OVERVIEW OF THE SITUATION OF NATURE CONSERVATION AND CBDENVIRONMENTAL PROTECTION IN WESTERN BALKAN 6

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Executive summary

The Western Balkan region, home to vast numbers of animal and plant species - many of them endemic – is a genuine biodiversity hotspot. The complex political situation that marked the end of the 20th century in the region had stalled urban and rural development, but had the positive consequence of leaving the natural environment largely undisturbed. The past two decades reversed this trend, with the rapid introduction of capitalist economies, in the region's nascent, still fragile democracies. The result has been unregulated urban sprawl, coupled with lack of environmental management, general lack of public understanding about issues concerning nature conservation and protection, weak state institutions, rampant corruption, and unsustainable foreign investments. Consequently, the natural environment has been under increasing pressures and has suffered deterioration, the extent of which will fully become evident through future research efforts.

This overview study assesses efforts at nature conservation and environmental protection in six countries of the Western Balkans (WB 6). It includes an assessment of the situation, identifies key stakeholders and conflicts of interest, showcasing it through three short case studies on "hot spots" in WB 6.

The overview shows specific challenges faced by each West Balkan's state, though many common issues are evident, that are, in some aspects, shared with European Union (EU) member states in central and south-eastern Europe. These common challenges impact issues concerning nature conservation and environmental protection, as well as other socio-economic aspects, can be summed up as follows:

• Lack of a long-term development vision at a domestic level. Short-term political interests prevail over a vision for sustainable development and integration of environmental policies across sectors. The WB6 governments have failed to provide evidence-based analysis, to apply inclusive processes and environmentally friendly policy-orientations, which would not only fulfil the obligations of EU integration, but also ensure domestic interests and sustainable development;

• Poor horizontal application of environmental and climate change policies and cooperation between sectors and stakeholders to implement the legal framework, and very limited effective governance both locally and nationally;

• Insufficient technical and managerial capacities at the local and central government levels, including low absorption capacity for EU funds;

• Urban sprawl, at the expense of agricultural land and natural resources. Sprawl manifests locally, but is a consequence of a lack of regional governance frameworks and poor national and regional territorial planning; and

• All countries in the region have recently experienced a rise in authoritarianism and populism, and increased centralization of political power. These processes have hindered needed reforms of national governance, fiscal decentralization, public finances, territorial planning and development,

energy production and supply, and forest governance, among other sectors, and instead reduced transparency and accountability and weakened democracies.

The main challenges at the regional and national levels are related to the lack of political will and understanding that current production systems based on unsustainable industry and devastation of nature are undermining the main assets of the Balkan region – its biological diversity, forests, rivers, lakes and the marine wealth of the Adriatic Sea.

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List of abbreviations

ASCIs	Areas of Special Interest
B&H	Bosnia and Herzegovina
BIRN	Balkan Investigative Reporting Network – Serbia
BIMR	Biodiversity Information Management and Reporting
CAN	Climate Action Network
CBD	Convention on Biological Diversity
CSOs	Civil Society Organisations
CZIP	Center for Protection and Research of Birds
EBRD	European Bank for Reconstruction and Development
EEA	European Environment Agency
EEAG	State Aid Guidelines for Environmental Protection and Energy
EIA	Enviromental Impact Assesment
EIONET	European Environment Information and Observation Network
EMAS	Eco-Management and Audit Scheme
EU	European Union
EU Chapter 27 of the Acquis on Environment and Climate Change	
EUWFD	European Union Water Framework Directive
EU GBER	EU General Block Exemption Regulations
EUSAIR	EU Strategy for the Adriatic and Ionian Region
GBC	Green Building Council
GDP	Gross Domestic Product
GEO	Global Environment Outlook (published by UNEP)
GHG	Greenhouse gas
GRID	Global Resource Information Database
HBIS	Chinese steel company
HCVFs	High conservation value forests
HDI	Human Development Index
HPPs	Hydro Power Plants
IBA	Important Bird Area
IBAT	Integrated Biodiversity Assessment Tool
IEA	International Energy Agency
IIASA	International Institute for Applied Systems Analysis
IPARD	Instruments for Pre-Accession Assistance for Rural Development
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for the Conservation of Nature – World Conservation Union
IWRM	Integrated Water Resource Management
MAP	Mediterranean Action Plan
METT	Management Effectiveness Tracking Tool
MFF	Multiannual Financial Framework
MSJA	Martin Schneider Jacoby Association
MW	Megawatt
NBC	Nature Based Solution

NECPs	National Energy and Climate Plans
NGO	Non-Governmental Organisation
NP	National Plan
PA	Protected Area
PONT	Prespa Ohrid Nature Trust
REC	Regional Environmental Centre for Central and Eastern Europe
RES	Renewable Energy Sources
SAA	Stabilisation and Association Agreement
SEE	South Eastern Europe
SHPP	Small Hydro Power Plants
SMEs	Small and Medium-sized Enterprises
UN	United Nations
UNODC WB	Corruption Report United Nation Office on Drugs and Crime – Western Balkans Corruption Report
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEACO MAB	Man and the Biosphere Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	UN Industrial Development Organization
WB	World Bank
WB6	Western Balkans Six Countries/Territories – Albania, B&H, Kosovo*, North Macedonia, Montenegro, Serbia
WBCSD	World Business Council on Sustainable Development
WWF	World Wide Fund for Nature
WWF PA-BAT	WWF Protected Areas Benefit Assessment Tool

Introduction

Situated near the Mediterranean basin the six Western Balkan (WB 6) countries – Albania, Bosnia and Herzegovina (B&H), Kosovo*[1], Montenegro, North Macedonia and Serbia, are considered a biodiversity hotspot. A mixture of mild Mediterranean and continental climates supports an abundance of wildlife, lush nature and plenty of resources for all – animals, plants and humans. The region hosts rich biodiversity, including many rare and endemic species, and relatively large unspoiled ecosystems. It offers the greatest diversity of vascular plants in Europe, comprising 7,000-8,000 registered species.

Nevertheless, a number of human-influenced factors are threatening this naturally biodiverse region. Many are the root causes of nature devastation: the mining industry, mini hydropower, illegal hunting and fishing, deforestation, lack of waste management and proper sewage systems, air pollution caused by outdated coal powered stations and low quality lignite for private heating, chaotic and illegal urbanization, unsustainable investments in industry and agriculture, and other forms of crony-capitalism. Coastal and marine habitats in Albania, Montenegro and B&H are under considerable pressure mainly from unregulated urban development and pollution.

While legal and policy frameworks for nature protection and conservation exist in all countries, implementation is lax. In the past decade, all six Western Balkan states have declared their intent to join the European Union and all have signed Pre-Accession Agreements (Annex 1. Status of WB6 in EU Pre Accession negotiations). Although a significant part of the EU *acquis communautaire* has been transposed onto national legislation, its implementation remains weak, as a consequence of the overall lack of understanding and poor application of the rule of law, weak government institutions led/abused by party politics, and endemic corruption. Put in simpler terms, Balkan politicians talk the EU talk, but fail to walk the walk.

Unresolved issues from recent armed conflicts continue to affect national politics and relationships among countries in the Western Balkans region. As ecological and political boundaries seldom overlap conservation planning and management must take place at the transboundary level.[2] However, the political complexity of the region is still an obstacle to such cooperation: there is a frozen ethnic/territorial conflict between Serbia and Kosovo*, while in B&H, divided into two entities and one district, each with their own government structures, integrated decision-making and effective state governance are almost impossible.[3]

Parts of the Western Balkans are among the least developed regions in Europe. According to EU statistics[4], average monthly salary in the region in 2020 is between Eur 356 (Albania) to Eur 527 (Montenegro), which is often well below the monthly basic needs expenses. Unemployment and

[1] Kosovo is the subject of a territorial dispute between the Republic of Kosovo and the Republic of Serbia. The Republic of Kosovo unilaterally declared independence on 17 February 2008. Serbia continues to claim it as part of its own sovereign territory. Kosovo is currently recognized as an independent state by 98 out of the 193 United Nations member states. https://en.wikipedia.org/wiki/Political_status_of_Kosovo

[2] See: Maja Vasilijević, Sanja Pokrajac, Boris Erg *State of nature conservation systems in South-Eastern Europe* https://portals.iucn.org/library/sites/library/files/documents/2018-040-En.pdf

[3] For an in-depth analyses of the political processes in the Balkans see: South Europe in Focus – Reports on Serbia, Albania, Kosovo and North Macedonia (2020), Sudosteuropa Gesellschaft, www.sogde.otg

[4] https://en.wikipedia.org/wiki/List_of_European_countries_by_average_wage

poverty drive people to leave their homes, leading to land abandonment and urban sprawl. This frequently involves illegal construction without proper sanitation, which in turn causes soil and water contamination. The increased demand for cheap heating fuel - wood and highly polluting raw lignite – has led to deforestation and loss of biodiversity and has had negative effects on human health. Emerging evidence suggests that ambient air pollution, which is particularly pronounced in winter months, plays a role in the spread and impact of chronic diseases. The COVID-19-caused recession of 2020 has worsened labour market conditions and interrupted welfare reforms, although government response measures have somewhat cushioned the blow. By June 2020, the unemployment rate in the region rose by 0.5 pp, as 139,000 jobs were lost. In Albania, Kosovo*, Montenegro, and Serbia, the COVID-19 crisis is estimated to have pushed over 300,000 people into poverty.[5]

Globally, the spread of consumerism has doubled waste levels over the past 30 years[6], and is also heavily reflecting in the region. A combination of availability of low quality and inexpensive goods and fast foods, lack of environmental awareness, and inadequate waste management across the region are leading to accumulation of cheap throw-away accessories, single-use plastics, and growing packaging waste that are often disposed of directly into the natural environment or unhygienic illegal and wild landfills. There are about 5,000 of those in Serbia alone.

The recently signed Sofia Declaration, the Green Agenda for the Western Balkans, should serve as a blueprint for possible future agreements between the EU and each of the Western Balkans partners/governments. It should enable the Western Balkans and the EU to create stronger links between climate and environment actions, policy reforms, and EU approximation. Overall it creates a venue for cooperation between democratic political forces, socially responsible business and traditionally committed civil sector, empowered by the rising civil movement for the protection of the main assets of the Balkans, its natural resources and rare richness of species.

Methodology

The purpose of this assessment paper is to provide an up to date overview of the situation, identify stakeholders and conflicts of interest, and present short case studies on "hot spots" in the WB 6. We hope to build on this study for a presentation at an international conference "**Biodiversity and the Protection of Nature in the Western Balkans. Civil Society, (Local) Politics, International Actors and Media in Dialogue"** to be held in summer 2021 in the WB region.

The data was collected in December 2020 using mostly online and published sources. Reports of key international and European Union institutions were used for assessing individual countries' progress in the implementation and transposition of international conventions and the adoption and implementation of the EU *acquis* (the latter is a good reference point for assessing the state of environmental protection and nature conservation in WB6). Furthermore, reports and activities of relevant civil society groups are used for background and to illustrate the situation on the ground. Due to limited length of the report, and necessity to cover many and similar issues across WB6

[5] Western Balkans Regular Economic Report: Fall 2020, World Bank https://www.worldbank.org/en/region/eca/publication/western-balkans-regular-economic-report

[6] Western Balkans Regular Economic Report: Fall 2020, World Bank https://www.worldbank.org/en/region/eca/publication/western-balkans-regular-economic-report

states, the assessment will be divided into topics, rather than countries, as described below. The reason behind is that most of the issues are cross-border and similar in all states. In addition, consultation with specific national experts will ensure most relevant selection of case studies, as well as when formulating recommendations for further steps.[7]

Overview of natural wealth across Western Balkan 6 [8]

The WB6 region is characterized by rich biodiversity, including many endemic species, and relatively large unspoiled ecosystems (see Annex 4. Biodiversity overview per country). Three biogeographic regions extend over South Eastern Europe (SEE); Continental, Alpine and Mediterranean, each with distinct characteristics. In terms of its biodiversity richness, WB6 is one of the most abundant regions in Europe. Relatively extensive and preserved forests throughout the region offer shelter to significant populations of large carnivores, such as brown bear (*Ursus arctos*), wolf (*Canis lupus*) and lynx (*Lynx lynx*). They have a high flora diversity and a high rate of endemism (10-20% of all the plants are endemic to the region). The karst ecosystem is the largest in Europe, and contains a significant underground freshwater reservoir, including the most extended network of subterranean rivers and lakes in Europe, as well as wetlands of international importance. Wetlands and freshwater habitats provide nesting areas for numerous endangered bird species. The region is bounded to the south-west by the Adriatic Sea that contains a variety of coastal and marine habitats with reefs, caves, rocks and archipelagos, and meadows of Neptune grass (*Posidonia oceanica*).

The species richness of the Balkan Peninsula can be illustrated through the following data: • It hosts more than 120 species of mammals – highest index of diversity in Europe[9] • more than 500 bird species[10], though many of them are threatened and represented by small populations; • 33 species of amphibians and 71 species of reptiles, of which 28% and 21%, respectively are endemic[11]; • 288 species of butterflies[12]. One feature of the biological diversity of Balkan Peninsula is the presence of rich underground and cave fauna. More than 1,000 terrestrial and nearly 700 aquatic underground species have been recorded. The most numerous among them are insects, snails, centipedes, pseudoscorpiones, harvestmen and other groups of terrestrial invertebrates, whereas the most interesting among aquatic ones include sponges, cnidarians, aquatic snails, fish and the amphibian olm (*Proteus anguinus*).

It is essential that the WB 6 countries develop a concerted regional approach, and regional consensus on principles and key elements of a biodiversity information management and reporting (BIMR) mechanism in line with Convention on Biological Diversity (CBD) [13] and European Union requirements, in order to conserve and sustainably use these biodiversity assets and valuable natural.

7 https://www.eea.europa.eu/publications/western-balkans/file

8 See: Maja Vasilijević, Sanja Pokrajac, Boris Erg State of nature conservation systems in South-Eastern Europe https://portals.iucn.org/library/sites/library/files/documents/2018-040-En.pdf

9 Huw I. Griffiths, Boris Krystufek, Jane M. Reed Balkan Biodiversity: Pattern and Process in the European Hotspot, (2004)

10 Tanyo Manev Michev, Dimitar Simeonov, Lyubomir Profirov Birds of the Balkan Peninsula,(2016)

11 Fourth National Report to the UN CBD, 2010, Ministry of Environmental and Spatial Planning, Serbia

12 Ibid. 9

13 National Assessment of biodiversity information management and reporting baseline for Bosnia and Herzegovina, GIZ 2018 https://balkangreenenergynews.com/wp-content/uploads/2017/08/BiH-Assessment_ENG.pdf

Despite relatively well transposed EU *aquis* and memberships to international conventions such as the Convention on Biological Diversity[14], United National Framework on Climate Change (UNFCC)[15], the Paris Agreement[16] and others, WB6 commonly fail to implement and integrate cross sectoral policies that ensure environmental protection and climate change adaptation and mitigation measures.

Protected Areas

The term "protected area" (PA) is defined in Article 2 of the The Convention on Biological Diversity as "a geographically defined area, which is designated or regulated and managed to achieve specific conservation objectives". Article 8 of the Convention contains specific references to Protected Areas by encouraging Parties to:

- establish a system of Protected Areas or areas where special measures need to be taken to conserve biological diversity;
- develop, where necessary, guidelines for the selection, establishment and management of Protected Areas or areas where special measures need to be taken to conserve biological diversity;
- regulate or manage biological resources important for the conservation of biological diversity whether within or outside Protected Areas, with a view to ensuring their conservation and sustainable use;
- promote environmentally sound and sustainable development in areas adjacent to Protected Areas with a view to furthering protection of these areas;
- cooperate in providing financial and other support for in-situ conservation, particularly to developing countries.[17]

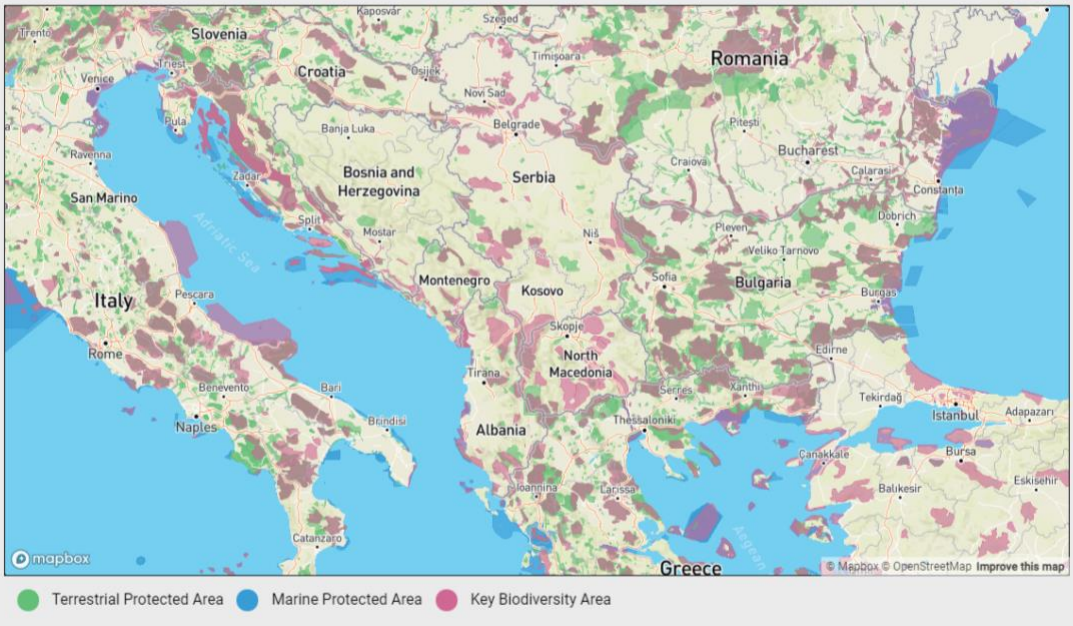
According to Aichi biodiversity targets 2011-2020 [18], by 2020, at least **17%** of terrestrial and inland water, and **10%** of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of Protected Areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes."[19] WB6 countries agreed to integrate the Aichi biodiversity targets 2011-2020 into national and local development strategies.

During this decade, overall the region has seen a steady growth of Protected Areas, although individual states vary in their coverage from below 4% in Bosnia and Herzegovina to almost 19% in Albania (Annex 3. Protected Areas per country). If compared with the Key Biodiversity Areas as shown on the map in Figure 4[20], PAs need to be expanded in order to protect biodiversity and

[14] https://www.cbd.int/convention/
[15] https://unfccc.int/
[16] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
[17] Protected Areas and the CBD: Protected Area Provisions in the Convention on Biological Diversity, https://www.cbd.int/protected/pacbd/
[18] At the Conference of the Convention on Biological Diversity signatories on October 2010, in Nagoya, Aichi Prefecture, Japan, parties adopted a revised and updated Strategic Plan for Biodiversity, including the Aichi Biodiversity Targets, for the 2011-2020 period.
[19] See: Aichi Biodiversity Targets, https://www.cbd.int/sp/targets/
[20] IBAT Country profiles, https://www.ibat-alliance.org/country_profiles/

ensure nature protection in the future. With very few exceptions, PAs are managed by the governments in all WB6.

Figure 4. Map showing the overlap between Key Biodiversity Areas and Protected Areas.



The long tradition of top-down decision-making remains mostly unchallenged in the Western Balkans, despite the EU accession process. The low level of public engagement and the lack of awareness of citizens' rights and responsibilities in democratic society remains an issue. In at least half of the countries the PA management is dependent on unsustainable exploitation of their own natural resources[21], such as timber selling.

The rich biodiversity sustains local economies in rural and underdeveloped areas of the region, and creates opportunities for the development of certain, mostly protected, areas. Forest and meadows ecosystems are most significant for direct benefits (provisioning ecosystem services), particularly in rural areas, where residents harvest forest fruits, medicinal plants and mushrooms.

According the World Wild Fund for Nature (WWF) Adria assessment of Protected Areas in the Adria region, featuring Western Balkan 6 plus Slovenia and Croatia, there are some shared features among the states[22]:

[21] Identified WWF Adria Protected Area Programme, https://wwfeu.awsassets.panda.org/downloads/wwf_adria_protected_areas_programme__governance_.pdf?352492/WWF-Adria-Protected-Areas-Programme-Governance

[22] Identified WWF Adria Protected Area Programme. https://wwfeu.awsassets.panda.org/downloads/wwf_adria_protected_areas_programme__governance_.pdf?352492/WWF-Adria-Protected-Areas-Programme-Governance

- tourism and recreation are recognised across the region as engines of economic development, followed by the economic potential of water, wood, and jobs in PAs;
- more than 900 local stakeholders participated in measuring interaction between the PA management and the local community in 66 PAs. The ratio of women and men involved was 30% to 70%;
- in the majority of Adria countries, PA management is dependent on exploiting their own natural resources;
- the distribution patterns of benefits from Protected Areas show a relatively high centralization of benefits to the business and government sectors;
- across the region there is insufficient understanding of the value of ecosystem services (e.g. flood prevention, water purification, climate mitigation).

To ensure sustainability of Protected Areas and protect biodiversity and natural resources across the six countries, it would be necessary to:[23]

- develop good institutional cooperation between nature conservation and other relevant sectors (e.g. tourism, energy, water management, agriculture, fisheries, education);
- consider ecosystem services of PAs when developing sectoral strategies and plans (forestry, water management, spatial planning, energy, education, and others). It will be necessary to establish a comprehensive legal framework for participatory management of PAs;
- in some countries, focus of PA management bodies should shift to nature conservation and sustainable development of PAs, and away from exploitation of natural resources (e.g. mining, forestry, mass tourism, and small hydroelectric powers, in particular);
- develop an institutional framework for PA management, which would allow for integrative management practices and effective inclusion of local stakeholders and businesses;
- improve governance models for PAs, which would ensure a more equitable flow of benefits.

Forest coverage and governance

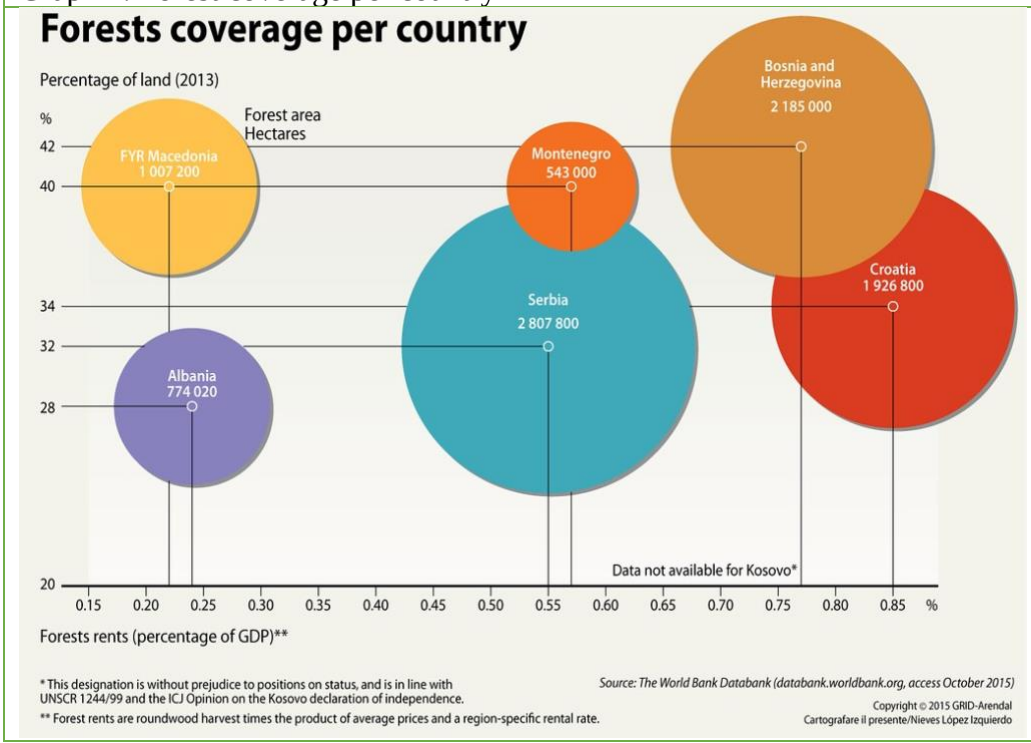
The mountain areas of Western Balkans are mostly covered by forests very rich in biodiversity in terms of flora and fauna of global or European conservation importance. There are vast areas of still preserved, natural and semi-natural ecosystems providing benefits to both nature and local residents. Scattered relics of virgin forest still exist in remote areas, mountainous areas and wetlands. These are the last remains of these forests in Europe[24].

[23] Identified WWF Adria Protected Area Programme https://wwfeu.awsassets.panda.org/downloads/wwf_adria_protected_areas_programme__governance_.pdf?352492/WWF-Adria-Protected-Areas-Programme-Governance

[24] Virgin and natural forests in the temperate zone of Europe, by Jari Parviainen, Jan 2005, https://www.researchgate.net/publication/228931786_Virgin_and_natural_forests_in_the_temperate_zone_of_Europe

Forests occupy a significant proportion of the land area in the Western Balkans – from 28% in Albania up to 44.7% per cent in Kosovo*[25] – and play a significant social and economic role in all of the countries, both in terms of the national economies and local livelihoods. People in rural areas rely heavily on fuelwood not only for personal use, but also for ensuring additional income from sale. The wood industry is an important contributor to the development of local economies. In some countries, the contribution of forestry to GDP is high (8% in Montenegro), but in other countries it ranges between 0.5 and 2.5%[26]. However, the true value to local economies and livelihoods is estimated to be much higher. Forests also provide numerous ecosystem services including maintaining biodiversity, mitigating and adapting to climate change, and regulating soil and water regimes[27].

Graph 1: Forest coverage per country[28]



Overall, forests in the region are experiencing a number of positive and negative trends. Both deliberate and natural afforestation of abandoned agricultural land have increased forest cover in some areas. Sustainable management of high conservation value forests (HCVFs) is improving, including from the perspective of maintaining the flow of ecosystem services, prevention of soil erosion, and the protection of threatened or endemic species. The conservation of forests for

[25] Tomter et al., 2013, World Bank, 2012
[26] Illegal Logging in South Eastern Europe Regional Report, REC, Sept 2010, http://www.illegallogging.rec.org/publications/Illegal%20Logging%20in%20South%20Eastern%20Europe%20Regional%20Report%20EN%20OCT%202010.pdf
[27] WWF PA-BAT analysis for B&H, Montenegro, Serbia, https://www.researchgate.net/publication
[28] Outlook on Climate Change Adaptation in the Western Balkan Mountains, GRID Arendal 2015, https://www.grida.no/publications/162

cultural, historical, or religious reasons is also advocated through HCVFs[29], which also discourages illegal logging.

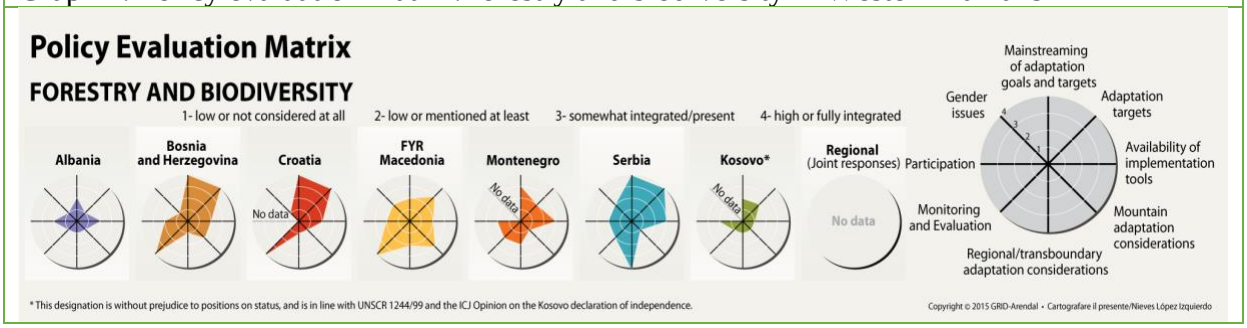
In addition, declining rural populations and rural-to-urban migration, particularly from mountain areas, is reducing both the numbers of young people involved in logging, and the demand for household fuelwood. However, there is still concern in the region over the quality of the forests due to a history of coppicing and sub-standard management of both state-owned and privately-owned forests in some areas[30], while factors such as illegal logging and corruption at various points in the value chain are thought to be hindering the forestry sector reaching its full potential.[31]

Deforestation and illegal logging are important related challenges. The increase of dramatic forest fires in the Western Balkans and pest and disease outbreaks require better risk prevention through sustainable forest governance and land use. The Western Balkan states need to build close inter-institutional relations and private sector networks between each other and with Member States to develop good governance in the forest sector and reduce illegal timber exports to the EU. The main types of illegal logging in the Western Balkans include[32]:

- logging without permission or concession from public forests;
- wood theft or illegal logging from private forests;
- false declaration of volumes, species, values or origins of harvested wood;
- logging in non-marked or prohibited areas;
- obtaining logging authorisation through bribes;
- killing or burning trees so that they can be logged; and
- logging in prohibited or Protected Areas, such as national parks.

Graph 2 represents an evaluation matrix of forestry implementation across the region applied by the United Nations Environment Programme and GRID-Arendal in 2015. Although slightly dated, the matrix is a good starting point for understanding gaps and for evaluating progress in forest governance to date.

Graph 2: Policy evaluation matrix: forestry and biodiversity in Western Balkans[33]



[29] Outlook on Climate Change Adaptation in the Western Balkan Mountains, GRID Arendal 2015, https://www.grida.no/resources/7067

[30] Illegal Logging in South Eastern Europe Regional Report, REC, Sept 2010, http://www.illegallogging.rec.org/publications/Illegal%20Logging%20in%20South%20Eastern%20Europe%20Regional%20Report%20EN%20OCT%202010.pdf

[31] Outlook on Climate Change Adaptation in the Western Balkan Mountains, GRID Arendal 2015, https://www.grida.no/publications/162

[32] REC, 2012, p.5, https://www.coe.int/en/web/cdcj/recommendations-resolutions-guidelines

[33] Outlook on Climate Change Adaptation in the Western Balkan Mountains, 2015, https://www.grida.no/resources/7065

The EU Commission's post-2020 EU Forest Strategy, due out at the beginning of 2021[34] under the European Green Deal, would serve as a guide on effective afforestation and forest restoration in Europe that will help to improve sustainable forest management, increase the absorption of CO2 and the promotion of the bio economy. Measures that support the fight against illegal logging and deforestation-free value chains will also be adopted and will help improve the conservation status and the resilience of the forests in the Western Balkans.

Freshwater capacity and coverage[35]

At present, the Western Balkan countries are abundant with water resources. Within Europe, the WB6 countries are among the most water-rich, measured by the amount of water available per person (10,600 m3/person, which is twice the European average).[36] Most of this water originates from the mountainous headwaters, with several countries receiving a significant share of their water from other countries through transboundary rivers. Water resources have always played an important role in the economy of Western Balkans countries, and have been exploited for irrigation, drinking water supply, industrial needs, livestock production, and tourism. Water resources are also used to generate electricity. On average, according to IEA statistics, about 49% of all electricity generated in WB6 comes from hydropower, although this is much higher in Albania (almost 100%), and Montenegro (59.8 %). Hydropower generation can be affected by accelerated evaporation and drought, and changes in the timing and volume of flow to storage systems.

In the past decade various assessments have shown that the aquatic environments of the Balkan region remained relatively intact. However, the region is currently the backdrop for one of the most ambitious hydropower expansion plans in Europe, with up to 2,800 projects planned (see Case study 3). In a comprehensive review[37] of the threats to European freshwater species, key research finds that at least 44% of freshwater molluscs (373 species) and 37% of Europe's freshwater fishes (194 species) are threatened with extinction – making these two taxonomic groups the most threatened within Europe. Furthermore, from all European threatened species, 151 molluscs (52%) and 52 freshwater fishes (28%) occur in the Balkans. This makes the Balkans a critical site for the conservation of aquatic fauna within Europe. Experts fear that the planned

[34] Future EU Forest strategy: High-quality management of EU forests and woodlands, EU Parliament Nov 2020 https://www.europarl.europa.eu/news/en/press-room/20201002IPR88442/future-eu-forest-strategy-high-quality-management-of-eu-forests-and-woodlands

[35] Regional Strategy for Sustainable Hydropower in the Western Balkan, Background Report No. 2 Hydrology, integrated water resources management and climate change Final Draft 4 November 2017, https://www.wbif.eu/storage/app/media/Library/10.Projects/1.Hydropower/19%20WBEC-REG-ENE-01-BR-2-Hydrology-Water-Management-05.12a.pdf

[36] Regional Strategy for Sustainable Hydropower in the Western Balkans Background Report No. 2 Hydrology, integrated water resources management and climate change Final Draft 4 November 2017 IPA 2011-WBIF-Infrastructure Project Facility Technical Assistance 3 Europe Aid/131160/C/SER/MULTI/3C https://www.wbif.eu/storage/app/media/Library/10.Projects/1.Hydropower/19%20WBEC-REG-ENE-01-BR-2-Hydrology-Water-Management-05.12a.pdf

[37] Fish Conservation in the Blue Heart of Europe, Shoal, Feb 2019, https://shoalconservation.org/project/blue-heart-of-europe

hydropower developments in the Balkan region could result in the loss of one in 10 European fish species.

While the Balkan Peninsula has abundant water resources over all, they are unevenly distributed among and within countries. Some countries face localised water shortages, while most major rivers and lakes are transboundary and in need of effective governance partnerships. Pollution reduces water quality (e.g. Axios/Vardar, Drini/Drim), while irrigation and fragmentation by large dams exert major pressure on rivers and lakes (e.g. Drin, Trebišnjica). Flooding remains a major threat (e.g. Drini/Drim, Vjosa/Aoos, Neretva), and droughts are becoming more frequent and more severe due to a changing climate. Almost all Balkan countries urgently require investments in water supply, sanitation, irrigation and hydropower, based on Integrated Water Resources Management(IWRM) Plans.

For the Balkan countries, constraints for effective water management arise from long-standing sectorial unintegrated planning approach, heavy investment requirements (e.g. in sanitation and waste treatment infrastructure), poor administrative capacities, limited experience in dealing with multidisciplinary issues and the long history of living in centrally planned economies. Additional difficulties arise from the deteriorated government services and the destruction of infrastructure during the recent armed conflicts in some of the countries. Hence, policies and strategies for water use and management have evolved on different principles.

It is customary in these countries for different sectors and services to be separated and handled by different ministries and agencies. In Bosnia and Herzegovina, for example, the responsibility for water management is divided between authorities of two entities - the Federation of Bosnia and Herzegovina and the Republika Srpska - which have two independent sets of water laws and separate organisational structures based on the Water Framework Directive (WFD)[38]. Geopolitical and administrative boundaries in the Neretva-Trebišnjica basin make it difficult to manage the river basin, the delta and the coastal zone. In the North Macedonia, Kosovo* and Albania, despite the adaptation of the EU Water Framework Directive principles in their respective water laws, there is a clear failure to implement a modern water resource management. The pace of legal and institutional reforms required for the implementation of the WFD is generally slow in all countries, which was also the case in the past for countries which are now EU MSs: e.g. Croatia, Greece, and Bulgaria.

In general, despite the recent elaboration of preliminary River Basin Management Plans, there is limited progress in implementing the EU Water Framework Directive, particularly for the assessment and classification of the ecological status of water bodies[39]. Concerning the management of shared basins, the one-sided exploitation of water resources and pollution impact by upstream parties cause critical deficiencies of water quantity and quality to downstream

[38] Instrument for Pre-Accession Assistance (IPA II) 2014-2020 Bosnia and Herzegovina, EU Support to Environment https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/ipa_2018_41501_ad8_bih_eu_support_to_environment.pdf

[39] Regional Strategy for Sustainable Hydropower in the Western Balkan, Background Report No. 2 Hydrology, integrated water resources management and climate change Final Draft 4 November 2017, https://www.wbif.eu/storage/app/media/Library/10.Projects/1.Hydropower/19%20WBEC-REG-ENE-01-BR-2-Hydrology-Water-Management-05.12a.pdf

countries, including surface and ground waters and wetlands. The Neretva in B&H is an example of a shared water body where such a situation has occurred.

To face the transboundary nature of water supply and sanitation issues, the Balkan countries adopted the Water Convention of the United Nations Economic Commission for Europe, which entered into force in 1996. The provisions of the EU WFD and the Water Convention include the design and implementation of joint plans, joint river authorities, transboundary river basin units and coordinated national measures at a basin scale, and provide the platform for the management of shared water basins between member states and non-EU countries. However, joint international management is either insufficient or completely missing for most shared rivers and lakes despite agreements, protocols and treaties signed for the rivers Neretva (not fully in force), Drin (between Albania and North Macedonia), Aoos, Axios, and for the Lakes Shkodra, Ohrid, Prespa and Doirani.

In most cases, implementation failed due to political obstacles, lack of resources or inefficient collaboration at a technocratic level. An example of poor transboundary cooperation is the case of the Drini basin, where major problems relate to floods and water quality. Moreover, the Axios/Vardar basin has been at the heart of numerous conflicts between Greece and North Macedonia for decades, despite agreements on water management that date back to 1959.

In contrast, the case of Lake Prespa (see: Case study 2) is a successful example of how transboundary environmental issues can encourage international cooperation among neighbouring nations (Greece, North Macedonia and Albania). Lake Ohrid, UNESCO Protected Area, provides another example of increasingly effective measures being taken for cooperative management of transboundary lakes.

Although all the West Balkan countries have fresh water resources sufficient for sustainable development, climate change is expected to have an impact on the water regimes. As the requirements for drinking water grow, and the demands for hydropower production increase, the water resources of the region may come under pressure from users with conflicting interests.[40]

Furthermore, coastal and marine habitats are under extreme pressure. As highlighted by the EU Strategy for the Adriatic and Ionian Region (EUSAIR) macro-regional strategy, sustainable blue economy offers interesting opportunities for development in coastal regions. Coastal areas in the Western Balkans face a further set of pressures, such as effluents and solid waste from urban and tourist areas[41]. Integrated Coastal Zone Management and Maritime Spatial Planning are essential cross-cutting tools that can be deployed in the Western Balkans – Albania, Montenegro and B&H.

If the Western Balkans countries plan to achieve sustainable development, water management platforms clearly need to change a great deal. To make such a change possible, new concepts must be accepted and implemented, backed by United Nations Economic Commission for Europe

[40] Ibid: https://www.wbif.eu/storage/app/media/Library/10.Projects/1.Hydropower/19%20WBEC-REG-ENE-01-BR-2-Hydrology-Water-Management-05.12a.pdf

[41] Environmental trends and perspectives in the Western Balkans: future production and consumption patterns, European Environment Agency Report, 2010 https://www.eea.europa.eu/publications/western-balkans/file

(UNECE) and EU policy requirements, which serve as the basis for cooperation between the international organisations to which Balkan countries belong. Future action should embrace new approaches to water management. This involves replacing existing legal instruments, at a national and international level, with others reflecting current trends in the sustainable management of water resources.

Overall, the Balkans represent one of the most important terrirories for potential transboundary cooperation in Protected aAreas management.. Indeed, at least 50% of the sites of international importance in the region are transboundary, including all the large lakes Shkodra, Ohrid, Prespa and Doirani, many large rivers and important deltas. Moreover, in the International Union for the Conservation of Nature (IUCN) Strategic Plan for South Eastern Europe[42], 37 priority sites have been identified for transboundary cooperation in Protected Areas development.

The key challenge is to get the key players and stakeholders from environment, development and energy sectors from all countries in the region on board. Participation in decision making and governance is considered a prerequisite for achieving a mutual understanding of the challenges and reaching effective governance and nature protection.

[42] Shaping a Sustainable Future for South-Eastern Europe, A Strategic Plan for IUCN in SEE https://www.iucn.org/sites/dev/files/content/documents/iucn_see_strategy_final.pdf

Discussion: Driving forces of biodiversity loss

Government capacity and political will

The WB6 are all relatively young post-communist states with young and fragile institutions. There is no collective experience with democratic separation of powers, the public sector remains inefficient and public servants frequently lack education and training. Party politics play a deciding role in the organization of state institutions. As such sustainable development policies are not followed through, strategies are often written *pro forma*, and laws are not implemented. For example, Bosnia and Hercegovina has one of the most complex state administrative layouts[43] making implementation and institutional memory almost impossible to maintain. Kosovo*, with the youngest government administration in the region, has changed its ministries three time in the past three years[44]. In Serbia, after a decade of relatively democratic development (2000 – 2012), overtake of power by the Serbian Progressive Party in 2012 has led to a degradation of fragile democratic institutions set up by the previous democratic coalitions. Throughout the region, transfers of power between parties entail mass layoffs of public servants. This erases institutional memory, undermines capacities that had been built in the previous period, and reverses whatever gains had been achieved. For this reason, the state institutions in WB6 countries still do not have in place effective working mechanisms and rules to ensure coordination of the implementation of international environmental agreements as well as national rules and regulations.

We can point to two root causes of this problem: stunted socio-economic development, the consequence of a failed transition to a market economy, and the ruling party's control over public enterprises. To make matters worse, the ruling elite's cronies are quick to overtake successful green-field companies.

The abuse of European Union's energy transition funds, in particular for the mini-hydro-power-plants, reflects the general lack of political will and understanding of the crucial need for environmental protection in the region. It is also representative of the general corruption and nepotism that is widespread across the Western Balkans, which is hindering sustainable development and threatening the entire transition to renewable energy, with it biodiversity conservation.

In parallel, one of the main obstacles to the nature protection is a serious lack of integrated legal monitoring. The reasons for this are weak political will and insufficient long-term government financial support for national and local authorities with sufficient number of competent public servants/inspectors who can ensure monitoring of environmental protection. For example, the Serbian Government Decree from 2019 prohibiting fishing of the endangered Sturgeon, cannot be enforced due to a lack of monitoring mechanisms, including the lack of environmental inspectors.

[43] Political divisions of Bosnia and Herzegovina, https://en.wikipedia.org
[44] *Kosovo has a new government: again*! By Kaltrina Beqiri**,** Party System and Government Observatory, June, 2020 https://whogoverns.eu/Kosovo*-has-a-new-government-again/

The situation is made worse by petty corruption of civil servants, coupled with a lack of environmental awareness and the general poverty of the local population[45].

Bosnia and Hercegovina's highly decentralized, poorly organized and generally under-staffed government structure creates its own set of challenges to communication and implementation. Relevant governmental institutions lack personal and technical capacity. This ratio of stakeholder groups is not optimal for efficient biodiversity data management; biodiversity data integrators are unusually numerous and biodiversity data providers are extremely scarce[46]. This can be said for the region as a whole. In this way, internationally invested efforts and resources of the past two decades in building the capacity of both public servants and the civil society are taking much longer to root and to bear fruit.

Effective legal implementation

While a comprehensive policy framework has been written down, implementation on the ground is lagging behind. The Western Balkans states still need to fully align their policies to the EU Biodiversity Strategy for 2030 and to support the EU position at the upcoming international negotiations on the global post-2020 biodiversity framework. Nature, biodiversity and climate change remain to be effectively mainstreamed into other policies (agriculture, forestry, regional development, energy, transport, fisheries, etc.).

Overall, implementation of EU Chapter 27 has been lagging in progress across the WB6, (see Annex 2. Overview of implementation of EU Chapter 27).

With regards to state mechanisms for punishing environmental degradation it is usual to issue fines which are not very high in comparison to the gained profits. Investigation by the Centre for Investigative Journalist of Serbia shows that these are not efficient measures to ensure environmental protection[47]. Specific "green" funds should turn from a budget line to a real co-financing instrument. Mainstreaming environment and climate into relevant policy areas requires working with ministries.

In addition, the face of corruption is all too familiar but the one seen in the Western Balkans has slightly different features to those in other parts of Europe. Results presented in the UNODC WB Corruption Report[48] show that the people of Albania, Bosnia and Herzegovina, Croatia, Kosovo*, Montenegro, Serbia and North Macedonia rank corruption as the most important problem facing their countries/areas, after unemployment and poverty.

Overall, the matter of corruption amongst citizens and lower level public servants is a case of chicken and egg. Low average income and highly spread poverty, place a large number of citizens

[45] Danube Sturgeon endangered despite fishing prohibition, BIRN, Dec 2020 https://birn.rs/keciga-ugrozena-i-pored-zabrane-izlova/

[46] CBD Sixth National Report, Country: Bosnia, July 2019, https://chm.cbd.int/database/record/87754782-6B20-DB6C-EDE0-B29DEEE70265

[47] Dina Đorđević, Ziđin na sudu zbog zagađenja u Boru, Centar za istraživačko novinarstvo Srbije (CINS), Feb 2020, https://www.cins.rs/zidin-na-sudu-zbog-zagadenja-u-boru/

[48] UNDOC - Corruption in the western Balkans: Bribery as experienced by the population, https://www.unodc.org/documents/southeasterneurope//corruption/Western_balkans_corruption_report_2011_web.pdf

in need of extra earning. This, coupled with a weak application of the rule of law, supported by poor and often unfair laws, results in individuals and small businesses finding any means to make financial gains. Often, such activities lead to the exploitation or pollution of the natural environment. For example, deforestation and illegal logging are direct consequences of unemployment, poverty and corruption. Similarly, absence of state regulated waste management leads to unregulated landfills that are the cause of air, land and water pollution. The Vincha landfill in Serbia is such an example[49].

The example of small hydropower developments across the region clearly reveals a state corruption[50]. In Serbia the decree on determining the list of projects for which an Environmental Impact Assessment (EIA) is required has been changed to remove the requirement for SHPPs with an installed capacity of less than 2 MW – and most SHPPs have an installed capacity of less than 2 MW. Then, the decree on protection regimes was changed to enable the construction of SHPPs with an installed capacity of up to 5 MW in IUCN category II Protected Areas. This is contrary to the nature protection concept – it is irrelevant whether the installed capacity is 200 kW or 2 MW: building any dam and pipelines has an adverse impact on the environment. And most recently, in December 2020, despite EU's clear recommendation against the use of feed-in-tariffs the Government of Serbia increased the subsidies for renewable energy (read: mini-hydro-power-plants) by 500%, from 0.097RSD[51] to 0.437RSD per kWh.[52]

Business as usual

An increasing number of leaders, mostly in the 'Global North', are recognizing the threats of the climate change and environmental degradation and are committing to reorient their economies to clean technologies. National and international companies see the potential for profit in green technology and nature-based solutions.

For the most part, the WB 6 leaders are among the laggards who continue to look for ways to profit from old technologies and environmental destruction. Due to underdevelopment, corruption, weak rule of law and lack of political will, WB 6 countries continue to attract foreign investors in dirty technologies which cannot be used in their home countries.

Serbia offers three extreme examples of how the government has kept the country open to Chinese foreign investment based on dated heavy industries: the steel Industry in Smederevo, the copper mining in Bor, and the rubber production in Zrenjanin. In all three cases Chinese companies have been given concessions to work in Serbia without the requirement to adhere to environmental protection standards. In addition, none of the contracts have been transparent and open to the public (described in more detail further below in Conflict of Interest section).

[49] Is the construction of waste incinerator in Vinca the best ecological solution for Belgrade's burning problem? – IFC says its meets all the standards, May 2020, https://www.ekapija.com/en/news/2889569/is-the-construction-of-waste-incinerator-in-vinca-the-best-ecological-solution

[50] "Investors alone have benefits from small hydropower plants – citizens, state and municipalities have none", Interview with Ratko Ristić, Dean of the University of Belgrade Faculty of Forestry, Balkan Green Energy News, April, 2019 https://balkangreenenergynews.com/investors-alone-have-benefits-from-small-hydropower-plants-citizens-state-and-municipalities-have-none/

[51] 1 Eur = cca 117 Rsd – Serbian dinar

[52] „Serbia's renewables incentive fee raised fivefold", Balkan Green Energy News, December, 2020 https://balkangreenenergynews.com/serbias-renewables-incentive-fee-raised-fivefold/

Furthermore, there is inefficient and uneven state support for development of SMEs, and EU development funds have not been drawn because of lack of capacity of both public and private sector to administer these funds.[53]

Across the Western Balkans and the EU as a whole, up to 99% of all enterprises are small or medium sized. These businesses are the key to ensuring economic growth, innovation, social integration and perhaps the most importantly, a job creation. In fact, in the six countries of the Western Balkans, SMEs employ between 60% and 80% of the active population, which is on average higher than in the EU. However, a recent report by the EBRD identifies that although the small business sector is critical to regional economies, its potential remains "largely untapped". "SMEs are under-represented in the international trade and their contribution to value added remains low as they have difficulties in moving or expanding into high-value added activities."[54]

General public trends

Overall the general public across the Western Balkans has low level of awareness about the rising and destructive environmental impacts of human activities on the planet. This is coupled with the general lack of education and an absence of a proactive approach to the solving issues, the dysfunctional public institutions; inadequate mechanisms for communal and other waste management; rapid and unstructured urban development with prevailing illegal and unprofessional construction, which often lacks a sewage infrastructure and a communal waste collection, and thus has serious negative impact on land and water pollution. A large number of households use cheap heating agents, which cause terrible air pollution in the Western Balkan cities and rural areas. Added up these factors are causing consistent and increasing deterioration of the state of nature and the natural environmental across the region.

Wide and uncontrolled use of pesticides in agriculture shows lack of awareness and understanding of nature's fundamental cycle, which allows the soil to regenerate in order to produce the healthy and abundant yields. This has caused the dying out of bees and other pollinators who are crucial for biodiversity, and have badly affected the survival of a large number of birds, some of which are protected species. It is a typical example of environmental destruction for the sake of fast/er profits.

The entire region struggles with the communal waste management. Very little is recycled and reused and both legal and illegal landfills are polluters. At the same time the shopping mall boom of recent years shows the overall state-supported consumerist culture deepening. Fast fashion and cheap, single use plastics are responsible for a rapid increase in the amount of communal waste. A recent IUCN report reveals that mainly due to high quantities of mismanaged waste and large coastal populations, if measured per capita, Montenegro (8kg/year/person), Albania, Bosnia and

[53] Money from IPARD funds is wasted, Oct 2020, http://www.agroservis.rs/propada-novac-iz-ipard-fondova
[54] Report sees improved conditions for SMEs in Western Balkans and Turkey, May 2019, https://www.ebrd.com/news/2019/report-sees-improved-conditions-for-smes-in-western-balkans-and-turkey.html

Herzegovina and North Macedonia (each contributing an estimated 3kg/year/person) have the highest levels of plastic leakage into the Mediterranean Sea[55].

Climate change

Climate change is one of the most pressing global threats to human security and biodiversity. The Western Balkans is particularly exposed to the effects of extreme weather events, including heat waves (see: Graph 3: Projected extreme heat waves in Europe, EEA 2015), droughts, and flooding. Heat extremes will be the new norm for the Western Balkans. Projections suggest an increase in riverine flood risk, mainly in spring and winter, caused by the more intense snow melt in spring and increased rainfall in the winter months (precipitation projections are, however, particularly uncertain)[56]. According to a study by the Regional Cooperation Council[57] the following sectors will be most impacted:

- agriculture > (food quality decrease, land erosion and degradation, etc);
- forestry > (high risk of widespread forest degradation, disappearance of present taxa, etc);
- water resources > (deficiency in drinking water, impact on biodiversity, etc);
- human health > (increase of heat waves, intrusion of new vector-borne diseases, etc).

On a positive note, all the Western Balkan countries are currently preparing the National Energy and Climate Plans (NECPs) for the period up to 2030, with a view to 2050 decarbonization. All six have also signed and ratified a number of international documents such as the Paris Agreement, and more recently committed to a clean energy transition, expressed in the Podgorica Joint Statement of 21 February 2019, to decarbonisation in line with the EU Climate Law and formally expressed in the Sofia Declaration on the Green Agenda for the Western Balkans in November 2020.

However, despite this apparent political commitment, the government bodies of the WB6 have been acting without understanding and have failed to take proactive steps to create and integrate a comprehensive set of policies with regards to climate change mitigation and adaptation. In fact, two of the Western Balkan countries – Serbia and Bosnia and Herzegovina – are still planning to build the new coal fired power plants and open the new lignite mining fields[58]. While some attempts have been made to start a dialogue on 'just-transition'[59] in the coal regions of the Western

[55] Albania, BiH, Montenegro, North Macedonia have highest plastic leakage rates into Mediterranean, in Balkan Green Energy News-Waste, Oct 2020, https://balkangreenenergynews.com/albania-bih-montenegro-north-macedonia-have-highest-plastic-leakage-rates-into-mediterranean/

[56] WBEC-REG-ENE-01 REGIONAL STRATEGY FOR SUSTAINABLE HYDROPOWER IN THE WESTERN BALKANS Background Report No. 2 Hydrology, integrated water resources management and climate change, November 2017, https://www.wbif.eu/storage/app/media/Library/10.Projects/1.Hydropower/19%20WBEC-REG-ENE-01-BR-2-Hydrology-Water-Management-05.12a.pdf

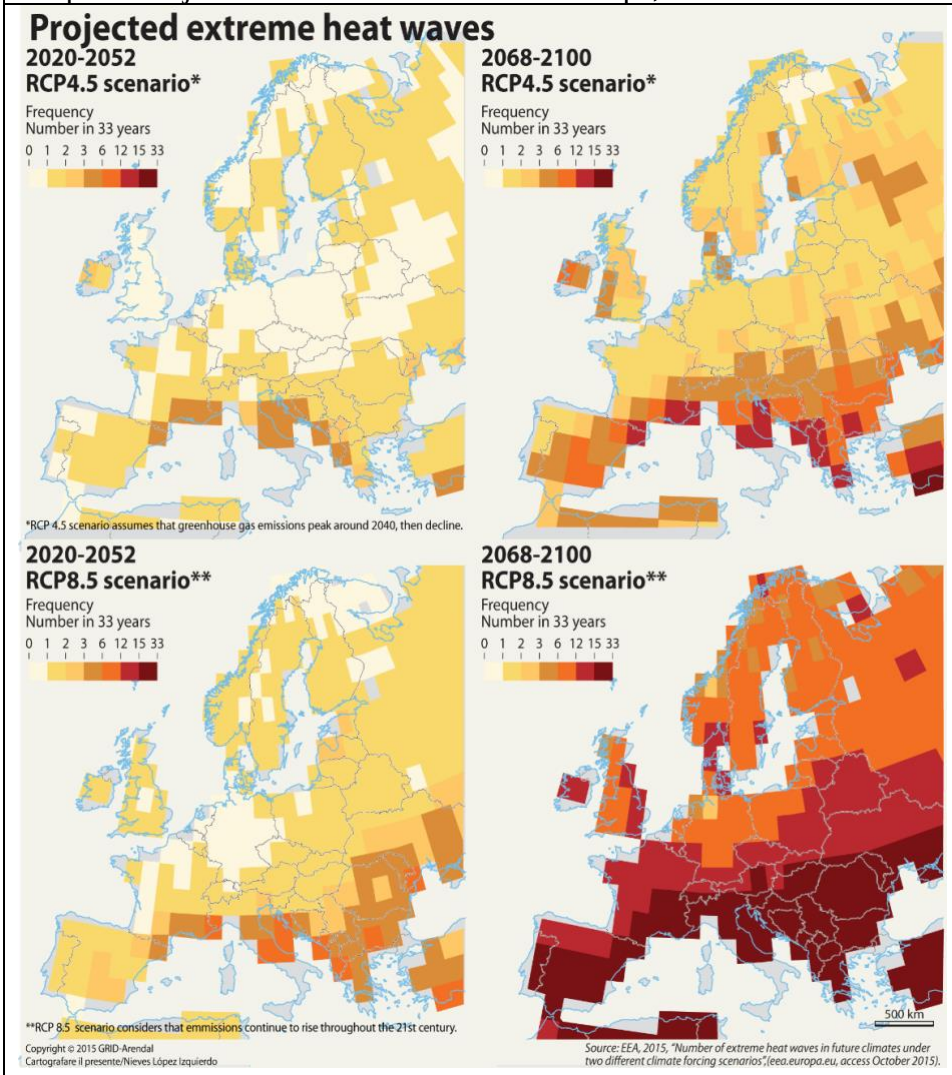
[57] Study on climate change in the Western Balkans region, by dr Ana Vuković, dr Mirjam Vujadinović Mandić, Sarajevo 2018, SEE2020 SERIES, https://www.rcc.int/pubs/62

[58] Four principles for a participatory 'just-transition' in the Western Balkans and Ukraine, December 2020, Bankwatch, https://bankwatch.org/wp-content/uploads/2020/12/position-JT-WB-UA.pdf

[59] A just transition seeks to ensure that the substantial benefits of a green economy transition are shared widely, while also supporting those who stand to lose economically – be they countries, regions, industries, communities, workers or consumers. https://www.ebrd.com/what-we-do/just-transition

Balkans, mostly by civil society groups, so far none of the regions has a participatory plan for a just transformation of their mining areas.

Graph 3: Projected extreme heat waves in Europe, EEA 2015



In fact, the need to employ Nature-based Solutions is largely overlooked, while a degradation of biodiversity and environmental protection continues. Rivers are considered one of the most productive ecosystems and important biodiversity areas and play a vital role in the life of humans providing key ecosystem goods and services, yet they are being destroyed by mini hydro-power-plants across the region. The protection and restoration of wetlands is critical, as they perform various roles and provide essential services, including purifying the water that flows through them, mitigating floods and effects of extreme weather, such as storm surges in coastal areas, recharging aquifers, providing fisheries for local communities, water for agriculture and rich habitats for

wildlife. Also, more recently, wetlands have become more popular ecotourism destinations, providing spaces for inspiration, education or recreation[60].

A recent study[61] of the potential of the Western Balkan states to adapt to the climate change impacts such as floods shows that over 20% of flood-prone areas are covered by adapted wetlands, riparian forests or grasslands, which is approximately double the percentage than in Western Europe, where a land use has extremely changed since about 1900. However, in Western Balkans the near-natural water retention areas, fulfilling all requirements for nature-based solutions for flood prevention, have been drastically reduced in their size and capacity, with 75% loss. It is therefore necessary to prevent further losses, even as the pressure for more intensive land use is high. Most of the flood-prone area is used for agriculture (66%), except for grasslands which are adapted to regular inundation. Settlements and infrastructure cover 5%, which is less than expected (in comparison with Western Europe). Spatial planning must prevent further uncontrolled land use and illegal housing especially in floodplains. It is, therefore, necessary to strengthen the commitment for implementing Nature-based Solutions[62] politically and in spatial planning to increase their multifunctional contribution and effectiveness for the climate change mitigation.

Key players and conflicts of interests

Dominant players

The State

All WB6 states have proven to be the weakest link in ensuring the environmental protection and nature conservation. The regional case of mini hydropower plants offers an in-depth reflection of the conflicts of interest that are a common feature of all Western Balkan government structures, to a larger or smaller degree. The system of feed-in-tariffs was set up as a way to incentivize production of a clean energy, despite EU's recommendations not to use them because it limits market competition. This mechanism was largely abused by the ruling elite in all WB 6 states, while bringing the extreme natural degradation by not conforming to legally required Environmental Impact Assessment tools in reported one fifth of the cases[63].

Namely, as well as contributing to the environmental damage, and subsequently to the climate change impacts, incentives for hydropower in the Western Balkans have attracted widespread criticism for benefiting the wealthy business people close to - or in - the region's governments. Examples include[64]:

[60] Water, our ally in adapting to climate change in the Western Balkans, Aug 2020, IUCN https://www.iucn.org/news/eastern-europe-and-central-asia/202008/water-our-ally-adapting-climate-change-western-balkans

[61] Nature-based solutions for flood risk prevention in South-Eastern Europe, 2018, https://www.bfn.de/fileadmin/BfN/service/Dokumente/skripten/Skript511.pdf

[62] Sustainable Use of Land and Nature-based Solutions Partnership, Draft od Action Plan, July 2018 https://ec.europa.eu/futurium/en/system/files/ged/final_draft_action_plan_27-07-2018v3.pdf

[63] Green Ideals, Dirty Energy: The EU-backed Renewables Drive That Went Wrong, Fagaras, Gracanica, Kamena Gora, by Dina Djordjević, Dec 2020, BIRN https://balkaninsight.com/2020/12/15/green-ideals-dirty-energy-the-eu-backed-renewables-drive-that-went-wrong/

[64] Western Balkans hydropower. Who pays, who profits? How renewables incentives have fed the small hydropower boom and what needs to change, Sep 2019, Bankwatch, https://bankwatch.org/wp-content/uploads/2019/09/who-pays-who-profits.pdf

- North Macedonia's Deputy Prime Minister for Economic Affairs, Kocho Angjushev owns at least 27 small hydropower plants, and the president of the main opposition party, Hristijan Mickoski, also holds at least five concessions;
- in Serbia, companies connected to Nikola Petrović, the godfather (*kum*) of President Aleksandar Vučić, are among the top beneficiaries of hydropower support;
- Montenegro's renewables incentives system has lost public credibility by mainly benefiting the people close to the President, Milo Đukanović.

Foreign investments and incentives

Various foreign and multinational corporations have been exploiting the weak rule of law across WB6, and are investing in the highly polluting and extractive industries, without having to invest into necessary environmental protection. For example, the Chinese giant HBIS, registered as Hestil – HBIS Srbija, bought Serbia's largest steel factory in Smederevo, which continues to operate without pollution abatement and causes the catastrophic environmental and health consequences[65].

Rio Tinto, a global mining giant, infamous for devastation of cultural, social and natural environments across the globe[66], is, with support from the Serbian government, rooting in Western Serbia, on the border with Bosnia[67], and threatening to destroy and pollute vast agricultural area and rivers Jadar, Drina, Sava and other.

A common feature in the large international investment that are supported by the governments across the WB6 is that there is no transparency and no access to the information that is of public interest, such as contracts; no public consultation process; no comprehensive and non-biased Environmental and Social Impact Assessments, although each state has laws mandating them.

The case of small hydropower plants is also an example of how the incentives for renewable energy backfired due to a mixture of a state corruption and a private profitmaking. For example, at least 30 projects supported by multilateral development banks are either within, or clearly impacting on Protected Areas. The EBRD has been the most visible, with 21 such projects[68]. In 2015 the EBRD announced that it will revise its investment guidelines for SHPP and organized a banking summit in 2019 at which the funding of hydropower projects in the Balkans was critically examined. Incentive to support renewable energy sources (RES) [69]as per the EU Agenda 2020, have been misused by state powers, who offered subventions in the form of feed-in-tariffs, without ensuring EIA. As such these external decisions have led to drying out of dozens of small rivers, being the cause for serious loss of regional biodiversity.

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[65] Profit preči od zdravlja, by Milica Čubrilo Filipović Oct 2020, Heinrich Boell Stiftung, https://rs.boell.org/sr

66 Rio Tinto expected to destroy 124 more Aboriginal sites, inquiry told, Sept 2020, The Guardian, https://www.theguardian.com/australia-news/2020/sep/21/rio-tinto-expected-to-destroy-124-more-aboriginal-sites-inquiry-told

67 U ime ekonomije, by Marija Nikolić, Nov 2020, Odiseja, https://www.odiseja.rs

68 Financing for hydropower in Protected Areas in Southeast Europe, Dec 2015, https://bankwatch.org/sites/default/files/SEE-hydropower-financing.pdf

69 RES - Global renewable energy company: development, engineering, construction and operation of onshore and offshore wind farms, solar parks, transmission lines, www.res-group.com

Agents of change

A small number of committed individuals are usually responsible for creating the desired change[70]. This is also the case in Western Balkan states where strong and committed local grassroots movements have been fighting for a long time to bring the environmental issues to the forefront. Their efforts have been, and continue to be, faithfully supported by a substantial number of international environmental and democracy-orientated organisations who have been present in the region for the past three decades, such as the IUCN, WWF, EuroNatur, BankWatch, Climate Action Network Europe[71] and many others, whose influence has been very positive.

This synergy has allowed for some successes to take place, such as the movement against small hydropower plants. The two (grassroots movements and international NGOs) could not succeed without each other. Without international donors local and national efforts would not have been able to challenge the negative impacts brought about by damaging state policies and private sector investments. Similarly, without the grassroots actors, the visions and missions of international nature conservation and protection organisations would not have had the necessary local support in the region.

However, the regional civil society and not-for-profit organisations are mainly funded on a project-by-project basis. This has been an obvious weakness making them more exposed to general inconsistency in political, financial and legal environments in their states. In addition, as social watchdogs and government critics CSOs are often perceived as 'the enemy' by public servants and unaccountable politicians. For this reason, their constructive criticism is overlooked by the state. It remains an opportunity, and a challenge, to build bridges and improve cooperation between the experienced and committed NGOs and demotivated government officials across the WB6.

The cumulative and rising attack on natural resources across the region has led to public protests in local communities, who have started to organize themselves and raise their voices against environmental devastation. Many grassroots movements and spontaneous resistance against investors have been growing across the region. In Štrbci, a small mountain place in Kosovo*, Albanians and Serbs united in the movement against such investors, overcoming the ethnic divisions deeply rooted in the recent wars and ongoing political disputes.

The rise of the environmental activism and movement for nature protection in general on the global scale has spilled over to the Western Balkans. Social media and networks serve as the main channels for spreading information, especially in rural areas, which lack independent media. The result is the heightened awareness of individuals and young people about ongoing issues, which

70 Sayings: "Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has". "Informed, concerned and thoughtful citizens can change the world" are quotes often used without a proof of their origin.

71 CAN Europe - Climate Action Network Europe is Europe's leading NGO coalition fighting dangerous climate change. Withover 170 member organisations active in 38 European countries, representing over 1.500 NGOs and more than 47million citizens, CAN Europe promotes sustainable climate, energy and development policies throughout Europe, http://www.caneurope.org/

has empowered them to act to protect their basic rights. Successful cases of the local movements 'Save the rivers of Stara Mountain'[72] and 'Brave women of Kruščica'[73] testify to this.

Led by a progressive minority and helped by external factors, the private sector is also starting to see internal change. The case of the Green Building Council (GBC) is an example of a business association which is nurturing progressive thinking in the construction industry. For the past decade the GBC efforts to introduce sustainable construction principles in the region have been thwarted by backwards national strategies and laws with regards to trading of renewable energy, availability of local materials, and the non-enforcement of high construction standards. Still, the GBC has become an agent of change, which has united around 300 private companies, both national SMEs and international representatives, in Montenegro, Serbia, and B&H.

This new energy and vision have not yet been articulated through the independent political green parties in any of the states in the region. However, the green agenda is becoming widespread through different formal communication channels, education, public debates and should be effectively mainstreamed on the political agenda. It has the potential to inspire real political change across the region because it is a uniting factor that concerns each individual, despite all other real or imposed social and political divisions. We should not neglect the threat that the green agenda could be abused and green-washed by the ruling populist political parties and unsustainable businesses. That's why European and other incentives that are the true agents of change should be strategically supported and institutionalised in order to defy those who wish to keep status quo and keep 'doing business as usual'.

[72] Nensila Radojkovic & Goran Tokic, Save the Rivers of Stara Planina https://riverwatch.eu/sites/default/files/uploads/EuropeanRiversDays/Presentations/4__Save%20the%20Rivers%20of%20Stara%20Planina.pdf

[73] Nensila Radojkovic & Goran Tokic, Save the Rivers of Stara Planina (2020) https://balkangreenenergynews.com/brave-women-of-kruscica-win-euronatur-award-for-averting-construction-of-2-shpps/

Case study 1: Victory after two decades fighting for the Ulcin salina, Montenegro[74]

Photos: www.euronatur.org and www.montenegro-for.me

In September 2019, the Ulcin salina was designated a Wetland of International Importance under the Ramsar Convention[75]. This step was preceded by a cumulative set of efforts applied by the local environmental NGOs, with support from the international nature protection community and European Union diplomats. For nearly two decades, a partnership including EuroNatur, the Martin Schneider Jacoby Association (MSJA) and the Center for Protection and Research of Birds (CZIP) from Montenegro, has been working to protect the lagoon from development of a luxury hotel resort.

Covering 15 square kilometres (6 square miles), the Ulcin salina is part of the Bojana-Buna estuary, a natural border between Albania and Montenegro, and one of the most important wetland areas in the Balkans. Thousands of birds rest there each year in the spring and autumn. Its significance to migratory birds is often compared to that of Heathrow Airport for humans, with nine times more birds passing through the salina than passengers through one of the world's busiest airports.

The salina is the site of the old *Bajo Sekulic* salt works, which opened in 1926 and at its height employed over 450 local people from southern Montenegro, producing a high-quality salt billed as 'a marriage of the sun and the sea.' Until 2005, the site was managed for salt production, with the careful maintenance of its channels and saline pools proving perfect for birdlife. But the situation changed dramatically in 2005 when the salina was privatized by investment company Eurofond from Montenegro. However, to date it remains unclear if the privatization involved just the right to extract salt, or the ownership of the land. Eurofond claims the latter but according to the local land registry, the Montenegrin state is still the registered owner.

[74] Grassroots campaign saves major wetland in Montenegro, by Mark Hillsdon, Nov 2019, https://news.mongabay.com/2019/11/campaigns-help-save-the-ulcinj-salina-montenegro/

[75] The **Ramsar Convention on Wetlands** of International Importance Especially as Waterfowl Habitat is an international treaty for the conservation and sustainable use of wetlands. It is also known as the **Convention on Wetlands**. It is named after the city of Ramsar in Iran, where the convention was signed in 1971, www.ramsar.org

Over the years there have been various attempts to protect the salina, which is also home to over 50 different species of nesting birds, including huge flocks of greater flamingo, rare Dalmatian pelicans, and diminutive black-winged stilts. Hunting was banned by the local workers' council as early as 1984, when Montenegro was still part of the former Yugoslavia, and five years later the site was recognized as an Important Bird Area (IBA).

In 2012, the salt company declared bankruptcy and halted production, allowing the site to rapidly deteriorate. In the process unidentified criminals destroyed the pumps, which were crucial to circulating water around the site and preserving the unique habitat. As dams collapsed, fresh water flooded in, deterring the migrant birds that thrive on the salt water.

Eurofund also began lobbying hard for the designation of the salina to be changed from an industrial zone to land suitable for the construction of a tourist resort, putting forward plans for a marina, golf course and luxury hotel.

The Save Salina Campaign launched a petition to oppose this change of use but only 3,000 local people signed it, because many of them were afraid to put their name to the text. The petition did initially meet with some success, and the parliament recognized the salina as a 'potential protected area'. The success was short-lived, and the decision was overturned by the courts on appeal in 2015. However, the campaigning partners were allowed to tentatively start promoting the site, with the creation of a small souvenir shop, interpretation boards and even a bike hire. This allowed awareness to spread amongst the local and international community. So, when access to the salina was eventually denied and the factory's bankruptcy proceedings were completed the issue at stake echoed far and wide. The second petition to afford the site protected status launched by CZIP and campaigners gathered 100,000 signatures in just two weeks. In June 2019 the site finally received protected area status as a Nature Park.

The turning point that led to the eventual protection of the salina was the support from EU ambassadors, namely German, French and Polish ones, who openly advocated in Brussels for the protection of the salina, and unveiled the disputable privatization process. This put pressure on the Montenegrin government to uphold the values that are inscribed in its constitution, and the efforts of the grassroots campaigners could no longer be pushed aside. In fact, protection of the salina has been set as benchmark for Montenegro's future EU accession. In 2017, an EU study said that the salina should be revitalized, with the Montenegrin government agreeing that salt production should be re-established. The key elements of the protection are that salt production is to be re-introduced and activities such as cycling and birdwatching will be encouraged, but no new buildings are to be constructed. An estimated €10 million is needed to restore it.

The campaign tapped into local affection for the area and succeeded in demonstrating that the proposed luxury tourist development would not only destroy the salina but would offer poorly paid, often temporary jobs. Instead, the local community is now developing a sustainable tourism plan that promotes a more diverse range of stable jobs based around a nature tourism, as well the health benefits and spa potential of the salina's mud and salt.

Further steps of the newly elected government of Montenegro are closely watched by the campaigners and EU officials. The capacity of local NGOs and international advocates should be

used to ensure that the potential of the Ulcin salina is mobilized, and that it serves as the leading example of how nature and people depend on each other to thrive. It should be an example to local communities to be persistent in fighting for their civil rights, while European diplomats must embrace their role as the guardians of the EU accession process for WB6 states and monitor the process, closely making sure that state leaders are held accountable for values they claim to be upholding – transparency, the rule of law and sustainable development with just-transition in focus.

Case study 2: Closing the gap between strategic and operational planning for Protected Areas, Lake Prespa, Macedonia/Albania/Greece[76]

Photo: Prespa lake by Miroslav Jeremić

The prospect of securing long-term co-financing from Prespa Ohrid Nature Trust (PONT) has propelled the Protected Area management authorities in the Wider Prespa Area in Albania and North Macedonia to overhaul planning and implementation of their core operations. They are now regularly using the Management Effectiveness Tracking Tool (METT) as a decision-support tool to achieve more transparent, evidence-based, and adaptive management, tied to the annual management cycle. The findings and results of the METT assessment inform the development of the operational plans using a template developed by PONT. PONT's co-financing enables PA managers to recruit new staff and deploy adequate resources to sustain the core management functions over the long-term, such as biodiversity monitoring, environmental education or visitor management that were often neglected in the past or contingent on projects or other forms of intermittent external support.

Project beneficiaries include management authorities of Galicica and Pelister National Parks, Lake Prespa Monument of Nature and Ezerani Nature Park in North Macedonia and Prespa National Park, in Albania.

While Managements Plans have been gradually integrated into the long-term management cycles for the PAs in the WPA, there is still a wide gap with annual or operational planning. The gap exists due to a number of reasons, including unrealistic and non-operational Management Plans, lack of knowledge and skills, inadequate work procedures, missing or ineffective decision-support systems, as well as insecure funding. The heavy dependence over the past two decades on short-term international project funding and external consultants have often perpetuated these weaknesses. The resulting ad-hoc and inconsistent management hampers the effective implementation of the management plans.

[76] Closing the gap between strategic and operational planning for Protected Areas, Lake Prespa, by Oliver Avramoski, Prespa Ohrid Nature Trust https://panorama.solutions/en/solution/closing-gap-between-strategic-and-operational-planning-protected-areas

Three key building blocks were used in order to bridge the gaps for successful PA management:

1. the METT is being used to organize and evaluate information from the previous year concerning the status and threats to biodiversity, stakeholders and communities, and its findings and results help determine preferences among options in preparing the operational plan for the subsequent year;
2. the operational plan and budget Templates used to submit grant applications to PONT enable PA managers to integrate both recurrent (routine) with those non-recurrent activities (projects) that are achievable with existing staffing, technical and financial resources, including the co-financing from PONT;
3. PONT is securing the funding of the core operations of up to 50% of the total annual budget by 2030, and possibly beyond. As such PA managers can consistently pursue the achievement of the management objectives set out in the Management Plan without relying significantly on intermittent short-term donor projects, which creates a sense of ownership towards the operational plans.

Having a predetermined but secured total budget allocation for the year, and in the long-term, the PA managers in the WPA are able to develop and maintain the key functional areas and programs, based on the Management Plan and thereby increase the Management Effectiveness. This is true in particular for monitoring of biodiversity, visitor management and environmental education programs that are still inexistent or underdeveloped due to the heavy reliance on short-term and often discontinued support from international donors that provided initial investments and technical assistance, but no funding to sustain the operations in the long-run. With PONT's long-term co-financing the PA managers are able to recruit and retain new staff and gradually retrain the existing ones to develop the key programs and increase their capacity to mobilize and implement additional funding from external sources for non-recurrent activities that have a more flexible timeline of implementation. Several rangers, biologists, communication and education experts have joined the PA authorities in WPA over the past two years filling in long-vacant positions of critical importance for their basic operations. The first results of the improved operational planning are evident in the 2020 Operational Plan Galicica NP that has a strong focus on visitor management and environmental education and excludes firewood production activities, for the first time, setting a precedence for national parks in North Macedonia.

The three-step methodology to achieving sustainable PA management is an example to replicate across the region. It reflects the need for multi-stakeholder partnerships between government and international donors, as well as a long-term funding that will enable capacity building for nature conservation sector overall.

Case study 3: The war for free flowing Balkan rivers fortifies

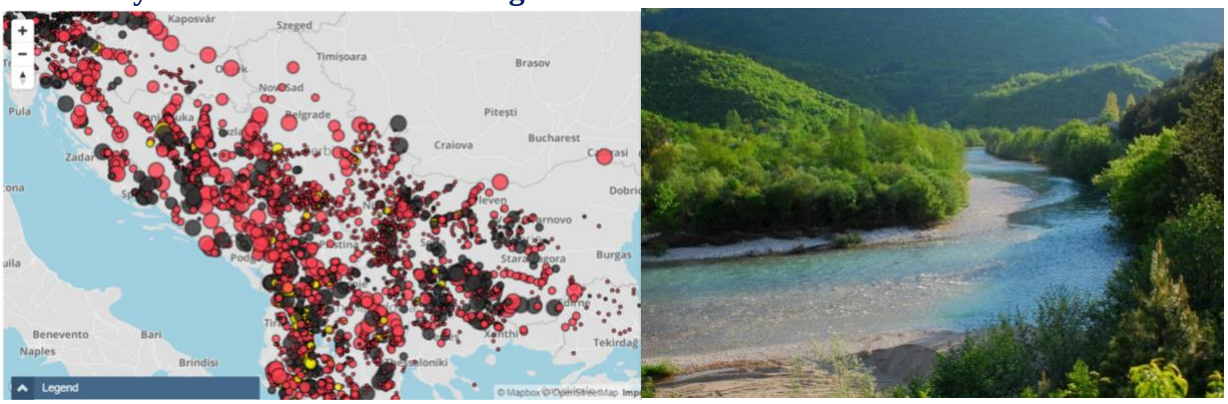

Photo: Left interactive map https://balkanrivers.net/en/campaign; right Neretva, B&H, by A. Vorauer

Nowhere else on the continent can one find such a tremendous number and variety of pristine, wild rivers, crystal clear streams, extensive gravel banks, untouched alluvial forests, deep gorges, spectacular waterfalls, and even karstic underground rivers, which mysteriously flood the surface during extreme rain fall and snow melt in autumn and spring, as exists in Western Balkans.

However, since about 2005, there has been immense interest in building small hydropower plants in the Western Balkans. As an incentive to push for renewable energy the EU proposed a plan is to build 2,796 hydropower plants (including small plants with a capacity of 0-1 MW). Not even the most striking and valuable river stretches – even if located inside a national park – were to be spared. Albania has been the most active in this regard, awarding concessions for no less than 435 hydropower projects from 2007 to 2013. While many of the concessions have not resulted in any construction so far, it is estimated that as of the end of 2016, there were as many as 387 hydropower plants of less than 10 MW in the region. Not all of these are new, but many are.

Of those plants already built, many have been supported by European tax-payers' money with banks such as the European Bank for Reconstruction and Development and European Investment Bank taking the lead. The project sponsors and banks advertise these plants as green energy, while at least 24 projects supported by multilateral development banks between 2005-2015 were either inside, on the boundaries of, or clearly impacting on, Protected Areas.

While the 390 small hydropower plants in the Western Balkans 6 region represent almost 90% of all hydropower plants, they only produce 3-5% of the total hydropower generation and constitute 7% of the total hydropower capacity, most of hydropower energy and capacity in the region being delivered by the large hydropower plants. This raises the question of the role of small hydro power plants and the pertinence of further developing such infrastructures. Their contribution to the global energy production and security of supply, or to the renewable energy sources targets, is extremely limited. In parallel, their impacts on the environment are severe.

Save the Blue Heart of Europe[77] is the umbrella campaign that has united nature lovers, scientists, local and international NGOs, and also citizens, who have been involved in fighting regional battles across the WB6 states to stop the building of small hydro power plants across the region. In preparation for this campaign, the hydromorphology (the structural intactness of the river) of

[77] https://balkanrivers.net/en/campaign

about 35,000 river kilometers on the Balkan Peninsula has been assessed. The results were impressive: 30% of the Balkan rivers are in a pristine state; another 50% are in a good condition or only moderately modified. In other words, almost 80% of 35,000 examined river kilometers are in a very good, good or acceptable morphological condition. 69 fish species are endemic to the Balkans and over 40% of all endangered freshwater mollusc species (mussels and snails) of Europe live here – probably making this region the most important freshwater hotspot in Europe. And this might not even be the whole story: it seems likely that undiscovered species roam the Balkan waters. Just recently a new caddy fly species was discovered.

As a result, localised movements such as Defend the rivers of Stara mountain[78] in Serbia, Coalition of 30 NGOs in Bosnia and Herzegovina[79], Save Vjosa in Albania[80], various local independent and grassroots uprisings in Montenegro[81], Macedonia[82] and Kosovo*[83] have been growing over the past decade.

Since the last River Watch update[84] of this kind in 2018, another 300 hydropower plants (HPPs) came into operation, leaving hundreds of kilometres of rivers and streams devastated. The vast majority (92%) of them are small-scale dams. Currently, 3,431 HPPs are planned, 108 under construction and 1,480 are operational in the Balkans. 45% of planned or constructed HPPs are located within Protected Areas.

According to the River Watch update the good news is that less projects are entering the implementation phase. The number of HPPs under construction is decreasing continuously since its peak in 2017. This is a sustainable trend reversal, which is attributed to continuous work on the topic by a pool of nature protection campaigners. In Montenegro the new government promises to ban small hydropower plants and review all concessions[85], and in Bosnia[86] the Government is preparing a set of regulatory amendments in order to prevent the adverse impact of small hydropower plants on the environment, including the abolishment of feed-in tariffs for these facilities as the most important measure.

However, there is also the bad news. For example, Serbia's renewables incentive fee has been raised fivefold[87], and campaigners are fearing for the worst.

In conclusion one must take the case of hydropower incentives as lessons learned for view of the next phase towards just-transition. Just as the EU incentives for renewable energy sources have been abused by the political elites across the Western Balkans, threatening to destroy one of the most valuable biodiversity hotspots in Europe and beyond, so can it be expected that under the

[78] https://novastaraplanina.com/en/
[79] https://www.wwfadria.org/latest/news/?uNewsID=1436391
[80] https://v2.balkanrivers.net/en/key-areas/vjosa-river
[81] https://www.energetskiportal.rs/gradani-pokrenuli-peticiju-protiv-izgradnje-mhe-na-rekama-u-cg/
[82] https://riverwatch.eu/en/balkanrivers/news/fight-mavrovo-national-park-continues
[83] https://www.bbc.com/serbian/lat/balkan-50063845?fbclid=IwAR0z9p8RILchwxNipcWscSt6uhuncCysCmkbvt7iNTxEmyCq1BhrpdKMNnk
[84] Hydropower projects on Balkan rivers: 2020 update, December 2020, https://riverwatch.eu/en/balkanrivers/news/hydropower-projects-balkan-rivers-2020-update
[85] Montenegro's new cabinet to ban small hydropower, revise concessions, December 2020, https://balkangreenenergynews.com/montenegros-new-cabinet-to-ban-small-hydropower-revise-concessions/
[86] Federation of BiH to scrap feed-in tariffs for small hydropower plants from 2021, November 2020, https://balkangreenenergynews.com/federation-of-bih-to-scrap-feed-in-tariffs-for-small-hydropower-plants-from-2021/
[87] Serbia's renewables incentive fee raised fivefold, December 2020, https://balkangreenenergynews.com/serbias-renewables-incentive-fee-raised-fivefold/

umbrella of 'decarbonisation' of Western Balkans smooth-running partnerships between the state and 'private' businesses corrupt deals will take place that pose serious threats to the health and safety of the entire region. This threat is manifold considering the rising impacts of climate change, and the importance natural ecosystems and biodiversity play in mitigating its negative effects.

As such, all efforts of the international community, including EU, donors, financial institutions, must be focused on ensuring that local efforts are supported and that government actions are accounted for, that mechanisms applied to the forthcoming 'just-transition' in the context of the Green Agenda for Western Balkans[88] are well though-out and closely monitored.

CONCLUSION

The six Western Balkans territories share similar political, social and cultural challenges, which resulted in the degradation on their immense natural wealth for the sake of quick financial profits. They also share opportunities, which may eventually lead to a more sustainable model of development. In order to make the most of the common opportunities the leaders of the region must come together to institutionalise the natural wealth and capitalise on it in a sustainable manner.

The health of the region's citizens and the natural environment are under extreme pressure from multiple sources:

- air pollution due to badly managed energy sector (public and private, use of lignite for heating, old coal-powered stations);
- deforestation - illegal trade, mis/management, forest fires;
- water pollution and loss - small HPP, waste management, droughts from climate change;
- loss of habitats and species - pollution, destruction, urban development, climate change;
- food shortage - pesticide heavy agriculture, climate change;
- contamination of soil and water - unsustainable urban development, poor waste management including dangerous waste.

In the words of Klaus Schwab, Founder and Executive Chairman of the World Economic Forum: *"We stand on the brink of a technological revolution that will fundamentally alter the way we live, work, and relate to one another. In its scale, scope, and complexity, the transformation will be unlike anything humankind has experienced before. We do not yet know just how it will unfold, but one thing is clear:* ***the response to it must be integrated and comprehensive, involving all stakeholders of the global polity, from the public and private sectors to academia and civil society.*** *This Fourth Industrial Revolution, is blurring the lines between the physical, digital and biological spheres. Ironically, this fast-paced technological and space-age world* ***is bringing humanity back to earth, to the power of nature****. Some of this power of nature comes from linkages of information technology, nanotechnology, industrial technology and biology".*

[88] https://balkangreenenergynews.com/state-leaders-endorse-green-agenda-for-western-balkans-at-sofia-summit/

The Fourth Industrial Revolution, coupled with the urgent need to address climate change, demands that entrepreneurs, communities and individuals reinvent how the world in general, and each country in particular, fuels, generates, transports and uses energy. Some of the greatest innovations are not only technological, they are culturala and institutional: new arrangements, such as the "green performance contracts", can improve economic, environmental and energy performance.

Western Balkan 6 must embrace this challenge and brace themselves for it with particular focus on understanding that survival and health of the natural world, biodiversity and the planet's ecosystems are all essential for human wellbeing and survival. This means putting the premium on environmental protection, with application of nature-based solutions for mitigation and adaptation to climate change and establishing mechanisms to ensure 'just-transition' to green energy and circular economy. These measures must be reflected across policy, legal and strategic frameworks, and implemented without further delay in dialogue between state, private and civil society stakeholders.

Recommendations

The following key recommendations have been identified with the purpose of strengthening nature conservation and environmental protection across the Western Balkan territories. They are aimed primarily at state actors because they have proven to be the weakest link in guarding natural wealth of the region. Nonetheless, all steps should integrate partnerships with the international community, donors, scientists, private companies and local civil society organisations, environmental and conservation experts and communities.

1. Each state should strengthen the rule of law and governance with focus on implementation and mainstreaming nature protection and climate change, in particular:
    - improve governance and rule of law in the wildlife sector;
    - Strengthen the environmental crimes sector to ensure that nature destruction is punished accordingly;[89]
    - clearly define and increase penalties for environmental crime;
    - set up a functioning green fund that will finance conservation projects;
    - ensure application of the EIA process in every development project;
    - use payment for ecosystem services to strengthen governance in the natural resources sector;
    - improve intersectoral and cross-border partnerships and development coordination with all actors and stakeholders relevant for environmental protection and nature conservation;
    - work with environmental and conservation experts to provide assistance to develop country-wide studies to support evidence-based decision making.

[89] International lawyers are drafting plans for a legally enforceable crime of ecocide – criminalising destruction of the world's ecosystems – that is already attracting support from European countries and island nations at risk from rising sea levels. The aim is to draw up a legal definition of "ecocide" that would complement other existing international offences such as crimes against humanity, war crimes and genocide. (https://www.theguardian.com/law/2020/nov/30/international-lawyers-draft-plan-to-criminalise-ecosystem-destruction)

2. Each state should ensure that economic growth and the private sector are embracing sustainable business ethics and circular economy models:
   - support green business development, including the eco-tourism, SMEs;
   - incentivise the financing community such as banks to make available 'green funds and grants' to support sustainable business development;
   - improve forestry's contribution to economic growth through private sector support;
   - increase options for clean, sustainable household-level energy;
   - increase the productivity of public forests to support more livelihoods;
   - increase the income generation potential of wildlife.

3. Each state should strengthen human capital by building professional skills and education, as well as general public awareness, with focus on integrating environmental protection and circular economy across all sectors:
   - support development of a wider professional biodiversity community;
   - support the development of forestry and wildlife conservation vocational training programs;
   - support a stronger natural resources-based enterprise sector;
   - support the development of a more professional EIA sector;
   - support the development of stronger, more professional government environmental sector;
   - support the development of a more professional environmental journalism sector;
   - support environmental education of teachers and professors.

ANNEXES

Annex 1. Status of WB6 in EU Pre Accession negotiations	
Candidate Countries	Potential Candidates
Albania applied for the EU membership in April 2009 and received the candidate status in June 2014. Progress in the accession process will depend on achievements in few key areas such as fight against corruption and organised crime, reform of judicial system and constructive and sustainable political dialogue between government and opposition.	Stabilisation and Association Agreement (SAA) negotiations with **Bosnia and Herzegovina** were opened in September 2005 and on 16 June 2008, Bosnia-Herzegovina and the European Union signed the Stabilisation and Association Agreement. The SAA entered into force in June 2015. The country has submitted in February 2016 its application to join the EU. In September 2016, the Council invited the Commission to present an Opinion on B&H application. The Opinion is currently under preparation.
The accession of **North Macedonia** to the European Union has been on the agenda for future enlargement of the EU since 2005, when it became a candidate for accession. The EU gave its formal approval to begin accession talks with North Macedonia and Albania in March 2020. However, in November 2020 Bulgaria has effectively blocked the official start of North Macedonia's EU Accession. (see. https://ecfr.eu/article/how-to-advance-a-european-solution-to-bulgarias-and-north-macedonias-dispute/)	UN Security Council Resolution 1244 (1999) placed **Kosovo*** under the transitional administration of the United Nations. Kosovo*'s authorities declared independence on 17 February 2008. The European Union took note of the declaration of independence, left to the Member States to decide on the recognition and asked the Commission to enhance the cooperation with Kosovo*. The Stabilization and Association Agreement between EU and Kosovo* has been initiated in July 2014 and entered into force in April 2016.
Montenegro submitted the application for the EU membership in December 2008. The candidate status was granted on 17 December 2010. The opening of accession negotiations took place in June 2012. Montenegro has opened Chapter 27 in December 2018.	
Serbia applied for the candidate country status in December 2009, which was granted in March 2012. On 21 January 2014, the first Intergovernmental Conference took place, signaling the formal start of Serbia's accession negotiations. The screening exercise for Chapter 27 – Environment took place in 2014 and the screening report has been adopted by the Council in December 2016 without an opening benchmark. Serbia has been invited by the Presidency in December 2016 to submit	

its negotiating position for Chapter 27, which has not been opened yet .	
IPA (Instrument for Pre-Accession) is an accession driven instrument, fulfilling all the requirements stemming from the accession process, notably in terms of priorities, monitoring and evaluation. IPA covers all the enlargement countries (with candidate status as well as potential candidates). EU pre-accession funds aim at supporting the beneficiaries perform internal political and economic reforms, in view of managing the rights and obligations steaming from EU membership. The pre-accession funds also help the EU reach its own objectives regarding sustainable economic growth, environment protection, climate change, energy supply, transport, etc. For the period 2014-2020, IPA II provided financing of € 11.7 billion. On 14 June 2018, the Commission published its legislative proposal for a regulation establishing the Instrument for Pre-accession Assistance (IPA) III for the period 2021-2027, under the new Heading: 'Neighbourhood and the World' in the next multiannual financial framework (MFF). In July 2020, the European Council set the amount for IPA III at €12.6 billion.[90]	

Annex 2. Overview of implementation of EU Chapter 27
Environment and climate across WB6: **EU country reports 2020**
Albania Albania shows some level of preparation in this area. Limited progress was made in further aligning the policies and legislation with the acquis, in areas such as waste and water management, environmental crime and civil protection. However, significant efforts are still needed on implementation and enforcement, especially on waste management, water and air quality and climate change. The 2019 recommendations remain valid and in the coming year, Albania should in particular:

[90] https://www.europarl.europa.eu/legislative-train/theme-new-boost-for-jobs-growth-and-investment/file-mff-ipa-iii

- align further with key water directives, and accelerate capacity development of the national agencies for Water Resource Management and for Water Supply, Sewerage and Waste;
- take immediate measures to review and improve environmental and strategic impact assessments on existing and planned projects, plans and programmes, especially in the hydropower, construction, tourism and mining sectors;
- implement the national strategy on climate change and related action plans on mitigation and adaptation, adopt the relevant legislation and develop its integrated National Energy and Climate Plan in line with Energy Community obligations.

https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/albania_report_2020.pdf

Bosnia and Herzegovina

Bosnia and Herzegovina is at an early stage of preparation in the area of environment and climate change. Limited progress was achieved during the reporting period. In the coming year, Bosnia and Herzegovina should in particular:

- implement the countrywide environmental approximation strategy, and accordingly enhance the legal framework, strengthen administrative capacity and monitoring systems, and improve inter-institutional coordination among all relevant authorities;
- formalise the procedures for the appointment and functions of the national focal points for Bosnia and Herzegovina for the implementation of all environmental conventions to which Bosnia and Herzegovina is a signatory;
- start implementing the Paris Agreement by putting in place policies and measures to deliver on its nationally determined contribution, update and implement the climate change adaptation and low emissions development strategy, and develop an integrated national energy and climate plan (NECP) in line with the Energy Community recommendation.

https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/bosnia_and_herzegovina_report_2020.pdf

Kosovo*

Kosovo* is at an early stage of preparation on environment and climate change. Limited progress was achieved during the reporting period. There was some improvement on environmental reporting and air quality monitoring. Stronger political will is needed to address environmental degradation and climate change challenges. Many of the recommendations from the previous report are still pending. In the coming year, Kosovo* is encouraged to considerably step up ambitions towards a green transition and should in particular:

- establish an effective water monitoring system, publish data and undertake urgent and permanent measures to reduce air and water pollution;
- eontinue to increase the waste collection coverage, notably with the introduction of separation of waste and recycling, introduce circular economy measures to reduce waste and address the issue of illegal dumpsites;
- enforce legal provisions on environmental liability, damage and crime; implement the polluter pays principle and create and start a permanent campaign for raising public awareness on environmental protection;
- implement the climate change strategy and the action plan on climate change, prepare a roadmap for alignment with the EU climate acquis and start the work on an energy and climate plan, in line with the Energy Community requirements.

https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/Kosovo*_report_2020.pdf

Montenegro

Montenegro has some level of preparation in this area. Some progress was made with the international protection granted to Ulcinj Salina, the development of an action plan for chapter 27, and further legislative alignment with the EU acquis, in line with the national strategy. Significant efforts are needed on implementation and enforcement, in particular on waste management, water quality, nature protection and climate change. The 2019 recommendations remain valid and in the coming year, Montenegro should considerably step up ambitions towards a green transition, and continue focusing on:

- effectively implement the national strategy for transposition, implementation and enforcement of the EU acquis on environment and climate change, especially in the waste, water and nature protection sectors;
- take urgent measures to preserve and improve the ecological value of Protected Areas and potential Natura 2000 sites such as Ulcinj Salina, Lake Skadar, the Tara river and other river courses;
- develop its National Energy and Climate Plan in line with the Energy Community recommendations.

https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/montenegro_report_2020.pdf

North Macedonia

The country is at some level of preparation in this area. Limited progress was achieved in nature protection, civil protection and climate change areas. However, implementation in all sectors is still lagging behind. In the coming year, the country is encouraged to considerably step up ambitions towards a green transition and should in particular:

- improve inter-sectoral coordination and increase financial resources for reduction of air pollution at the local and national level;
- set up an integrated regional waste management system;
- implement the Paris Agreement, including by developing a comprehensive climate strategy and adopting a law, consistent with the EU 2030 framework, and develop a National Energy and Climate Plan, in line with Energy Community obligations.

https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/north_macedonia_report_2020.pdf

Serbia

The Government of Serbia has adopted the negotiating position for Chapter 27 – environment and climate change and sent it to the European Commission in Brussels.
Serbia has achieved some level of preparation in the area of environment and climate change. Overall, Serbia made limited progress in the past year, mainly on strategic planning. Serbia should considerably step up ambitions towards a green transition and continue focusing on:

- enhancing administrative and financial capacity of the public central and local administration authorities, in particular the Environmental Protection Agency and environmental inspectorates, earmarking and utilising income from environmental fees for environmental purposes, building an effective institutional set-up to manage environmental investments and further improving inter-institutional coordination, in particular between central and local levels;
- intensifying implementation and enforcement work, such as closing non-compliant landfills, investing in waste reduction, separation and recycling, reinforcing air quality monitoring, advancing river basin management and preparing for Natura 2000;
- implementing the Paris Agreement, including by adopting a comprehensive climate strategy and law, consistent with the EU 2030 framework for climate and energy policies and well-integrated into all relevant sectors, and developing a National Energy and Climate Plan in line with Energy Community obligations.

https://ec.europa.eu/neighbourhood-enlargement/sites/near/files/serbia_report_2020.pdf

Annex 3. Protected Areas per country					
Country	Protected Areas in size and number (national and international)[91]	% of PAs	Ramsar sites	Emerald	Other
Albania	5343.929138km2 807 PAs	18.59%	Karavasta lagoon, Butrinti wetland complex, Shkodra Lake and Buna river wetland complex and Prespa Lakes area since July 2013	The proposed Emerald network of Areas of Special Interest (ASCIs) for Albania consist of 25 sites and covering an area of 17, 8 % of the country's territory that has been approved by the Standing Committee of the Bern Convention in December 2012.	The first Marine Protected Area in Albania was designated in April 2010 as the "Karaburuni peninsula-Sazani island" Marine National Park covering an area of 12,428 hectares.
B&H	1857.810688 km2 60 PAs	3.63%	Livanjsko Polje, Hutovo Blato, Bardaca Wetland		
Kosovo*	124.204km2 98 PAs	11.5%			Over 160 new areas of various categories of protection have been proposed for protection.
Montenegro	13847.56188km2 58 PAs	14%	Ramsar Sites[92] (Skadarsko Jezero, Tivat Salina and Ulcinj Salina)	UNESCO-MAB Biosphere reserve (The Tara River basin) and one World Heritage site (Mountain Durmitor National Park). The Kotor-Risan Bay (15,000 hectares) has been included in the UNESCO World Natural and Cultural Heritage List since October 26, 1979, based on	There are five national parks: Biogradska gora, Durmitor, Skadar Lake, Lovćen, and Prokletije. The existing and prospective Protected Areas include also some transboundary areas. The Lake of Skadar, shared between Montenegro and Albania, is for the time being the only designated transboundary protected area while its wider environs are recognized as a transboundary development zone (PP CG, 2008). Within the Spatial Plan of Montenegro , there is a proposal to designate

[91] https://www.ibat-alliance.org/country_profiles
[92] https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-Montenegro.pdf?1607801896

				the Convention Concerning the Protection of World Cultural and Natural Heritage (UNESCO)[93].	new transboundary Protected Areas of nature, primarily by expanding the boundaries of the National Park Durmitor and linking it to the National Park of Sutjeska in Bosnia and Herzegovina and the future Regional Park Bioč – Maglić – Volujak in Montenegro. There are also proposals to form transboundary Protected Areas when designating future National Parks, i.e.: (i) the NP Orjen in Montenegro could be linked to Orjen and Sniježnica regions in Bosnia & Herzegovina and in Croatia; and (ii) the NP Prokletije could be linked to the neighboring areas in Albania (Theti, Bjeshkët e Nemuna), and to Kosovo*, and Serbia.
North Macedonia	25443.14057km2 86 PAs	8.96%	2 Ramsar sites (Lake Prespa and Dorjan Lake[94])	one World Heritage site (Lake Ohrid) and the Ohrid-Prespa Transboundary Biosphere Reserve designated as UNESCO Criterion of Human and Biosphere Program (2014).	National parks occupy about 4.5% of the country's territory, followed by monuments of nature with 3.0%, while all other categories of Protected Areas occupy about 1.4% of the country's territory.
Serbia	88509.11514km2 474 PAs	7.74%[95]	11 Ramsar Sites[96] Gornje Podunavlje, Koviljsko-Petrovaradinski Rit,	one UNESCO-MAB Biosphere Reserve.	According to the Spatial Plan of the Republic of Serbia ("The Official Gazette of the Republic of Serbia", No. 88/10) by 2015, about 10% of the Serbian territory should have been protected, i.e. 12% by 2021.

[93] https://www.ibat-alliance.org/country_profiles/MNE

[94] https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-North-Macedonia.pdf?1607804655

[95] https://www.ibat-alliance.org/country_profiles/SRB

[96] https://rsis.ramsar.org/sites/default/files/rsiswp_search/exports/Ramsar-Sites-annotated-summary-Serbia.pdf?1607862675

			Labudovo okno, Ludasko Lake, Obedska bara, Slano Kopovo, Stari Begej – Carska Bara Special Nature Reserve, Vlasina, Zasavica, Pestersko Polje, Djerdap		

Annex 4. Biodiversity overview per country	
Territory	**Biodiversity overview**
Albania	Albania's total land area is divided into three main ecological zones (the coastal plain zone, the hilly transition submountainous zone, and the mountainous zone) and 13 sub-zones, which contribute to the country's rich biodiversity. Forests cover 36% of the country's territory, agricultural land about 26% and pastures about 15%. Approximately 60% of the pastures are alpine and sub-alpine pastures and meadows. Forest and pastures have a high diversity of types Mediterranean shrubs, oak woodland, beech forest, mountain pine, etc and animal communities. Along the coastline of the country there are many ecosystems of significance in the Mediterranean region such as lagoons, wetlands, sand dunes, river deltas, hydrophilic and hygrophilous forests. The lakes and rivers are also important for the biological and landscape diversity of the country. Albania has a rich diversity of flora and fauna with about 3,200 species of vascular plants, 2,350 species of non-vascular plants, and 15,600 species of invertebrates and vertebrates. Albania is an important migration route for birds. Approximately 30% of European flora and 42% of European mammals occur in Albania. There are 32 plant species with 150 subspecies which are endemic in Albania and another 160 plant species which are sub-endemic in Balkan region. Albania counts 91 globally threatened ornithofauna species and is of critical importance for some of them (e.g. Pelecanus crispus, Phalacrocorax pygmeus, and Acipenser sturio). Coastal lagoons and large lakes are important areas, especially for wintering migratory birds. There, annually are encountered 70 waterfowl and waterbird species with a total population of 180,000 individuals in Albania during winter. Albania has a number of autochthonous breeds of cattle and crops. About 30 species of crops are native to Albania. There are 9 autochthonous breeds of goats and 5 of 5 sheep. In highlands there more than 52 00 ha of natural forests with woods more than 200 years old with high value for biodiversity for wild animals and birds and for recreational purposes.[97]
Bosnia and Herzegovina	Bosnia and Herzegovina ows its mainly mountainous character to the western part of mediterranean mountain chains. In terms of hydrology Bosnia and Herzegovina belongs to the Black and Adriatic Sea basins. A watershed of these two confluences runs across mountains Plješevica, Šator, Cincar, Raduša, Bitovnja, Bjelašnica, Treskavica, Zelengora and Volujak. The Black Sea basin takes in 70% of Bosnia and Herzegovina's total, the Adriatic Sea basin takes in 24%, while 6% of overground water dissolves into the karst underground. There are fresh and salt waterbodies in Bosnia and Herzegovina. Most of watercourses emerges under the Dinaric masiffs. Thermal and mineral springs (occuring around ingenous rocks and tectonic clevages), and mountain lakes (due to its clear blue water called „mountain eyes") represent the important natural wealth of Bosnia and Herzegovina. In terms of pedology, in Bosnia and Herzegovina prevail soil types from automorphous and hydromorphous division. Bosnian and Herzegovina is characterized by very complex climate. The Dinaric alpine region strongly modifies mediterranean currents coming from the South, whereas it prevents the penetration of cold air from an inland to the coast. Strong protrusion of mediterranean influences is felt along the Neretva river valley. Between the areas with temperate continental and modified mediterranean (adriatic) climate, there are areas with continental, pre-alpine and alpine climate. The extreme richness of living world that exist on our territory is the result of ecological heterogeneity of Bosnia and Herzegovina, its geomorphological and hydrological diversity, specific

[97] CBD Fifth National Report of Albania https://www.cbd.int/doc/world/al/al-nr-05-en.pdf

	geological past and its ecoclimate diversity. Flora, fauna and fungia of Bosnia and Herzegovina are considered to be among the most diverse in Europe. High species diversity of plants is based on diversity of cyanophytes, algas and vascular plants (mosses, ferns and spermatophytes). Taking into account the heterogeneity of aquatic and wet habitats, as well as the existence of endemic development centres, it can be considered that at least one third of organisms belonging to the group of cyanophytes and algas in Bosnia and Herzegovina is unknown to the scientific public. This relates especially to algas living in mountain blanket or raised bogs, mountain springs, then springs and upper flows of karst sinking rivers, and streams which are to be found within refugia of tertiary flora. For the diversity of cyanophytes and algas especially invaluable are forms which characterize thermal and mineral springs, tuff building algas, then those living in caves and half-caves etc. Wetland habitats and standing water are inhabited by extremely rare ferns, such as Salvinia and Marsillea, which are today considered as highly important diversity components for their role in maintenance of stability of wetland areas that get more threatened from one day to another. This rich diversity of vascular flora includes the most important biological resources (economically important forest trees, medicinal, edible, aromatic herbs, herbal genetic resources and ornamental flora). the Balkan peninsula The most specific feature of B&H's flora is a great deal in both paleo- and neoendemic species, then tertiary and glacial relicts, which have been preserved in refugial habitats, such as cliffs, canyons and mountain cirques. Most of endemic forms (genera, species, sub-species and lower taxonomic categories) is comprised by flora of vascular plants, which, after current assessment, counts 450 endemic taxa. [98]
Kosovo*	Kosovo lies at the center of the Balkan Peninsula, where three climatic zones, continental, subMediterranean, and alpine, meet. The Herbarium of the Faculty of Natural Species (Univeristy of Pristina) has confirmed 1,800 plant species (while a total of 2,500 are predicted to occur), representing 20% of European flora in an area that is less than 2% of the Balkan territory. More than 200 endemic plant species and eight steno-endemic species) have been recorded in Kosovo. Researchers have also recorded 68 relict plant species 400 species of algae, and 104 species of fungi. Two plant species endemic to Kosovo and Albania are found: prickly juniper (Juniperus oxycedrus) and forsythia (Forsythia europae). Kosovo's faunal diversity consists of 130 species of insects (significant data gaps exist on insect diversity of Kosovo), 30 fish species, 14 species of amphibians, 14 species of reptiles, 180 bird species, and 45 mammals. In Kosovo's higher mountain, populations of mammals of international importance have been recorded, such as the brown bear (Ursus arctos), Balkan lynx (Lynx lynx balcanicus), roe deer (Capreolus capreolus), and chamois (Rupicapra rupicapra), as well as many important species of birds on the International Union for the Conservation of Nature (IUCN) Red List and the World Red List1. In Malet e Sharrit/Šar Planine National Park, 77 plant species of international importance are found; 26 species included on the European Red List (UNECE, 1991); and 32 species on the 1997 IUCN Red List (Veselaj, et al., 2015). Nineteen taxa found in Bjeshkët e Nemuna/Prokletije National Park are listed on the IUCN Red List of Threatened Species; the globally endangered Balkan lynx, (Lynx lynx balcanicus), a species of great international importance, is found (Veselaj et al. 2013) in Bjeshkët e Nemuna/Prokletije; and as mentioned above, 129 species of butterflies (Lepidoptera), making the territory of the national park one of the richest areas in Europe for butterflies (MESP, 2013). Because of these high biodiversity values, both national parks have been

[98] https://www.cbd.int/doc/world/ba/ba-nbsap-01-en.pdf

	identified as Important Plant Areas (IPA), regionally Important Bird Areas (IBA), and Primary Butterfly Areas (PBA).[99]
Montenegro	There are currently 56 species (18 amphibian species and 38 reptile species) and 69 sub-species belonging to 38 genera, and the list is probably not yet complete. Montenegro with 3,250 known plant species is one of 153 globally recognized flora biodiversity centers. There are approximately 2,000 species of fungi. The number of endemic species is also high – there are 392 Balkan (regional) endemic species, which makes approximately 7% of overall flora in Montenegro. Out of 526 European bird species, 297 bird species (or 57%) are resident bird species in Montenegro and, additionally, several migratory species are recorded as occasional visitors, and currently there are 326 bird species in total in Montenegro. Out of this number, there are 204 nesting species in the country. Montenegro has a large variety of birds including numerous birds of prey, passerines, and waterfowls, and it is a major refuge for a series of rare and threatened bird species, including the Dalmatian Pelican (Pelecanus crispus) and Pygmy Cormorant (Phalacrocorax pygmeus). Montenegro is also abundant in mammal fauna (there are 65 registered species). In addition, even local endemic species are of great importance – 46 of them inhabit the territory of Montenegro. Most of them are Tertiary relics. The findings of the survey performed within the Biodiversity Monitoring Programme of Montenegro enabled review of the Old List and preparation of the New List of Biodiversity of Protected Species comprising 415 flora species and 430 fauna species as well as a complete list of bats order. Approximately 60 fish species inhabit the freshwater ecosystems of the Adriatic watershed compared to 30 fish species inhabit the Black Sea watershed. The difference in fish distribution in these two watersheds is the result of the geological history of the Adriatic watershed, which served as a refuge to many fish species during the past several glaciations periods. The Adriatic watershed and the Southern/Mediterranean part of Montenegro have an abundance of endemic species with a high degree of genetic diversity, not only in fish but in other types of organisms, too. It is believed that fauna biodiversity of sea fish inhabiting the Adriatic Sea includes 117 known families, but few endemic taxa. So far, there are 205 registered sea fish species in Montenegro, which represents approximately 70% of all known Mediterranean fish species. However, this list is probably not yet complete, since some of these species were only registered once and their status in the Montenegrin waters is unknown. Two strictly Protected Areas (the Tara River Canyon and Forest Reserve "Crna Poda") make this protected area particularly valuable. The Tara River basin (182,899 hectares) has been included in the World Network of Biosphere Reserves (UNESCO Programme on Man and the Biosphere – M&B) since January 17, 1977, based on the Convention Concerning the Protection of World Cultural and Natural Heritage (UNESCO)[100].
North Macedonia	North Macedonia occupies the central part of the Balkan Peninsula, one of the richest European regions for biological diversity (Kryštufek & Reed 2004). Out of the nine biomes that occur on the

[99] USAID Kosovo Biodiversity Analyses, July 2018, https://pdf.usaid.gov/pdf_docs/PA00WCZP.pdf

[100] Results of the initial evaluation of Protected Area Management in Montenegro using RAPPAM Methodology. Protection of World Cultural and Natural Heritage (UNESCO).

	Balkan Peninsula (Matvejev 1995, in: Lopatin & Matvejev 1995) eight out of these are represented in North Macedonia (only Ponto-Caspian steppes do not occur). Stevanović et al. (2007) identified several regions on the Balkan Peninsula exceptionally rich in endemites, such as southern and northern Peloponnese, Pindhos, Olympus and mountains in Central Greece, the island of Crete, mountains Pirin and Slavjanka, Rila, Rhodopes, Prokletije, Durmitor, as well as mountains on the border between Macedonia and Greece (Pelister, Kajmakchalan and Kozhuf) and border between Macedonia and Albania (Shar Planina and Korab). Most of the territory (44.1%) lies on altitude between 500-1,000 m. Geomorphology and relief are characterized by domination of hilly terrains (almost 80% of the territory) and valleys are connected with deeply incurved canyons and gorges. Four watersheds exist in the Republic of Macedonia of which river Vardar's is the largest one, covering about 80% of the national territory. In the southern low areas the climate is sub-Mediterranean, it is continental throughout the country and mountainous on altitudes above 1,500 m a.s.l. Eight climatic-vegetation and soil regions have been defined, the largest being the warm sub-Mediterranean-continental zone of the pubescent oak. An average precipitation in mountainous areas is 1.000-1.500 mm/year, and 600-700 mm/year in the valleys, Ovche Pole plain being the driest area with only 490 mm/year. Over 23,019 taxa of which 2,095 species of algae, 2,000 species of fungi, 450 species of lichens, 3,200 vascular plants and 500 species of mosses, 13,379 invertebrate animals and 555 species of vertebrate animals. According to EUNIS classification (with necessary modifications) 28 most important (key) ecosystem types/groups (some of them with anthropogenic origin but with some importance for biodiversity) have been identified, which equals to 177 habitat types of level 3 (according to the same classification), indicating high diversity of ecosystems in the Republic of Macedonia. So far, about 1700 species of algae, 3,200 vascular plants, over 2,000 fungi and 450 lichens, 13,000 invertebrates, 85 fish and cyclostomates, 15 amphibians, 32 reptiles, 333 birds and 84 mammals are recorded, being the major portion of yet insufficiently studied biodiversity. The endemism among these groups is large, with at least 150 endemic species among the algae, 120 endemic plants and over 700 invertebrate species. Among the vertebrates, the fishes are particularly rich group, with 27 endemic species. The 3.5 million years old Lake Ohrid is the center of the endemism (with 212 endemic species), being one of the global centers for endemism as well. Besides this Lake, additional 9,671 km2 or 38% of the country territory fulfill the criteria for Key Biodiversity Areas.
Serbia	Eight basic types of habitats have been identified in Serbia, according to the European Union Nature Information System (EUNIS) habitat classification. The diversity of the ecosystems in Serbia is reflected in the diversity and specific character of vegetation: 1,339 associations and 59 vegetation classes have been registered in the territory of Serbia. The most important centres of ecosystem diversity in Serbia with a large number of endemic, relict and endemic-relict communities are: high mountain regions (Kopaonik, Tara, Šarplanina, Prokletije, Stara planina and Suva planina), sand and steppe habitats (Deliblato and Subotica-Horgoš sands and mosaic salty areas in Banat and Bačka, in Vojvodina) and refugial areas (the Đerdap gorge, the canyon of the Drina River, the Sićevaćka gorge, the valley of the Pčinja River). Ten basic types of zonal ecosystems are present in Serbia, of which continental aquatic ecosystems, specific isolated continental (terrain) ecosystems, and continental

naturally unstable ecosystems influenced by natural and induced successions, forest climate-genetic ecosystems, subterranean ecosystems, are especially sensitive to endangering factors.

Currently, 1,760 wild species of plants, animals and fungi are strictly protected and 853 are protected by law. Protection of Species is regulated by Rulebook on the proclamation and protection of strictly protected and protected wild species of plants, animals and fungi ("The Official Gazette of the Republic of Serbia", No. 5/2010 and 47/2011). A special form of protection relates to the species that can be endangered due to exaggerated and uncontrolled collection from nature. In comparison with the Fourth national report, changes occurred in 2011 and 15 species were removed from the list of the species which can be collected and used for commercial purposes. Currently, controlled use is allowed for 97 species. Among them there are 63 plant species (2 fern species and 61 seed bearer species), 15 fungi species and 9 animal species (2 reptile species, 3 amphibian species and 4 invertebrate species). The researches on ecosystem services in Serbia are in the initial phase. The term itself has not been clarified enough and accepted in the wider public, and more detailed analyses of ecosystem services have not been performed yet.[101]

[101] CBD Fifth National Report of Serbia **https://www.cbd.int/doc/world/rs/rs-nr-05-en.pdf**