagreements between stakeholder institutions and land use rights holders within the existing protected area system; and (VI) a lack of clarity about the institutional arrangements for, and financing of, the different categories of protected areas (excluding national parks).

2.5. Lack of personnel and financial resources

Relatively small number of personnel is engaged in the field of nature protection, so far, especially in Ministry relevant to environment, Institute for Nature Protection, National parks and local self governments. Usually, only one or two specialists or researchers possess knowledge about a particular tree or animal group, while for some taxonomic groups there are no adequate specialists. In combination with insufficient financial allocations from state budget and with no financial participation of private sector, this is causing biodiversity conservation activities (monitoring, scientific inventories and databases, management plans for protected areas of nature, etc.) are not implemented with required efficiency, or not implemented at all. Apart from the lack of capacity, there is no information on Montenegrin education and research institutions which are providing specialized training, relevant for implementation of biodiversity protection measures and management practices regarding certain components of biodiversity (monitoring, scientific inventories and databases, specific taxonomic group knowledge etc.).

One of the greatest threats for the maintenance of preservation areas is a lack of funding. National parks as public utilities are increasingly forced to sell timber from their forests in order to meet financial needs. In some national parks, the pressure of increased tourism is threatening biodiversity. Municipalities are contributing to this through liberal land-use planning, construction permits, etc. in order to increase economic activity in the depressed rural communities.

2.6. Lack of adequate protection for critical forest habitats outside the protected areas

The European forest habitats typologizations – EMERALD, Natura 2000 were not used in identification of the existing protected areas of nature as a base for their identification. It is based on knowledge obtained from traditional nature protection doctrine which still ensured representation for the most important representative forest ecosystems in Montenegro. Due to this and until establishment of Natura 2000 ecological network in Montenegro, some critical forest habitats will continue to remain outside the formal protected area and submitted to increasing pressure of overcutting, unplanned land use, urban development and spread of tourism enterprises. This assessment can be compared also with the Protected Area Gap Analysis report which provides information on specific forest biodiversity targets for Dinaric Arc Ecoregion; the figures related to Montenegro are shown in table below:

Biodiversity target	Distribution in country (km ²)	Percentage of distribution in country	Distribution within PAs (km ²)	Percentage of distribution in PAs	Protection level
Evergreen Forests & Scrubs	115.28	0.83	0.03	0.02	III
Oriental Hornbeam Forests	348.41	2.51	12.59/0.75	3.61/0.22	II, III / V
Thermophilous and Supra-Mediterranean Oak Woods	1,092.67	7.87	75.47/16.20	6.91/1.48	II, III / V
Thermophilous Beech Forests	308.65	2.22	8.02	2.60	II
Montane and Subalpine Beech Forests	2,499.27	18	68.49/5.67	2.92/0.24	II, III / V
Oak-Hornbeam Forests	313.56	2.26	0	0	-
Coastal Flooded Forests of Ash and Common Oak	26.01	0.19	26.01	23.90	II
Spruce and Fir Forests	790.74	5.69	33.43/1.50	4.23/0.20	II, III / V
Forests of Heldreich's Pine	120.61	0.83	7.72/10.29	6.40/8.53	II, III / V

Table 3: Forest biodiversity targets and its distribution, (source, Protected Area Gap Analysis Report)

Forests of Macedonian Pine	143.41	1.03	0	0	-
Shrubs of Mountain Pine	113.27	0.82	10.71/12.97	9.46/11.45	II, III / V

The Forest Administration launches a tender every year to give concessions for utilization of slightly more than 400 thousand m³, and if we add the needs of population for fuel wood to this, as well as retail, and sanitary felling, it leads to the conclusion that around 815 thousand m³ is harvested in Montenegrin forests a year. The overall harvesting is lower compared to the previous year, and it is at the level of designed quantities and allows substantial accumulation of biomass in forests.

According to available data (MoAFWM), the period from 1994 to 2003, afforestation works were applied on 745 hectares annually that amounts in total of 7.450 hectares of afforested area, which makes 36.916 ha altogether.

Having in mind that replenishment by natural seedlings in degraded or damaged forests is not successful, it could be considered that figures given above do not provide realistic picture in the success of afforestation activities. These doubts could be particularly addressed to the category usually called “enlarging of new forest areas” that has been done at the average annual rate of 157 hectares in the period 1991 to 2001 (there were no data for year 2000, so average value is much lower).

2.6. Poor harmonization of legal and inter-institutional responsibilities

Fragmented distribution of responsibilities and low level of inter-institutional coordination is causing both, overlapping of the institutional responsibilities relevant for biodiversity / natural resources, and lack of efficiency in the execution of obligations regarding biodiversity protection / conservation and sustainable use. In addition to that, there is a gap between the reforms in the legislative framework for biodiversity / nature protection on one side and socio-economic transition / reforms all required by EU on the other. For example, foundation of the management plans for protected areas is still in traditional management models that exclude participatory process in their preparation, adoption and implementation.

2.7. Lack of transparency and communication

Even if forestry-related regulations of Montenegro are undergoing a phase of adaptation and incorporation of European norms and standards, still the forest sector transparency remains generally poor. There are some major areas where lack of disclosure is persistent and undermines governance and accountability. Often this is at a basic level, such as concession contracts, forest management plans, and the relationship between goods and services provided, and revenues generated and redistributed. Whilst forest sector transparency is increasingly recognized as an issue and discussed openly, the regulatory frameworks for concessions or land deals remain almost non-existent, and a dangerous policy vacuum prevails. There is a real risk in this situation that governments and their people will be locked in to unfavourable contracts. Whilst the legal provision for access to information may exist in Montenegro, through freedom of information legislation, the constitution, or sector laws, it is unevenly implemented. The lack of publicly available

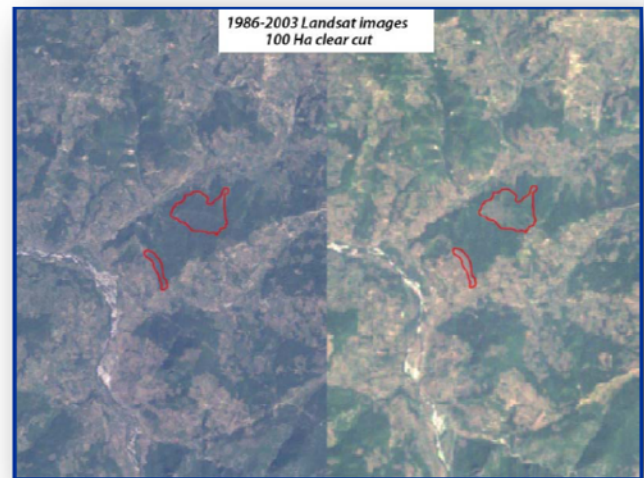


Figure 6: Map of clear-cut area in Montenegro (source GIS in Forestry, UNDP)

information on where logging permits are allocated, and under what terms, remains a major area of concern. It is theoretically possible to obtain a template for the contract, but not to see completed contract documents.

III ASSESSING OPTIONS FOR MUTUAL HARMONIZATION OF THE SECTORAL LEGISLATION DEALING WITH PROTECTED AREAS AND FOREST ISSUES

In several official documents (i.e. National Biodiversity Strategy, Fourth National Report of Montenegro to The CBD etc.) it was stated that the existing legislation and institutional framework do not provide a satisfying level of efficiency in executing duties in the area of biodiversity, that is, environmental protection. Apart from the unsatisfactory level of the implementation of domestic regulations, numerous are obligations coming from international treaties. Apart from poor efficiency of the legal, there is a lack of adequate political attitude towards biodiversity protection, which significantly contributes to the creation of conditions for unsustainable development and its negative effects on forest ecosystems. Although the existing legal framework for environmental protection in Montenegro has been harmonized in many areas or is in the process of revision and harmonization with the EU requirements, these regulations are by inertia still poorly observed and implemented/applied in practice. Lack of preventive/“proactive” measures related to the implementation of laws cannot be replaced later by repressive measures, that is, “reactive” policy.

3.1. International regulations

In legal terms, the binding international documents (Conventions, Agreements), which Montenegro has signed, represent a very important commitment, as well as the commitments that result from the EU integration process (Directives, Recommendations, Guidelines and Criteria from Ministerial Conferences on Protection of Forests in Europe), such as:

- Agenda 21 (1992)
- Framework UN Convention on Climate Changes (UNFCCC) (1992)
- Convention on biological diversity (2001)
- Convention on long-term air pollution (1979)
- Convention on Wetlands of international importance (Ramsar) (1977)
- Protection of World’s cultural and natural heritage (1972)
- Convention on international trade with endangered species (CITES) (2001)
- Directives and the Resolution of Ministerial Conference on Protection of Forests (2003)
- Council Directive no. 43/92 on conservation of natural habitats and wild flora and Fauna (1992)
- Council Directive no.409/79 on conservation of wild birds (1979)
- Council Directive no. 105/99 on market of forest reproductive material (1999)
- Council Directive no. 2158/92 on protection of EU forests against fire (1992)
- Council Directive no. 3528/86 on protection of EU forests against atmospheric pollution (1986)
- Council Directive no. 1615/89 on implementation of information communication system for European forests (1989)
- Council Directive no. 89/68 on outline Law of member states on classification of forest raw materials (1968)
- Council Directive no. 1232/98 on statistical classification of products according to the activities in EEC (1998).

Badly transposed EU legislation in the field of environmental protection, led to the impossibility of implementation of several laws in Montenegro. Nowadays and based on the recommendations of the Advisory board for regulatory reform and European Commission progress report opinions, Government proposed by partial or complete change of certain Laws including the Law on Nature Protection and Law on National Parks. Generally, even if EU legislation on nature protection is partly transposed, it is not implemented in horizontal legislation. Implementation mechanisms have not been developed either.

3.2. National regulation

The two key pieces of legislation relevant to the planning and administration of protected forest areas in Montenegro are the Nature Protection Law and the Law on Forests. Based on experience and interview survey analysis here is the assessment of the problems in legal enforcement of these two Laws and options for their harmonization.

The new **Law on Nature Protection** was adopted in August 2008 (Official Gazette of Montenegro No. 55/00) aiming to transpose the key EU legislation in this area, such as Habitats and Birds Directives. The rationale for the adoption of the Law was to introduce an EU-compliant categorization of protected areas, prescribe procedures for designation of protected areas (including a requirement for setting up administrative

management bodies for all levels of protected areas, preparation of management plans etc.) and set a legal basis for establishment of Natura 2000 network. Also norms related to the public participation are also included in the Law.

Weak points of Law on Nature protection is number of regulations (17) which should be brought so the Law can be implemented regularly.

National parks in Montenegro are designated and managed according to **the Law on National Parks** (Official Gazette of the RM No 47/91 and 27/94). The Law defines the borders, level of protection, limitations on development, permitted resource



Photo 3: Green Home©

uses and how the national parks should be managed.

By Law on National Parks forests that belong to areas with strict protection regime (in this case to the forests that belong to the 1st degree of protection) must be strictly protected from any activities that would in any way disrupt the natural development and origin of their natural values.

In the nature reserve will be carried out only activities of scientific research and research training, promotion and development of nature and natural resources, special programs of research and planning for each individual reserve, as well as limited and strictly controlled presentations by the presentation with special programs for visitors with a clearly defined direction and behaving.

LAW ON FORESTS

Under this category also includes strictly protected forest and protected forest. Use of these forests can only be allowed to build a short section of forest hiking trails (2-3 km), with the necessary security measures and the nature of the indigenous flora.

Forests that fall within the regime and the degree of protection (forest park) are scheduled for common usage functions in terms of environmental protection (soil protection, landscape preservation of environmental values of space-NP, protection of flora and fauna), the presentation of nature and natural values of sport, recreation, rest and recovery.

Mixed-use forests or forests that are located in areas with a third level of protection and forests situated in the protected zone NP it is possible to use more liberal than the previous one. The exploitation of these forests must be in accordance with their potentials and capacities for regeneration. This means that is not allowed uncontrolled logging, but must have annual plan of exploitation, which includes the reforestation plan, whereby the biological balance must be maintained forests.

Considering the versatile functions of forests in the NP following management systems must be excluded, because they are at odds with most functions: clear cutting, logging regeneration over large areas, cutting down recovery with a short period recovery over large areas.

Assortments obtained by harvesting (all forest categories) include: logs, mining timber, pulpwood and wood waste. Their expected share is calculated for each year forest management plan. The stages of harvesting and extraction times of assortments of export and further transportation assortments, one must take into account the basic functions of forests and use of certain zones. Previous experience of national parks related to the timing and way of wood extraction put limits to harvesters.

However, these regulations related to the forests within the protected areas are not primarily used by environmental sector and administration of national parks of Montenegro. Most important regulation for the forests and its protection is linked to the Law on forests.

Based on these facts, the analysis of four regulations and three administrative procedures related to the Forestry and nature protection led to the following recommendations for improvement.

Law On Forests ("Official Gazette of the Republic of Montenegro", no. 55/00) - Recommendations that relate exclusively to the legislation and appropriate administrative procedures are based on the notion that they must ensure that the entity that manages a resource that is of general national interest (in paragraph 1 of Article 2 of the Act states that "forests as natural resources and common goods are being restored, maintained and used under the terms and conditions to ensure...sustain and increase their natural values and ecological functions...") must ensure the sustainable management of this resource in the public interest, including forest preservation.

RECOMMENDATIONS	1.	Government of Montenegro to amend and harmonize the terminology related to the protection and conservation of forests
	REASONING	<p>During the analysis, it was determined that Article 16 of the Law on Forests almost does not contain terminology that is related to forest protection and maintenance of forest biological processes. Some important concepts are missing, such as: biological and genetic diversity, habitat, non-timber forest products, alien and invasive species, ecosystem, ecological networks, the sustainable use of forest resources, the indicator species, ex situ and in situ conservation of forests, a favourable condition forest conservation, landscape diversity etc. Some of these terms are present in the Law on the Nature Protection but related to plants and animals species in general, while the basic regulations regarding the management of forests must be stressed. This problem can occur when using different terminology for example, special-purpose forests (Forest Act). Special-purpose forests and protected forests can differ, therefore formulations should be more precise and describing also role of different types of special purpose forests.</p> <p>General remark is that the existing law is vague and incomplete in use of terms and definitions that are related to the protection of forests and forest ecosystems which are in jeopardy to be the subjects to broad interpretation and abuse.</p>
	2.	Government of Montenegro to amend the provisions of law regulating the protection and conservation of forest ecosystems
	REASONING	<p>Also, the analysis found that, in part of the Law which regulates forest management, there are almost excluding provisions regulating the protection and conservation of forest ecosystems and forest biodiversity. There are missing norms in total or in important details in following sections: (1) obligation to maintain the natural structure of forests and support native species, (2) avoid cutting of protected, rare and endangered tree species and (3) preserve non timber forest products (4) managing care for other species in the ecosystem that are associated with dry, rotten logs, or leave when cutting the required number of old, hollow and decayed trees, in such an arrangement and number in order to preserve biological diversity, (5) supporting traditional management systems at the appropriate habitats, (6) comprehensive monitoring network for forests that are threatened by natural disasters and drying, caring out forest cut in a way that does not cause permanent damage etc.</p> <p>It is necessary to amend, to the measures mentioned in Article 25 of the Law, obligations for implementation of measures in the planning.</p>
	3.	Government of Montenegro to add regulations related to the forest roads and forest infrastructure

REASONING	<p>Infrastrucure in forest ecosystems should be projected in a way that brings minimum of damages for forest habitats, taking care about specific geological, vegetation, hidrological and other values; and especially about highly ecologically valuable parts of ecosystem regulated by Law on Nature Protection (parts of ecological network, habitats, migratory corridors of rare, sensitive or endangered species). It is also needed to adjust building and mantaining of forest infrastructure to the soil protection in a way of avoiding negative impacts on quality and quantity of springs, and movement of surface and underground waters. Theses issues should be addressed by Law on Forest. In existing Law, it is not clear which ecological criterias are respected and used during building and planning forest roads, except economic one. In this case, Law on Environmental Impact Assesment (EIA) is not implemented.</p>
4.	<p>Government of Montenegro to regulate forestry management on protected areas and outside protected areas in separate regulations</p>
REASONING	<p>For forests and forest grounds which are in protected areas in categories National parks, Regional parks, Reserves of nature, monuments of nature, Special natural features areas and Areas protected by municipal decisions etc. is needed to distinct responsibilities for creation of forest management plans both in protected and other forest areas and set up individual management in protected forests. Programme with measurements for forest and forest grounds on protected sites should be adopted by Ministry for Environmental protection, after gathered opinion of authority responsible for management of protected areas.</p>
5.	<p>Government of Montenegro to define by Law the meaning of biological regeneration of forests</p>
REASONING	<p>The Law should define precisely what does biological regeneration mean. Some of the liabilities that must be defined are: staffing, maintenance and cleaning of the stands to a certain age, protection from harmful organisms and fire, protection of one year forest growth up to those twenty years old, reforestation after clear cutting, reconstruction and conversion of coppice, shrubs and bushes, the obligation of reforestation, preparing habitat for natural regeneration of stands designated for natural renewal, design, construction and maintenance of forest infrastructure, etc.</p>
6.	<p>Government of Montenegro to abolish the right of the Directorate of Forests to give concessions through direct negotiation process (Article 55)</p>
REASONING	<p>The provision that the state authority responsible for forest management can provide concession on usage through direct negotiations, if the tender proves as unsuccessful is considered to be risky and open for abuse.</p> <p>Most of the Montenegrin concessionaires believe that two published competitions annually are enough for application and insisting on sharing concession may endanger the quality of directly agreed concession. There is no</p>

	guarantee that contracts with the concessionaires of the eligible direct negotiations are fulfilling requirements at the operational level. Moreover, the amount of concession fees in these cases is at very modest level and all process of sharing concessions is done in non transparent way.
7.	Government of Montenegro to include provision for forbidding the timber export in Law
REASONING	<p>The largest misuse in Montenegrin forestry is related to the fictive conversion of the extra class conifer trees to sick trees planned for sanitary cutting. In this case, the concessionaire pays the Forest Administration, six to eight Euro per cubic meter, and such a high quality timber can be sold for 130 to 140 euro in Kosovo or neighbouring countries.</p> <p>That this practice is widely distributed shows the information on total state value added tax paid from wood industry in 2010. It was estimated at 207,487 euro, which corresponds to the success of average ranked medium enterprises.</p> <p>Provision for forbidding the trunk export would significantly impact the reduction of this negative practice¹⁰.</p>
8.	Government of Montenegro to foster implementation of environmental impact assessment practice for the forest projects by editing also the Law on Forests
REASONING	<p>Article 12 of Law of Nature Protection and Article 3 of the Law on Environmental Impact Assessment ("Official Gazette of RM" no. 80/05. 40/10) provide that the impact assessment is carried out for projects in forestry and for all projects that are planned in a protected natural area in the protected environment of immovable cultural heritage (Appropriate Assessment). Until this moment, there is no practice on environmental impact assessment for projects in forestry, which is essential for Special Forest Management Programme (SFMP) (Special bases of forest management), Annual Operational Plan (AOP) (implementation project) for state - owned forests, Forest Management Programme (FMP) (Forest Management Program) for private-owned forests. There is also an open question related to the Strategic impact assessments which does not exist in this sector.</p>
9.	Government of Montenegro to define legally required inter-sectoral cooperation including NGOs and other stakeholders
REASONING	<p>Inter-sectoral communication is something that exists only on a formal level and opinions /comments are given for final drafts of documents, studies, projects and laws.</p> <p>Certain determinants of cross-sectoral cooperation exist. Thus, establishing of the forest local council is indicated in the Law but it is not defined what is the function and composition of the Council, not in the terminology section nor in further specific articles of the Law.</p>

¹⁰ Journalist research "Pod Lupom" published in daily news Vijesti, 17.07.2011. title "Are the concessions abused in Montenegro"

	In Article 5 of the Law, paragraph 5 says" Forestry Consulting is a two way process of communication between forestry professionals and private owners, while providing expert advice or services, in which forest owners should participate as equal partners" - this article should include NGOs and nature and environmental experts from the appropriate institutions in order to provide accountable forest consulting.
10.	Government of Montenegro to harmonize regulations for harvesting and use of non timber forest products
REASONING	<p>In Article 72, paragraph 10 it is stated that "more detailed requirements for the collection and use of other means of non-timber forest products, except for protected plant species and fungi, are brought by the Ministry of Agriculture and Rural Development with the approval of the Ministry responsible for environmental protection"</p> <p>The Law on Nature Protection (Official Gazette 51/08) Article 81 states that more detailed procedure and conditions for collection, use and transport, as well as a list of unprotected plant and animal species, plants and fungi that are used for commercial purposes are defined by the Ministry of environment with the approval of the Ministry of Agriculture and Rural Development ". Therefore, harmonization of this section with the mentioned Article of the Law on Nature Protection is necessary.</p>
11.	Government of Montenegro to increase penal policy for illegal cutting in state and private forests
REASONING	<p>Penal policy for privately owned forests (Article 64 of the Act) is low in the sense that penalties are financially meaningless. Example: A private owner has a good economic reason to: I) cut a forest without previous marking the trees, II) place on the market wood products without proof of origin, III) leave some cut timber in the forest, because when he/she is processed for these law violations on court he/she will have to pay a very small penalty (fine of up minimum triple or maximum fiftieth amount of the the minimum wage in Montenegro).</p> <p>For legal entities (Article 65 of the Act) the situation is even worse. So, for example, legal entities that do not perform tree marking, stamping trees and issuing certificates of timber origin penalty would be up to triple the minimum wage in Montenegro.</p> <p>For the hardest violations at protected natural goods may be prescribed fiscal penalty in the percentage from 1% to 10% of jeopardised part of protected area value.</p>

The analysis of the Law on Forests (regulating the management of forests and its products in Montenegro) indicates that some parts of it are not implementable.

No matter which model of organizing forestry and forest protection in Montenegro is used, legislator must ensure compliance with accepted common standards in this area. This refers to several conventions in the EU regulating forestry:

- Convention on Biological Diversity
- Convention on the protection of habitats of European species of wild flora and fauna (Bern Convention)
- Convention on Migratory Species (Bonn Convention)
- Convention for the Protection of Birds
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES Convention) - 1973.
- Convention for the Protection of wetland areas as important habitat of water birds (Ramsar Convention) - 1977.
- Directive 79/409/EEC of relating to the conservation of wild birds
- Directive No. 9/43/EEC relating to the conservation of natural habitats and of wild flora and fauna and others.

3.3. Other regulations relevant for nature protection and forestry

In addition to nature protection legislation, a number of other laws on environmental protection and natural resources are relevant for PAs. **The Law on Environment** (Official Gazette of Montenegro No. 48/2008) introduces an integrated approach to environmental management and defines objectives and principles for environmental protection. The Law defines the scope and content of environmental monitoring programs and requires the establishment of an environmental information system (EIS). It prescribes the data requirements for, reporting obligations of and public access to the EIS. Other issues regulated by the Law include liability for environmental damage, environmental financing, and national plans and strategies required under certain multilateral environmental agreements. **The Law on Environmental Impact Assessment** (Official Gazette of the RM No 80/05) prescribes procedures for carrying out an EIA for projects that may have significant impact on the environment, while the **Law on Strategic Environmental Assessment** (Official Gazette of the RM No 80/05) prescribes the procedures – from screening to approval stage – for assessment of impacts of certain plans and programs on the environment. **The Law on Spatial Development and Construction of Facilities** (Official Gazette of Montenegro No. 51/08) regulates the system of spatial planning and construction.

IV ROLES OF THE RESPONSIBLE INSTITUTIONS IN FORESTRY AND PROTECTED AREAS MANAGEMENT

Institutions responsible for protected and high value forests in Montenegro are facing the challenge to improve the current condition of all forests so as to ensure a balance of protection, environmental, social and economic functions and to ensure the sustainability. Over a longer period, protected areas and forestry sector has undergone various different institutional and organizational changes, depending on the social and political regime, and economic and development needs.

The Government of the Montenegro defines policy/strategy for protection of nature and natural values that ensures management of these values and implementation of the action plans.

The Ministry for Sustainable development and Tourism is responsible for nature protection, including establishment of Natura 2000 network, environment protection and tourism development in Montenegro. The Ministry suggests policy/strategy and action plans, following their implementation and co-ordination with

activities of other ministries and other competent institutions in environmental field, supervision of managing, and providing financial support to implementation of the biodiversity policies.

The Institute of Nature Protection of Montenegro performs specialist activities geared toward protecting natural resources, and conducts research with an objective to protect the nature, implement natural protection regime, prepare reports which emphasize priorities in evaluating and protecting natural resources, monitor the state of natural resources and suggest nature protection measures, determine protection conditions and provide information about protected natural resources for the purpose of developing spatial and other plans, and perform all other duties defined by the law.

The Environmental Protection Agency is conceived as an operative implementation authority of the law on environmental protection. Behind others, some of the most important responsibilities of the Agency are: data collecting and reporting on the status of biodiversity, issuing permits for collection, use and trafficking of wild animal, herb and fungi species; for scientific and educational researches on protected natural resources; strategic assessment and the EIA (the Environmental Impact Assessment), environmental inspection and monitoring of the implementation of regulations and directives of the European Union.

The Public Enterprise “National Parks of Montenegro” (PENPM) with its five management units is responsible for management of the national parks in Montenegro. National parks are founded by the Parliament of Montenegro. PENPM organizes management of the protected areas based on following plans:

- Special purpose spatial plans: the bases for land use planning and implementation of existing measures are regulated by the special purpose spatial plans. A special purpose spatial plan provides guidelines for a special regime of development and use (Law on Spatial Development and Construction of Structures,
- Article 21);
- Protected areas management plans: are adopted for a period of five years. The management plan provides guidelines for development of annual management plans:
- Annual management plans are harmonized with the Management plans and Special purpose spatial plans (Article 65 of the Law on Nature Protection).

The Ministry of Agriculture and Rural Development is responsible for defining the policy and strategy for forest resource management, and development of economic and other sectoral policies, by proposing these to the Government of Montenegro, and for implementation of these policies. In organizational terms, forestry sector in the Ministry is divided into three departments: Strategic Planning Unit, Planning and Monitoring Unit (CMMU) and Inspection.

The Forest Administration is the state administration body responsible for forest management, and according to the Law, its responsibilities include: improvement of silviculture, forest protection and utilization, reforestation, establishment and improvement of forests (biological reproduction), conservation of natural and created forest values, prevention and removal of harmful impacts, and recovery of the forest in a bad condition, forest management planning, releasing state forests for utilization, monitoring tenders, keeping records and forestry databases (informational system).

The Forest Administration is divided into 15 regional units and the Headquarters in Pljevlja. While execution of works in forests and processing of forest products is left to private sector and the market, the Forest Administration will have a key role in accepting and practical implementation of EU standards.

Municipalities: Areas with a lower category of protection (regional park, monument of nature...) located at the territory of a local self-government unit are declared by a decision of the local self-government unit assemblies, pursuant to a previously obtained approval of the ministry competent for environment protection and opinion of the ministry competent for agriculture, forestry and water management (Article 55 of the Law on Nature Protection). Previous experience has shown that management of these areas is mainly unsatisfactory, often weak and incomplete

The Law on Local Government does not define municipal responsibility for forests and forestry, but generally prescribes that municipalities are responsible for environment protection, municipal services and spatial regulation. According to the Law on Local Government, municipalities receive 30% of fees paid for utilisation of forests in their territory. These funds are considered to be a share in natural resources benefits and the support to building and maintenance of local infrastructure in forest areas.

However institutions mentioned above are mainly centralized within the governmental institutions, having low level of efficiency in planning and implementation of measures and activities aimed at protection of biodiversity. Many aspects of the traditional way of work are still present, where is missing preventive and proactive measures related to the implementation of laws. One of reasons for this state is insufficient number of professional staff in the area of protection of nature/biodiversity.

V IDENTIFYING STAKEHOLDERS AND ASSESSING THEIR POSITIONS TOWARDS PROTECTED AREAS AND FOREST MANAGEMENT

5.1. Stakeholders and it's positions

Industry and service providers - Currently, almost all forest industry enterprises are privatized. Merged forestry and wood industry enterprises resulted from vertical merging of forest enterprises and former state-owned wood industries, according to the Governmental program of recovery and revitalization of forestry and wood industry (i.e. Enterprises AD resulted from transformation of the Public Enterprise "Crna Gora Šume (Montenegro Forests)" in 2000. Through long-term contracts, these enterprises have committed to execution of certain forest management functions. Also, almost all of these enterprises have been privatized. Among the 31 private enterprises members of Wood Industry Council of Montenegro (WICM), which have received application form to meet FSC Chain of Custody (CoC), no one applied until today.

Biotechnical Institute in its organizational structure has a Forestry sector, as a scientific research unit.

Forestry Institute AD was transformed from state ownership into a shareholding company at the end of the 1990s. The company deals with inventory and planning in forestry.

Secondary School Berane is the only school in the country which has forestry and wood processing curricula. No forest related faculty.

Non-Governmental Organizations - there are a number of non-governmental organizations related to forestry, which advocate different environmental aspects. The non-governmental organizations addressing environment protection matters advocate protection and sustainable forest administration as a significant part of nature and act as a network (i.e. Natura 2000 info centre).

Hunting associations manage hunting grounds and advocate interests of hunters and game.

Associations of private forest owners, industry and professional associations are in early phases of establishment or functioning, and still cannot fully meet the requirements of their role.

5.2. Projects related to the planning and management of PA system and forests

UNDP is working (2009 – 2012) on 2 GEF projects regarding planning and management of PA system, as follows: (I) **Strengthening the Financial Sustainability of Protected Areas in Montenegro** (PAF) with the aim to enable legal framework for improving financial sustainability of PAs and ensure their revenues and (II) **Strengthening the sustainability of the protected area system of Montenegro** (PAS) that is aimed to expand and rationalize the PA system to ensure better habitat representation and their more secure conservation status and strengthen the capacity of PA institutions to effectively manage a more representative protected area system.

UNDP is also working on the GEF project **Securing Biodiversity Conservation and Sustainable Use in the Dinaric Mountain Ecoregion of Montenegro** (GEF, OP 12) and contribute to the regional initiative Dinaric Arc Initiative (DAI) i.e. 'Protected Area for a Living Planet – Dinaric Arc Ecoregion Project' has aimed to help the governments in creating enabling conditions for implementation of the CBD Programme of Work on Protected Areas. The three main pillars of work include improvement of biodiversity information, building capacities of institutions responsible for nature protection and increase sustainability of protected area funding.

The Project is implemented by WWF in cooperation with the governments of Slovenia, Croatia, Bosnia and Herzegovina, Montenegro and Albania. The main project outcomes include Ecoregional gap analysis of protected area systems, Conservation Status of Vertebrates in Dinaric Arc, Invasive Alien Species Strategy Outline, Capacity Building Plan, Rapid Assessment and Prioritization of Protected Area Management Effectiveness, Evaluation of ecosystem services – pilot studies of Velebit in Croatia and Skocjan Caves in Slovenia, and other deliveries.

From previous, **National Country Self Assessment** (NCSA) GEF project has been implemented (2006-2007) by UNDP and MoTE. Assessment of conditions for implementation biodiversity conventions was one of three thematic areas in the frame of this project.

ENVSEC initiative (UNEP, UNDP, OSCE and NATO) is aimed to provide a framework for dealing with environmental issues across borders and promoting peace and stability through environmental co-operation and sustainable development. The Initiative focuses on the four pilot regions: Central Asia, the Caucasus, South Eastern Europe (SEE) and Eastern Europe. In the SEE region, which UNEP Vienna office is covering within the Initiative, biodiversity loss was recognized as posing a security risk. Based on this priority, ENVSEC designed a programme "Enhancing Transboundary Biodiversity Management in South Eastern Europe", which is currently being implemented with the funding of the Austrian Development Agency (ADA). As a first step, the rapid assessment of management problems experienced by the administrative bodies responsible for protected areas in a transboundary context was carried out with a focus on mountain ecosystems situated in border areas.

IUCN Green Belt – this initiative of 22 countries is aimed at the first trans-boundary habitat network through Europe, at a death zone ("Iron Curtain") separated "East" and "West" from the Barents Sea to the Adriatic Sea. The core areas of this belt will be big cross border National Parks and conservation areas of international interest. It is a retreat for numerous endangered species like lynx, wolf, bear and river otter. One of the visions is, that one day these species could use the Green Belt as a route for migration. In

Montenegro, this initiative came out through WWF MedPO project **“Conserving the Biological Diversity of South-Western Balkans: Transboundary Nature Conservation in the Landscape of the Durmitor Massif/Tara River/Prokletije Mountains (Montenegro and Albania)”**. In cooperation with its local partner NGO Green Home (2006) Assessment Study on biodiversity and socio-economic features of the Durmitor / Tara / Prokletije region and its surrounding area, as a basis for development of the Conservation Action Plan (CAP) and for sustainable development.

Montenegro is continuously cooperating with the United Nations Educational, Scientific and Cultural Organization – UNESCO and had received financing for the Project **“Recovery and Rehabilitation of Areas Engulfed by Fire in the National Park Durmitor”** through the UNSECO’s urgent Participation Programme Projects.

SNV is implementing the project on Management and valorisation of sensitive eco systems in rural areas that contribute to tourism, in cooperation with Ministry of environment and Public Entity National Parks of Montenegro (PENPMNE)

National Forest Policy – is main activity of the Ministry for Agriculture, Forestry and Water Management - Department for Forestry that was implemented in last few months in the cooperation with Lux Development and SNV. Final version of the Policy was discussed among stakeholders and with interesting public and then adopted by the Government. According to this document, National Forest Strategy should be prepared, as well as National forest Programme that is in compliance with Council Resolution of 15 December 1998 on a forestry strategy for the European Union (1999/C 56/01)

Project **“Progress monitoring in the Environmental Sector in Montenegro”**, initiated and financed by the Environment Directorate-General of the European Commission (DG Environment), is currently ongoing. The Project covers analysis of the harmonization degree of the national legislation with 70 EU environmental directives.

In terms of planning documents, there is **National Program for Integration (NPI)** of Montenegro in EU gave a projection concerning activities and their completion deadlines. So far, following projects are important:

(I) EMERALD network (EC funded project) started in 2006 and finalized in June 2008 by adoption of the List of (32) EMERALD sites

(II) Natura 2000 project is under implementation jointly by WWF, Daphne and Institute for the protection of nature in the period of 3 years. Need for establishing network of Natura 2000 sites in Montenegro is recognized by National Program for Integration (NPI) of Montenegro in EU that projected the end of 2012 as deadline for adoption government regulation with the List of Natura 2000 sites in Montenegro.

Lux Development **FODEMO project** is a Forest Sector Development Project for Northern Montenegro dealing with restructuring in this sector as well as with Developing of National Standards for Forest Certification such as FSC. This project is now in second phase, after phase I started in 2003 with following components: (i) Introduction of FSC standards that was implemented by Rainforest Alliance / Smartwood Programme project in the period 2005 – 2006. National FSC standard (3rd version) has been prepared and adopted by National FSC Working Group, but still pending for approval in FSC International, (ii) National Forest Inventory – is an on-going activity implemented in cooperation with MoAFWM, UNDP and Forest Institute, (iii) Support in preparing National Forest Policy in cooperation with Ministry and SNV.

Environmental Geographic Information System (GIS) for Montenegro project is aimed to introduce Geographic Information System in the Environmental Sector that would serve as a tool for informed decision-

making, starting with forestry and environment protection sectors. Project is divided in the three phases: (I) Phase I: a pilot national environmental mapping portal, seed geodatabase for forestry and capacity building, (II) Bridging period: integrating results in the MonGIS centre, an institution that would be in charge of GIS data collection, availability and institutional capacity building and (iii) Phase II: technical consolidation of the system. During Phase I following Datasets were produced: (I) Topographic maps (raster data) in the scales 1:50.000, 1:100.000 and 1:200.000 (II) Satellite images of various accuracy (1 – 20 meters) and (III) Vector maps of various objects (cities, roads, rivers..., EMERALD sites, hydrological map, soil map, test forestry maps for 25 units etc)

VI RECOMMENDATIONS FOR IMPROVING CROSS-SECTORAL DIALOGUE BETWEEN PROTECTED AREA AUTHORITIES AND FORESTRY SECTOR

Review of the status of existing protected areas of nature, establishment of managers for all categories of protected areas of nature, and defining of optimum management models (based on participatory approach) represent the basic measures for protection of forest ecosystems and nature protection in general. Here follows the list of recommendations identified and summarized from the analysis done in previous chapters:

Recommendation 1 - The Government of Montenegro should foster scientific researching and mapping of the forest ecosystems in existing and planned protected areas and establish monitoring of forest ecosystems toward intensive management.

Field research should be implemented by Institute for nature protection and national parks in cooperation with the Ministry of Sustainable Development and Tourism, Ministry of Agriculture and Rural Development and Forest Management Administration. It is important to gather updated and existing information spread in different institutions (Biotechnical institute, forestry institute, Biology faculty, NGOs, Private Forest Owners Association, free experts etc.) Multifunctional usage of existing GIS data for forestry must be developed and secured its update and monitoring system. This should be followed with proper capacity building for GIS. It is needed to identify wild plant and animal species which require prioritized development of action plans/protection programs. Hunting activities should be forbidden by Law on National Parks and Law for Nature protection and protected species excluded from hunting (ref CITES convention, CBD, Bonn Convention, Bern Convention, Habitat and Bird Directive). In addition Government should increase in allocation of funds for monitoring the condition of forest ecosystems under the Environmental Monitoring Program and intensifying of activities related to forestry ecosystems monitoring under that Program.

Recommendation 2 - The Government of Montenegro should develop and implement as soon as possible the programme for the protection of forest ecosystems in the existing and planned natural areas where exploitation of natural resources is prohibited, including contact areas and forest corridors too, recognizing the linkage between forest protection and sustainable development and improving the coordination among such policies and programmes

This activity should be done in cooperation among the ministries competent for forestry and environmental protection, institute for nature protection with NGOs and local stakeholders. Zoning of protected areas must be delineated based on biodiversity importance and its functions while practice must be based on appropriate regimes of protection. The same should be applied for buffer zones and protected areas.

In addition, Government of Montenegro should provide opportunities for intensive management on forested lands in an effort to maximize a particular use or the production of a primary product (such as timber, forage

production, wildlife habitat and tourism development) if the practice is proposed and implemented as part of a comprehensive process as defined in the forest management plan. The total area that may be allocated for intensive management regime should respect ecological limits defined by science, and a need for positive economic return. Public involvement, ongoing monitoring and feedback mechanisms will be necessary components of both site selection and implementation phases of intensive management. Activities proposed as part of an intensive management regime must be identified and their effects on forest productivity and processes be defined to better understand the costs/benefits of intensive forest management.

Recommendation 3 – Government of Montenegro should establish new protected natural areas and new regime of protection and borders of the existing protected areas of nature.

Government of Montenegro should work on creating or/and expanding protected areas to safeguard forest and related ecosystems and their full range of values and, developing and applying criteria and methodologies for assessing the conditions and management effectiveness in protected forest areas.

Recommendation 4 - The Government of Montenegro, in partnership with protected areas and forest stakeholders, including municipalities, should establish community advisory committees in the forested portion of the country, to provide policy and planning advice to the government, industry and municipalities on local and regional forest matters.

Committees should consolidate the functions of some existing advisory committees in order to reduce duplication. Government of Montenegro, in partnership with forest stakeholders, should review and clarify processes for making decisions about activities in the forest to achieve clear and consistent processes, clear identification of responsibilities and accountability, and full disclosure of the rationale for decisions. Meaningful public involvement must be an integral component of all major decisions. The types of decisions for which the public will be informed in advance need to be clearly identified. Citizens must have access to accurate, pertinent and timely information about the forest and proposals for its use. Government and forest stakeholders should review existing tenure types (based on sustainability indicators and PoWPA targets as a high priority). Those that are not must be revised appropriately. Any revision must consider existing contractual agreements.

Recommendations 5 - The Government of Montenegro should reinforce implementation of the Environmental Impact Assessments, Strategic impact Assessments and Appropriate Assessments in relation with the forest management based on existing legal requirements.

Responsible institutions and relevant forest users should include different assessments for all projects dealing with forest resources. The assessments should be comprehensive, scientifically-based, and integrated in a way that addresses environmental, social, and economic aspects; market and non-market values, and resource supply, and processing components.

Recommendation 6 – The Government of Montenegro should ensure that all new legislation is drafted through an open, inclusive debate and discussed and approved by the country's legislature.

The new openness to consultation exhibited in various recent processes (often driven by an international initiative) should be maintained, and authorities should set and follow standards for consultation processes in all ongoing policy developments. The process should, ensure that the institutions and procedures - such as information commissioners, websites and public information units, information management systems and awareness raising programmes - are in place. Where public forests are managed through concessions, systematically place in the public domain all concession agreements. Ensure this includes all

supplementary documents as required, including in particular due diligence reports to support the transparent allocation of the concession, and social agreements between concessionaires and affected communities.

In addition, Government of Montenegro should provide forest management plans to the public which includes sufficient information for citizens to know (I) the locations of logging or other operations at any particular time; (II) the locations of areas where logging is not permitted, for conservation or cultural reasons, for example; (III) quotas of the volume of timber to be extracted; and (IV) the actual volumes extracted. Forest management plans should be submitted to periodic revisions, in order to incorporate new threats to the forest.

At the end, all forms of permits that are unaccountable or non-transparent should be eliminated. In particular, eliminate small titles or salvage systems that trade deforestation against other developments (such as roads or infrastructure) unless they are structured in a way that (a) allows the state (or other owner) to obtain the best possible price for the timber; and (b) that the subsequent development is delivered to an agreed high environmental standard.

Recommendation 7 – In order to fight successfully against illegal activity Government of Montenegro should forbid export of raw timber materials from Montenegrin forests.

One of the simple solutions in order to reduce illegal activities is to forbid export of raw timber. This measure should be closely monitored at state borders and in close cooperation with police, forest inspection and local managers and citizens. Any local concessionaires of private forest should not be excluded from this rule. Export could be approved just for primary products and in case of positive economic return.

Recommendation 8 - The Government of Montenegro should give high priority to empowering institutions responsible for implementing legal and administrative procedures related to biodiversity protection.

Number of personnel engaged in protection of biodiversity/nature on different levels (experts in different fields, advisors, managers, rangers, specialized staff for EU accession, fundraisers etc) should be increased. Appointment of managers for all protected natural assts (regional parks, parks of nature etc.) is necessary. Protected areas management must be found in a real political agenda and proper financial support must be devoted for this personnel. Specialized personnel should receive appropriate trainings and programme for motivating high experienced staff in order to keep them on their positions.

Recommendation 9 – The Government of Montenegro should encourage pursuing diversified funding strategies for their protected areas and promoting sustainable funding, but public funding should continue to provide an essential core of support.

Although protected areas can sometimes generate a proportion of their funding needs (from tourism, payment for ecosystem services etc) this is seldom sufficient to run an entire protected areas system. Despite many pressing priorities and pressures for scarce resources, investment in protected areas can be considered as an important element of a government's funding portfolio given the public goods and services they provide.

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Law on hunting ("Official Gazette of SRoM", no. 15/80, 36/83, 39/89 and "Official Gazette of RoM", no. 46/91, 59/92);

Law on National Parks ("Official Gazette of MNE", no. 56/09);

Law on Environment ("Official Gazette of RoM", no. 48/08)

Law on Strategic Environmental Impact Assessment (Official Gazette of the RoM, no 80/05)

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ANNEXES

ANNEX 1 - THE LIST OF MAJOR REGULATIONS

ANNEX 2 – STAKEHOLDERS QUESTIONNAIRE

ANNEX 3 – LIST OF ACRONYMS

Annex 1 - THE LIST OF MAJOR REGULATIONS

A. CONSTITUTIONAL PROVISIONS AND DECLARATION

- Constitution of Montenegro
- Declaration on Ecological State of Montenegro (*"Official Gazette of RoM"*, no.39/91)

B. REGULATIONS RELATED TO ENVIRONMENTAL PROTECTION

1. General regulations

- Law on Environment (*"Official Gazette of RoM"*, no. 48/08)
- Law on Strategic Environmental Impact Assessment (Official Gazette of the RoM, no 80/05)
- Law on Environmental Impact Assessment (Official Gazette of the RoM, no 80/05)
- Law on Waste Management (Official Gazette of the RoM, no 78/08)
- The Law on Chemicals (Official Gazette of the M, no 11/07),
- Decree on assessment of impact of interventions affecting environment (*"Official Gazette of RoM"*, no. 14/97)
- Instruction on the contents of the elaborate of assessment of the impact of interventions affecting environment (*"Official Gazette of RoM"*, no. 21/97)
- Decree on protection from noise (*"Official Gazette of RoM"*, no.24/95)
- Law on inspection control (*"Official Gazette of RoM"*, no.50/1992)

2. Protection of nature

- Law on Protection of Nature (*"Official Gazette of MNE"*, no. 51/08)
- Law on National Parks (*"Official Gazette of MNE"*, no. 56/09);
- Decree on protection of rare, thinned, endemic and endangered plant and animal species (*"Official Gazette of SRoM"*, no. 56/06)
- Rulebook on the types and criteria for determining the types habitat, manner of making maps of habitat, way of monitoring and the threat of habitat content of annual reports, measures of protection and preservation habitat types (*"Official Gazette of MNE"*, no. 80/08.).
- Rulebook on detailed content and manner of keeping the register of protected natural resources (*"Official Gazette of Montenegro"*, no. 79/09);
- Rulebook on detailed conditions that must meet by the manager of a protected area (*"Official Gazette of Montenegro"*, no. 35/10);
- Rulebook on detailed contents of the annual program of monitoring of the state of conservation of nature and the conditions that must met by the legal person that performs the monitoring (*"Official Gazette of Montenegro"*, no. 35/10);
- Rulebook on the manner of preparation and risk assessment for introduction of alien species of wild plants, animals and fungi (*"Official Gazette of Montenegro"*, no. 46/10);
- Rulebook on detailed conditions that must be met by legal and natural persons for keeping the temporarily seized protected wild species of plants, animals and fungi (*"Official Gazette of Montenegro"*, no. 46/10).

C. SPECIAL REGULATIONS OF SIGNIFICANCE FOR PROTECTION OF BIODIVERSITY

- Law on Forests ("Official Gazette of the Republic of Montenegro", no. 55/00);
- Law on hunting ("Official Gazette of SRoM", no. 15/80, 36/83, 39/89 and "Official Gazette of RoM", no. 46/91, 59/92);
- Law on reproductive material of forest trees ("Official Gazette of RoM", no. 37/07);
- Rulebook on compensation for damage caused to the state-owned forests by individuals and legal entities ("Official Gazette of RoM", no. 56/01);
- Rulebook on the method and conditions of gathering and using unprotected species ("Official Gazette of RoM", no. 27/02 and 64/03);
- Rulebook on the construction, maintenance and manner of use of forest roads ("Official Gazette of RoM", no. 26/01);
- Rulebook on the marking and harvesting trees, survey of forest assortments, the form and substance of wood stamps, stamping wood products, marking logs of illegally felled trees, certificates of origin for wood products and the conditions to be met by persons performing transfers, survey and issuance of certificates of origin of wood products ("Official Gazette of RoM", no. 4/02 and 34/04);
- Rulebook on detailed conditions and manner of grazing, browsing and pruning of branches and leaves, taking livestock to pastures and watering places and labelling of forest in which grazing is prohibited ("Official Gazette of RoM", no. 26/01);
- Rulebook on the content and method of making general and specific plans, programs and forest management plans and technical design ("Official Gazette of RoM", no. 56/01);
- Rulebook on the establishment of forest order ("Official Gazette of RoM", no. 26/01);
- Rulebook on the official uniform, identity card and the conditions to be met by forest guards ("Official Gazette of RoM", no. 26/01);
- Rulebook on the list of species of trees and hybrids for obtaining reproductive material of forest trees ("Official Gazette of Montenegro", no. 08/07);
- Rulebook on professional control of the production of reproductive material of forest trees ("Official gazette of RoM", no. 55/08);
- Rulebook on the content and form of the certificate of reproductive material ("Official Gazette of Montenegro", no. 01/09);
- Rulebook on the content and manner of preparation of technical design for seed plants management ("Official Gazette of Montenegro", no. 74/09);
- Rulebook on the procedure for the import of forest reproductive material of forest trees and the procedure for recognition of identical characteristics of imported forest reproductive material ("Official Gazette of Montenegro" no. 74/09);
- Rulebook on detailed conditions to be met by imported reproductive material of certain tree species and hybrids that do not meet all the prescribed requirements for trading ("Official Gazette of Montenegro", no.13/10);
- Rulebook on the method for establishing a region of provenance, and criteria for establishing the necessary data for the regions of provenance ("Official Gazette of Montenegro", no.13/10);
- Rulebook on recognition of seed facilities for the production of reproductive material of forest trees ("Official Gazette of Montenegro", no.13/10);

Annex 2 – STAKEHOLDERS QUESTIONNAIRE

FORESTRY AND PROTECTED AREAS IN MONTENEGRO

-Questionnaire for interviews with stakeholders-

This questionnaire was developed for the purposes of Study "Forestry and Nature in Montenegro", which is implemented under the project "Protected Areas for a living planet - Dinaric Arc Ecoregion" and aims to assess the possibility of harmonizing legislation in the field of management of protected areas and forestry. The final report will provide a series of recommendations for both sectors for better managing, inter-sectoral dialogue and further improve these areas.

In order to better assess the current position in forestry and nature protection and making it better recommendations please answer the following questions.

- 1) Do you think that legislation on nature protection and forestry effectively matched?
 - Yes
 - No, especially in the area (please specify)
- 2) Do you think that the terminology used in conservation and forestry fundamentally different and that is the limiting factor for the management in both sectors?
 - No, these terminological differences are easily overcome
 - Terminological differences are present but not essential
 - Yes, terminological differences are the limiting factor of sectors, most important are
- 3) Do you think that they are clearly divided responsibilities of responsible institutions in the process of establishing and managing protected areas and forest management?
 - Yes
 - Not particularly in the area (please specify)
- 4) Do You assed that effective intersectoral dialogue exist the between forestry sector and the sector for nature conservation / protected areas
 - Yes
 - No, and it would be necessary to improve the following...
- 5) What is your opinion the most conflict zones in the management of protected forest areas?
- 6) What key stakeholders should be involved in the process of planning and management of protected forest areas?
- 7) Respond positively or negatively on the following observations in the field of monitoring and research with the explanation:

- a) the effects of legal and illegal use of protected areas of responsibility are monitored and recorded.
- b) Research on key environmental issues in line with the needs of protected areas.
- c) Research on key social issues in line with the needs of protected areas.
- d) Staff PAs have regular access to the latest scientific research and advice.
- e) shall be determined and prioritized key research and monitoring.

8) Respond positively or negatively on the following observations in the field of protected areas with the explanation:

- a) There is a comprehensive, relatively recently written management plan.
- b) There is a comprehensive list of natural forest resources.
- c) There is an analysis of threats and pressures on forest resources, and strategies to fix them.
- d) Detailed work plan establishes specific goals for achieving the objectives of forest resources.
- e) Research and monitoring results are routinely incorporated into planning.

9) Recommendations for the management of forests within protected areas:

10) Recommendations for the management of forests within protected areas:

Annex 3 – LIST OF ACRONYMS

BD	Biodiversity
BSAP	Biodiversity Strategy and Action Plan
DAI	Dinaric Arc Initiative
EC	European Commission
EMERALD	Network of ASCI sites identified in compliance with Resolutions 4 and 6 of Bern Convention
EU	European Union
FSP	Full size project
FSC	Forest Stewardship Council
GDP	Gross Domestic Product
GIS	Geographic Information System
GOM	Government of Montenegro
IPN	Institute for the Protection of Nature
IUCN	International Union for the Conservation of Nature
MDG	Millennium Development Goals
MOEPPP	Ministry of Environmental Protection and Physical Planning
MoAFWM	Ministry of Agriculture, Forestry and Water Management
NGOs	Non governmental organizations
NP	National Park
NSDS	National Sustainable Development Strategy
NTFPs	Non-timber forest products
PAMUs	Protected Area Management Units
PENPMNE	Public Entity National Parks of Montenegro
PoWPA	Programme of Work on Protected Areas
PPDNP	Programmes for Protection and Development of National Parks (i.e., Management Plans)
PPNP	Physical Plans for National Parks
ROM	Republic of Montenegro

RAPPAM	Rapid assessment and prioritization of protected areas management
CBD	Convention on Biological Diversity
SNV	Dutch Development Organization
SP MN	Spatial Plan of Montenegro
UNDP	United Nations Development Programme
UNDP LO	United Nations Development Programme Liaison Office
UNESCO	United Nations Educational and Scientific Council
USAID	United States Agency for International Development
WWF	World Wide Fund for Nature