

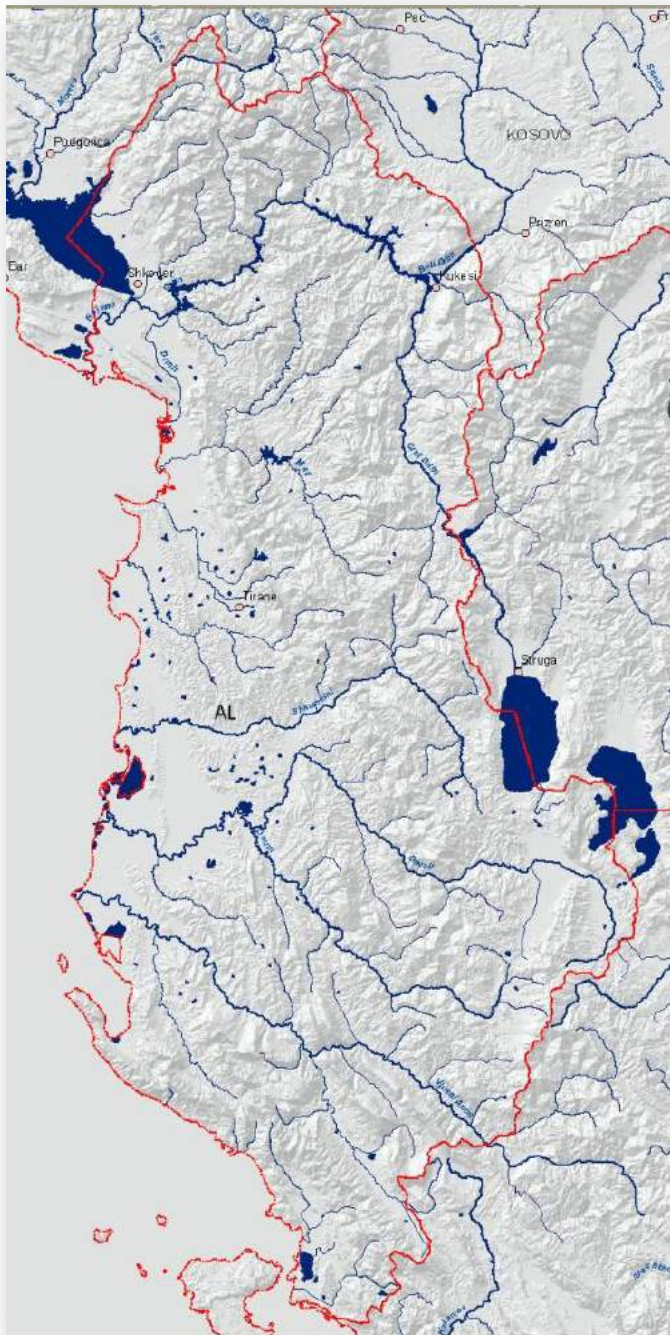


Outstanding Balkan River landscapes – a basis for wise development decisions

Albania

Table of Contents:

- 1. Hydromorphological intactness of rivers 2**
- 2. Protected areas, karst poljes, estuaries/deltas and important floodplains 4**
- 3. Conservation value of rivers 6**
- 4. Hydropower plants 8**
- 5. Affected river stretches with conservation value by hydropower 10**
- 6. List of planned Hydropower dams 14**



1. Hydromorphological intactness of rivers

There are four classes characterising the different levels of hydromorphological intactness: Class 1 shows in blue colour (near-natural conditions). Class 2-3 is characterised by slightly to moderately modified status, indicated in light green. Class 4 for river stretches which are extensively altered are orange and class 5 (red) indicates stretches with severe modifications in particular impoundments. Lakes and rivers outside of the project areas are visualised in dark blue.

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Hydromorphological assessment

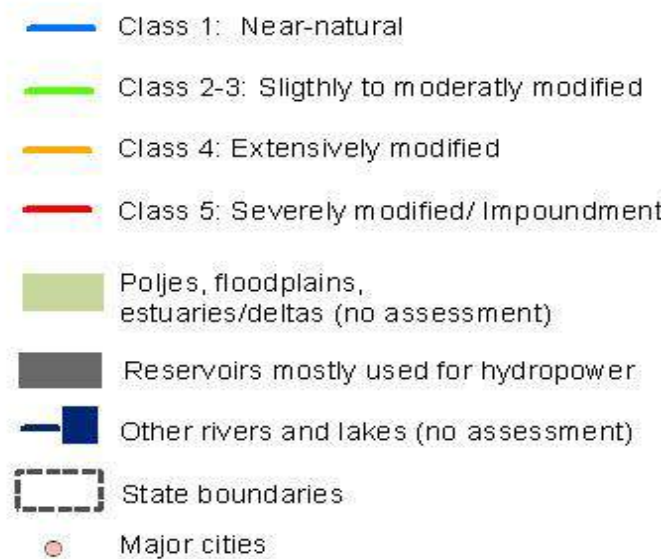


Fig. 1: Legend for the hydromorphological assessment map on next page

mostly turned into a chain of hydropower reservoirs (red). But also many deltas and estuaries still provide excellent hydromorphological conditions.

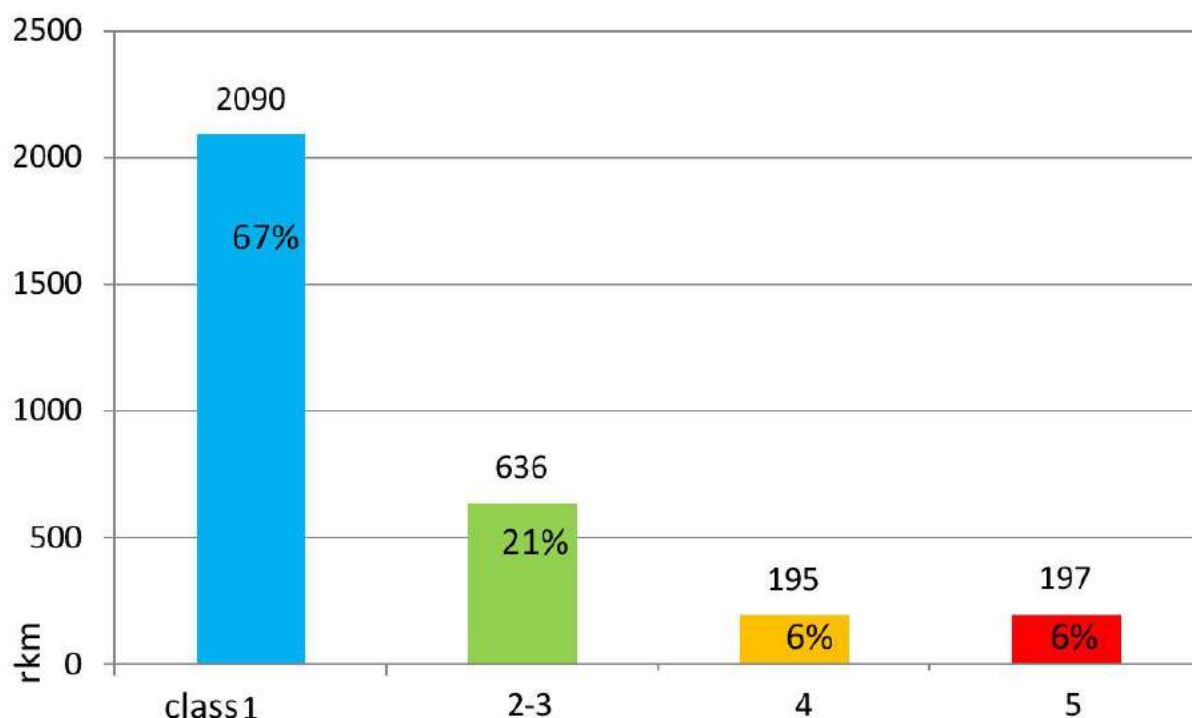


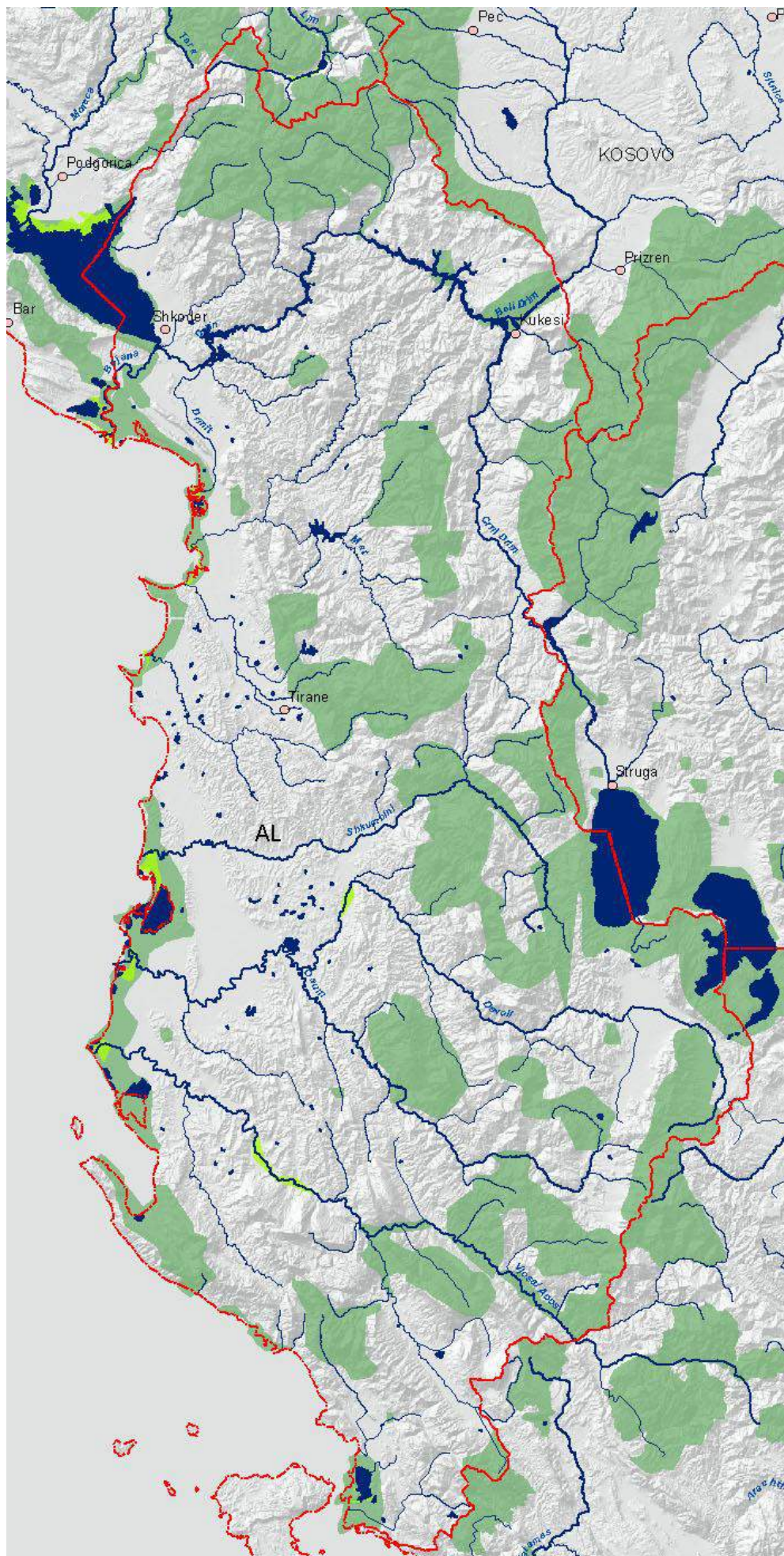
Fig. 3: Hydromorphological assessment in rkm and percentage for AL.

2. Protected areas, karst poljes, estuaries/deltas and important floodplains

The inventory of protected areas contains in particular Natura2000 for EU Member States (EC 2010) and Croatia (State Institute for Nature protection Croatia 2010), national parks, biosphere reserves, nature reserves, EMERALD network areas (as far as available) and Important Bird Areas as well as Ramsar sites for other countries.

Major important floodplains were used continuously, meaning for the large rivers such as Danube, Drava and Sava they are subdivided in upper, middle and lower parts. In addition the map includes all assessed karst poljes, estuaries/deltas as well as other wetlands.

Fig. 4 next page: Protected areas (incl. planned and proposed areas) in dark green (light green are poljes and large floodplain areas)



3. Conservation value of rivers

The conservation value is assessed in three levels: Very high conservation value (in blue), high conservation value (in dark green) and low conservation value (in light green). Karst poljes, major floodplains as well as deltas and estuaries with very high conservation value are visualized in dark blue-green and high conservation value in light green and low in light turquoise. Karst poljes and deltas are from particular interest for nature protection, therefore nearly all fall in the first two conservation classes.

	Hydro-morphological assessment class	Conservation value (assessment as result of overlay of hydromorphological assessment + protected areas + floodplains)
Class 1	Near-natural	Very high
Class 2-3	Slightly to moderately modified	High (river stretches crossing important floodplains/poljes/estuaries/deltas or overlapping with protected areas or both belonging to the “Very high” conservation value stretches)
Class 4	Extensively modified	Low, but important for longitudinal continuum (river stretches crossing important floodplains/poljes/estuaries/deltas or overlapping with protected areas or both belonging to the “High” conservation value stretches)
Class 5 Impoundments	Severely modified	Not assessed

Fig. 5: Definition of conservation value (additional biological data will be included in the study update 2012)

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Conservation value for rivers (left) and poljes, estuaries/deltas and floodplains (right)

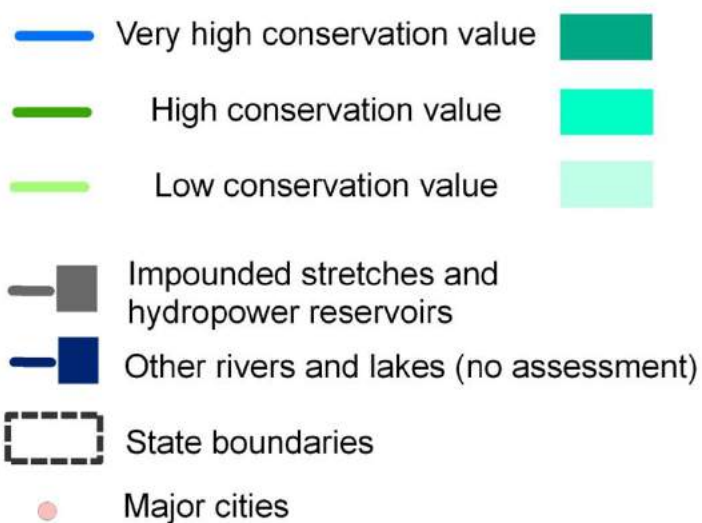


Fig. 6: Legend for the map on conservation value on next page

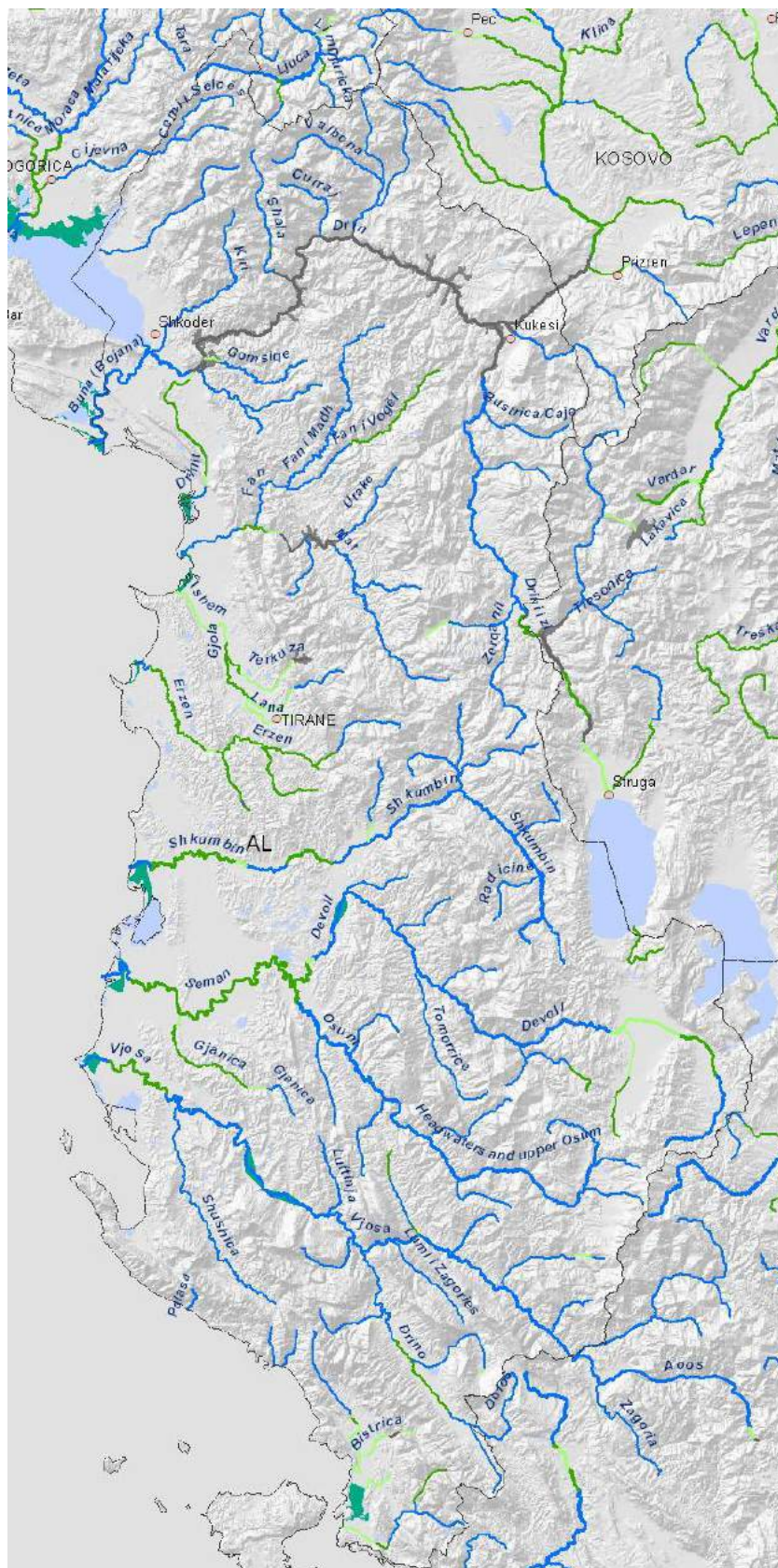


Fig. 7: Conservation value for AL.

The ecological intactness of rivers in general reaches in several cases from the headwater to the deltas into the Adriatic Sea, which is mostly unique for Adriatic or even European Mediterranean catchments and rivers of this size. Due to limited coherent protection network some rivers fall in the lowlands only in the second class.

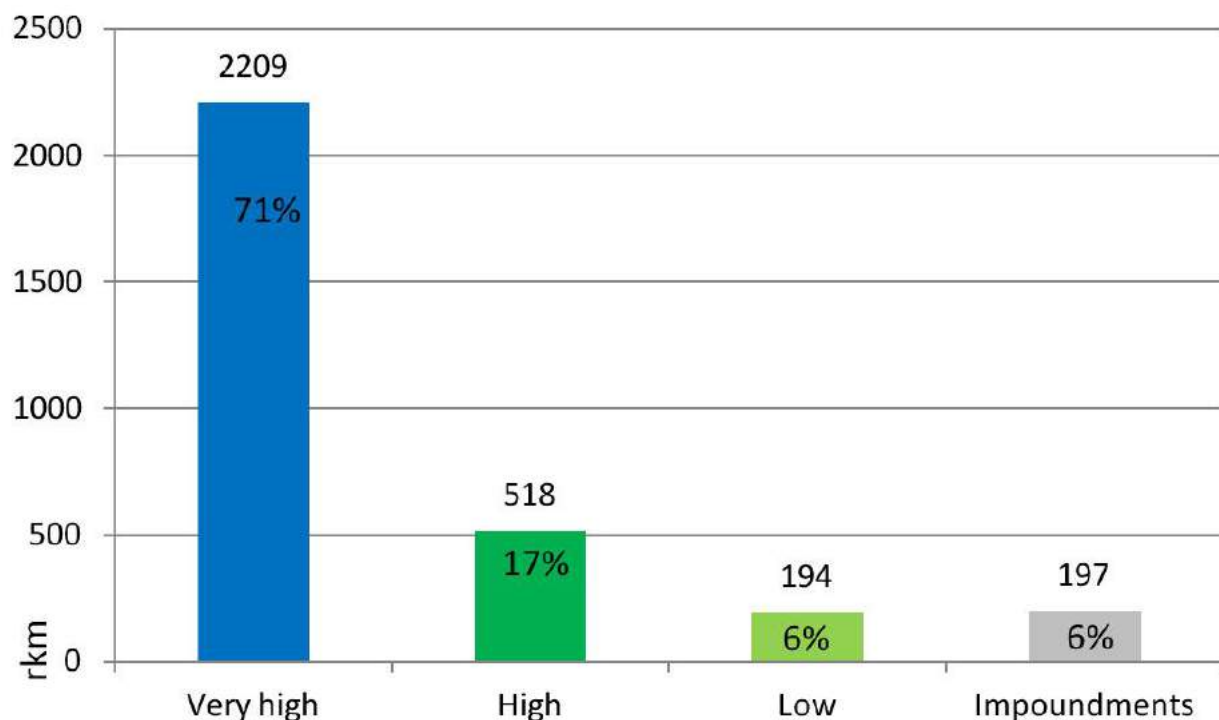


Fig. 8: Conservation value in rkm for AL.

4. Hydropower plants

Hydropower plants were recorded firstly along the “status type” into “existing/operating”, “under implementation” and “planned”. Further dams are classified in three size classes: 1-10 MW, 10-50 MW, and > 50 MW.

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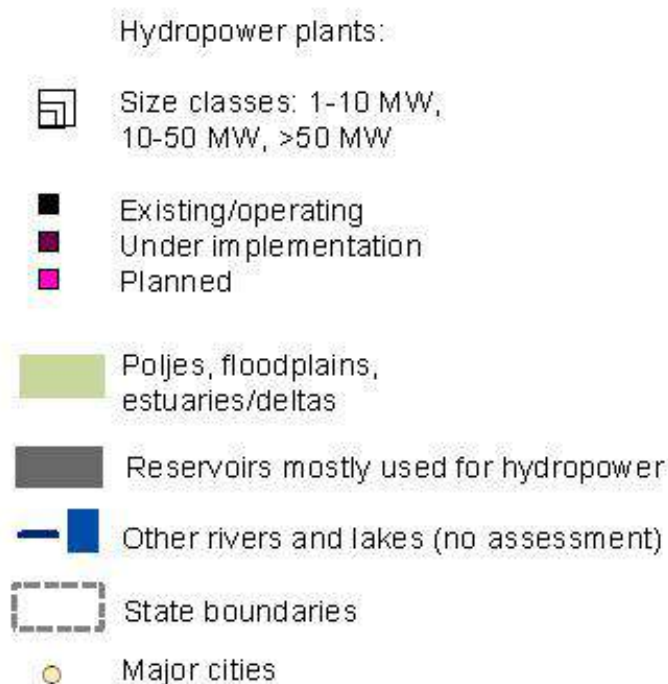


Fig. 9: Legend for the dam map on next page

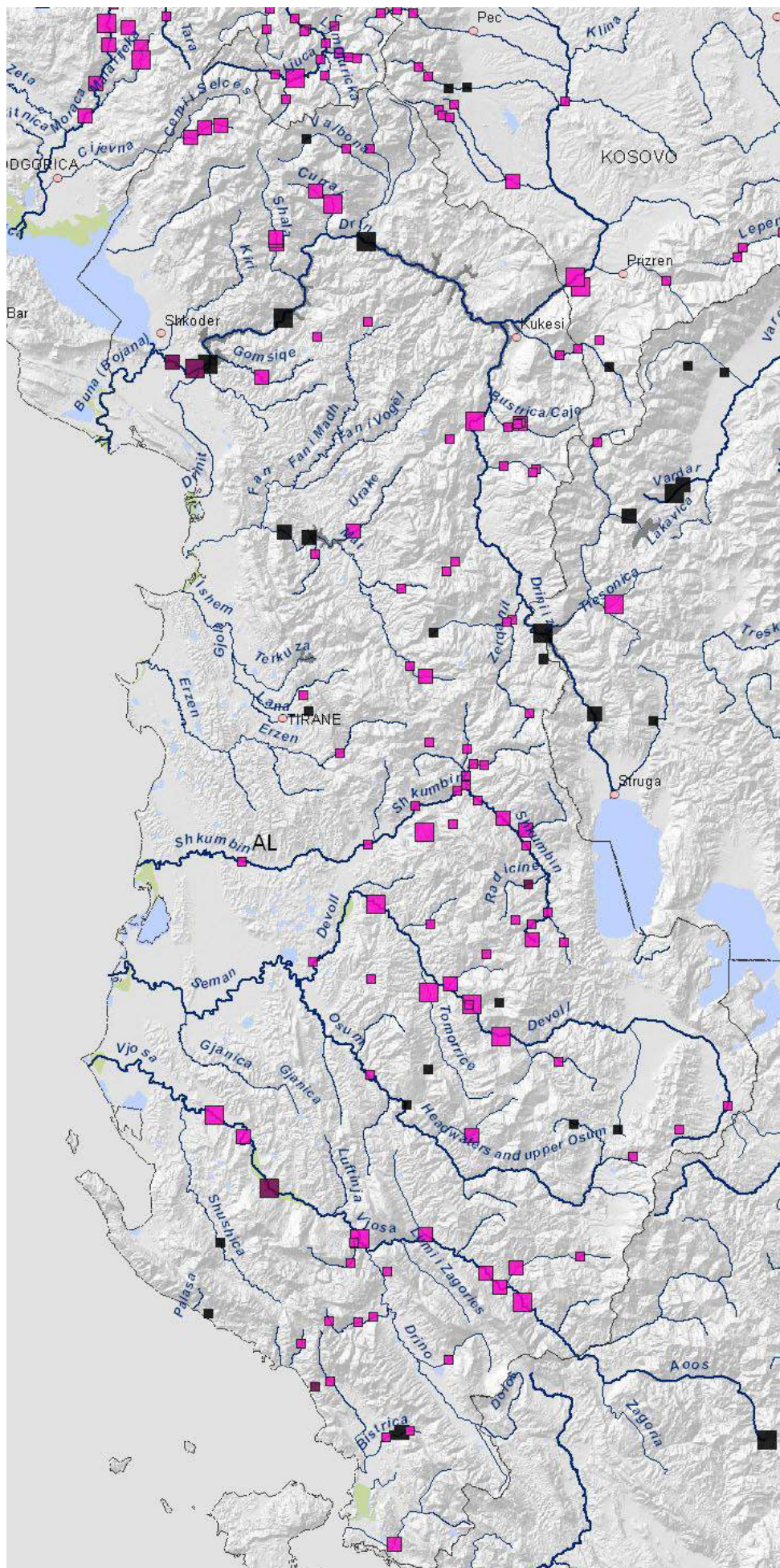


Fig. 10: Hydropower plants for AL.

The Drin river is the largest used river in Albania for hydropower and the chain of major dams summed up to more than the half of the Iron gate 1 impoundment with some 170 rkm. Other major dams can be so far find only in the northern part of the country. All rivers in mountainous reaches are subject of hydropower development.

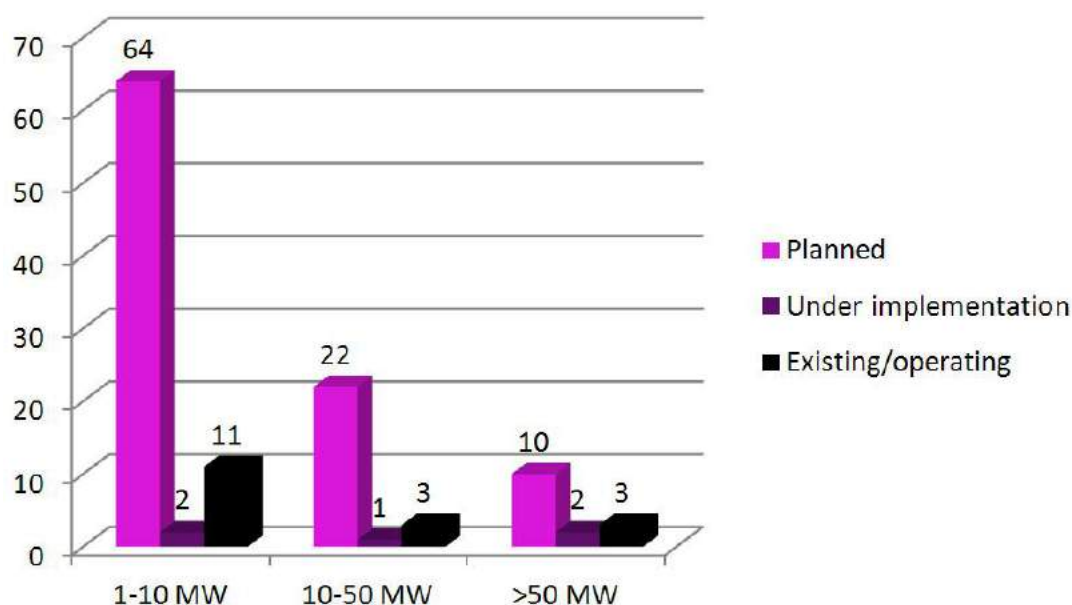



Fig. 11: Distribution of hydropower plants for AL.

5. Affected river stretches with conservation value by hydropower

This chapter combines the information of the “Conservation Value” with the planned hydropower plants.



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Hydropower plants:

 Size classes: 1-10 MW, 10-50 MW, >50 MW

 Planned

Conservation value for rivers (left) and poljes, estuaries/deltas and floodplains (right):

 Very high conservation value 

 High conservation value 

 Low conservation value 

Fig. 12: Legend for the “conflict map” on next page

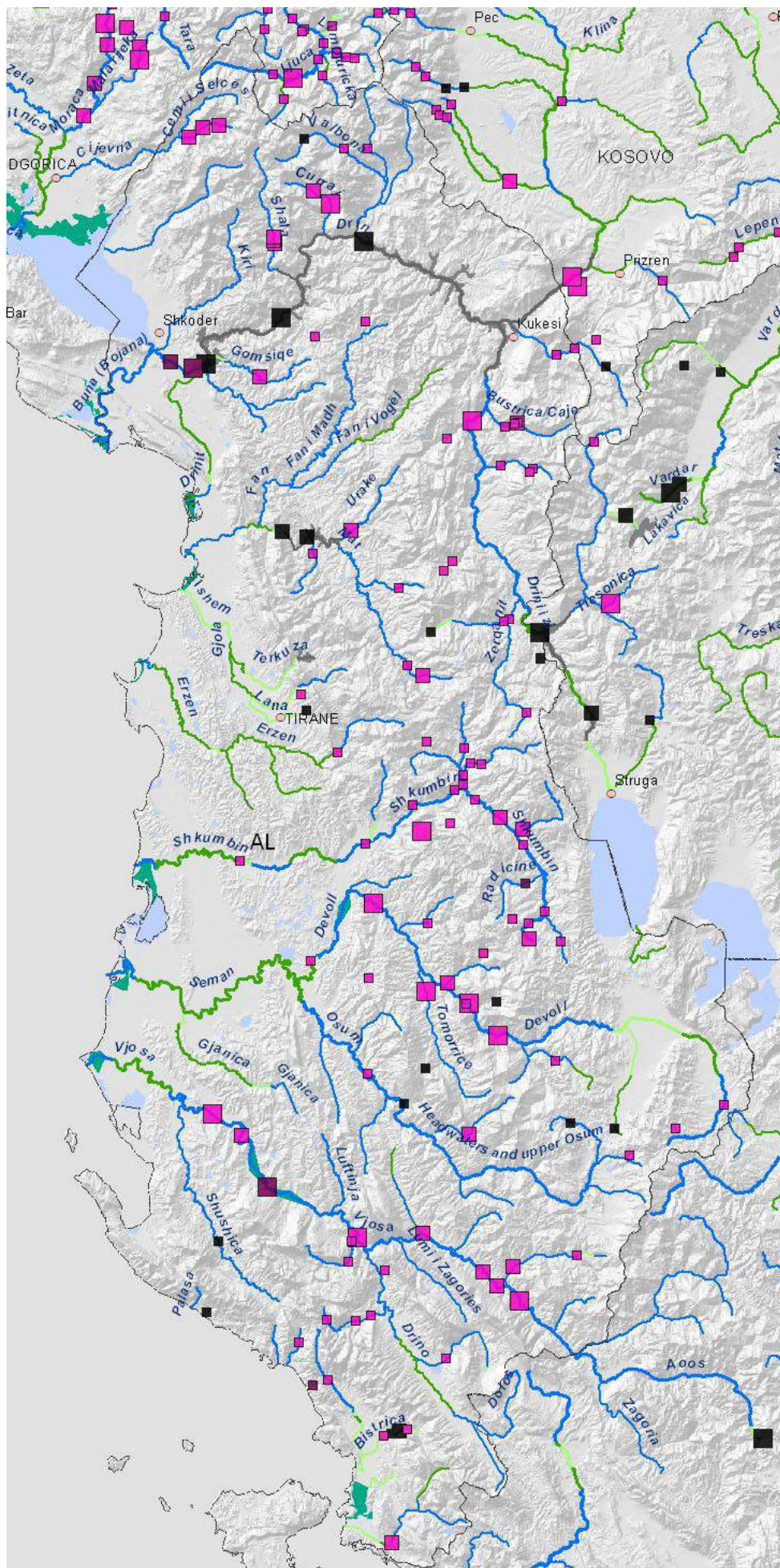


Fig.13:
Affected very
high and high
conservation
stretches by
planned
hydropower
plants for AL.

Case 4, Albania

Before the construction of the Kalivac dam, the Vijosa system was one of the most natural entirely free flowing river systems of Western and Central Europe. The dam under construction by an Italian company, due to be finalised next year, will interrupt the river continuum about 90 rkm from the delta into the Adriatic sea. The installed power will be some 100 MW, the dam crest is at 45 m and is expected to influence the whole river system.



Intact Vijosa river landscape before construction of dams (Arno Mohl, WWF Austria).



Construction works of Kalivac Dam in 2008 (Arno Mohl, WWF Austria).

6. List of planned Hydropower dams

ID_HP	Rivers Poljes	Name Location HPP	Installed MW	Affected River Jewels
AL_HP_001	Devoll	Banje	> 50	AL_RJ_268
AL_HP_143	Devoll	Bratila 2	1-10	AL_RJ_268
AL_HP_011	Devoll	Bratila 1	> 50	AL_RJ_268
AL_HP_054	Devoll	Moglice	1-10	AL_RJ_268
AL_HP_092	Devoll	Vlaschuk	1-10	
AL_HP_1526	Devoll	Menkulas and Kuk	1-10	
AL_HP_037	Devoll tributary	Holte	1-10	AL_RJ_321
AL_HP_044	Devoll tributary	Kukur 2	1-10	AL_RJ_322
AL_HP_1514	Devoll tributary	Kukur 4	10-50	AL_RWJ_268
AL_HP_002	Tomorrice	Skenderbegas	> 50	AL_RJ_269
AL_HP_074	Drin	Skavica 2	> 50	AL_RJ_283
AL_HP_250	Drin	Ashta 1	> 50	AL_RJ_690
AL_HP_004	Drin	Ashta 2	10-50	AL_RJ_690
AL_HP_187	Drini i Zi	Sllove	1-10	
AL_HP_232	Drini i Zi	Radomir 2	1-10	
AL_HP_1531	Drini i Zi	Lura	1-10	
AL_HP_007	Belesoves	Belesova 1+2	1-10	AL_RJ_268
AL_HP_013	Caje	Bushtica 1+2	1-10	AL_RJ_284
AL_HP_014	Borjes	Cernaleve	1-10	AL_RJ_285
AL_HP_015	Curraj	Curraj-Epshem	> 50	AL_RJ_066
AL_HP_018	Valbona	Dragobi	1-10	AL_RJ_250
AL_HP_1509	Gomsiqe	Gomsiqe 1-4	10-50	
AL_HP_1510	Zali i Melthit	Prelle 1 and 2	10-50	
AL_HP_1511	Egnatia, Ura and Hotolosht tributaries	Quender region	10-50	
AL_HP_1512	Bushtica	Quekes Skumbin	10-50	
AL_HP_1515	Pavla	Pavla cascade	10-50	
AL_HP_1517	Lusa	Hec I 1-5	1-10	
AL_HP_1518	Bulqiza	Zall Bulqiza	1-10	
AL_HP_076	Shkumbini	Sllabinje	1-10	AL_RJ_262
AL_HP_065	Shkumbini	Qukes	1-10	AL_RJ_262
AL_HP_1519	Shkumbin	Pequin	1-10	
AL_HP_1524	Shkumbin	2E	1-10	
AL_HP_1521	Shkumbin	Labinot Fushe	1-10	
AL_HP_1513	Shkumbin	2A-D	10-50	
AL_HP_1520	Shkumbin	Topcias	1-10	
AL_HP_032	Shkumbin tributary	Gur Shpat	1-10	AL_RJ_262
AL_HP_008	Shkumbin tributary	Bishnica 2	1-10	AL_RJ_262

ID_HP	Rivers Poljes	Name Location HPP	Installed MW	Affected River Jewels
AL_HP_028	Shkumbin tributary	Gizavesh	1-10	AL_RJ_317
AL_HP_1525	Cemerica	Cemerica 3	1-10	
AL_HP_1516	Langarica	Langarica Cascade	10-50	
AL_HP_1527	Langarica	Rajan	1-10	
AL_HP_1528	Fterre	Fterre	1-10	
AL_HP_1529	Rapuni	Rapuni 1	1-10	
AL_HP_1530	Rapuni	Rapuni 2	1-10	
AL_HP_1523	Rapuni	Rapuni 3	1-10	
AL_HP_1522	Rapuni	Rapuni 4	1-10	
AL_HP_043	Perroi i madh	Kryezi	1-10	AL_RJ_251
AL_HP_1532	Kabash	Kabash	1-10	
AL_HP_1533	Kalasa	Kalasa	1-10	
AL_HP_020	Shala	Dukagjin 1	10-50	AL_RJ_065
AL_HP_021	Shala	Dukagjin 2	10-50	AL_RJ_065
AL_HP_022	Shala	Dukagjin 3	10-50	AL_RJ_065
AL_HP_024	Vjosa	Kalivac	> 50	AL_RJ_275
AL_HP_039	Vjosa	Kaludh	> 50	AL_RJ_274
AL_HP_019	Vjosa	Dragot-Tepelena	> 50	AL_RJ_274
AL_HP_040	Vjosa	Kelcyre	10-50	AL_RJ_274
AL_HP_070	Vjosa	Selenice	> 50	AL_RJ_275
AL_HP_005	Vjosa	Badelonje	10-50	AL_RJ_274
AL_HP_060	Vjosa	Permet	10-50	AL_RJ_274
AL_HP_063	Vjosa	Pocem	10-50	AL_RJ_275
AL_HP_068	River near Sasaj	Sasaj	1-10	AL_RJ_280
AL_HP_078	Stojan	Stojan	1-10	AL_RJ_313
AL_HP_083	Shupali	Tujan	1-10	
AL_HP_090	Osum tributary	Vertopit	1-10	
AL_HP_093	Cem i Vuklit	Vukel 1	10-50	AL_RJ_067
AL_HP_094	Cem i Vuklit	Vukel 2	10-50	AL_RJ_067
AL_HP_097	Zalli i Okshtunit	Stebleve	1-10	AL_RJ_281
AL_HP_098	Caje	Lapaj	10-50	AL_RJ_284
AL_HP_1100	Erzen	Skorana Dam	1-10	
AL_HP_112	Bence	Bence	1-10	AL_RJ_324
AL_HP_113	Mat	Peshku	1-10	AL_RJ_256
AL_HP_114	Mat	Stavec	1-10	AL_RJ_256
AL_HP_117	Tucepit	Tucep 2	1-10	
AL_HP_121	Peshkut	Kacni	1-10	AL_RJ_283
AL_HP_128	Perroi i Vertopit	Suha 2	1-10	AL_RJ_331
AL_HP_129	Lumi i Osojes	Vlushe	10-50	AL_RJ_342
AL_HP_130	Bistrica	Bistrica 3	1-10	
AL_HP_131	Bistrica	Bistrica 4	1-10	

ID_HP	Rivers Poljes	Name Location HPP	Installed MW	Affected River Jewels
AL_HP_132	Perroi i Madh, Murra	Selishte	1-10	AL_RJ_283
AL_HP_142	Valbona	Bradoshnica	1-10	AL_RJ_309
AL_HP_221	Curraj	Curraj-Eperm	10-50	AL_RJ_066
AL_HP_234	Zerqanit	Cerenec	1-10	AL_RJ_281
AL_HP_240	Dardha	Dardhe	1-10	AL_RJ_266
AL_HP_241	Gostima	Gostima	> 50	AL_RJ_262
AL_HP_243	Bence	Veligote	1-10	AL_RJ_324
AL_HP_251	Orenja	Orenja 2	1-10	AL_RJ_317
AL_HP_253	Caje	Caja	1-10	AL_RJ_284
AL_HP_254	Caje	Shkinak	1-10	AL_RJ_284
AL_HP_255	Caje	Lusna	1-10	AL_RJ_284

Pictures cover: Left: Ulrich Eichelmann (Vjosa), Righth: Goran Šafarek (Valbona valley)

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