

### EXTENDED RAPPORT ABOUT VJOSA CATCHMENT

#### 1. Please state the reason of your complaint

The Vjosa River in Albania is of pan-European or even global importance. It represents one of the last intact large river systems in Europe, flowing from the Pindus Mountains in Greece to the Adriatic Sea without artificial obstacles. It hosts all different types of ecosystems: from the narrow gorges in the upper part to the wide braided river sections in the middle part to the near natural delta at the Adriatic Sea. The natural values are reflected by the biodiversity of the river.

We are concerned that the massive hydropower development that is foreseen on the Vjosa and its tributaries will cause irreversible damage to this European heritage and its fauna and flora. In total, 28 hydropower plants are projected in the Albanian part of the Vjosa basin: 8 at the Vjosa itself and 20 at its tributaries. An additional five hydropower plants have already been constructed on two tributaries in the last years. While the Albanian government is pushing for new hydropower plants, it fails to have proper Environmental Impact Assessments (EIA) prepared for these projects. The scientific knowledge about this ecosystem (its biodiversity, sediment transport etc.) is very limited, only very few assessments exist. It is thus impossible to evaluate and estimate the impact of the projected dams in depth. Although very few scientific studies have been prepared, it is clear that the Vjosa is a hotspot for biodiversity. However, it is likely that more species will be discovered once substantial assessments are being conducted. Nevertheless, the knowledge at hand indicates that protected species and habitats listed in the Appendices of the Bern Convention are at risk, if these projects are implemented.

**This complaint is particularly urgent** since the Albanian government has given a concession to a Turkish company to build a large dam on the Vjosa in May 2016. The project “Poçem” features a 25 meter high dam that would not only directly affect one of the most valuable sections of the Vjosa due to flooding, it would also have serious downstream effects. The legal procedure is currently ongoing, according to our knowledge. However, no environmental permit has yet been issued by the responsible authority (National Agency for Environment) in regard to the Poçem project. We are concerned that the Albanian government is about to destroy one of Europe’s last wild rivers, the Vjosa, through massive hydropower developments. There is evidence that the Albanian government will not pay attention to endangered and vulnerable species in the Vjosa valley listed in the appendices of the Bern Convention (Article 1, point 2).

According to current limited assessments, at least 177 species listed in the Appendices of the Bern Convention can be found in the Vjosa valley. Based on these findings and the quality of the habitats, the entire Vjosa valley qualifies as Emerald site and requires protection. The Albanian authorities designated only parts of the Vjosa valley as protected areas, ignoring the significant value of one of the last large intact river systems in Europe and specifically disregarding the most valuable and dynamic section of the Vjosa ecosystem between Tepelena and Selenica. Therefore, we consider Article 4, point 1 as violated.

Even the nominated Emerald Site “Protected landscape of the wetland complex Vjosë – Nartë” (19,412 ha) would be affected. The Poçem project would lead to severe downstream effects in these areas, including its biodiversity. The Albanian government has granted a permit to the Turkish investor prior to assessing possible effects on the Emerald site. Disregarding Emerald sites is not an isolated case in Albania: the already completed hydropower plants at the Lengarica, a tributary to Vjosa, are located in the Emerald Site “Bredhi Hotovës-Dangëlli National Park” with a area of 14,973 ha. Again, no proper EIA for the impact on the Emerald Site has been provided. The Poçem project would already be the second case in the Vjosa basin for which we suspect a violation of Article 4, point 2.

The free flowing Vjosa is of outstanding importance for anadromous and catadromous fish species, i.e. the endangered *Anguilla anguilla*. The Vjosa is one of the last rivers in the Mediterranean hosting a viable population of the Eel. The eel is not listed in the Appendices of the Bern Convention, however, the species is considered as critically endangered by the IUCN, which means that all natural populations require protection. The Poçem project would interrupt the migration route of the Eel and many other fish species and would therefore violate Article 4, point 3. It is to be assumed that migrating bird species would also be heavily impacted by the Poçem project, but due to a lack of data and sound assessments no profound statement can be made at this point.

The Vjosa is a transboundary river, but so far no cross-border cooperation between Albania and Greece has been initiated. The protection of the last large intact river system in Europe urgently requires cross-border cooperation as emphasized by Article 4, point 4.

The flooding of the extensive gravel banks upstream the proposed Poçem dam would lead to a complete loss of all breeding sites of Stone curlew and Little ringed plover. Due to a lack of systematic breeding surveys of this area it is suspected that many other species would become extinct in the Vjosa valley in consequence of the Poçem project. The realization of this project would lead to a violation of Article 6 (b) of the Bern Convention.

In summary, we are concerned that the Albanian government will not respect Article 1, point 2 and might violate Article 4, point 1, 2, 3 and 4 as well as Article 6 (b).

## **2. Which are the specific specie/s or habitat/s included in one of the Appendices of the Bern Convention potentially affected?**

The Vjosa River is draining a total area of 6,700 km<sup>2</sup> in Albania and Greece and discharges an average of 204 m<sup>3</sup>/s into the Adriatic Sea. Along its entire course of over 270 kilometers (except the headwaters in Greece) it is free flowing.

Despite major knowledge gaps in regards to biodiversity, the surveys were conducted show the extraordinary value of this ecosystem. According to our current state of knowledge, 177 species listed in the Appendices of the Bern Convention would be affected by dam plans, especially by the Poçem project: 9 mammals, 112 bird species, 12 fish species, 32 amphibians and reptiles, 9 insects species and 3 vascular plants. Further assessments would very likely discover much more species covered by the Bern Convention.

The habitats of the Vjosa valley are still in a natural or near-natural state. Dimension, complexity and integrity of river habitats along the Vjosa are unique within Europe. No artificial obstacles, weirs, or fixed embankments (except near bridges) disrupt the river continuity and morphodynamics. The braided river system in the middle section of the Vjosa (between the

villages Tepelena and Selenica) is ecologically and hydromorphologically particularly important. Here, the river landscape expands up to 2 kilometers in width, covering the entire morphological valley. This braided river system is characterized by large gravel banks with pioneer vegetation, islands, side arms, oxbows, ponds, and alluvial forests with *Platanus orientalis*, Willows (*Salix spp.*) etc. This area provides breeding ground for Stone curlew (*Burhinus oedicephalus*), Little ringed plover (*Charadrius dubius*) and others, foraging ground for the Little tern (*Sterna albifrons*), Egyptian vultures (*Neophron percnopterus*), and the Lesser Kestrel (*Falco naumanni*), as well as an important habitat for the otter (*Lutra lutra*). Due to the lack of knowledge, the status of some species is unclear, for example the Little tern (*Sterna albifrons*), which is regularly seen in the Poçem area and below, but nesting sites have not been recorded yet. The undisturbed morphodynamic processes with its enormous sediment shift lead to a constant natural regeneration of these habitats, as well as to a lateral erosion, producing large-scale, steep riverbanks. These provide breeding grounds for thousands of Sand martins (*Riparia riparia*), for Kingfishers (*Alcedo atthis*), and Bee-eaters (*Merops apiaster*).

Even more outstanding about the Vjosa system is the fact that, besides the main river, also most of its tributaries are in a natural or near-natural state. So far, only two out of nine major tributaries have been dammed (Langarica and Çarshova river). The intact tributaries most likely add an enormous variety of habitats and biodiversity to the Vjosa river system. However, neither habitats nor biodiversity of these rivers have yet been assessed.

According EUNIS, the following habitat types occur in the Vjosa river and would be affected by the construction and operation of projected hydropower plants, especially by the Poçem project: Mediterranean temporary ponds (code 3170); Constantly flowing Mediterranean rivers with *Paspalo-Agrostidion* species and hanging curtains of *Salix* and *Populus alba* (3280); Calcareous rocky slopes with chasmophytic vegetation (8210); *Tilio-Acerion* forests of slopes, screes and ravines (9180); Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae*, *Salicion albae*, 91E0); *Platanus orientalis* and *Liquidambar orientalis* woods (*Platanion orientalis*, 92C0); Southern riparian galleries and thickets (*Nerio-Tamaricetea* and *Securinegion tinctoriae*, 92D0); *Olea* and *Ceratonia* forests (9320); *Quercus ilex* and *Quercus rotundifolia* forests (9340).

Additionally, in the lower course of the Vjosa: Mudflats and sandflats not covered by seawater at low tide (1140); Coastal lagoons (1150); Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes, 2120). These habitats would potentially be affected by dams build upstream due to lack of sediments.

### **Hydropower projects**

Albania intends to dam almost all its rivers. So far, 173 concessions have been signed allowing the construction of 502 hydropower projects throughout the country. There is no strategical planning –simply every river is to be dammed or diverted. A recent study about the “Hydropower Projects in Protected Areas on the Balkans” (Ulrich Schwarz, 2015) (study at: <http://balkanrivers.net/sites/default/files/Protected%20areas%20and%20hydropower%20dams%20in%20the%20Balkan190515.pdf>) found 68 dam projects in Albania that are planned or were under construction within the boundaries of protected areas such as national parks, Emerald sites, Ramsar sites or other categories of nature protection.

A total of 28 hydropower plants are projected within the Albanian part of the Vjosa basin: eight on the Vjosa itself and twenty on tributaries. An additionally five hydropower plants have already been constructed on the tributaries Çarshova river and Langarica in the past years. The

most recent project on the Langarica was built within the “Bredhi Hotovës-Dangëlli” National Park (candidate Emerald Site and IUCN category II).

The most urgent dam case is the Poçem HPP on the Vjosa. The Albanian government granted a concession to a Turkish company in May 2016. It will feature a 25 m high dam. Another big dam that was decided to be built some years ago is the “Kalivaç” project upstream of Poçemi (map at: <https://www.google.com/maps/d/viewer?mid=1iu8oOEb0FWbNlbet7tEieUuxS9M>). The Kalivaç project was initiated in 1997 by an Italian company, but constructions were stopped in 2007. As a result, the river remains uninterrupted until today. Other small hydropower plants on tributaries are officially “under construction”, but the works are currently halted (e.g. constructions on Bënça river have been paused for the last 15 months).

### **3. What might be the negative effects for the specie/s or habitat/s involved?**

The projected hydropower plants would all have severe impacts on the pristine habitats of the Vjosa river system and the species it is hosting. The biggest threat is the Poçem project for the time being. The proposed reservoir would flood a huge and unique alluvial area with gravel islands, forests and fertile agricultural lands. Therefore, all the species that live or forage in the area would be gravely affected. Albanian scientists predict, that the populations of many of the 177 species would decline considerably. However, due to the lack of assessments, particularly in this area, exact predictions are not yet possible.

Unlike the “big” dam projects on the Vjosa itself, the smaller hydropower plants on the tributaries are designed as diversion type: up to 95% of the water is taken from the river, diverted into pipes to electricity-generating turbine at a lower elevation and then returned to the river kilometers downstream of the intake. This leads to a dry river bed below the intake, since the biological minimum flow is usually not maintained (as many examples throughout Albania show).

In summary, the Poçem as well as the other projects foreseen on the Vjosa and its tributaries would destroy Europe’s last intact wild river system. They would lead to a severe loss in biodiversity and affect all ecosystem services, such as natural purification of water, vast groundwater aquifers for drinking water supply and agriculture, flood mitigation, and its unique opportunities for a recreational development.

### **4. Do you know if potentially affected species or habitats also fall under the scope of other international Conventions?**

There are 10 bird species, 2 mammal species and 2 fish species that are part of the CMS Annexes.

A particularly important species is the European eel (*Anguilla anguilla*). The eel is listed on the CMS and classified as a critically endangered species (IUCN cat. 3.1). It migrates from the Adriatic Sea to the upper parts of the Vjosa. Other important migratory fish species that would be affected by the Poçem dam are the mullet (*Mugil cephalus*) and sub-endemic fish species like Ohrid loach (*Cobitis ohridana*) and Pindus stone loach (*Oxynoemacheilus pindus*). Also, *Salmo faroides* has been recorded for the major parts of the river and its tributaries. Furthermore, the sturgeon species *Acipenser stellatus* has been recorded in the lower part of the Vjosa river.

Based on the outstanding quality of the habitats and its biodiversity, the entire Vjosa valley qualifies as Emerald site. However, the Albanian government designated only a few parts of the Vjosa basin as Emerald sites: “Protected landscape of the wetland complex Vjose – Nartë”; the National Park “Bredhi i Hotovës-Dangëlli” (14,973 ha, IUCN category II) and the Germenj-Shelegur (430 ha) in the very upper part of the basin. The National Park Bredhi i Hotovës-

Dangëlli has already been affected by a recently constructed dam on the Langarica river (up to 95% of the river are diverted through pipes to the power house). The “Vjosa delta - Narta lagoon” is also proclaimed as a RAMSAR and IBA (Important Bird Area) site.

**5. Do you know if there are any pending procedures at the national or international level regarding the object of your complaint?**

\* **European Parliament criticizes Albanian government for hydropower projects at the Vjosa and in protected areas:** the European Parliament “*Calls on the Albanian government to control the development of hydropower plants in environmentally sensitive areas such as around Vjosa River as well as in protected areas and to maintain the integrity of existing national parks.*” (No. 23 in the EP Resolution of April 2016). In April 2015, the EP demanded from the Albanian Government to stop the construction of all HPPs in protected areas and in particular along the Vjosa river and its tributaries, since these projects would harm one of Europe’s last extensive, intact and near-natural river ecosystems.

\* **Memorandum of Scientists:** In June 2016, scientists from Austria, Germany and Albania came together to formulate a memorandum asking the Albanian government to strictly follow EU standards concerning EIA procedures on the Vjosa. They also requested a 3-year-moratorium on hydropower development in the Vjosa basin in order to close the knowledge gaps by means of an extensive interdisciplinary research program.. The memorandum and the list of signatures were sent to the Albanian Prime Minister, the Minister for Energy and the Minister for Environment (*see attached in Annex III*).

\* **EcoAlbania will soon file a lawsuit** with the Administrative Court of Albania in regards to the concession for Poçem Hydropower Project. The content of the claim deals with violations of Albanian laws and regulations in connection with the overall concession issuing process.

**6. Any other information (existence of an Environmental Impact Assessment (EIA), size of projects, maps of the area, etc.)**

A map with the locations of hydropower projects within the Vjosa River catchment at <https://www.google.com/maps/d/viewer?mid=1iu8o0Eb0FWbNlbet7tEieUuxS9M>

Official data published on the Ministry of Energy and Industry website regarding the Poçem Hydropower Project announcing the winners of the concession; available in Albanian language at [https://www.app.gov.al/ep/DF\\_DocumentViewer.aspx?id=bde3e226-e0cf-4141-97c6-b60d33965f6b](https://www.app.gov.al/ep/DF_DocumentViewer.aspx?id=bde3e226-e0cf-4141-97c6-b60d33965f6b)

Preliminary EIA Report for Poçem HPP in Albanian language at <http://www.akm.gov.al/assets/raport-i-thelluar-i-ndikimit-ne-mjedis-vjosa-varianti-i-2-per-akm.pdf>