



Nature destruction under the guise of energy security?

*[Analysing EU law compliance of HPP Plans in
Mavrovo National Park in Macedonia]*

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OEKOBÜERO is the alliance of the Austrian environmental movement. It comprises fifteen Austrian organizations engaged in environmental, nature and animal protection (including FoE Austria, Greenpeace, FOUR PAWS and WWF). OEKOBÜERO works on the political and legal level for the interests of the environmental movement.

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LIST OF ABBREVIATIONS

EBRD	European Bank for Reconstruction and Development
ECJ	European Court of Justice
ECT	European Energy Charter Treaty
EIA	Environmental Impact Assessment
ELEM	AD Elektrani na Makedonija
ESIA	Environmental and Social Impact Assessment
EU	European Union
R Macedonia	Republic of Macedonia
IUCN	International Union for Conservation of Nature
RBMP	River Basin Management Plan
RES	Renewable Energy Sources
SAA	Stabilisation and Association Agreement
SAC	Special Areas of Conservation
SCI	Sites of Community Importance
SEA	Strategic Environmental Assessment
WFD	Water Framework Directive

1. INTRODUCTION

The Mavrovo National Park

The Mavrovo National Park in Macedonia is located in the north-western part of the Republic of Macedonia (hereinafter: R Macedonia) and is bordering Albania and Kosovo. It is one of Europe's



*Source: River Watch

oldest national parks - the area is protected by law since 1949 and part of the southernmost section of the European Green Belt. The European Green Belt with a total length of 12.500 kilometres reaching across Europe is a connected habitat representing an invaluable place of retreat for many plant and animal species - an outstanding ecological network that has developed undisturbed along the former iron curtain.¹

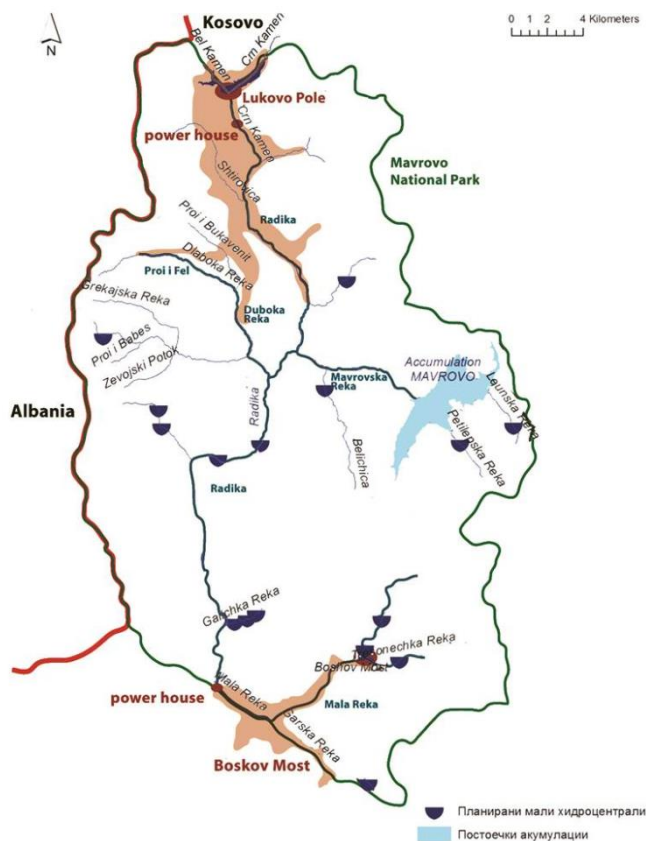
Mavrovo National Park is appreciated for its extensive beech forests, alpine meadows, pristine rivers and streams. Further it is a home to 50 mammal species, including the wolf, brown bear, fox, wild cat and lynx, 129 bird species, 11 species of amphibians (out of a total of 15 species found in the entire country), 24 species of reptiles (out of 32 in the country) and 924 species of invertebrates. Out of the aforementioned species - 11 mammal species, 45 bird species, 2 amphibian and 13 reptile species living in Mavrovo National Park are listed in Appendix II of the Bern Convention and some species are even under the strong protection of the EU Habitats Directive². This shows the importance of the site for biodiversity protection.³ Moreover, the National Park is an Emerald site (protected under the Bern Convention) and thus it is to be considered a future Natura 2000 site. One species is outstanding though: the Balkan Lynx (*Lynx lynx balcanicus*). The Mavrovo National Park is the centre of the remaining population of this critically endangered subspecies of the Eurasian Lynx.

¹ Cp. European Green Belt Initiative: <http://www.europeangreenbelt.org/>

² E.g. Otter (*lutra lutra* - Annex II and IV Habitats Directive; Balkan Lynx (*lynx lynx balcanicus* - Annex II and IV Habitats Directive).

³ Supporting Documents Study on Revalorisation, p. 1.

Planned hydropower exploitation in Mavrovo National Park



Currently, the R Macedonia is intensively promoting the development of renewable energy sources and storage on its territory in order to decrease the carbon intensity of the Macedonian generation sector and to enhance the security of supply.⁴ To this end it planned to have about 22 dams constructed in the Mavrovo National Park area alone. 20 of them are small scale hydro power and storage projects and two of them – the Hydro power projects “Boskov Most” and “Lukovo Pole” are large scale enterprises. Out of the planned 22 projects so far two small scale hydro power plants have already been constructed.

Boskov Most hydropower plant is to be located near the town of Debar in the upper Mala Reka valley in the southernmost part of Mavrovo National Park. The Project intends to utilise the tributaries that combine to make up the river Mala Reka and will include a dam (33 metres high) and reservoir and the construction of a tunnel and headrace from the reservoir to the hydro power plant near the village of Tresonce. Total capacity shall be about 70 MW and the annual generation is forecast to be around 118 GWh.⁵ Main source of funding for this dam project is the EBRD – the European Bank for Reconstruction and Development. In November 2011 the EBRD approved a 65 million EUR credit to the project promoter ELEM⁶ for the implementation of the project. The overall project costs are estimated to be 107 million EUR. About 80% of the project⁷ will be situated in the territory of the Mavrovo National Park.⁸

Lukovo Pole hydropower plant is planned to be constructed close to the Macedonian border with Kosovo. The project comprises on the one hand the construction of an about 20 kilometres long covered feeder channel, running slope parallel, to transfer water from Korab catchment to Lukovo Pole storage and Crn Kamen river and an about 70 meter high dam at Lukovo Pole that will have a storage capacity of about 39 million cubic meters, and on the other hand additionally a small hy-

⁴ The Government is committed to increase the share of renewable resources to at least 20 percent by 2020, consistent with the EU2020 vision.

⁵ EBRD Project Description HPP Boskov Most: <http://www.ebrd.com/work-with-us/projects/psd/boskov-most-hydro-power-project.html>

⁶ AD Elektrani na Makedonija (ELEM) is the 100% state-owned electric power utility of R Macedonia responsible for power generation.

⁷ the total project area is around 200 ha, of which 160 ha fall within the Park's territory.

⁸ BWN – EBRD Project Brief HPP Boskov Most. May 2014: <http://bankwatch.org/sites/default/files/briefing-BoskovMost-6May2014.pdf>

dropower project (Crn Kamen) of about 5 MW downstream of Lukovo Pole shall be constructed. The Lukovo Pole project shows many similarities with Boskov Most. The water will be diverted from several tributaries to the Radika River, which will be channelled to the reservoir through a pipe system. The main funding source for this project is the World Bank.⁹

The hydropower exploitation plan for the Mavrovo National Park, and specifically the before mentioned two large scale hydropower plants have the potential to cause significant negative environmental impacts both during construction and operation periods. Large scale civil works, material sourcing, and operation of heavy machinery and plant will have strong impacts on local fauna and flora. During the operation period the diversion of water from streams and creeks at the surface into canals and tunnels may change the local hydrology and the water quality status of the affected rivers. Furthermore it may have severe lasting negative impacts on habitats and resident species in the project areas and beyond. The sensitivity and vulnerability of the project area is obvious due to the mere fact that it is under protection as National Park based on the areas' ecological significance.¹⁰

The R Macedonia is striving towards membership in the European Union (EU) having concluded a Stabilisation and Association Agreement (SAA) with the European Union – where the approximation of its political and legal framework towards the EU *legal acquis* is core element of. Further the mentioned financing institutions – EBRD and World Bank – do apply specific policies when deciding upon the fundability of a project. The guidelines strive towards the same goal as does the existent EU environmental standards. Apart from that compliance with EU environmental *acquis* is de facto relevant and important for the respective financiers. Thus the current study aims towards an assessment of the main EU environmental legal *acquis* to be taken into account, when planning and permitting these hydropower plants. As a further step it will aim to assess the compliance of the planned hydropower plants with EU environmental legislation both procedurally and content wise.

⁹ World Bank Project Information Document (PID) – Lukovo Pole: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2011/07/14/000003596_20110718093436/Rendered/PDF/PID0Concept0Stage007142011.pdf

¹⁰ Cp. World Bank Project Information Document (PID) – Lukovo Pole (link see FN 9) and Riverwatch Fact Sheet Mavrovo: http://balkanrivers.net/sites/default/files/WEB_Fact-Sheet_Mavrovo_final_05-06-2014.pdf

2. EXECUTIVE SUMMARY

According to the Stabilisation and Association Agreement (SAA) between the EU and R Macedonia, the latter shall adhere in its environment related policies and actions to the EU core environmental standards and shall try to implement the legal instruments where these core values and standards are enshrined in: Such as the below mentioned Habitats Directive, the Birds Directive, the Water Framework Directive, the Environmental Impact Assessment and the Strategic Environmental Assessment Directives. In order to fulfil these obligations it is to be ensured that environmental assessments in planning and permitting procedures shall be carried out thoroughly and effectively and that the obligations under the Water Framework Directive and the under the Habitats Directives are adhered to.

Nature Protection

The Habitats Directive requires the designation of special areas of conservation (SAC) on national level. Although the area is designated as national park under Macedonian law it seems, that the site is not managed in accordance with the ecological requirements of the residing species and habitats (Infringement of **Art 6 para 1 and para 2 Habitats Directive**):

- Boskov Most: Although the project site is a vital area for the survival of the lynx¹¹ the site is designated as zone for sustainable use and construction works are to be allowed.
- Lukovo Pole: project is affecting strict protection zones of the national park area.
- Biodiversity evaluation report contradicts environmental experts' opinion and paves way for the construction and operation of hydropower plants despite confirmed negative impacts on protected species and habitats.

Annex IV Habitats Directive lists animal and plant species of community interest in need for strict protection. Species listed under Annex IV (such as the Balkan Lynx, the Otter, the Brown Bear and the Chamois which are living in Mavrovo National Park) are thus protected regardless of existing protected areas. In accordance with **Art 12 Habitats Directive** deliberate catching / killing, intentional disturbance or deterioration or destruction of breeding sites and resting places is strictly prohibited:

- International experts indicate that the construction of Moskov Bost power plant will lead (at least) to the disturbance of the Balkan Lynx and the Chamois.¹²
- Similarly the IUCN/SSC Otter Specialist Group states that the Boskov Most power plant will have direct and severe impact on the resident otter population which is unlikely to survive.¹³

¹¹ Cp. the long term programme for preservation of the Balkan lynx, implemented by the Macedonian Ecological Society, and the research performed on individual animals with the help of GPS collars.

¹² Cp. IUCN/SSC Cat Specialist Group, Comments to the Bio-monitoring Study for HPP Boskov Most. November 2013.

Birds listed in Annex I Birds Directive are strictly protected. Pollution or deterioration of habitats affecting these birds is prohibited.¹⁴ Regardless of the existence of a protected area **Art 5 Birds Directive** applies. Member States shall take the requisite measures to establish a general system of protection for all species of birds prohibiting in particular deliberate killing or capture, deliberate destruction of, or damage to, their nests and eggs or removal of their nests or deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant having regard to the objectives of the Birds Directive:

- The existing data is deficient as it is limited to the seasonal representation of Birds in the project area.
- There are no quantitative estimates of the present bird population and their natural range in the national park area, which makes it quite impossible to draw solid conclusions on the impact of the hydropower plant construction and operation on these Bird populations.¹⁵
- Anyways the report does not indicate if and to what extent the construction and operation of the hydropower plant would lead to pollution or deterioration of the bird habitats. Further there is no assessment if construction and/or operation lead to the disturbance of birds during breeding and rearing periods.
- Naturally, if the baseline data is missing, possible impacts on the species by a project may not be assessed which leads to the final consequence that mitigation measures cannot be established and a balancing of interests in the run of an appropriate assessment cannot be carried out.¹⁶

Both projects – Boskov Most and Lukovo Pole – need to undergo a thorough impact assessment according to **Art 6 para 3 and Art 6 para 4 Habitats Directive**.

- According to our knowledge no such assessment has been carried out.

Water Framework Directive (WFD)

According to the WFD the Member States are obliged to elaborate River Basin Management Plans (RBMP) and Programmes of Measures in order to prevent any further deterioration of water statuses and to protect aquatic ecosystems (**Art 13 WFD**):

- The respective RBMP and Programmes of Measures have not been elaborated in accordance with the WFD.
- Due to lack of concrete data, assessments and respective plans to comply with the main goals of the WFD – not only the Boskov Most and Lukovo Pole projects – but the whole

¹³ Cp. IUCN/SSC Otter Specialist Group, Comments to the Bio-monitoring Study for HPP Boskov Most. November 2013.

¹⁴ ECJ 7.12.2000, C-374/98, *Commission vs. France*, para 53; 2.8.1993, C-355/90, *Commission vs. Spain*, para 22.

¹⁵ Cp. ELEM Biodiversity Report, 1.5.2.2 Results and findings of annual bird survey, p. 54ff

¹⁶ Cp. ELEM Biodiversity Report, 2 Overview of additional measures to mitigate impacts on target flora and fauna groups from the implementation of HPP Boskov Most Project, p. 77ff.

range of planned hydropower facilities in Mavrovo National Park do not comply with the obligations as set out in the WFD.

According to **Art 5 para 7 WFD** Member States are in breach of the Directive when they fail to prevent deterioration from high status to good status of a body of surface water which is the result of new sustainable human development activities, and when additional conditions are cumulatively met.

- The affected rivers are in pristine or nearly pristine condition and the ecological status of the rivers affected seems seriously endangered.¹⁷.
- The ELEM Environmental Monitoring Report on Boskov Most did not assess the impact of the planned hydro power systems on the waters affected and their very good status.
- It is indisputable that hydro power projects of such dimensions as the case for Boskov Most and Lukovo Pole (which even implies the diversion of waters from one river basin to another) will definitely negatively impact these pristine river ecosystems. Alone or in combination with the planned hydropower extension in Mavrovo it might even very likely endanger the preservation of the very good status of the affected waters.¹⁸

Strategic Environmental Assessments (SEA)

- The projects are listed in the Strategy on Renewable Energy adopted in 2012 in the corresponding action plan and in several spatial plans. None of these plans and strategies was accompanied by a SEA although prescribed by national law. If mentioned plans and programmes fulfilled the criteria as set out in the SEA Directive – which is most likely the case – they are not in conformity with the EU acquis. At least screening with public participation and consultation of environmental authorities as required by the SEA Directive and the SEA Protocol should have been carried out.
- The SEA Directive obliges Member States to ensure that environmental reports are of a sufficient quality. In the run of the EIA Boskov Most it was already acknowledged that seasonal data on biological diversity in the concerned area is deficient.¹⁹ The following Environmental and Biodiversity Monitoring Report seems still deficient. Although the environmental report in a planning procedure requires different assessments and another level of detail, it has to be acknowledged that without up-to-date data a "*complete and reliable*" environmental report cannot be elaborated. Further any absence of assessing and evaluating the cumulative effects of a plan would lead to a deficiency in quality. If the environmental report does not fulfil the criteria as set out in the SEA Directive any plan based on such a report would be illegal and its validity can be challenged.
- Any environmental report which does not adequately consider the cumulative effects of a plan is of deficient quality and potentially challengeable. By not having carried out a SEA

¹⁷ AD Elektrani na Makedonija, 2012; Environmental Monitoring in the Pre-construction Phase over the area of HPP Boshkov Most –Annual Report; Empiria EMS, Skopje; Tehnolab, Skopje; Society for Study and Protection of Birds of Macedonia, Skopje. p. 12ff. All effected rivers are in very good condition.

¹⁸ Cp. Austrian Case: Schwarze Sulm and the respective EC infringement procedure.

¹⁹ Cp. ELEM Biodiversity Report: 1.1, p.8.

with the elaboration of spatial plans (on no hierarchic level) cumulative effects of the planned 22 (!) hydropower plants in Mavrovo National Park never have been scrutinized. It is a gross error to avoid seeing reciprocal influences of such comprehensive plans on human environment by bypassing thorough planning and programming.

- The National Strategy on Energy Development should have undergone an appropriate assessment under the Habitats Directive – the environmental report explicitly stated that the hydropower plant Lukovo Pole would have significant adverse effect on a future Natura 2000 site. The omission of such an assessment when elaborating the plan is not in line with the EU environmental acquis, i.e. with one of the core pieces of EU environmental legislation – the Habitats Directive. A negative assessment should lead to the dismissal of the plan. Nevertheless the plan was adopted in 2010.

Environmental Impact Assessment (EIA)

In order to comply with **Art 3 EIA Directive** the authority undertakes both an investigation and an analysis to reach an assessment as complete as possible of the direct and indirect effects of the project concerned on population, human health, biodiversity, land, soil, waste, health and climate and the interaction between those factors.²⁰

- The lack of environmental data rendered such an assessment quasi impossible.
- No adequate description of direct and indirect effects (especially cumulative effects)

The EIA report must be carried out and completed in the run of the EIA (**Art 2 para 1 EIA Directive**):

- In the case Boskov Most obviously the EIA report does not contain the relevant data. Assessing the baseline conditions in the potentially affected areas is one of the fundamental angles for the elaboration of an EIA report. The here so called “environmental and biodiversity pre-construction monitoring” must be carried out and completed in the run of the EIA and not afterwards as it seems the case here. Any development consent for Boskov Most granted under these conditions would not be in line with Art 2 para 1 EIA Directive.

The completeness and quality of the Boskov Most EIA report (**Art 5 EIA Directive**) is to be doubted:

- The assessment of baseline conditions was carried out only after the EIA has taken place – the EIA report cannot have consisted of any reliable data on the environmental impacts produced by the construction and operation of Boskov Most.
- Further, from the non-technical summary it is by no means discernible that the environmental impacts are described in all its dimensions as required for by **Annex IV 5. EIA Directive**.
- The non-technical summary does not refer to specific assessment methods and evaluations used which is not in line with **Annex IV 6. EIA Directive**.

²⁰ C-50/09, Commission v. Ireland, paragraphs 35, 37-41.

- the non-technical summary does not properly take into account the current and future hydro-power projects operating and planned in Mavrovo National Park. Potential cumulative effects coming along with the hydro power extension plan in this area should have been assessed especially in Section d. Potential impacts on water quality²¹, in Section e. Potential impacts on surface water flows and shallow groundwater²² and in Section i. Biodiversity²³. Instead the non-technical summary contains a separate Section m. Potential cumulative impacts where it vaguely refers to the existence and plans of new hydro-power plants in the area.²⁴ The cumulative effects then are negated simply by referring to the fact, that other projects are not situated in the same watershed. Such an assessment contradicts the EIA Directive because in order to assess the cumulative effects the baseline conditions in other areas of the national park and the effects of the other planned and already operating in conjunction with Boskov Most on the water quality of the affected rivers and the surrounding fauna and flora need to be assessed. This seems not to be the case for the Boskov Most EIA.

²¹ ELEM, Non-technical summary Boskov Most. Skopje. 2011. P. 12ff.

²² ELEM, Non-technical summary Boskov Most. Skopje. 2011. p. 14ff.

²³ ELEM, Non-technical summary Boskov Most. Skopje. 2011. p. 16ff.

²⁴ ELEM, Non-technical summary Boskov Most. Skopje. 2011. p. 22f.

3. RELEVANCE OF EU LAW FOR THE PROJECTS

R Macedonia is not yet a member of the EU but it is a candidate country so far. In April 2004 the Stabilisation and Association Agreement (SAA) between the EU and R Macedonia entered into force.²⁵ In the context of accession to the EU the agreement serves as the basis for implementation of the accession process. With the SAA the EU aims (amongst others) to "support the efforts of the former Yugoslav Republic of Macedonia to develop its economic and international cooperation, also through the approximation of its legislation to that of the Community" (Art 1).²⁶ Cooperation shall be carried out likewise in environmental issues. R Macedonia committed itself to take efforts in the protection and conservation of the Macedonian biodiversity, the implementation of environmental assessments, approximation towards EU environmental standards and the adherence of international Conventions to which the EU is contracting party (cp. Art 103).²⁷ This means, that the R Macedonia shall adhere in its environment related policies and actions to the EU core environmental standards and shall try to implement the legal instruments where these core values and standards are enshrined in: Such as the below mentioned Habitats Directive, the Birds Directive, the Water Framework Directive, the Environmental Impact Assessment and the Strategic Environmental Assessment Directives.

According to the SAA the cooperation in energy issues shall reflect the principles of the European Energy Charter Treaty – ECT²⁸ (cp. Art 99). Both the EU and R Macedonia²⁹ are contracting parties to the European Energy Charter Treaty a legally binding basic agreement which aims to establish a legal framework to promote long-term cooperation in the energy sector based on the principles enshrined in the European Energy Charter.³⁰ Art 19 ECT obliges R Macedonia "to minimize in an economically efficient manner harmful Environmental Impacts occurring either within or outside its Area from all operations within the Energy Cycle in its Area" and to take "precautionary measures to prevent or minimize environmental degradation". The principles outlined in the ECT are integral part of the SAA with the EU. In order to fulfil the above mentioned obligations it is to be ensured that environmental assessments in planning and permitting procedures shall be carried out thor-

²⁵ Stabilisation and Association Agreement between the European Communities and their Member States, of the one part, and the former Yugoslav Republic of Macedonia, of the other part - 2001/0049 (ACV): http://ec.europa.eu/enlargement/pdf/the_former_yugoslav_republic_of_macedonia/saa03_01_en.pdf

²⁶ Non-conformity of MAZ Laws with SAA construes breach of the principle of the rule of law (could be an argument). Approximation to EU Acquis: achieved not only by adaptation of compatible legal norms but also by assuring the same application of legal norms in practice. Thus interpretation of MAZ laws and other acts in the light of EU law can be interpreted as one of the obligations according to the SAA – cp. Gjevori, MJSS, 4 (1) 2013, 444f.

²⁷ "1. The Parties shall develop and strengthen their cooperation in the vital task of combating environmental degradation, with the view to supporting environmental sustainability.

2 [...]Areas of cooperation:

- the protection of forests, the flora and fauna; the conservation of bio-diversity;
- environmental impact assessment and strategic environmental assessment;
- continuous approximation of laws and regulations to Community standards;
- international Conventions in the area of environment to which the Community is Party;"

²⁸ http://www.encharter.org/fileadmin/user_upload/document/Treaty_texts/1994_ECT.pdf

²⁹ R Macedonia ratified the European Energy Charter Treaty on 27.03.1998.

³⁰ The aim of the European Energy Charter is the development of the energy potential of central and Eastern European countries and ensuring security of energy supply for the European Union.

oughly and effectively and that the obligations under the Water Framework Directive and the under the Habitats Directives are adhered to.

Nevertheless for the area of environment the European Commission Progress Report on the progress that R Macedonia made towards European integration states that *"little progress was made in the areas of environment and climate change. Administrative capacity needs to be strengthened in all areas and the government needs to cooperate more with civil society and other stakeholders. Strategic planning and significant efforts are needed in order to ensure that national legislation is in line with the acquis, and that this legislation is implemented."*³¹ Further the report is very critical about Boskov Most and Lukovo Pole hydropower projects³²: *"Tendering procedures for the construction of two large hydropower facilities, Lukovo Pole and Boškov Most are underway, raising some concerns about the potentially detrimental effect on the environment."*³³ At this point it is to be stated that the European Commission acknowledges the value of hydropower in the mix of renewable energy sources but favours the development of very low head small hydro power plants - up to a capacity of 10 MW. Large scale hydropower projects can be controversial because they affect water availability downstream, inundate valuable ecosystems and may require the relocations of populations. Whereas small hydropower systems can be considered an environmentally friendly energy conversion option, since they do not interfere significantly with river flows and fit in well with the surroundings.

The picture shown justifies a closer look on the environmental impact (especially on biodiversity and waters) and the procedures carried out in the environmental field as regards the planning and permitting of Boskov Most and Lukovo Pole hydropower plants.

Compliance of the hydropower projects with EU standards shall be equally in the interest of the respective financing institutions. The EBRD seeks within its mandate to ensure through its environmental and social appraisal and monitoring processes that projects are designed, implemented and operated **in compliance with applicable regulatory requirements**. Even internally, according to EBRD's Environmental and Social Policy (PR 6)³⁴ the Bank is not allowed to invest in projects located in critical habitats (or areas necessary for the existence of critically endangered species). Similarly the World Bank³⁵ disposes of operational policies which include policies on environmental assessments (OP 4.01), natural habitats (OP 4.04) and water resource management (OP 4.07). Therein the World Bank commits to the obligation, that it does not support projects that involve the significant conversion or degradation of critical natural habitats. With respect to the Lukovo Pole project the Worldbank explicitly ensured that *"All national, EU, and World Bank stand-*

³¹ Annex to COM(2014)700 final of 8.10.2014, p. 54f.

³² Annex to COM(2014)700 final of 8.10.2014.

³³ Annex to COM(2014)700 final of 8.10.2014, p. 32f.

³⁴ EBRD Environmental and Social Policy as approved by the Board of Directors at its Meeting on 7th May 2014: <http://www.ebrd.com/cs/Satellite?c=Content&cid=1395238868749&d=Default&pagename=EBRD%2FContent%2FContentLayout>

³⁵ Toward a Sustainable Energy Future for All: Directions for the World Bank Group's Energy Sector: http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/07/17/000456286_20130717103746/Rendered/PDF/795970SST0SecM00box377380B00PUBLIC0.pdf

ards for due diligence will be met".³⁶ As the Lukovo Pole project is planned to divert water from one river basin to another river basin it seems very likely that the degradation of the affected water statuses which will accompany the projected measure leads to a breach of the non-deterioration principle of the Water Framework Directive.

³⁶ Press Release No.: 2014/ECA/038: <http://www.worldbank.org/en/news/press-release/2014/01/24/world-bank-statement-on-proposed-lukovo-pole-hydropower-project>

4. HABITATS DIRECTIVE AND BIRDS DIRECTIVE

The conservation and management of Mavrovo National Park corresponds to a Category II Protected Area, as defined by the IUCN International System of Protected Areas Management Categories. The application of this category relates to both the high biodiversity values and the solid governance systems put in place by the Macedonian authorities to conserve the largest tract of unspoilt natural habitats in Macedonia. The national park is designated as Emerald Site under the Bern Convention.³⁷ In practice, the setting-up of the Emerald network is based on the same principles as the EU Natura 2000 network, and represents a de facto extension of Natura 2000 to non-EU countries. Vice versa the Natura 2000 sites are considered as the contribution from the EU and its member states to the Emerald Network.

Even though the data on fauna, flora and habitats in Mavrovo National Park and the respective conservation statuses are insufficient³⁸ to say the least, several species and habitats protected under the Habitats Directive are evidenced in the area. The *lynx lynx balcanicus* (Annex II and IV Habitats Directive) – while the Balkan lynx distribution area once occupied most of the Balkan Peninsula, today the lynx population has found safe shelter only on the territory of Mavrovo and Rostusa Municipalities.³⁹ It is estimated that around fifteen up to twenty individuals permanently inhabit the Mavrovo National Park, which serves as a core area for its breeding (especially the area where Boskov Most hydropower plant is planned). The otter (*lutra lutra* - Annex II and IV Habitats Directive), the wolf (*Canis lupus*- Annex II and IV Habitats Directive), the brown bear (*Ursus arctos* – Annex II and IV Habitats Directive), the chamois (*rupicapra rupicapra balcanica* – Annex II and IV Habitats Directive)⁴⁰ have their natural habitat in Mavrovo national park. Around Lukovo Pole project site peat bogs are found which might have to be categorized as protected habitat under the Habitats Directive. Further the park accommodates several wild bird species protected under the Birds Directive (e.g. the Golden Eagle - *Aquila chrysaetos*, European nightjar - *Caprimulgus europaeus*, Middle Spotted Woodpecker - *Dendrocopos medius* and many others). Important sites of forest ecosystems include Jama and Garska Reka due to the presence of very rare wild chestnut forest communities, as well as riparian wood and shrub communities (especially along the river Radika). One of the most significant biodiversity components in the Municipality is the river ecosystem Radika.⁴¹

³⁷ See European Environmental Agency (Map): http://www.eea.europa.eu/soer/countries/mk/nature-protection-and-biodiversity-state/nature-protection-and-biodiversity-state-2/map-1-national-emerald-network-1/image_view_fullscreen

³⁸ E.g. AD Elektrani na Makedonija, 2013; Biodiversity Survey in the Pre-construction Phase over the area of HPP Boshkov Most –Annual Report; Empiria EMS, Skopje; Tehnolab, Skopje; Society for Study and Protection of Birds of Macedonia, Skopje: http://www.elem.com.mk/images/stories/ekoloski_izvestai_en/Annual%20Report%20on%20pre-construction%20biodiversity%20survey%20--%20HPP%20Boshkov%20Most%20Macedonia.pdf

³⁹ Cp. Local Biodiversity Action Plan (LBAP) of the Municipality of Mavrovo and Rostusa. 29.04.2011.

⁴⁰ Cp. AD Elektrani na Makedonija, 2013; Biodiversity Survey in the Pre-construction Phase over the area of HPP Boshkov Most –Annual Report; Empiria EMS, Skopje; Tehnolab, Skopje; Society for Study and Protection of Birds of Macedonia, Skopje.

⁴¹ Cp. Local Biodiversity Action Plan (LBAP) of the Municipality of Mavrovo and Rostusa. 29.04.2011.

Considering these facts, it is to be assessed which obligations arise for the R Macedonia in the protection and conservation of Mavrovo National Park under the EU nature protection legislation and the procedures to be applied with respect to the planned Boskov Most and Lukovo Pole hydropower plants.

4.1 Fauna, Flora and Habitats protected under European Union law

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (hereinafter: Habitats Directive) – together with the Birds Directive (see 4.2 below) is the fundament of Europe's nature protection policy. The Habitats Directive establishes the EU wide Natura 2000 ecological network of protected areas. For these areas a high level of safeguards against potentially damaging developments is provided. Additionally it explicitly bans the downgrading of breeding and resting places for certain strictly protected animal species. Exceptions to these strict protection rules can be granted only under very specific conditions.

For animal and plant species listed in Annex II (such as the Balkan Lynx, the Otter, the Brown Bear and the Chamois) the Habitats Directive requires the designation of special areas of conservation (SAC) on national level.⁴² The core areas of the habitats of Annex II species have to be designated as Sites of Community Importance (SCI) and must be protected under the Natura 2000 network. The designation procedure for Natura 2000 sites is to be carried out in accordance with Art 4 and the criteria as set out in Annex III of the Habitats Directive. The sites are to be managed in accordance with the ecological requirements of the species.⁴³

"1. For special areas of conservation, Member States shall establish the necessary conservation measures involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans, and appropriate statutory, administrative or contractual measures which correspond to the ecological requirements of the natural habitat types in Annex I and the species in Annex II present on the sites.

2. Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive."⁴⁴

Basically the protection regime of the Habitats Directive applies only if the SCI was included into the Community list. If a state does not comply with its obligation to report such sites until today, there is a so-called "standstill clause". Species and habitats listed in Annex I and II of the Habitats Directive must be protected to the effect that the environmental characteristics of the areas are preserved. This standstill clause follows from the principle of contractual loyalty, the "*effet utile*" of Union law and Article 4 para 3 TEU.⁴⁵ In accordance with the European Court of Justice (ECJ) case

⁴² cp. Annex II Habitats Directive.

⁴³ cp. Art 6 Habitats Directive.

⁴⁴ Art 6 Habitats Directive.

⁴⁵ Consolidated version of the Treaty on European Union, Official Journal C 326 , 26/10/2012 P. 0001 – 0390.

law, Member States may not take measures which in the future will impede the designation of Natura 2000 sites (cp. European Court of Justice: C-117/03 Dragaggi, C-244/05 Bund Naturschutz in Bayern). Analogously these principles may be applied to the SAA between the EU and the R Macedonia which as an international agreement naturally has to adhere to these basic principles of international law. As an example, in a current EU infringement procedure against Austria due to non-designation of Natura 2000 Sites (Infringement procedure Nr. 2013/4077) the European Commission requested Austria to omit any intervention measures – meaning the issuance of any permits or concession of water rights connected to the sites - as long as it is not clarified whether these sites are to be classified as Natura 2000 sites.⁴⁶

Mavrovo National Park seemed to be mismanaged during the last years. This is indicated by the considerable decrease in natural range of chamois and griffon vultures.⁴⁷ The previously present white stork, cinereous vulture, Egyptian vulture and the bearded vulture are no longer seen in the park area.⁴⁸ Further the existing hydro power plant system in Mavrovo - especially the water catchments - add additional pressure to the survival and abundance of mentioned species.⁴⁹ Although the Boskov Most project site is a vital area for the survival of the lynx⁵⁰ the site is designated as zone for sustainable use and construction works are allowed there. On the other hand the planned Lukovo Pole project is affecting strict protection zones of the national park area.⁵¹ The Macedonian Law on Nature Protection (2004) imposes the state to re-declare the Mavrovo National Park as a protected area. Thus an evaluation study has been prepared based on it a new management plan has to be set up for the park. Seemingly the proposed zoning in the evaluation study is not adhering to the official experts' opinions provided in elaboration of the study – the final draft proposal for zoning is in contrary to the experts' findings and seems to particularly pave the way for Lukovo Pole and Boskov Most hydropower plants and the respective project sites. Given the above mentioned circumstances it must be doubted that zoning and management plan of Mavrovo National Park are in line with the conditions of the Habitats Directive. The Directive requires protection and management of the protected sites in accordance with the ecological requirements of the species and avoidance of the deterioration of natural habitats and the habitats of species as well as the disturbance of the species.

Annex IV Habitats Directive lists animal and plant species of community interest in need for strict protection. Species listed under Annex IV (such as the Balkan Lynx, the Otter, the Brown Bear and the Chamois) are thus protected regardless of existing protected areas. In accordance with Art 12

⁴⁶ http://www.ots.at/presseaussendung/OTS_20130612_OTS0037/umweltdachverband-eu-kommission-hat-natura-2000-vertragsverletzungsverfahren-gegen-oesterreich-eingeleitet

⁴⁷ Number of Chamois has dropped from about 600 individuals (in the 90s) to only a few individuals; number of Griffon Vultures dropped from around 30 individuals (in the 80s) to only a few individuals;

⁴⁸ STUDY ON REVALORIZATION.

⁴⁹ E.g. river Adzina Reka – 2,6 km of the river – which is a tributary to river Radika – is completely dry every year in spring, summer and autumn due to the water catchments used for the existing hydropower plant system in Mavrovo (cp. Study on Revalorization).

⁵⁰ Cp. the long term programme for preservation of the Balkan lynx, implemented by the Macedonian Ecological Society, and the research performed on individual animals with the help of GPS collars.

⁵¹ Conflict with river Shtirovica Valley in the foothills of Proj Zhaba locality.

Habitats Directive deliberate catching / killing, intentional disturbance or deterioration or destruction of breeding sites and resting places is strictly prohibited.⁵²

The Biodiversity monitoring report in the pre-construction phase of Boskov Most Power Plant determines that certain measures have to be taken to mitigate the impacts caused by the project on certain species and habitats. However species protected under Annex IV Habitats Directive are to be protected unconditionally with respect to the above mentioned criteria – if breeding sites or resting places are deteriorated by a project – the project cannot be permitted and constructed on the planned site or in the planned manner. Art 16 Habitats Directive provides for an exemption from this strict protection regime only in the interest of nature protection as such, public health or safety or for research or educational purposes. International experts indicate that the construction of Moskov Bost power plant will lead (at least) to the disturbance of the Balkan Lynx and the Chamois.⁵³ Similarly the IUCN/SSC Otter Specialist Group states that the Boskov Most power plant will have direct and severe impact on the resident otter population which is unlikely to survive.⁵⁴ Experts call for thorough assessments of the impacts on these species caused by construction and operation of the hydropower plant. The implications of the hydropower plant construction and operation to the mentioned species – which is only a sample selection – can be by no means in compliance with Art 12 Habitats Directive and the thereby established strict protection regime. Lukovo Pole hydropower plant is currently at the beginning of the Environmental Impact Assessment procedure –the above stated requirements and procedures shall be adhered also in this case in order to be in compliance with the EU environmental acquis. Protection should be applied in accordance with the European Commission Guidance document on the strict protection of animal species: *"The full and effective application of Article 12 Habitats Directive (see above) requires, on the one hand, the establishment of a legal framework of coherent and coordinated measures and, on the other, the application of concrete, coherent and coordinated measures to enforce these provisions on the ground effectively."*⁵⁵

4.2 Birds protected under European Union law

Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (hereinafter: Birds Directive) relates to the conservation of all species of

⁵² "1. Member States shall take the requisite measures to establish a system of strict protection for the animal species listed in Annex IV

(a) in their natural range, prohibiting:

(a) all forms of deliberate capture or killing of specimens of these species in the wild;

(b) deliberate disturbance of these species, particularly during the period of breeding, rearing, hibernation and migration;

(c) deliberate destruction or taking of eggs from the wild;

(d) deterioration or destruction of breeding sites or resting places."

⁵³ Cp. IUCN/SSC Cat Specialist Group, Comments to the Bio-monitoring Study for HPP Boskov Most. November 2013.

⁵⁴ Cp. IUCN/SSC Otter Specialist Group, Comments to the Bio-monitoring Study for HPP Boskov Most. November 2013.

⁵⁵ EC Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC, p. 26f.

naturally occurring birds in the wild state. It covers the protection, management and control of these species and lays down rules for their exploitation. The Directive applies to birds, their eggs, nests and habitats.⁵⁶ Member States are obliged to "take the requisite measures to preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Article 1".⁵⁷ Member States have to designate areas which are of special importance to achieve this purpose according to the criteria laid down in the directive. The Natura 2000 network shall include the special protection areas classified by the Member States pursuant to the Birds Directive. The management measures of Article 6 Habitats Directive discussed above equally apply to protected areas under Article 4 para 1 and 2 Birds Directive (cp. Art 7 Habitats Directive). Projects conducted in such areas must respect the principles laid down in the Birds Directive.

Birds listed in Annex I Birds Directive (present in Mavrovo National Park: *Aquila chrysaetos*, *Caprimulgus europaeus*, *Dendrocopos medius*, *Upupa epops* et al) which are found outside of designated Natura 2000 sites may fall under the scope of Art 4 para 1 Birds Directive.⁵⁸ In this case the stricter protection regime of Art 4 para 4 Birds Directive applies to them and pollution or deterioration of habitats affecting these birds is prohibited.⁵⁹ Regardless of the existence of a protected area Art 5 Birds Directive applies. Member States shall take the requisite measures to establish a general system of protection for all species of birds prohibiting in particular deliberate killing or capture, deliberate destruction of, or damage to, their nests and eggs or removal of their nests or deliberate disturbance of these birds particularly during the period of breeding and rearing, in so far as disturbance would be significant having regard to the objectives of the Birds Directive.

The Biodiversity Monitoring Report for the Boskov Most project area identified various Wild Bird Species protected under the Birds Directive. The assessment is not complete as it is limited to the seasonal representation of Birds in the project area. There are no quantitative estimates of the present bird population and their natural range in the national park area, which makes it quite impossible to draw solid conclusions on the impact of the hydropower plant construction and operation on these Bird populations.⁶⁰ Anyways the report does not indicate if and to what extent the construction and operation of the hydropower plant would lead to pollution or deterioration of the bird habitats. Further there is no assessment if construction and/or operation lead to the disturbance of birds during breeding and rearing periods. Naturally, if the baseline data is missing, possible impacts on the species by a project may not be assessed which leads to the final consequence that mitigation measures cannot be established and a balancing of interests in the run of an appropriate assessment cannot be carried out.⁶¹

⁵⁶ cp. Art 1.

⁵⁷ Art 3 Birds Directive.

⁵⁸ "The species mentioned in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution."

⁵⁹ ECJ 7.12.2000, C-374/98, *Commission vs. France*, para 53; 2.8.1993, C-355/90, *Commission vs. Spain*, para 22.

⁶⁰ Cp. ELEM Biodiversity Report, 1.5.2.2 Results and findings of annual bird survey, p. 54ff

⁶¹ Cp. ELEM Biodiversity Report, 2 Overview of additional measures to mitigate impacts on target flora and fauna groups from the implementation of HPP Boshkov Most Project, p. 77ff.

4.3 Appropriate assessment and balancing of interests

At this point it is to be indicated, that anyways both projects – Boskov Most and Lukovo Pole – need to undergo an appropriate assessment according to Art 6 para 3 and Art 6 para 4 Habitats Directive – if it is likely that they have significant impact on the protected site. In our case the obligation seems quite evident. The projects can only be consented by the authority if the assessment concludes that the project will not adversely affect the integrity of the site (cp. ECJ, C-127/02– “Waddenvereniging and Vogelbeschermingsvereniging”). If a project has adverse effects on the protected site and reasons of overriding public interest (those can be social or economic ones) demand that nevertheless the project has to be executed, then the States must take all necessary measures to minimize the adverse effects.⁶² If the site affected hosts certain species or habitat types that are prioritized, reasons of overriding public interest must be linked to human health or public safety. Ideally the impact assessment procedure incorporates the following procedural steps and qualitative elements:

- 1 **Screening** is the assessment if the project is likely to cause significant impacts on the protected goods. If this is evident a nature impact assessment can be carried out directly. In order to assess the potential impacts of a project it is indispensable to fully characterise the project or plan and the receiving environment. The assessment must address effects from other plans/projects (existing or planned) which may act in combination with the plan/project currently under consideration and generate **cumulative effects**. The potential effects and their significance have to be assessed at this stage. Therefore it might be best to coordinate the assessments with official experts, environmental NGOs, the ombudsman for the environment if existent etc. If the proposal is for a project to which the Environmental Impact Assessment Directive (EIA Directive) applies or plans to which the Strategic Environmental Assessment Directive (SEA Directive) applies, then the trigger of ‘significance’ used to screen EIA projects or SEA plans is likely to also screen projects for an appropriate assessment.⁶³ What has not to be forgotten is to carry out the **Scoping** at the beginning of the screening or the appropriate assessment. This means to establish an investigative framework for the procedures - what’s the protected objects, geographical extension of the assessment, which data is available, which data is still to be collected etc.
- 2 **Appropriate Assessment** - The impact of the project or plan (either alone or in combination with other projects or plans) on the integrity of the Natura 2000 site has to be considered with respect to the conservation objectives of the site and to its structure and function. Basically it is the competent authority’s responsibility to carry out the appropriate assessment. However the assessment process shall include the gathering and consideration of information from many stakeholders, including the project or plan proponents, national, regional and local nature conservation authorities and relevant NGOs. In EIA procedures

⁶² Cp. Art 6 para 4-

⁶³ Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, p. 16ff.

this assessment will also involve the information (in accordance with Art 5 EIA Directive) submitted by the project promoter. It is to be highlighted here that the "*competent authority may also need to commission its own reports to ensure that the final assessment is as comprehensive and objective as possible.*"⁶⁴

3 Assessment of alternative solutions – Purpose is to determine whether or not it can be objectively concluded that there are no alternative solutions. If alternative solutions have been identified that will either avoid any adverse impacts or result in less severe impacts on the site, it will be necessary to assess their potential impact by carrying out an impact assessment (see step 2) as appropriate. The authority needs to objectively conclude that no alternative solutions exist (different locations and routes, scales or sizes, methods of construction have to be assessed). Even alternative means of meeting the objectives of the plan or project shall be assessed (e.g. use of other Renewable Energy Sources –RES, other storage technologies). Crucial to the assessment of alternative solutions is the assessment of the '*do nothing*' alternative. For each alternative, there must be a description and an indication of how it was assessed.⁶⁵ Generally it has to be borne in mind, that ECJ Case law is clear on the intervention limits: "*Member States cannot [...] authorise intervention where there is a risk that the ecological characteristics of those sites will be seriously compromised as a result. That is particularly so where there is a risk that intervention of a particular kind will bring about the extinction of priority species present on the sites concerned (Case C-308/08 Commission v Spain [2010] ECR I-0000, paragraph 21 and case-law cited)*" (cp. C-404/09 paragraph 163)

4 Assessment where no alternative solutions exist and where adverse impacts remain – Art 6/4 Habitats Directive - This Article provides that if, in spite of a negative assessment carried out, a plan or project must nevertheless be carried out **for imperative reasons of overriding public interest**, including those of a social or economic nature. When there are no alternative solutions, the Member State has to take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected (see Case C-304/05 Commission v Italy [2007] ECR I-7495, paragraph 81, and Solvay and Others, paragraph 72). The competent national authorities have to make their approval of the plans and projects in question subject to the condition that the balance of interests between the conservation objectives of the site affected by those initiatives and the above-mentioned imperative reasons weighs in favour of the latter. Not every kind of public interest of a social or economic nature is sufficient, in particular when seen against the particular weight of the interests protected by the Habitats Directive. Envisaged projects prove to be indispensable: within the framework of actions or policies aiming to protect fundamental values for citizens' lives (health, safety, environment); within the framework of fundamental policies for the State and society; within the framework of carrying out activities of an

⁶⁴ Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, p 25.

⁶⁵ Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, p 33.

economic or social nature, fulfilling specific obligations of public service. An examination of these interests should only take place when it has been established that there is an absence of alternative solutions.⁶⁶

5. EU WATER LEGISLATION

Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy (hereinafter: WFD) has the main purpose to prevent any further deterioration of waters and to protect aquatic ecosystems and those ecosystems connected with aquatic ecosystems. The WFD recognizes the importance of certain protected areas. Whenever a water body falls within a protected area⁶⁷, the most stringent standards shall apply. The WFD establishes an action framework in order to prevent further deterioration of the status of waters in the EU.

According to the WFD the Member States are obliged to elaborate River Basin Management Plans (RBMP).⁶⁸ These plans shall specify the measures to achieve "good status" in all water bodies by 2015.⁶⁹ Each RBMP shall contain a programme of measures to meet the Directives' environmental and other objectives.⁷⁰ Art 14 WFD requires public information and consultation when elaborating the RBMP. The environmental objectives are defined in Article 4 - the core article - of the WFD. Article 4 para 1 defines the WFD general objective which has to be achieved in all surface and groundwater bodies, i.e. good status by 2015, and introduces the principle of preventing any further deterioration of water status. Accordingly, the Member States must take all necessary measures in order to prevent deterioration of water status. And consequently they have to refrain from any measures deteriorating the water status in such a manner which would lead towards the non-attainment of the environmental objectives of the WFD. Art 6 WFD defines that Member States shall establish registers of protected areas. These are areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor for their protection, including relevant Natura 2000 sites designated under Directive 92/43/EEC and Directive 79/409/EEC.⁷¹ According to Art 5 para 7 WFD Member States are in breach of the Directive when they fail to prevent deterioration from high status to good status of a body of surface water which is the result of new sustainable human development activities, and when additional conditions are cumulatively met.⁷²

⁶⁶ Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, p 14ff.

⁶⁷ See Annex IV para 1 (v) WFD: "areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection, including relevant Natura 2000 sites designated under Directive 92/43/EEC(1) and Directive 79/409/EEC(2)".

⁶⁸ "Member States shall ensure that a river basin management plan is produced for each river basin district lying entirely within their territory" Art 13 (1). Where international RBMP are not produced: "Member States shall produce river basin management plans covering at least those parts of the international river basin district falling within their territory to achieve the objectives of this Directive" (cp. Art 13 para 2).

⁶⁹ Cp. Art 13 and Annex VII WFD.

⁷⁰ Art 11 WFD.

⁷¹ Cp. Annex IV (v) WFD.

⁷² Art 4 para 7: "Member States will not be in breach of this Directive when:

It is planned to have twenty two further hydropower plants constructed within the borders of Mavrovo National park. The existing hydro power plant system "Mavrovo", especially the water catchments, already increased pressure on the watercourses and the aquatic ecosystems in the national park. One typical example is the river Adzina Reka - 2, 6 km of this river (tributary of river Radika) is completely dry every year in spring, summer and autumn due to the catchments of its waters for the needs of the existing hydro power plant system Mavrovo.⁷³ The rivers affected by the Boskov Most hydropower plant are: the river Mala Reka and its tributaries. The rivers affected by the Lukovo Pole hydropower plant are mainly the Radika River and its tributaries and the huge plans for the diversion of waters from one river basin into another call for a precise examination of the impact the project will have on the water status of the affected rivers. All of these rivers and their tributaries are situated in the Crn Drim River Basin. Although there is data about the Radika river within some watershed management plan covering part of Crn Drim river basin, the data is scarce and general. Adequate and detailed river basin management plans for the affected rivers seem to be non-existent and so are the respective Programs of Measures specifying how the goals of the WFD shall be met. The extensive plans of hydropower plant construction in the national park causes concern regarding the breach of the principle of non-deterioration and the attainment of the environmental objectives enshrined in the WFD especially having in mind that these water bodies are situated in a protected area. Reasons for modifications or alterations on the status of a water body have to be of overriding public interest and have to be specifically set out and explained in the respective RBMP (cp. Art 4 para 7 WFD). Due to lack of concrete data, assessments and respective plans to comply with the main goals of the WFD – not only the Boskov Most and Lukovo Pole projects – but the whole range of planned hydropower plants in Mavrovo National Park do not comply with the obligations set out in the WFD.

The affected rivers are in pristine or nearly pristine condition and the ecological status of the rivers affected seems seriously endangered.⁷⁴ The ELEM Environmental Monitoring Report on Boskov Most evaluated the affected rivers having a very good hydrological status. What has not been assessed so far is the impact of the planned hydro power systems on these very good water statuses. By

- failure to achieve good groundwater status, good ecological status or, where relevant, good ecological potential or to prevent deterioration in the status of a body of surface water or groundwater is the result of new modifications to the physical characteristics of a surface water body or alterations to the level of bodies of groundwater, or

- failure to prevent deterioration from high status to good status of a body of surface water is the result of new sustainable human development activities **and they did not meet ALL of the following conditions:**

(a) all practicable steps are taken to mitigate the adverse impact on the status of the body of water;

(b) the reasons for those modifications or alterations are specifically set out and explained in the river basin management plan required under Article 13 and the objectives are reviewed every six years;

(c) the reasons for those modifications or alterations are of overriding public interest and/or the benefits to the environment and to society of achieving the objectives set out in paragraph 1 are outweighed by the benefits of the new modifications or alterations to human health, to the maintenance of human safety or to sustainable development, and

(d) the beneficial objectives served by those modifications or alterations of the water body cannot for reasons of technical feasibility or disproportionate cost be achieved by other means, which are a significantly better environmental option."

⁷³ Related Supporting Documents Study on Revalorization (Background Information) p. 1.

⁷⁴ AD Elektrani na Makedonija, 2012; Environmental Monitoring in the Pre-construction Phase over the area of HPP Boshkov Most –Annual Report;Empiria EMS, Skopje;TehnoLab, Skopje;Society for Study and Protection of Birds of Macedonia, Skopje. p. 12ff. All effected rivers are in very good condition.

maintaining the combined catchments of all waters in the watershed of Mala Reka at a biological minimum (most of the waters being forced into pipes), along with the modifications of the riverbed downstream of the Boskov Most hydropower plant and the daily flushes an inevitable loss of the majority of the biodiversity in the river ecosystem will be created. This applies to both the Mala Reka river and downstream to the river Radika as well as indirectly above the point – upstream – where the Mala Reka joins the Radika.⁷⁵ It is indisputable that hydro power projects of such dimensions like Boskov Most and Lukovo Pole will definitely negatively impact these pristine river ecosystems. Alone or in combination with the planned hydropower extension in Mavrovo it might even very likely endanger the preservation of the very good status of the affected waters.⁷⁶

Associated therewith, the aquatic ecosystem and potentially endangered fish species are at stake. Two salmonid species have been reported as the only fish species in the affected river systems: *Salmo fariooides* and *Salmo montenegrinnis* and none of these species have gone through any kind of IUCN threat assessment. It seems there is not sufficient data on these species available in order to assess their protection status which is in contraction to the requirements of the WFD itself, the Habitats Directive and the EU Directives on Environmental Assessments.⁷⁷ The biodiversity monitoring report for Boskov Mosk assumes that barriers to migration will be the most important impact of the hydropower plant on the residing fish populations. It should be emphasized that habitat degradation due to major hydrological impacts (water abstraction, flooding by the reservoir, and hydropeaking) will be the most direct and damaging impact to the aquatic systems.⁷⁸ Endangering the favourable conservation status of mentioned fish species might be in breach of the Habitats Directive.

6. ENVIRONMENTAL ASSESSMENTS

6.1 Planning and Programming – Strategic Environmental Assessments (SEA)

Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programs on the environment (hereinafter: SEA Directive) and the UNECE Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context - Kyiv, 2003 (hereinafter: SEA Protocol) oblige its parties to carry out environmental assessments for certain plans and programmes. Both the EU and R Macedonia are bound to the SEA Protocol. With the adoption of the Law on the Ratification of the Protocol on Strategic Environmental Assessment the SEA Protocol got binding for R Macedonia.⁷⁹ The provisions of the SEA Directive are to be interpreted in line with the obligations

⁷⁵ Cp. Comments on the final biodiversity monitoring report for the pre- construction phase of the project "Boskov Most", p. 2ff.

⁷⁶ Cp. Austrian Case: Schwarze Sulm and the respective EC infringement procedure.

⁷⁷ SEA and EIA Directives.

⁷⁸ Cp. ELEM Biodiversity Report, 1.2.3.3 Additional measures to mitigate impacts, p. 29.

⁷⁹ See COM(2014)700 final of 8.10.2014, p 54.

arising from the SEA Protocol. The latter establishes even stricter obligations for the contracting parties.

Under the SEA Directive an SEA is mandatory for plans/programmes which are prepared or adopted by an authority (at national, regional or local level), are required by legislative, regulatory or administrative provisions and

- are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste/ water management, telecommunications, tourism, town & country planning or land use
- and set the framework for future development consent of projects listed in the Environmental Impact Assessment Directive (EIA Directive).
- or have been determined to require an assessment under the Habitats Directive.

The planning procedure accompanied by an SEA contains the following elements:

1. When a SEA is not mandatory the authority shall assess if a plan is likely to have significant effects on the environment and therefore needs to undergo a SEA (Screening). The SEA Protocol explicitly stipulates that the public concerned (Citizens' initiatives, Civil Society Organizations etc.) shall participate already in the "screening" phase (Art. 5 para 3 SEA Protocol).
2. If a SEA is necessary the authority needs to supplement the planning goals with specific environment related goals. Then reasonable alternatives to the plan are to be elaborated. Their environmental impacts have to be compared with the initial planning scenario.
3. Scoping means clarification of the investigative framework. The environmental impacts which are seen as significant shall be defined, the time horizon for the assessment and the methods used are to be clarified.
4. The environmental report presents and evaluates the above mentioned steps. The SEA Protocol obliges each Macedonian planning authority to ensure that **due account is taken of** the conclusions of the environmental report, of the measures to prevent, reduce or mitigate the adverse effects identified in the report and of the results of the public participation.⁸⁰
5. Part of the SEA is to inform and consult the public on the plan and the environmental assessment. As emphasized above the result of public participation is to be taken into due account in the decision making procedure. The Aarhus Convention and the SEA Protocol oblige the contracting parties to "*ensure early, timely and effective opportunities for public participation, when all options are open*"⁸¹
6. The SEA Directive requires monitoring of significant environmental effects of the implementation of plans/programmes in order to identify unforeseen adverse effects and undertake appropriate remedial action.

⁸⁰ Cp. Art 2 para 6 and Art 11 SEA Protocol.

⁸¹ Cp. Art 8 SEA Protocol and similar Art 6 para 4 Aarhus Convention.

a.) SEA for all plans

It seems that there are several plans considering the hydropower development in Mavrovo national park: the National Strategy on Energy Development, the Strategy on Renewable Energy (2010-2020), the Action Plan for the use of Renewable Energy (2013-2023), the Programme for the implementation of the Energy Development Strategy (2010-2016), some kind of River Basin Management Plans and several spatial plans. Both hydropower projects – Lukovo Pole and Boskov Most – would basically require an assessment under the Habitats Directive and they have to undergo an EIA. Consequently a SEA is to be carried out for any plan fulfilling the requirements of the SEA Directive where the projects are to be integrated in. Although even the Macedonian Law requires so, no SEA was carried out for the Strategy on Renewable Energy, the corresponding Action Plan and for the Programme implementing the Energy Development Strategy.⁸² Similarly, although the obligation existed, none of the Macedonian spatial plans (neither the national spatial plan, the spatial plan for Mavrovo National Park nor the spatial plans for the project areas – Lukovo Pole and Boskov Most) have undergone a SEA.⁸³ The Water Framework Directive (WFD) introduces a Programme of Measures (Article 11 WFD) and a River Basin Management Plan (Article 13 WFD) to coordinate water quality-related measures within each river basin (see above 5.). The management of Macedonian river basins is not integrated in RBMPs which would fulfil the quality criteria of the WFD (see above 5.). Since the RBMP and the Program of measures are both required by the WFD and have to be prepared by authorities in our case a SEA would be obligatory.⁸⁴

Most of the above mentioned plans did not undergo a SEA. The Macedonian Law itself prescribes mandatory SEA for the plans and it is most likely that they fulfil the criteria set out in the SEA Directive. Thus the plans are not in conformity with the EU acquis. At least screening with public participation and consultation of environmental authorities as required by the SEA Directive and the SEA Protocol should have been carried out in order to assess the necessity of a SEA.

b.) Quality and the environmental report

If there is a hierarchy of plans Art 4 para 2 and 3 tends to avoid duplication of assessment. The provision indicates that planning hierarchies shall be taken into account on different planning stages. Especially the spatial planning in R Macedonia adheres to a hierarchic system: General Macedonian Spatial Plan, Spatial Plans for the Municipalities, Spatial Plans for specific settlement areas, Spatial Plans for out of settlement areas. Different degrees of detail shall be considered when deciding upon which environmental impacts can and have to be assessed in the procedure. Later

⁸² In Article 3, paragraph (1) 4 of the Decree on documents that are subject to SEA (Official Gazette no. 153 of 20.12.2007) states that strategic assessment is carried out for planning documents and amendments to such planning documents in the area of "energy - short, medium and long term planning documents relating to the definition of long-term goals for priorities of energy development and the development of renewable energy sources ..."

⁸³ Article 3 of the Decree on documents that are subject to SEA ... "Strategic assessment is carried out for planning documents that envisages implementation of projects that are subject to EIA procedure or project that might affect protected areas designated by law in the following areas: ...energy production and electricity"

⁸⁴ Cp. Commission's Guidance on the implementation of Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment. 2005. (SEA Guidance)

plans can use assessments and findings of former plans. No assessments (and adequate data!) are available for any of the abovementioned spatial plans. Additionally the data used must be "*accurate and up to date*".⁸⁵ If data is not up to date anymore, new assessments shall be carried out. Competent authorities need to ensure that comprehensive assessments of each element of the planning process are not impaired. Previous data collected and used at a subsequent stage has to be placed in the context of the current assessment and taken into account in the same way.⁸⁶

In order to contravene that environmental reports might be incomplete or be drawn up without proper application of the procedure the SEA Directive obliges Member States to ensure that environmental reports are of a sufficient quality⁸⁷. The aim is to ensure that the environmental report will contain information that is complete and reliable (subject to the provisos in Article 5). It is up to the planning authority to ascertain the quality of the environmental report. If the quality is not guaranteed the authority shall take steps to amend or augment the environmental report or even repeat part or all of the SEA procedure. Satisfactory quality may be achieved if the environmental report complies with Art 5 and Annex I SEA Directive. Planning authorities shall bear in mind that a defective report may call into question the validity of any acts or decisions taken in pursuance of it⁸⁸ – a plan adopted based on a deficient environmental report may be illegal.

In the run of the EIA Boskov Most it was already acknowledged that seasonal data on biological diversity in the concerned area is deficient.⁸⁹ The following Environmental and Biodiversity Monitoring Report seems still deficient. Although the environmental report in a planning procedure requires different assessments and another level of detail, it has to be acknowledged that without up-to-date data a "complete and reliable" environmental report cannot be elaborated. If any such report does not fulfil the criteria as set out in the SEA Directive. A plan based on such a report would be illegal and its validity can be challenged.

c.) Assessment of cumulative effects

The SEA Directive requires the consideration of cumulative effects which have to be provided in the environmental report: "*the likely significant effects...including cumulative and synergistic effects on the environment [...]*" (Annex1).

It is to be highlighted that apart from the before mentioned projects the plans for hydropower extension in Mavrovo National Park are quite comprehensive (see above 1.). Thus especially at the planning stage it is important to thoroughly assess potential cumulative effects caused by the accumulation of various projects in the same area which might mutually effect each other and the surrounding environment.

⁸⁵ Cp. SEA Guidance, 4.6.

⁸⁶ Cp. SEA Guidance, 4.6.

⁸⁷ Art 12 SEA Directive: "*Member States shall ensure that environmental reports are of a sufficient quality to meet the requirements of this Directive and shall communicate to the Commission any measures they take concerning the quality of these reports.*"

⁸⁸ Cp. SEA Guidance, 6.4.

⁸⁹ Cp. ELEM Biodiversity Report: 1.1, p.8.

*"Biodiversity also concerns long-term trends and changes as the effects on biodiversity are cumulative over time. Once species or habitats are completely lost, they cannot be replaced or recovered. This means that we need to avoid impacts wherever possible and take positive action to enhance and better manage biodiversity and maximise ecosystem services."*⁹⁰

The European Commission Guidance on Integrating Climate Change and Biodiversity into SEA states, that SEA should avoid 'snapshot' analyses and consider trends and environmental conditions *with* and *without* the proposed plan and its alternatives.

Any environmental report which does not adequately consider the cumulative effects of a plan, is of deficient quality and the above mentioned (see b.) applies. By not having carried out a SEA with the elaboration of spatial plans (on any of the mentioned hierarchic level) cumulative effects of the planned 22 (!) hydropower plants in Mavrovo National Park never have been scrutinized. It is a gross error to avoid seeing reciprocal influences of such comprehensive plans on human environment by bypassing thorough planning and programming.

d.) Assessment of reasonable alternatives

The SEA Directive requires that "*reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.*"⁹¹ The assessment of alternatives is an important element of the SEA and the Directive calls for a more comprehensive assessment of them than does the EIA Directive. Alternatives can be different means of waste disposal within a waste management plan, or different ways of developing an area within a land use plan - a different way of fulfilling the objectives of the plan or programme. For land use plans, or town and country planning plans, obvious alternatives are different uses of areas designated for specific activities or purposes, and alternative areas for such activities. For the Macedonian National Strategy on Energy Development or the Strategy on Renewable Energy this would mean that also alternative scenarios on energy development or renewable energy supply shall be developed in the run of an SEA (e.g. more/less focus on other storage technologies and/or other production sources like wind or solar). The same applies to the Macedonian spatial plans.

e.) Take due account of the conclusions of the environmental report

The environmental report presents and evaluates the above mentioned steps. The SEA Protocol obliges each Macedonian planning authority to ensure that **due account is taken of** the conclusions of the environmental report, of the measures to prevent, reduce or mitigate the adverse effects identified in the report and of the results of the public participation (see 6.1).

The environmental report on the National Strategy on Energy Development explicitly stated that

⁹⁰ Guidance on Integrating Climate Change and Biodiversity into Strategic Environmental Assessment. 2013. p. 18.

⁹¹ Art 5 para 1 SEA Directive.

the hydropower plant Lukovo Pole would have a significant adverse effect on a future Natura 2000 site. As a consequence it recommended that an EIA is carried out for the project. As the project anyways has to undergo an EIA this recommendation is not valid for the current situation. On the contrary the authority should have come to the conclusion that an appropriate assessment in accordance with the Habitats Directive is to be carried out for the plan. A negative assessment should lead to the dismissal of the plan. Nevertheless the plan was adopted in 2010. As it seems in this case, the authority has committed a procedural mistake in the SEA because it did not elaborate the grounds for not following the results of the environmental report. The plan based on the report may be illegal.

f.) Plan is not in line with the Habitats Directive

The projects are listed in the National Strategy on Energy Development adopted in 2010. For the National Strategy on Energy Development an SEA was carried out. The Environmental Report on the National Strategy on Energy Development stated that hydropower plant Lukovo Pole has significant adverse effect on a future Natura 2000 site. Further it indicated that the planned location of the HPP is not in accordance with Macedonian Nature Protection Law as construction works are not allowed in this ecologically valuable area. Plans and programmes which may have a significant impact on a Natura 2000 site, shall be subjected to an impact assessment in accordance with Article 6 para 3 Habitats Directive (see 4.3. above) - regardless whether the projects envisioned in the plan are situated in- or outside the boundaries of a Natura 2000 site. The SEA Directive and the Habitats Directive apply cumulatively for all plans and programmes which have effects on protected sites pursuant to Article 6 or 7 of the Habitats Directive. In such cases the procedure has to include the procedural steps required by the SEA Directive, and the substantive test regarding the effect on protected sites required by the Habitats Directive. The plan may only be approved if it is clear that does not adversely affect the integrity of the site.⁹² Only if no more nature-compatible alternatives are available the plan may be approved under the strict conditions and exceptions of Art 6 para 4 Habitats Directive. In particular if an imperative overriding public interest exists in the realization of a project, which affects a protected area. The ECJ considers that the impairment of protected areas is only justified by imperative reasons of overriding public interest. Interests of private sector investors are subordinate to the interests of nature conservation.⁹³

The National Strategy on Energy Development should have undergone an appropriate assessment under the Habitats Directive – the environmental report explicitly stated that the hydropower plant Lukovo Pole would have significant adverse effect on a future Natura 2000 site. The omission of such an assessment when elaborating the plan is not in line with the EU environmental acquis, i.e. with one of the core pieces of EU environmental legislation – the Habitats Directive.

⁹² Cp. also *Alge/Kroiss*, Umweltprüfung 384.

⁹³ ECJ, 15.05.2014, C-521/12, T.C. Briels.

6.2 Permitting procedures - Environmental Impact Assessments

Both projects - Boskov Most and Lukovo Pole - are listed in Annex I of Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment (hereinafter: EIA Directive).⁹⁴ Before a state authority gives consent to the realization of a project listed in Annex I, an Environmental Impact Assessment according to the Directive has to be carried out. The assessment under the EIA Directive is usually performed at a later stage of the decision making process than that under the SEA Directive. The EIA deals with projects instead of plans and programmes setting the framework for such projects. In the following only the EIA of Boskov Most project will be assessed. The Lukovo Pole project is currently at the initial stage of the EIA procedure, thus an indicative analysis on the compliance with the EIA Directive cannot be carried out so far. Nevertheless, the aspects analysed under this Chapter may be of equal importance for the current Lukovo Pole EIA.

As the key provision of the EIA Directive Article 3 states: "*The EIA shall identify, describe and assess in an appropriate manner, in the light of each individual case [...], the direct and indirect significant effects of a project on the following factors:*

- *population and human health;*
- *biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;*
- *land, soil, water, air and climate;*
- *material assets, cultural heritage and the landscape;*
- *the interaction between the factors referred to in points (a) to (d)*⁹⁵

The Macedonian authority issuing the permit has to do an a comprehensive assessment which on the other hand means, that it " *may not confine itself to identifying and describing a project's direct and indirect effects on certain factors, but must also assess them in an appropriate manner, in the light of each individual case.*" In order to fulfil this criteria the authority undertakes both an investigation and an analysis to reach an assessment as complete as possible of the direct and indirect effects of the project concerned on the factors set out in the first three indents of Article 3 and the interaction between those factors.⁹⁶ The interaction of environmental factors has to be described. The following assessments (a., b. and c.) will show several deficiencies regarding the EIA procedure and content. This supports the conclusion that such an overall assessment and evaluation may not have been carried out by the competent authority.

a.) Procedure

⁹⁴ Cp. Annex I (15) EIA Directive. Further: EIA Screening (cp. Art 4 (2) EIA Directive) for: Annex II (3) (h) Installations for hydroelectric energy production;

⁹⁵ Art 3 para 1 EIA Directive.

⁹⁶ C-50/09, Commission v. Ireland, paragraphs 35, 37-41.

The EIA permit for hydro power plant Boskov Most was only valid for 2 years after the decision was approved. Within 2 years from the decision the investor should have started with construction. The EIA Directive provides the possibility to set time-frames for the validity of the documents of the EIA: "*Member States may set time-frames to satisfy that the EIA is still up to date when taking a decision to grant development consent*" (Art 8a para 6 EIA-Directive).⁹⁷

So if R Macedonia has set such time-frames and exceeded them, natural consequence to comply with the objective of ensuring the validity of the procedure would be that the EIA Report has to be re-done.

One of the results of the Boskov Most EIA was that the project applicant ELEM needed to conduct a pre-construction environmental and biodiversity monitoring. This monitoring is meant to assess the baseline environmental conditions in the area affected by the construction and operation of Boskov Most. Only by this monitoring ELEM deems it possible to record and quantify real changes to the environment caused by the construction and operation of Boskov Most. Without the current monitoring the significance, intensity and reversibility of the environmental impacts cannot be assessed.⁹⁸ Also an appropriate assessment under the Habitats Directive is necessary - Art 2 para 3 EIA Directive requires for joint procedures if such an appropriate assessment under the Habitats Directive is to be conducted.

Without having carried out an EIA which fulfils the requirements of the Directive, the development consent (permit) cannot be granted and works cannot be commenced (Article 2 para 1 EIA Directive). "*Projects for which an assessment is required should be subject to a requirement for development consent [and] the assessment should be carried out before such consent is granted*" (Recital 5 EIA Directive).⁹⁹ In the case Boskov Most the construction permit cannot be granted without having an adequate EIA carried out. Assessing the baseline conditions in the potentially affected areas is one of the fundamental angles for the elaboration of an EIA report. The here so called "environmental and biodiversity pre-construction monitoring" must be carried out and completed in the run of the EIA and not afterwards as it seems the case here. Thus any development consent issued at this stage for the hydropower plant Boskov Most is not in line with Art 2 para 1 EIA Directive.

b.) EIA Report

Article 5 Par 3 states: *„In order to ensure the completeness and quality of the environmental impact assessment report:*

(a) the developer shall ensure that the environmental impact assessment report is prepared by competent experts;

⁹⁷ „6 The competent authority shall be satisfied that the reasoned conclusion referred to in Article 1(2)(g)(iv), or any of the decisions referred to in paragraph 3 of this Article, is still up to date when taking a decision to grant development consent. To that effect, Member States may set time-frames for the validity of the reasoned conclusion referred to in Article 1(2)(g)(iv) or any of the decisions referred to in paragraph 3 of this Article."

⁹⁸ Cp. ELEM Biodiversity Report: 1.1, p.6.

⁹⁹ Cp. also C-215/06, Commission v. Ireland, paragraphs 51-53.

(b) the competent authority shall ensure that it has, or has access as necessary to, sufficient expertise to examine the environmental impact assessment report; and

(c) where necessary, the competent authority shall seek from the developer supplementary information, in accordance with Annex IV, which is directly relevant to reaching the reasoned conclusion on the significant effects of the project on the environment"

In the run of the EIA procedure ELEM has prepared and disclosed an Environmental and Social Impact Assessment (ESIA) that describes the project and the natural and human resources that could be affected by the project, and evaluates the potential impacts on those resources. In 2011 the company presents an Environmental and Social Action plan which is meant to describe the necessary requirements to avoid or control significant impacts.¹⁰⁰ As an example, one of the actions planned in the area of Biodiversity conservation and sustainable management of living natural resources¹⁰¹ is to "develop and implement a comprehensive bio-monitoring program, including fish (notably the Macedonian brown trout, *Salmo marmoratus*), aquatic macroinvertebrates, and aquatic habitat in all affected streams. Data must be sufficient to establish robust baseline and to identify changes due to project activities." Annex IV specifies the content of the Environmental Report. Beneath others it shall contain a description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge (Annex IV 3.). The description of the likely significant effects has to cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project. Here also the environmental protection objectives established at Union or Member State level which are relevant to the project shall be taken into account (cp. Annex IV 5.). Further both the Report and the non-technical summary have to describe the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved (Annex IV 6.).

The completeness and quality of the EIA report is to be doubted as the assessment of baseline conditions was carried out only after the EIA has taken place – the EIA report cannot have consisted of any reliable data on the environmental impacts produced by the construction and operation of Boskov Most. Neither the non-technical summary to the EIA Report can provide a differentiated picture on the existence of baseline data. Further, from the non-technical summary it is by no means discernible that the environmental impacts are described in all its dimensions as required for by Annex IV 5. EIA Directive. The non-technical summary does not refer to specific assessment methods and evaluations used which is not in line with Annex IV 6. EIA Directive.

¹⁰⁰ See ELEM Environmental and Social Action Plan 2011: http://www.elem.com.mk/images/stories/ekoloski_izvestai_en/HPP%2520Boskov%2520Most-ESAP.pdf

¹⁰¹ PR 6 – see page 12ff of the Action plan.

c.) Cumulative effects

Cumulative effects are „Impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project“¹⁰² Annex III/1/b in conjunction with Article 4 Para 3 „The characteristics of projects must be considered having regard, in particular, to: [...] (b) the cumulation with other projects“. The assessment of „cumulative effects“ is equally required by the Habitats Directive if a Natura 2000 Site is affected (Art 6 para 3 Habitats Directive). The EIA Report has to contain information on *“the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources”* (Annex IV 5. lit. e.).

For the EIA this means, that the assessment of the environmental impacts must, in particular, identify, describe and assess in an appropriate manner the indirect effects of a project, that assessment must also include an analysis of the cumulative effects on the environment which that project may produce if considered jointly with other projects, in so far as such an analysis is necessary in order to ensure that the assessment covers examination of all the notable impacts on the environment of the project in question.¹⁰³

An assessment of the English Non-technical summary to the Boskov Most EIA Report, which has to contain a comprehensible summary of the EIA Report with the content prescribed by Annex IV EIA Directive, may provide us with an insight as regards the quality and completeness of the EIA Report: The potential negative impacts on the environment assessed in the EIA Report and described in the non-technical summary does not properly take into account the current and future hydro-power projects operating and planned in Mavrovo National Park. Potential cumulative effects coming along with the hydro power extension plan in this area should have been assessed especially in Section d. Potential impacts on water quality¹⁰⁴, in Section e. Potential impacts on surface water flows and shallow groundwater¹⁰⁵ and in Section i. Biodiversity¹⁰⁶. Instead the non-technical summary contains a separate Section m. Potential cumulative impacts where it vaguely refers to the existence and plans of new hydro-power plants in the area.¹⁰⁷ The cumulative effects then are negated simply by referring to the fact, that other projects are not situated in the same watershed. Such an assessment contradicts the EIA Directive because in order to assess the cumulative effects the baseline conditions in other areas of the national park and the effects of the other planned and already operating in conjunction with Boskov Most on the water quality of the affected rivers and the surrounding fauna and flora need to be assessed. This seems not to be the case

¹⁰² <http://ec.europa.eu/environment/archives/eia/eia-studies-and-reports/pdf/guidel.pdf>

¹⁰³ See ECJ, C-404/09, Commission v. Spain, paragraphs 78-80.

¹⁰⁴ ELEM, Non-technical summary Boskov Most. Skopje. 2011. P. 12ff.

¹⁰⁵ ELEM, Non-technical summary Boskov Most. Skopje. 2011. p. 14ff.

¹⁰⁶ ELEM, Non-technical summary Boskov Most. Skopje. 2011. p. 16ff.

¹⁰⁷ ELEM, Non-technical summary Boskov Most. Skopje. 2011. p. 22f.

for the Boskov Most EIA.

7. CONCLUSIONS

The hydropower and storage extension plans in the region seem to lack strategic approach, commitment and coherence. Although the deployment of RES and the achievement of energy security (on European level) are a major goal for the European region the means taken to achieve this goal have to be weighed properly. To this end the European Commission itself promotes the development of very low head small hydro power plants. The economic interest and objective in the deployment of new energy production facilities shall not be enabled to rule out any other legitimate interests (also environmental) in any given case. Thus and due to good reasons, the EU counts on a strong legal framework on environmental protection. Planning and permitting shall be accompanied by environmental assessments in order to enable thorough decision making processes. The lack of strategic planning and qualitative environmental assessments in R Macedonia naturally is recurring at the individual project permitting stage. Basically the environmental assessments do not satisfy the procedural and substantive obligations as required under the

- SEA Directive (2001/42/EC)
- EIA Directive (2011/92/EU)
- Habitats Directive (92/43/EEC)
- Birds Directive (2009/147/EC)
- Water Framework Directive (2000/60/EC)

One of the main deficiencies is the lack of environmental data, which makes it quasi impossible to carry out any kind of proper environmental assessment. Consequence is that environmental reports or studies cannot assess direct and indirect effects of a plan or a project on the environment because they are not based on complete, accurate and up to date environmental data. Especially the cumulative effects of several projects planned in an area are to be considered before even starting project permitting procedures. This should take place on planning level and may prevent a duplication of assessments and unnecessary use of personal and financial resources and unnecessary long procedures on the permitting stage. Environmental assessments are carried out as pro forma procedures (in order to comply with legal requirements – On the one hand this is a mistaken understanding of EU legislation on environmental assessments. Although the Directives do not prescribe the substance of the decision to be taken, the procedural quality must be observed in any case. And on the other hand these procedures have been set up due to good reasons and applied properly they might improve the quality of the decisions taken.

Further the substantive requirements of the Habitats and Birds Directives and the Water Framework Directives are mainly ignored. As a result hydropower and storage projects on the Balkan peninsular often are not planned and permitted in accordance with EU environmental law. As a consequence biodiversity loss and the deterioration of the freshwater status are pushed forward on a large scale.

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