SAVA DRINA RIVER CORRIDORS INTEGRATED DEVELOPMENT PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK FOR MONTENEGRO

DRAFT

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Abbreviations

a.s.l.	Above sea level
BiH	Bosnia and Herzegovina
DRB	Drina River Basin
E&S	Environmental and Social
EEA	European Environmental Agency
EIA	Environmental Impact Assessment
EHSG	World Bank Group Environmental, Health and Safety Guidelines
ESCP	Environmental and Social Commitment Plan
ESMF	Environmental and Social Management Framework
ESMAP	Energy Sector Management Assistance Program
ESMP	Environmental and Social Management Plan
ESSs	Environmental and Social Standards
FAO	Food and Agriculture Organization
GEF	Global Environment Facility
LMP	Labor Management Procedure
OP	Operational Procedure
O&M	Operation and Maintenance
PIU	Project Implementation Unit
RP	Resettlement Plan
RPF	Resettlement Process Framework
SCCF	Special Climate Change Fund
SFRY	Socialist Federal Republic of Yugoslavia
SRB	Sava River Basin
SDIP	Sava-Drina River Corridor Integrated Development Program

1 EXECUTIVE SUMMARY

Program background

The Sava Drina River Corridors Integrated Development Program (SDIP) represents the World Bank's long-term undertaking to address neglected infrastructure development in the region while promoting joint decision making and development along the two river corridors. The objective of the Program is to strengthen transboundary water cooperation and improve navigability and flood protection in the Sava and Drina Rivers Corridors. SDIP will be implemented through two sequential and partially overlapping phases. The development objective of the Phase 1 of the Program is to improve flood protection and enable transboundary water cooperation in the Sava and Drina River Corridor. The Program consists of four components and several sub-components as follows:

Component	Subcomponent
Component 1: Integrated Management and Development of the Sava River	Sub-component 1.1: Flood protection and environmental management Sub-component 1.2: Waterway Improvements
Component 2: Integrated Management and Development of the Drina River Corridor	Sub-component 2.1: Flood protection and environmental management Sub-component 2.2: Integrated development of Drina watershed
Component 3: Project preparation and management	Sub-component 3.1: Project preparation Sub-component 3.2: Institutional strengthening and project management
Component 4: Regional activities	Regional Dialogues and Studies

This Program will implement subprojects with high implementation readiness and relevance to the program objectives, with detail designs and tender documents likely to be ready by Effectiveness in Montenegro, Bosnia and Herzegovina (BiH), and Serbia, while simultaneously preparing subprojects that will be implemented during the second phase of the Regional Program.

SDIP will be implemented by participating countries in a coordinated manner through two levels of coordination. At the regional level, a regional task force consisting of the members of the existing International Sava River Basin Commission (ISRBC) bodies and senior officials from key sectors such as water, transport, energy, and tourism will facilitate dialogue and cooperation in the region. At the national level, implementation will be undertaken by project implementation units (PIU) within line ministries. In Montenegro, a PIU will be established under the Ministry of Agriculture and Rural Management.

Objectives of the Environmental and Social Management Framework (ESMF)

Although the potential subprojects are already proposed for each of the phases, taking into consideration the large geographical scope of the Sava and Drina watersheds, and the overall duration of the Program, there is a great chance that a number of the proposed subprojects will be developed, or further developed during the actual implementation of the project. According to the World Bank Environmental and Social Framework (ESF) of 2016, in order to facilitate adequate preparation of such subprojects, the ESMF is used to define and guide the environmental and social (E&S) due diligence mechanisms for the said activities.

All subprojects to be financed under the Program would be subject to assessment of E&S risks by the PIUs, following the procedures described in this ESMF. For "high" risk subprojects, an *Environmental and Social Impact Assessment (ESIA)* will be prepared, while for "substantial", "moderate" and "low" risk subprojects, an assessment will be carried out in line with the MNE environmental laws (depending on the subproject

location) and will include preparation of a site-specific *Environmental and Social Management Plan*, all in line with this ESMF and the provisions set forth under the World Bank ESS1 and ESF. The other relevant ESSs and OPs are:

ESS/OP	
ESS1	Assessment and Management of Environmental and Social Risks and Impacts
ESS2	Labor and Working Conditions
ESS3	Resource Efficiency and Pollution Prevention and Management
ESS4	Community Health and Safety
ESS5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
ESS6	Biodiversity Conservation and Sustainable Management of Living Natural Resources
ESS8	Cultural Heritage
OP 7.50	Projects on international waterways

Environmental and social assessment of subprojects

The MNE activities that will be implemented in the framework of Component 2 versus the WB and the national E&S requirements that need to be fulfilled in the process of project approval are listed below. The national requirements stem from legal requirements in the field of environmental protection, water management and physical planning and construction in Montenegro. In case the Borrower proposes other types of activities, which are not mentioned in the table below, the decision on financing of such activities will be made through a dialogue with the Bank and based on project categorization and adequate due diligence.

Type of activities	WB requirements		National requirements		
	Category pursuant to WB	Environmental assessment instrument	Environmental protection	Water management	Physical planning and construction
Flood protection, drainage and irrigation activities in the Lim and Grncar River basins of Montenegro	Moderate risk	EIA or site-specific ESMP, depending of the type and location of the project	The construction of flood protection structures is subject to a preliminary environmental impact assessment based on which the ministry decides on the necessity to conduct a full EIA and ultimately issues a Consent on the EIA Study. *Note: Although other types of works do not require an environmental assessment, a decision on the necessity to undertake EIA procedure shall be a requested by the relevant national authority*.	Water Management Acts	Construction related permits

For future implementation of the sub-components and related subprojects, the following steps concerning the E&S assessment process should be undertaken:

Step 1. Confirm the preliminary determined project risk and carry out an E&S assessment in line the WB requirements

Type of activities	Action to be taken	Result of the action
Flood protection, drainage and irrigation activities in the Lim and Grncar River basins of Montenegro	Prepare an ESIA or site-specific ESMP (depending on the categorization and the requirements of the local permitting process) and follow guidance on disclosure and consultations. In the ESIA or site-specific ESMP, include sections related to all applicable ESSs.	The WB requirements on E&S impacts mitigation and monitoring included in the tender dossier.

Step 2. Carry out an environmental assessment in line with the national requirements

For the flood protection subprojects, carry out the national environmental assessment procedure and obtain an Approval of the EIA Study. If the assessment of risk indicates that a subproject is high risk and requires the development of an ESIA according to the WB standards (Step 1), the WB ESIA study can be used in the national EIA procedure (if required). For subprojects for which the Bank requires the development of a site-specific ESMP, the ESMP requirements shall be integrated in the environmental documentation submitted to responsible authorities in the framework of the EIA procedure.

Step 3. Organize consultations with stakeholders at the location closest to the project implementation site in line with the requirements of the Stakeholder Engagement Plan (SEP) which has been developed as a separate document for the SDIP.

Step 4. (*If needed and where applicable*) Obtain various permits and approvals including water management acts and construction related acts.

Pursuant to the WB requirements, a Labor Management Procedure (LMP) has been developed as a separate document and should be implemented during the implementation of all subprojects under this Program.

Monitoring and Reporting

The PIU shall monitor the implementation of this Framework, both at overall Program level and individual subproject level. The PIU shall ensure that the requirements of the site-specific ESMPs and environmental permits are included in employer's requirements. Within its usual monitoring activities, the PIU shall perform monitoring (including on-site monitoring, as needed) to ensure that Contractors comply with their contractual obligations. The PIU shall establish and maintain records on dissemination of information and engagement of all stakeholders in accordance with the SEP.

It is the responsibility of the Contractor to ensure the proper execution of works and labor management compliance, according to measures prescribed in this Framework and the LMP, and in line with national and international standards.

The PIU will report on a regular basis to WB on subproject screening, approval and monitoring results.

2 INTRODUCTION

2.1 Brief Project Description

2.1.1 Objectives

The Higher-level Objective of the Sava-Drina River Corridor Integrated Development Program (SDIP) is to strengthen transboundary water cooperation and improve navigability and flood protection in the Sava and Drina Rivers Corridors.

The Development Objective of the SDIP (Phase 1 of the Program) is to improve flood protection and enable transboundary water cooperation in the Sava and Drina Rivers Corridors.

2.1.2 Components

This project will implement subprojects with high implementation readiness and relevance to the program objectives, with detail designs and tender documents likely ready by Effectiveness in Montenegro, Bosnia and Herzegovina (BiH) and Serbia, while simultaneously preparing subprojects that will be implemented during the second phase of the Regional Program. The project consists of three components as described below:

Component 1: Integrated Management and Development of the Sava River Corridor

Sub-component 1.1: **Flood protection, environmental management and climate change adaptation**. This sub-component will finance construction and rehabilitation of embankments at selected priority areas along the Sava River Corridor as well as nature-based solutions to re-vitalize selected protected areas of ecological significance to the Western Balkans. Upgraded flood protection capacity (at or above 1 in 100-year event) also enhance climate adaptation capacity of protected areas.

Sub-component 1.2: **Waterway improvements**. Under this sub-component, grant financing will be mobilized to finance demining activities along the Sava's right bank within BiH, as a pre-requisite to the execution of civil works—planned for Phase II of the program—to increase the navigational capacity of the Sava river. The preparatory documentation for these Phase II works (engineering designs, environmental and social safeguards instruments, expected climate change impacts on navigability, bidding documents) will also be finalized during the project. The project-supported demining efforts are also an operational pre-requisite to the planned improvements to Sava river ports under Phase II. Demining activities are proposed as a no-regret investment that will help unlock the river's economic potential for generations to come.

Component 2: Integrated Management and Development of the Drina River Corridor

Sub-component 2.1: **Flood protection and environmental management**. This sub-component will finance infrastructure works, studies, surveys, consultations and preparation of detailed design of interventions related to the management of environmental assets (the protection of local ecosystems that act as carbon sinks) along the Drina Corridor. The on-going GEF-SCCF-financed Drina River Basin Management project as well as the ESMAP technical assistance, are conducting studies that will identify the additional actions needed for flood protection, bank stabilization, drainage and river training works, and reservoir management in the Drina Corridor. Upgraded flood protection capacity (at or above 1 in 100-year event) also enhance climate adaptation capacity of protected areas.

Sub-component 2.2: **Integrated development of Drina watershed**. This sub-component will finance improved watershed management in the Lim and Grncar River basins of Montenegro, as well as works related to flood protection, drainage and irrigation measures within the Lim River Basin (a tributary of the Drina River) to mitigate flood risks and promote sustainable use of natural resources. These measures include: river bank stabilization; river training works; flood protection embankments and dykes. The detailed designs of these

investments are under preparation through the ongoing GEF-SCCF project. This sub-component will further finance the preparation of selected priority investments in line with the project development objective.

Component 3: Project preparation and management

Sub-component 3.1: **Project preparation**. This sub-component will finance preparation of project documentation for phase II of the program, including environmental and social assessments.

Sub-component 3.2: **Institutional strengthening and project management**. This sub-component will finance activities to increase institutional capacity and inter-sectoral coordination in the participating countries to ensure more efficient decision making and program management at regional level. This sub-component will promote joint action and decision making in river basin management and flood risk management among riparian countries, thus enhance the climate adaptation capacity of the region.

Component 4: Regional activities

This component will support policy dialogue, consultations, preparation of plans and studies, and investments to strengthen the nexus between water services and connectivity with the regional development and economic cooperation objectives of the Sava and Drina Corridor. An advocacy and communication plan will be prepared and implemented to promote regional cooperation. Regional studies (i.e., hydrological, sediment, climate changes adaptation, etc.) in the Sava and Drina Rivers Corridors will improve the understanding of the Basin's unique characteristics and opportunities to boost regional cooperation and integrated management.

2.1.3 Implementation arrangements

SDIP will be implemented through a sequential and simultaneous multiphase programmatic approach with five participating countries: Serbia, BiH, Montenegro, Croatia, and Slovenia. Slovenia will be the only non-borrowing program beneficiary; it will participate in the regional studies, regional dialogue, capacity building tools, and related activities under Component 3. Subprojects will be implemented at national level and will have cumulative regional benefits.

SDIP will be implemented by participating countries in a coordinated manner through two levels of coordination. At the regional level, a regional committee consisting of the existing ISRBC members and senior officials from key sectors such as water, transport, energy and tourism will facilitate dialogue and cooperation in the region. This committee will also provide strategic oversight and guidance for the implementation of regional activities in addition to national subprojects, ensuring stronger dialogue, integration and knowledge sharing. During implementation, other sectors will be coopted as and when the need arises.

At the national level, implementation will be undertaken by PIUs within line ministries of each country/entity. In each country/entity, PIUs will be established comprising of the required technical and managerial expertise to support project implementation. In Montenegro, a PIU will be established under the Ministry of Agriculture and Rural Management.

2.1.4 Timeline and budget

The program will be implemented over a period of 10 years, organized in two phases. Phase I will focus on flood protection and river basin management activities in the Sava and Drina River Corridors. Phase II will build on Phase I and strengthen river port connectivity and environmental management. Countries will proceed to Phase II based on the readiness of jointly identified priority interventions prepared during Phase I. The estimated program cost for both phases is US$338 million.

2.2 Objectives of this Environmental and Social Management Framework

According to the World Bank (WB) Environmental and Social Framework of 2016 (ESF) (described in more detail in the Legal Framework section of this document), the *Environmental and Social Management*

Framework (ESMF) is **an instrument that examines the risks and impacts when a project consists of a program and/or series of subprojects, and the risks and impacts cannot be determined until the program or subproject details have been identified.**

Although the potential subprojects have already been proposed for each of the phases, taking into consideration the large geographical scope of the Sava and Drina watersheds, and the overall duration of the Program, there is a great chance that a number of proposed subprojects will be developed, or further developed during the actual implementation of the project. In order to facilitate the adequate preparation of such subprojects, the ESMF is used to define and guide the environmental and social (E&S) due diligence mechanisms for the said activities.

The ESMF establishes principles, rule and procedures for assessment of E&S risks and impacts. It includes measures and plans for reduction, mitigation and/or compensation of negative risks and impacts, rules for estimating and budgeting costs of such measures, as well as information on the agency or agencies responsible for addressing project risks and impacts, including information on such body's capacity to manage E&S risks and impacts. It also includes adequate information on the area where a subproject is expected to be implemented, including any potential E&S vulnerability of such area; as well as information on the potential impacts and mitigation measures which could be implemented.

This ESMF has been prepared with the aim to ensure:

- project compliance with all relevant local polices and legislation, as well as WB requirements, and therefore
- adequate mitigation of all potentially adverse E&S impacts of the Program.

This document provides a detailed description of the procedures related to assessment, management and monitoring of E&S risks and impacts of the subprojects. All subprojects to be financed under the Program will be subject to an assessment of E&S risks by the PIUs, following the procedures described in this Framework. For "high" risk subprojects, an *Environmental and Social Impact Assessment (ESIA)* will be developed, while for "substantial", "moderate" and "low" risk subprojects, an assessment will be carried out in line with the MNE environmental laws (depending on the subproject location) and will include preparation of a site-specific *Environmental and Social Management Plan (ESMP)*, all in line with this ESMF and provisions set forth under the World Bank ESS1 and ESF.

2.3 Basic information about the country

Official name:	Montenegro
Abbreviation:	MNE
Capital:	Podgorica
Other major cities or towns in the project area:	Pljevlja, Bijelo Polje, Pluzine, Berane, Mojkovac
Area:	13,812 km^2
Geographical position:	MNE borders Croatia, BiH, Serbia, Kosovo, Albania and the Adriatic Sea  *Figure 1: Geographical map of Montenegro*
Population:	678,901
Languages:	Official language: Montenegrin Other languages used: Serbian, Bosnian, Albanian, Croatian
Government structure:	MNE is an independent parliamentary republic. The Government is the executive branch, and the Parliament is the legislative body.
Main industries	Steelmaking, aluminium, agricultural processing, consumer goods, tourism
Nominal GDP:	$5.389 billion (2018)
Nominal GDP per capita:	$8,644.307 (2018)
GDP growth:	2.8% (2018)
EU status:	MNE has an EU candidate status. Accession negotiations with the EU are ongoing.
Sava and Drina catchment areas in MNE:	MNE 's surface runoff in the north is carried away by the Lim and Tara river systems, which enter the Danube via the Drina River of Bosnia and Herzegovina. In southern MNE, streams flow toward the Adriatic Sea.

3 BASELINE ENVIRONMENTAL CHARACTERISTICS OF THE PROJECT AREA

3.1 Geographic, Topographic and Geological Characterization

The Montenegrin part of the Drina River Basin (DRB) comprises an area of 6,219 km^2 representing 32% or about a third by area of the total DRB (total area is 19,982 km^2). Two thirds of the Drina River is provided by the Lim, Piva and Tara rivers, which originate in Montenegro[1]. The Drina River is formed at the point of confluence of the Piva and the Tara rivers, at Scepan polje Field in Montenegro at an altitude of 470 m. The highest point in the basin is on the Prokletije Mountain (Jezerca top at 2,694 m.a.s.l.). The lowest point in the DRB is at 82.3 m.a.s.l. at the confluence of Drina River and Sava River near the village of Crna Bara. Average altitude of the DRB is 961.6 m.a.s.l. and altitude is in the range from 75.4 m.a.s.l. at the mouth to more than 2500 m.a.s.l. on the highest mountains (Prokletije Mountain 2,694m.a.s.l., Komovi Mountain 2,487 m.a.s.l. and Durmitor Mountain 2,522 m.a.s.l.)[2].

The 13 municipalities in Montenegro, out of a total 23, are located in the DRB (municipalities of Andrijevica, Berane, Bijelo Polje, Kolasin, Mojkovac, Niksic, Plav, Pljevlja, Pluzine, Podgorica, Rozaje, Savnik and Zabljak) (Figure 2).

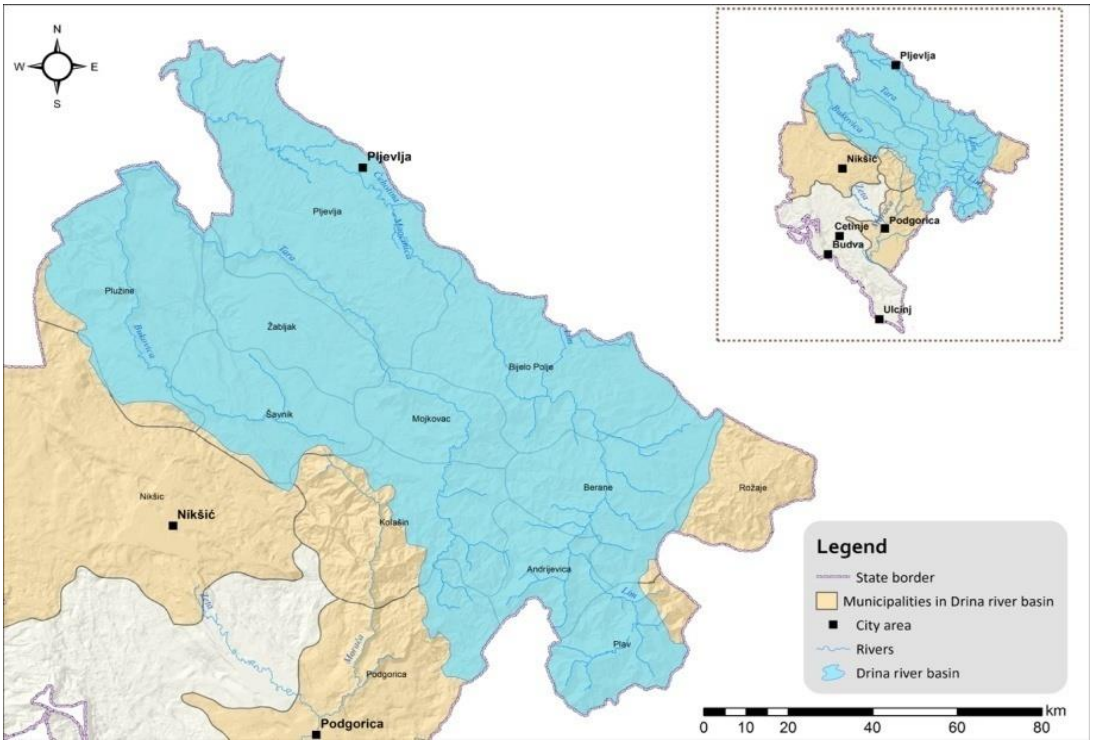


Figure 2: Drina River Basin in Montenegro

(Source: Consultant)

The morphology and topography of the Drina River Basin is dominated by past glaciation and karstification in the high mountain ranges whilst karst and alluvial relief is formed on the lower mountain areas[3].

[1] United Nations Economic Commission for Europe (2017). Assessment of the water-food-energy ecosystems nexus and benefits of transboundary cooperation in the Drina River Basin, New York & Geneva

[2] COWI (2016). Support to Water Resources Management in the Drina River Basin, Montenegro – IWRM Study and Plan – Background paper -Volume 1-Main Report

[3] Ibid.

Geological composition of the DRB is very complex, due to numerous mountain building epochs and tectonic movements (there have been several orogenesis), transgressions and regressions etc. The geology in the upper basin comprises massive, thinly bedded limestone, dolomitized and sandy limestone, and rarely dolomites, and purely reef organic limestone; marls and shales from the Neo-gene, Cretaceous flysch diabase chert formation and schists. The middle basin comprises igneous rocks, serpentines, sandstones, locally sandy and marl limestone. In the lower basin there are gravels, sandy gravels and gravely sands, and sporadic sands[4].

The DRB in Montenegro belongs mostly to the Outer Dinarides and partly to the Inner Dinarides. Four geotectonic units exist in Montenegro: the East Bosnian-Durmitor Block, which is on North-Eeast part and which isthrust over the Dalmatian-Hercegovinian Zone. Toward the southwest is the Budva Zone and on the farthest part is the South Adriatic zone (Figure 3)[5].

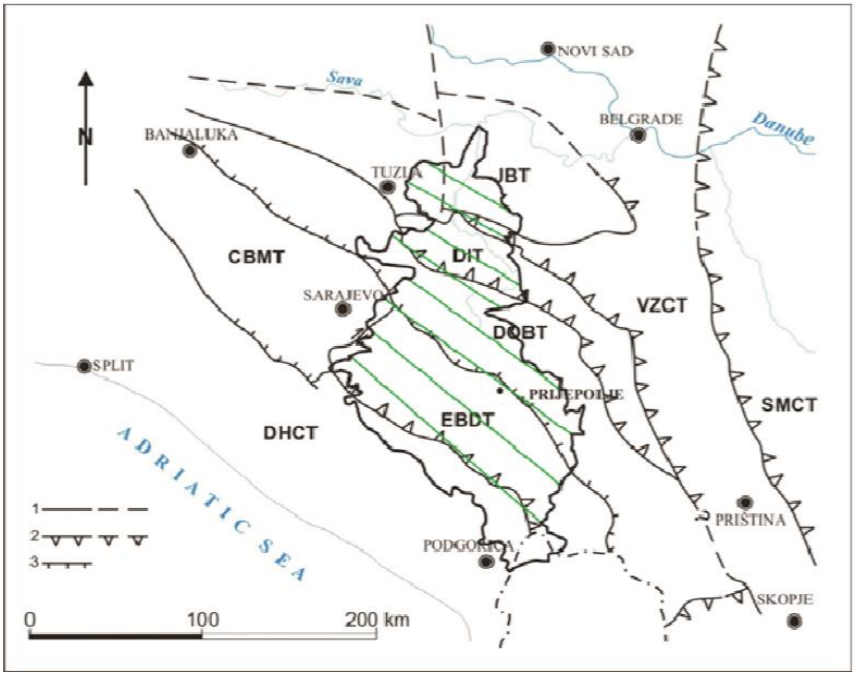


Figure 3: Geotectonic position of central Balkan peninsula, between Moesia plate and Adriatic Sea

DHCT - Dalmatian-Herzegovinian composite terrane; CBMT - Central Bosnian terrane; EBDT (=IBDB) - East Bosnian-Durmitor terrane; DOBT (=DOP) - Dinaridic Ophiolite Belt terrane; DIT (=DIE) - Drina-Ivanjica terrane; JBT (=JB) - Jadar Block terrane; VZCT – Vardar Zone composite terrane; SMCT - Serbian-Macedonian composite terrane.

1. Fault, observed and covered; 2. Thrust; 3. Tectonic boundary (Karamata et al., 2000) – Green Hatching presents the outline of the Drina River Basin

(Source: GEF SCCF West Balkans DRB Management Project (2015). Environmental and Social Management Framework)

The East Bosnian-Durmitor Block covers a larger part of the Danube river Basin. To the northeast is the border with Dinaridic Ophiolite Belt (DOP), but to the southwest it is thrust over the Dalmatian-Herzegovina Zone. It includes mountains: Volujak, Pivska Mt., Durmitor, Ljubisnja, Kovac Mt., Sinjajevina, Lisa, Bjelasica, Komovi, Visitor, Mokra, Hajla and Zljeb. The territory comprises clastics of Palaeozoic age, also clastic, carbonate and siliceous sediments and volcanic rocks of Triassic age, and of Jurassic, Cretaceous, Neogene and Quaternary sediments.

In the Montenegrin part of the DRB, there are three main soil types:

- Dystric Cambisol – Dystric Leptosols – acid brown soils
- Eutric Cambisol – Mollic Leptosols on Limestone and
- Planosols – Luvisols – small section on Drina between the Cehotina and Lim rivers.

[4]GEF SCCF West Balkans DRB Management Project (2015). Environmental and Social Management Framework

[5] Ibid.

3.2 Climate

The Durmitor Mountain, which is located at the source between Piva River and Tara River, is the point of contact of Mediterranean and continental climate. The Piva River basin on the southern and western sides of the Durmitor Mountain is under the influence of Mediterranean climate, while its northern and eastern sides belonging to the Tara River basin are under the influence of continental climate.

Th orientation and altitude on other high mountains in the DRB also determines the climate features[6]. Commonly, the river valleys are characterized by temperate continental climate, at the altitudes of up to 1,200 m.a.s.l. the climate is submountainous, and above 1,200 m.a.s.l. the climate is mountainous. Medium-height mountains in the upper and middle segment of the river basin receive significantly less rainfall than the others. More rainfall is present in May, June and July, and the least rainfall is present in January and February, with precipitation mainly occurring in the form of snow. Ravines surrounded by mountains on all sides are characterized by specific climate. In summer, the temperature is higher than the temperature on the surrounding mountains, spring starts earlier, autumn is warmer, and annual rainfall is lower.

The average annual rainfall in the DRB is approximately 1,030 mm. The average multi-annual rainfall ranges between 700 mm in the east segment of the basin (Badovinci-Sjenica) up to 2,500 to 3,000 mm in the source area of Piva on Durmitor Mountain and the Lim River on the Prokletije Mountain. The area of the Ćehotina basin has the lowest amount of precipitation in Montenegro. The south-western part of the basin is overall more abundant in rainfall than the north-western part, near to the Sava River confluence.

In the northern segment of the basin, mean annual air temperatures range between 10.5 and 11.1°C in the lower course of the Drina River. In the southern part of the basin, where the source of Lim River, Piva River and Tara River are located, the mean annual air temperatures range between 4 and 5°C, reaching up 2°C on mountaintops. The mean annual air temperature on Zabljak Mountain is 5°C, with the highest temperature in August being 14°C, and the lowest in January being -5°C.

3.3 Climate change

According to the climate change impact analysis presented in the *IWRM Study and Plan for Montenegro*[7]*,* measurements in Montenegro have shown an increase in the mean annual temperature between 0.5 and 0.8°C during the period 1981-2010 with respect to the reference period 1961-1990. The fastest heating is noted in the decade 2001-2010 of about 1.0 to 1.4°C.

The annual precipitation decreased in the range from -1 to -6%, as observed during the period 1981-2010 compared to the 1961-1990. Although the change in total precipitation amount is not great, the concern is in the observed increase in intensity and frequency of extreme events including increase in rainfall intensity, more frequent droughts, more frequent storms during the winter, decrease in number of consecutive dry days and days with extreme precipitation, decrease in snow cover, more frequent extremely high temperature, more frequent and longer heat waves, less frost days and very cold days, etc.

According to the information presented in the Montenegro's Second National Communication under the UNFCCC framework, the annual mean temperature in the entire basin (including Montenegro) will likely increase from 0.8 to 1.1°C relative to the base period from 1961 to 1990. In the southern half of the Basin (implying the Montenegrin part of the DRB), a precipitation decrease of up to 5% is projected. For the distant future period, from 2071 to 2100, a temperature increase is likely up to 3.6 °C under the worst-case scenario. Overall, precipitation is likely to decrease from 10% to up to 20% in the different scenarios.

[6] COWI (2016). Support to Water Resources Management in the Drina River Basin, Montenegro – IWRM Study and Plan – Background paper - Volume 1 – Main Report

[7] Ibid.

Evidence of climate change is apparent, with several heat waves experienced in recent years (notably in 2011). The DRB in Montenegro has experienced severe droughts in 2000, 2003, 2007 and 2011. In addition, the DRB has suffered losses from damaging floods, most notably in 2010. Flood waves on the Drina and its tributaries were induced by extreme rainfalls, where 100-200 mm of rain fell in 3 days. Flood waves on the Drina tributaries (Piva, Tara, Cehotina, Lim and Jadar) and the main course were exceptional, such that hydropower reservoirs could not retain them. A new maximum was recorded on 3 December at Radalj, the most downstream gauge station on the Drina River. As a result, a flood wave also occurred on the Sava River in Serbia, where emergency flood defense was declared at the beginning of December. Montenegro predominantly escaped the May 2014 deluge[8].

Projected impacts on the water sector in the DRB from climate change are reduced flow and reduced abundance of water resources, as well as higher frequency and abundance of floods. Furthermore, the combination of water shortages due to uncontrolled demand and increasing frequency of drought due to climate change will lead to severe water stress in the future; however, there is a substantial lack of available data, and an urgent need for a proper water information system and water cadaster.

3.4 Water Quality

The Institute for Hydro-meteorology and Seismology of Montenegro (IHMS) performs annual monitoring of water quality and quantity in Montenegro. Monitoring results are published on a yearly basis and are available on the web ite of the Institute.

It is important to highlight that the monitoring of surface water is not in compliance with the Water framework directive (WFD). In addition, waters are not divided into units called water bodies as proposed by WFD; therefore, the status of water is not classified as high, good, moderate or poor.

Surface water quality is determined by comparing the monitoring values with the limit values prescribed in the *Decree on classification and categorization of waters*[9]. This Decree categorizes water into categories depending on the proposed purpose of water usage. In addition, the same Decree prescribes classes of water based on limit values for the certain groups of parameters. The classification system is summarized in the table below.

Table 1: Classification of water quality in Montenegro[10]

Classification	Definition
A, A1, A2, A3	Water that can be used for drinking and food production. Water with class A can be used for drinking purpose without any treatment, while A1, A2 and A3 will need treatment before use.
S, W and C	Class S - waters that can be used for breeding noble fish (salmonids); Class Š - waters that can be used for shellfish farming; Class C - waters that can be used to breed less noble fish (cyprinids).
K1 and K2	Bathing waters – Class K1 - excellent, Class K2 - satisfactory.

There are 6 monitoring stations located on the Lim River. The Lim River, upstream from Berane, should belong to A1, S, K1 class (Plav and Andrijevica settlements), while the river section downstream from Berane should satisfy quality standards prescribed as class A2, C, K2 (settlements Skakavci, Zaton, Bijelo Polje and Dobrakovo). Compared to the previous years, water quality of Lim River improved in 2018. Based on the monitoring results from 2018, the upper part of the river belongs to Class A1, while the middle part of the river belongs to class A2, with the exception of nitrite and phosphate concentrations that were high and outside the prescribed limits. About 78% of the river by length satisfies prescribed class, 14% of the river is outside the prescribed class, while 8% of the river has poor quality with regard to the values defined by the classification system. Compared to the WFD requirement, Lim River has good status in the upper section, while the lower

[8] ICPDR (2010). 2010 Floods in the Danube river basin-brief overview of key events and lessons learned

[9] Official Gazette of MNE No. 2/07

[10] Decree on classification and categorization of waters (Official Gazette No. 2/07)

sections (downstream from Berane) have not reached good status yet. It is important to note that the results of microbiology tests were in line with the prescribed limits. Its water quality is under the influence of agro-industrial activities of Zora (Berane) and Mesopromet (in Bijelo Polje), cellulose and paper production site (Celuloza), municipal landfills, landfill of sawdust and off-cuts of wood.

There is a single monitoring station located on the Grncar River in the Gusinje town. Based on the legal requirements, water should belong to class A1, S, K1. Its good quality is threatened during the low-water regime in the summer, so most of the parameters were outside class A1, while the results of microbiology testing satisfied class A2 during the summer season.

There are around 10 operational wastewater treatment plants in the country. In the DRB, besides the Podgorica plant that has insufficient capacity and needs an upgrade, five more plants have been constructed in Mojkovac, Zabljak, Berane, Niksic, and Pljevlja.

3.5 Biodiversity and protected areas

Flora

The biodiversity of the DRB is becoming increasingly recognized as a basin that hosts numerous endemic species, and provides space and sustenance for large important habitats, that in turn support tourism and "green agriculture" economies[11].

In the DRB, the valleys of Piva and Tara Rivers are characterized by high floristic diversity[12]. The number of endemic and relict plants is exceptionally high in the southern part of the DRB, in the karst massifs surrounding the Piva and Tara Rivers, where endemic plant diversity reaches up to 96 species per one UTM 10x10 m square. The flora in the DRB in Montenegro comprises herbaceous plants, trees and shrubs, aquatic flora species, alluvial forests, and invasive flora species.

The upper canyon of the Tara and Piva Rivers comprises mountain scenery (exceeding 2.500 meters) formed of limestone massifs carved by glaciers and deeply dissected by rivers. In this area, 13 glacial relict species are recorded, namely: alpine saxifrage *(Saxifraga paniculata)*, *alpine cinquefoil* (*Potentilla crantzii)*, *mountain avens (Dryas octopetala)*, *alpine aster (Aster alpinus)*, false aster *(Bellidiastrum michelii)*, alpine pearlwort *(Sagina saginoides)*, *alpine rock-cress (Arabisalpine)*, annual stonecrop *(Sedum annuum)*, bog bilberry *(Vaccinium uliginosum)*, *whorled lousewort (Pedicularisverticillata)*. Tertiary relict species are present, comprising common walnut *(Juglans regia),* black pine *(Pinus nigra), Bosnian pine* or Heldreich's *(Pinus heldreichii), Turkish hazel (Corylus colurna), manna ash (Fraxinus ornus),* oriental hornbeam *(Carpinus orientalis),* European smoketree *(Cotinus coggygria),* downy oak (*Quercus pubescens)* etc.

The specific characteristic of the lower parts of the Tara and Piva River canyons is the presence of the plant community of oriental hornbeam *(Carpinetum orientalis)*[13]. The recorded species include downy oak (*Quercus pubescens), Turkey oak (Quercus cerris), manna ash (Fraxinusornus), Montpellier maple (Acer monspessulanum),* European hop-hornbeam *(Ostrya carpinifolia),* mahaleb cherry *(Prunus mahaleb), Cornelian cherry (Cornus mas),* European smoketree *(Cotinus coggygria), wayfaring tree (Viburnumlanata),* common hazel *(Corylus avellana)* etc.

In the Piva and Tara Rivers valleys, the highest number of trees and shrubs is recorded in the forest community *Colurneto Ostryetum carpinifoliae*. As an example, in this community, 32 species of trees and shrubs are present in the Piva River valley only. Generally, this forest community is developed at an altitude between

[11]Sudar, S., Aleksandar, I., & Cvetković, V. (2016). ESMF for Fostering Environmental Protection and Security in DRB Riparian Countries. Paper presented at the Paper presented at the 7th International Scientific Contemporary Trends in Social Control of Crime

[12] COWI (2016). Support to Water Resources Management in DRB, Montenegro – Integrated Water Resources Management Study and Plan – Background paper - Volume 1 – Main Report

[13] IPA programme (2012). Important Plant Areas in Montenegro

1,000 and 1,200 m.a.s.l. In the deep depressions, other species can also be found, namely: honeysuckle (*Lonicera barbasiana), bilberry (Vaccinium myrtillus),* great wood-rush 'Marginata' *(Luzula maxima),*yellow thistle *(Cirsium erisithales), and stone bramble (Rubus saxatilis).*

The rock surfaces occupy large areas in the valley of the Piva River and they are predominantly karstic limestone. In this valley, coniferous forests that belong to phyllum *Piceetalia* are developed. The specificity of these forests are acidophilous species: *bilberry (Vaccinium myrtillus),* lingonberry *(V. vitis-idaea),* northern firmoss *(Lycopodium selago),* great wood-rush 'Marginata' *(Luzula maxima)*, developed in limestone in the Canyon of Piva River.

Herbaceous species are almost non-existent due to regular floods that prevent these plant communities from establishing themselves. Sporadically occurring species that have deep rhizomes do exist however, such as: butterbur *(Petasites hybridus),* coltsfoot *(Tussilago farfara),* river horsetail (*Equisetum limosum), marsh woundwort* (*Stachys palustris),* water mint *(Menthaaquatic),* horse mint (*Mentha longifolia),* pale persicaria *(Polygonum lapathifolium), and hemp-agrimony (Eupatorium cannabinum).*

The most noticeable invasive plant species in the whole DRB are the common ragweed *(Ambrosia artemisiifolia)*, and Japanese knotweed *(Reynoutria japonica*). *Ambrosia artemisifolia* is already well established in the whole lower part of the DRB, while *Reynoutria* is a great threat for the riparian vegetation and is spreading in the lower part of the DRB. The invasive species policeman's helmet *(Impatiens glandulifera)* has been also observed in wetlands and riparian zones in Montenegro (global invasive species database of IUCN). A great threat for the natural habitats located on steep slopes of canyons and gorges is an invasive tree species called tree of heaven *(Ailanthus altissima)*.

On the fluvial terraces of the Lim River*,* on the territory of Bijelo Polje Municipality, orchards and meadows are situated*.* With the altitude increasing, shrubs and trees tend to grow; above 1,000 m.a.s.l. fir, spruce and pine can be found. *Abieto-Picetum* forests occupy a wide area of the mountains in northern Montenegro (Durmitor mountain) as well as in enclave forms in Prokletije mountain. The native trees for Balkan peninsula that can be found on the Prokletije mountain are Macedonian pine or Balkan pine (*Pinus peuce*) and Bosnian pine or Heldreich's pine *(Pinus heldreichii*). The area of the Durmitor and Prokletije mountains is characterized by well-preserved high mountain ecosystems and rich biological diversity encompassing a high number of endemic, relic, and rare species. Characteristic flora of alpine ecosystems includes: edelweiss (*Leontopodium alpinum*), Montenegrin blue-bell (*Edraianthus montenegrinus, E. glisichi* and *E. pulevici*), Blecic wulfenia (*Wulfenia blecicii*), Durmitor mullein*, (Verbascum durmitoreum*), etc[14].

No detailed data are available on the floristic diversity of the Grnčar River valleys. However, there is no doubt about the high value of floral communities in these sub-basins and surroundings.

Fauna

Aquatic macroinvertebrates: Field investigations in 2017 on the aquatic macroinvertebrates in the Lim River on three sampling spots (Bioča, Kruševo and Unevina) indicate the presence of the following groups of aquatic macroinvertebrates: hydrozoans (*Hydrozoa*), nematodes or roundworms (*Nematoda*), flatworms (*Turbellaria*), bristle worms or polychaetes (*Polychaeta*), annelid worms (*Oligochaeta*), leeches (*Hirudinea*), mollusks (*Mollusca: Gastropoda and Bivalvia*), crustaceans (*Crustacea*), amphipod (*Talitridae*) and water mites (*Hydracarina*)[15].

Insects: The diversity of moth butterflies in DRB is exceptionally high. Other groups of insects are also remarkable because of the high number of endemic subspecies present in the DRB. For example, in Durmitor

[14]*Municipality of Bijelo Polje (2018). Local Biodiversity Action Plans of the Municipality Bijelo Polje for the period 2018-2022*
[15]*Ibid.*

National Park, Lepidoptera are present with 130 species, including one endemic species *Coenonympha arcania ssp.philea*. Five endemic species of Coleoptera (beetles) have also been observed.

Based on the most recently conducted research, a great number of insects were identified in the Lim River: dragonflies and the damselflies (*Odonata*), caddisflies (*Trichoptera*), mayflies (*Ephemeroptera*), true bugs (*Hemiptera*), stoneflies (*Plecoptera*), true flies (*Diptera*), beetles (*Coleoptera*), and typical bugs (*Heteroptera*)[16].

Terrestrial invertebrates: Field research on terrestrial invertebrates was conducted in the area of Bijelo Polje Municipality. The ollowing table shows the species found on the Ćehotina River and Lim River with an indication of their protection status (national, species of EU importance or without any protection status*)*[17].

Table 2: Results of field researches on terrestrial invertebrates on Ćehotina and Lim River

Protection status	Ćehotina River Valley	Lim River Valley
Species protected by national legislation	*Helix vladica* *Rosalia alpina* *Formica pratensis* *Iphiclides podalirius* *Osmoderma eremita* *Lucanus cervus* **Species known from the literature review:** *Parnassius apollo* *Papilio machaon* *Oryctes nasicornis*	*Formica rufa* *Parnassius apollo* *Papilio machaon* *Iphiclides podalirius* *Helix vladica* **Species known from the literature review:** *Oryctes nasicornis* *Cermbis cerdo* *Roasaria alpina* *Limax wohlberedti* *Lucanus cervus* *Dina lineata*
Species of EU importance (Natura 2000)	*Rosalia alpina* *Osmoderma eremita* *Lucanus cervus*	*Buprestis splendens* *Callimorpha quadripunctaria*
Important species; without any protection	*Ephippiger discoidalis* *Pholidoptera aptera* *Morimus funereus* *Hesperentomon carpaticum* *Adalia bipunctata* *Arion subfuscus* *Limax cinereoniger* *Deroceras turcicum* *Helix pomatia* *Cepaea vindobonensis* *Unio crassus* *Asellus aquaticus*	*Eiseniella tetraedra* *Haemopis sanguisuga* *Helix pomatia* *Unio crassus* *Gammarus balcanicus* *Asellus aquaticus* *Euscorpius italicus* *Adalia bipunctata* *Apatura iris*

Fish: The upper area of the DRB is characterized by mountain streams and small water flows with clean and cold water primarily inhabited by Salmonids. The most important fish species in this region is the Danube Salmon (*Hucho hucho*), whose migration routes are interrupted by dams, and whose populations are showing a disrupted structure, whilst the overall population size has decreased significantly. The Danube Salmon is one of the most endangered European fish species (IUCN Red list), endemic for all the Danube drainage. Other important Salmonid species present in this upper basin, in particular in the Lim River, are greyling (*Thymalus thymalus*) and brown trout (*Salmo labrax).* In addition, there are Cyprinid species such as the chub (*Leuciscus cephalus*), barbell *(Barbus barbus)*, brook barbell (*Barbus canicus*), nase (*Chondrostoma nasus)* and the Danube Roach (*Rutilus pigus virgo*).

[16] *Ibid.*

[17] *Ibid.*

In addition, Tara River is habitat for the European grayling (*Thymallus thymallus)*, Danubian basin brown trout (*Salmo labrax)*, sculpin (*Cottus gobio)*, Barbel (*Barbus barbus)*, large spot barbel (*Barbus balcanicu*s), minnow (*Phoxinus phoxinus),* and Nase (*Chondrostoma nasus)*[18].

Amphibians and reptiles: Based on data presented in the *IWRM Study and Plan for Montenegro*[19], the Durmitor area has unique herpetofauna which was one of the most important arguments for the inclusion of the NP Durmitor in the list of World Natural and Cultural Heritage by UNESCO and, especially when it comes to the phenomenon of neoteny and the presence of rare, relict and endemic forms. Indeed, more than half of the representatives of the herpetofauna of the Balkan Peninsula are observed in this small area. Among them, the remarkable protected amphibians are *alpine salamander* (*Salamandra atra)*, alpine newt (*Triturus alpestris)*, green toad (*Bufo viridis)*, terrapin (*Emys orbicularis)*, deaf adder (*Anguis fragilis)*, endemic Mosor lizard (*Dinarolacerta mosorensis*), common wall lizard (*Podarcis muralis)*, the smooth snake (*Coronella austriaca),* and meadow Viper (*Vipera ursinii)*.

In the Lim river valley (location of Bijelo polje), 15 species of amphibians and reptiles were found: agile frog (*Rana dalmatina*), Greek stream frog (*Rana graeca*), common frog (*Rana temporaria*), yellow-bellied toad (*Bombina scabra*), fire salamander (*Salamandra salamandra*), common toad (*Bufo bufo*), European green toad (*Bufo viridis*), common wall lizard (*Podarcis muralis*), European green lizard (*Lacerta viridis*), sand lizard (*Lacerta agilis*), viviparous lizard (*Zootoca vivipara)*, horned viper (*Vipera ammodytes*), meadow viper (*Vipera ursinii*), common European adder (*Vipera berus*), dice snake (*Natrix tessellata*)[20].

Birds: Birds are present in the DRB with at least 230 species. The most important centers for bird biodiversity in DRB are regions of Durmitor and Prokletije[21]. The presence of the 172 bird species in the NP Durmitor has been confirmed, 112 of which are or were breeding in the park. Some species are becoming endangered, such as the *western capercaillie (Tetrao urogallus)*, boreal owl *(Aegolius funereus)*, white-backed woodpecker *(Dendrocopos leucotos)* and three-toed woodpecker *(Picoides tridactylus)*. In Montenegro, the most abundant species connected with water habitats are the dipper (*Cinclus cinclus)* and gray wagtail (*Motacilla cinerea).* Both species are very abundant by flowing waters[22].

Mammals: In the forests of the upper catchment of the DRB in Montenegro live charismatic mammal species, such as the brown bear (*Ursus arctos*), the Eurasian wolf (*Canis lupus*), chamois (*Rupicapra rupicapra*), wild cat (*Felis silvestris*), and European otter (*Lutra lutra*). These species are all rare and endangered, under pressure from hunting and poaching. There are also more common species of mammals such as the fox, marten, badger, wild boar, deer, and rabbit.

Four mammal species are resident in the area of the Lim River: parti-coloured bat (*Vespertilio murinus*), brown long-eared bat (*Plecotus auritus*), common bent-wing bat (*Miniopterus schreibersii*), and Eurasian otter (*Lutra lutra*)[23].

According to Durmitor NP's management plan, 13 bat species have been recorded, namely: greater horseshoe bat *(Rhinolophus ferrumequinum),* lesser horseshoe bat *(Rhinolophus hipposideros),* grey long-eared bat *(Plecotusaustriacus),* brown long-eared bat (*Plecotus auritus),* whiskered bat *(Myotis mystacinus),* Geoffroy's bat *(Myotis emarginatus),* Natterer's bat *(Myotis nattereri),* greater mouse-eared bat *(Myotis*

[18] Weiss S., et al. (2018). Endangered Fish Species in Balkan Rivers: their distributions and threats from hydropower development

[19] COWI (2016). Support to Water Resources Management in the DRB, Montenegro – IWRM Study and Plan – Background paper - Volume 1 – Main Report

[20] *Municipality of Bijelo Polje (2018). Local Biodiversity Action Plans of the Municipality Bijelo Polje for the period 2018-2022*

[21] Ministry of Sustainable Development and Tourism (2015). National Biodiversity Strategy with the Action Plan for the period 2016 – 2020, Podgorica

[22] COWI (2016). Support to Water Resources Management in the DRB, Montenegro – IWRM Study and Plan – Background paper - Volume 1 – Main Report

[23] *Municipality of Bijelo Polje (2018). Local Biodiversity Action Plans of the Municipality Bijelo Polje for the period 2018-2022*

myotis), lesser mouse-eared bat *(Myotis blythii),* common pipistrelle *(Pipistrellus pipistrellus),* Savi's pipistrelle *(Hypsugo savii),* serotine bat *(Eptesicus serotinus)* and parti-coloured bat (*Vespertilio murinus).*

However, it is likely that at least 25 species are present in Montenegro and could be found using bat detectors. The DRB holds some very rare bat species for the region, such as the European free-tailed bat *(Tadarida teniotis)* and Brandt's bat *(Myotis brandtii),* known from NP Prokletije.

Protected area

In the Montenegrin part of the DRB, there are five protected areas (Table 3). They cover about 7.3% of the DRB territory in Montenegro.

Table 3: Protected areas of DRB in Montenegro

Name and type of Protected Area	Year of establishment	IUCN Status	Size (km^2)
National park Biogradska gora	1951	II	57
National Park Durmitor	1952	II	334
National park Prokletije	2009	II	166
Regional park Komovi	2015	V	195.04
Regional park Piva	2015	V	325

It is worth mentioning that the Tara River Basin became a biosphere reserve under UNESCO's Man and the Biosphere (MAB) Program in 1976. The Tara River Gorge received formal protection status as a Nature Reserve and Nature Monument only in 1977, paving the way to becoming an integral part of the enlarged Durmitor National Park one year later.

The location of the protected areas in the DRB is shown in Figure 4.

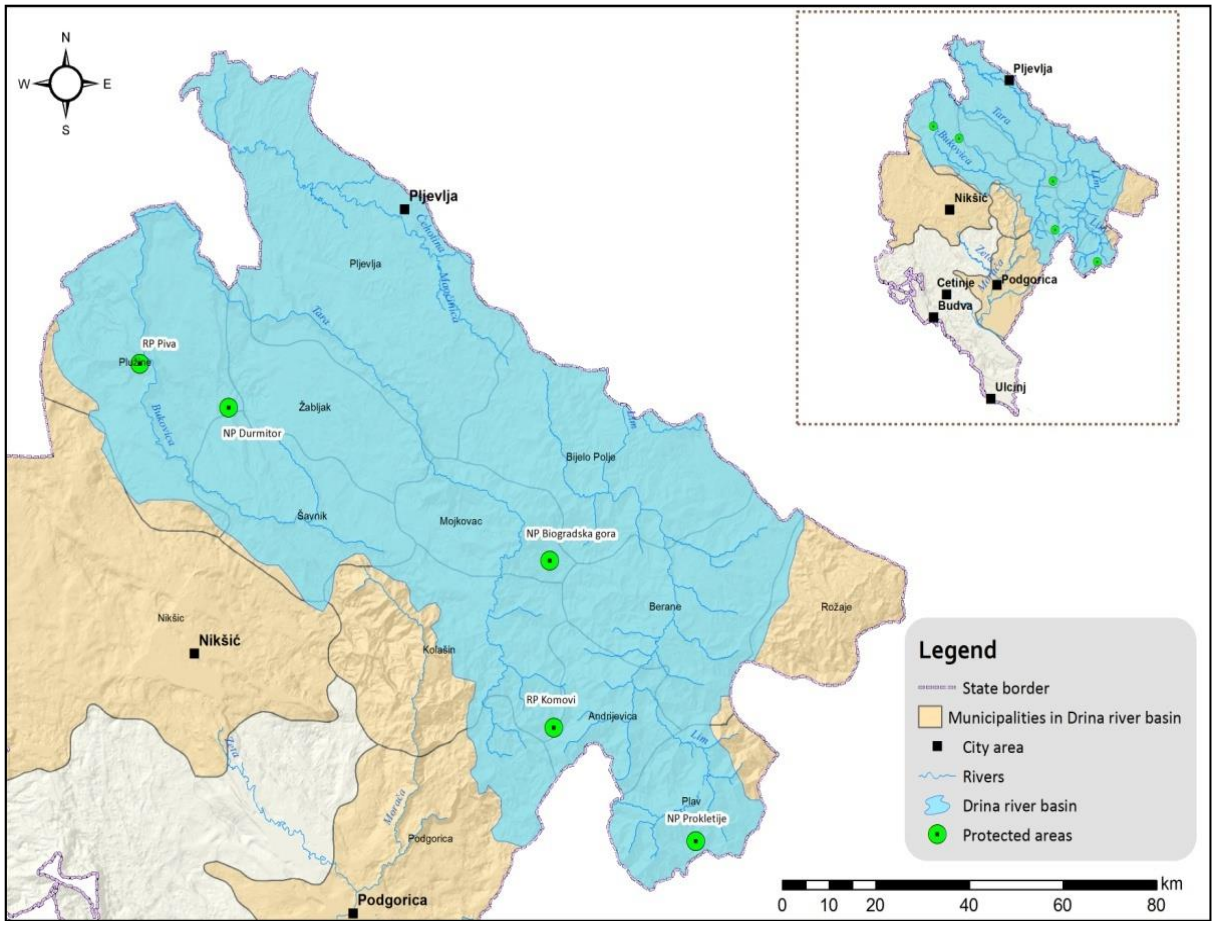


Figure 4: Map of protected areas in the DRB in Montenegro

(Source: Consultant)

Potential Emerald and Natura 2000 sites

32 locations of international importance for protection as Emerald sites were identified in Montenegro[24]. Out of these, 13 sites are found in the DRB but have not yet been officially established (Table 4).

Table 4: Emerald site in the DRB in Montenegro

No.	Name
1	Cave in Đalovica Gorge
2	Komarnica
3	Part of Piva Canyon
4	Komovi
5	Durmitor
6	Bjelasica
7	Visitor and Zeletin
8	Prokletije
9	Sinjajevina
10	Bioc, Maglic
11	Ljubišnja
12	Cehotina Valley
13	Lim Valley

[24]Project "Establishing the Emerald network in Montenegro from 2005 to 2008" under the responsibility of the Ministry of Tourism and Environment of MNE

As for the ecological network in Montenegro, 23 Natura 2000 sites are identified and 14% of the territory has already been mapped[25]. The sites identified in the DRB are given in the table below. They are still not officially proclaimed.

Table 5: Natura 2000 sites in the DRB in Montenegro[26]

Code	Name
*9180	Tilio-Acerion forests of slopes, screes and ravines
*91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion a*lbae)
91M0	Pannonian-Balkanic turkey oak – sessile oak forests
91R0	Dinaric dolomite Scots pine forests (*Genisto januensis-Pinetum*)
*91E0	Alluvial forests with *Alnus glutinosa and Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)
91M0	Pannonian-Balkanic turkey oak – sessile oak forests
9410	Acidophilous Picea forests of the montane to alpine level (*Vaccinio-Piceetea*)
*9530	(Sub-) Mediterranean pine forests with endemic black pines
91F0	Riparian mixed forests of *Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia*, along the great rivers (*Ulmenion minoris*)
91L0	Illyrian oak-hornbeam forests (*Erythronio-Carpinion*)
9110	*Luzulo-Fagetum* beech forests
8210	Calcareous rocky slopes with chasmophytic vegetation
*7220	Petrifying springs with tufa formation (*Cratoneurion*)
6510	Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinalis*)
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites)
6520	Mountain hay meadows
3240	Alpine rivers and their ligneous vegetation with *Salix eleagnos*
3220	Alpine rivers and the herbaceous vegetation along their banks
3230	Alpine rivers and their ligneous vegetation with *Myricaria germanica*
3270	Rivers with muddy banks with *Chenopodion rubri* p.p. and *Bidention* p.p. vegetation
3260	Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

* According to the Habitat Directive it is a priority habitat type

[25]IPA project: "Establishment of Natura 2000 network, Montenegro" (Service contract no. 374-589) which was carried out between 26th April 2016 and 25th April 2019 and funded by the EU.

[26]Petrović, D., Hadžiablahović, S., Vuksanović, S., Mačić, V., Milanović, Đ. , Lakušić, D. (2019). Catalogue of Habitat Types of EU Interest in Montenegro Version 3, Podgorica-Banja Luka-Beograd

4 SOCIO-ECONOMIC CHARACTERISTICS OF THE PROJECT AREA

4.1 Demography

According to official results of the 2011 Census, the total population of Montenegro was 620,029. According to data from the Institute for Statistics of Montenegro, the estimated population of Montenegro in 2018 was 622,227. The estimated population for the period 2013-2018 is shown in table below.

Table 6: Estimated population in Montenegro for the period 2013-2018

Estimated population in Montenegro					
2013	2014	2015	2016	2017	2018
621,209	621,810	622,159	622,303	622,373	622,227

Source: Institute for Statistics of Montenegro, Population estimates for 2013, 2014, 2015, 2016, 2017, 2018

The catchment area of the DRB in Montenegro is formed by 13 municipalities: Andrijevica, Berane, Bijelo Polje, Kolasin, Mojkovac, Niksic, Plav, Pljevlja, Pluzine, Podgorica, Rozaje, Savnik and Zabljak. There are actually 15 municipalities in the DRB with two newly established (2013) – Gusinje taking land from Plav, and Petnjica taking land from Berane. According to the 2011 Census, 218,112 inhabitants live in the catchment area of the Drina River. These 13 municipalities occupy 49.7% territory of the state with only 35.62% of the total population of Montenegro.

The area of DRB in Montenegro is located in a mountainous terrain, which is characterized by low population density with 20.18 inhabitants per km^2. Extremely low population density is recorded in Savnik and Pluzine municipalities, with less than 4 inhabitants per km^2.

Below is a table showing the demographic profile of DRB area in Montenegro.

Table 7: Demographic profile of DRB area in Montenegro

Municipality	Municipal Surface Area km^2	Total Population in Municipalities	Density of Population n/km^2
ANDRIJEVICA	283	5,117	18.08
BERANE	717	35,452	49.44
BIJELO POLJE	924	46,676	50.52
KOLASIN	897	8,420	9.39
MOJKOVAC	367	8,669	23.62
PLAV	486	13,549	27.88
PLJEVLJA	1,346	31,060	23.08
PLUZINE	854	3,286	3.85
SAVNIK	553	2,077	3.76
ZABLJAK	445	3,599	8.09
PODGORICA	1441	30,916	21.45
NIKSIC	2065	15,546	7.53
ROZAJE	432	13,745	31.82
Total	10,810	218,112	Mean=20.18

Source: Institute for Statistics of Montenegro, Census in 2011

4.2 Rural and Urban Areas

The northern region in Montenegro includes 14 municipalities, and it is a predominantly rural area (59.7% of the population lives in rural areas), while coastal (41.7%) and central (20.4%) regions belong to transition areas. According to the 2008 Spatial Plan of Montenegro, there are 40 urban settlements and 1,216 rural settlements, while their spatial distribution is very uneven.

Below is a table showing the population structure in Montenegro.

Table 8: Structure of population in Montenegro

Region	Population	Urban population		Rural population	
		Number	%	Number	%
Southern	148,683	86,707	58.3	61,976	41.7
Central	293,509	233,640	79.6	59,869	20.4
North	177,837	71,673	40.3	106,164	59.7
Total	620,029	392,020	63.2	228,009	36.8

Source: Institute for Statistics of Montenegro, Census in 2011

4.3 Main Economic Indicators

The key economic indicators for Montenegro are presented in table below.

Table 9: Key Economic Indicators in Montenegro in 2015, 2016, 2017 and 2018

	2013	2014	2015	2016	2017	2018
Nominal GDP (at current prices in EUR million)	3,362	3,458	3,655	3,954	4,299	4,663
Nominal growth rate (in %)	5.7	2.8	4.8	8.2	8.7	8.5
Real growth rate (in %)	3.5	1.8	3.4	2.9	4.7	5.1
GDP per capita (in EUR)	5,412	5,561	5,873	6,354	6,908	7,495

Source: Institute for Statistics of Montenegro

According to the Montenegrin Central Bank's 2018 Annual Report, macroeconomic indicators in Montenegro during 2018 were characterized by positive developments. The Montenegrin economy achieved a positive economic growth rate of 4.9% in 2018, based on quarterly estimates. Substantial growth was recorded in construction, tourism, forestry, trade, as well as most types of transport. Industrial production recorded high positive growth rates. The number of employed persons increased, while the number of unemployed persons decreased.

The annual CPI inflation rate stood at 1.6% in December 2018 compared to 1.9% in December 2017, and the average annual inflation rate stood at 2.6% compared to the 2.4% in 2017.

In 2018, industrial production increased by 22.4% compared to 2017. Production growth was recorded in the electricity, gas and steam supply sector (62.1%) and the manufacturing sector (12.1%), while in the mining and quarrying sector a decrease of 21.3% was recorded.

At the end of 2018, the fiscal deficit was estimated at EUR 159.2 million or 3.4% of GDP as a result of greater investments in infrastructure projects. The budgetary deficit consequently increased the net public debt, which amounted to EUR 2.99 billion, of which EUR 2.76 billion related to external debt. In addition, the value of issued guarantees (foreign and domestic) stood at EUR 287,5 million. Public debt is on an uptrend, and the implemented fiscal consolidation measures may be assessed as having a favorable impact.

4.4 Local Economy of Project Area

Local economy is mostly based on the wood processing industry. The Municipality of Pljevlja produces most of the timber (47%) in the country. The second most important economic sector is agriculture. The Municipality of Bijelo Polje has the largest amount of cultivable land in Montenegro, but only 19% is irrigated, mostly from surface flows (Lake Plav) and underground water sources. The fishery sector in the DRB municipalities in Montenegro is organized as small fish farms (family or small companies-owned), with a production of 5-20 tons per year. An exception are two large fish farms that produce 40-130 tons per year, run by private companies. The main issue for fish farming is a seasonal lack of water during the summer months. Mining and stone industry is based on the extraction of lead and zinc, which has a long tradition in this region. The most important are deposits of brick clay, lime and bentonite. Exploitation of sand and gravel in riverbeds is under

concession and under the jurisdiction of the Water Directorate. Tourism is developed in NP Durmitor and Tara River through promotion of eco-tourism, sports and adventure as well as sports fishing.

4.5 Impacts from Climate Change and Water Pollution on Local Economy

In the DRB, there are problems related to the protection of water resources from pollution due to the discharge of wastewater and solid waste. It has been observed that there is a lack of facilities for treating wastewater before its release into surface water. This applies to urban and rural areas, as well as more isolated industrial plants.

Floods in the DRB occurred on December 7th, 2010 and on May 15th, 2014, from the confluence with the Sava River upstream, to the confluence of Piva River and Tara River, which endangered almost the entire area. Floods from 2010 affected over 5,000 people in Montenegro. Municipalities with higher risks of floods are Bijelo Polje, Berane, Danilovgrad, Andrijevica, Podgorica and Plav.

The use of water for water supply, irrigation, etc. is not very significant in view of the considerable Drina water resources, except in the lower flow. The main impacts of climate change (floods) and pollution are effects on agricultural production and damages to local farmers, as well as fish farmers.

Flooding can negatively affect the gravel extraction industry located at the riverbed of the Drina River which represents a significant source of income for small private companies.

4.6 Employment

According to the Montenegrin Central Bank's 2018 Annual Report, the number of employees averaged at 190,132 during the reporting year, being 4.3% higher than in 2017, while the total number of employees in December 2018 was 194,085, being 9.3% higher in relation to December 2017. Employment rose in 15 out of 19 sectors with the highest increase recorded in the administrative and ancillary services sector (13.5%) and the construction sector (12.5%), and lowest in the sectors of water supply, wastewater management, control of waste disposal processes, etc. A drop in the number of employees was recorded in four sectors, with the most significant decline of 12.9% observed in the agriculture, forestry and fishing sectors, and the smallest decline of 0.2% in the electricity, gas, steam and air conditioning sectors.

The Employment Agency of Montenegro registered 41,378 of unemployed persons in 2018, which represents a decrease of 19.3% compared to 2017. The number of registered unemployed persons in 2018 amounted to 43,612 on average, decreasing by 13.7 % compared to the previous year.

The unemployment rate published by the Employment Agency of Montenegro stood at 17.83% in December 2018, which was 4.26% lower than the rate recorded in the same month of 2017[27].

According to data received through the Labour Force Survey conducted in 2014 (in 8,213 households, i.e. 21,101 persons), the regional average employment rate in DRB municipalities is 37.7%. The highest employment rate is in the Municipality of Pluzine (43.3%) and the lowest in the Municipality of Plav (22.2%). It is noteworthy that employment in other municipalities is not negligible: Zabljak (43.3%), Savnik (43.2%), Kolasin (40%) and Pljevlja (39.2%). The regional average of unemployment rate is 46.2%.

4.7 Poverty

The last publication on poverty developed by the Institute for Statistics of Montenegro is for 2013. According to data provided by this institution, the absolute poverty line in Montenegro in 2013 was EUR 186.45 per adult equivalent, which is about EUR 4 more than in 2012. In 2013, 8.6% of the population had equivalent consumption below the absolute poverty line.

[27] 2018 Annual Report, Montenegrin Central Bank, 2019

The total poverty rate in 2013 was reduced, and the depth and severity of poverty were decreased. The share of persons in poverty decreased from 11.3% in 2012 to 8.6% in 2013. Available indicators of trends on average earnings and consumption in 2013 show that poverty reduction was the expected result of economic development. In 2013, poverty declined in both urban and rural areas. In urban areas, the poverty rate in 2013 was 7.9%, while in 2012 it was 8.1%. In rural areas, the poverty rate was 9.7% in 2013, compared to 18.1% in 2012.

There is a significant difference in the extent of poverty among the southern region and other parts of the country. The poverty rate in the north region (where 25% of the population lives) was 10.3% in 2013, 10.3% in the central region and 3.8% in the south.

4.8 Labor Conditions

4.8.1 Overview

The Labor Inspection as a part of the Directorate for Inspection Affairs supervises the application of the Labor Law, the Law on Protection and Health, the Law on Trade Union Representation, the Law on Gender Equality, the Law on Prohibition of Discrimination against Persons with Disabilities, etc.

According to the Report of the Directorate in 2018[28], the Labor Inspection's priority task was to curb the gray economy (informal employment and unpaid work for formally employed people) and to provide a safe workplace in terms of health and safety at work. In that year, inspection activities were carried out in the field of *implementation of measures for exercising the regulated rights of employees,* such as regular payment of salaries and other benefits, annual leave and absences, working hours, protection of women, youth and persons with disabilities and protection of employees in case of contract termination. With regard to *occupational health and safety,* inspection paid attention to provision of occupational safety measures, collective insurance of employees, examination and testing of means of work, examination of working conditions, training of employees for safe work, provision of medical examinations of employees who work in places with special working conditions, etc.

Data on inspection activities in the area of labor relations, employment, health and safety at work in 2018 are presented in table below.

Table 10: Inspection activities and measures in the area of labor relations, employment, health and safety at work in 2018

Inspection activities and measures	Labor relations and employment	Health and safety at work	Total
Number of inspections	8,468	2,545	11,013
regular	5,740	1,512	7,252
initiated	1,405	57	1,462
upon report of an occupational injury	-	28	28
Number of identified irregularities	2,903	2,865	5,768
Number of decisions	1,050	899	1,949
Number of minor offences	2,490	745	3,235
Amount of penalties imposed (in EUR)	1,145,810	236,150	1,381,960

The highest number of inspection visits was in service activities, accommodation and catering, trade and construction.

4.8.2 Irregularities Identified

The most frequent irregularities were lack of employment contracts and registration for compulsory social security, delay in payment of salaries and contributions for social security, failure to provide payrolls to employees, lack of decisions on working hours, failure to specify weekly rest, etc. The irregularities identified

[28] Annual Labor Inspection Report in 2018, The Directorate for Inspection Affairs, March 2019

in the area of occupational and safety were lack of means of work necessary for the workplace, lack of personal protective equipment, work of employees without a medical certificate proving that a person has general health-related capacity to work, lack of a medical certificate for persons with higher risk jobs, no appointed responsible person for first aid, fire protection and evacuation of employees, lack of a risk assessment act for all job positions, etc.

In the same year, 28 serious work-related injuries were recorded, including 9 deaths.

4.8.3 Measures Taken

In order to eliminate identified irregularities, 2,273 measures were imposed. The Labor Inspection imposed temporary prohibition of work for 69 business entities, due to imminent danger for the life and health of employees.

4.8.4 Misdemeanor Responsibility

In the reporting year, labor inspectors issued 3,235 misdemeanor orders, out of which 2,490 were in the field of labor relations and employment, and 745 in the field of occupational health and safety.

4.8.5 Informal Work

Informal work is most pronounced during the tourist season, even though the number of employers with seasonal work permits increase. During the reporting year, 44 cases of child labor (mainly during the tourist season) were recorded, of which 16 male and 28 female children. The children were not involved in difficult and dangerous jobs, but rather worked as salespeople or assistant workers.

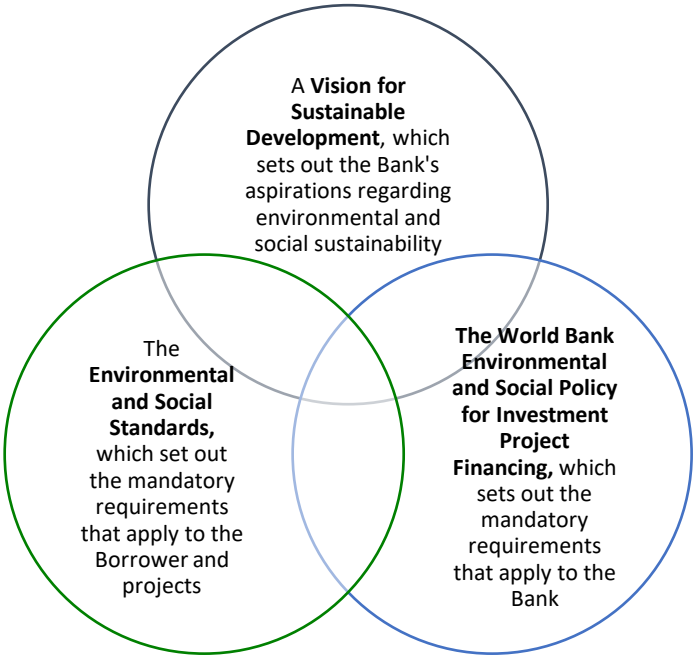
5 LEGAL FRAMEWORK

5.1 The World Bank Requirements

5.1.1 The World Bank Environmental and Social Framework (2016)

World Bank Environmental and Social Framework

WB's Environmental and Social Framework (2016)[29] became effective in October 2018. The Framework sets out the Bank's commitment to sustainable development, through a Bank Policy and a set of Environmental and Social Standards that are designed to support Borrowers' projects, with the aim of ending extreme poverty and promoting shared prosperity. The Bank's Framework consists of three parts:



Risk Classification

The Bank classifies all projects into one of four classifications:

- High risk
- Substantial risk
- Moderate risk
- Low risk.

In determining appropriate risk classification, the Bank takes into account relevant issues such as:

- Type, location, sensitivity and scale of the project,
- Nature and magnitude of potential environmental and social risks and impacts,
- The capacity and commitment of the Borrower (including any other entity responsible for the implementation of the project) to manage the E&S risks and impacts in a manner consistent with the ESSs.

[29] Available in English at: http://pubdocs.worldbank.org/en/837721522762050108/Environmental-and-Social-Framework.pdf

Other areas of risk may also be relevant to the delivery of E&S mitigation measures and outcomes, depending on the specific project and the context in which it is being developed. These could include legal and institutional considerations; the nature of the mitigation and technology being proposed; governance structures and legislation; and considerations relating to stability, conflict or security.

Projects involving multiple small subprojects

For projects involving multiple small subprojects, that are identified, prepared and implemented during the course of the project, the Bank will review the adequacy of national E&S requirements relevant to the subprojects, and assess the capacity of the Borrower to manage the E&S risks and impacts of subprojects. When necessary, the project will include measures to strengthen the capacity of the Borrower.

The Borrower is required to carry out appropriate E&S assessment of subprojects, and prepare and implement such subprojects, as follows:

(a) High risk subprojects, in accordance with ESSs;

(b) Substantial, moderate and low risk subprojects, in accordance with national law and any requirement of the ESSs that the Bank deems relevant for such subprojects.

Environmental and Social Standards

The Bank is committed to supporting Borrowers in the development and implementation of projects that are environmentally and socially sustainable, and to enhancing the capacity of Borrowers E&S frameworks to assess and manage the E&S risks and impacts of projects. To this end, the Bank has defined specific ESSs, which are designed to avoid, minimize, reduce or mitigate the adverse E&S risks and impacts of projects. The projects supported by the Bank must comply with the following ESSs:

Environmental & Social Standard 1	• Assessment and Management of Environmental and Social Risks and Impacts
Environmental & Social Standard 2	• Labor and Working Conditions
Environmental & Social Standard 3	• Resource Efficiency and Pollution Prevention and Management
Environmental & Social Standard 4	• Community Health and Safety
Environmental & Social Standard 5	• Land Acquisition, Restrictions on Land Use and Involuntary Resettlement
Environmental & Social Standard 6	• Biodiversity Conservation and Sustainable Management of Living Natural Resources
Environmental & Social Standard 7	• Indigenous Peoples
Environmental & Social Standard 8	• Cultural Heritage
Environmental & Social Standard 9	• Financial Intermediaries
Environmental & Social Standard 10	• Stakeholder and Information Disclosure

These ESSs are accompanied by non-binding Guidelines, Best Practice Notes, Templates and Checklists[30].

Standards applicable to this Project are described in more details below.

Environmental and Social Standard 1 – Assessment and Management of E&S Risks and Impacts is applied to all projects supported by the Bank through Investment Project Financing. The objective is to identify, evaluate and manage E&S risks and impacts associated with each stage of project, in order to achieve E&S outcomes consistent with Bank requirements.

ESS1 is also applied to all Associated Facilities/Activities which must meet ESSs requirements to the extent that the Borrower has control or influence over such Associated Facilities/Activities.[31]

Within ESS1, the Borrower is obliged to:

- Conduct an E&S assessment of the propose project, including stakeholder engagement,
- Undertake stakeholder engagement and disclose appropriate information in accordance with ESS10,
- Develop an Environmental and Social Commitment Plan (ESCP) and implement all measures and actions set out in the legal agreement including the ESCP,
- Conduct monitoring and reporting on the environmental and social performance of the project against the ESSs.

The environmental and social assessment will be proportionate to the risks and impacts of the project and will assess in an integrated way all relevant direct, indirect and cumulative E&S risks and impacts throughout project life cycle, including those specifically identified in the ESS2-10. The E&S assessment process shall apply mitigation hierarchy according to which: (a) risks and adverse impacts needs to be anticipated and to the extent possible avoided, while positive impacts and benefits for the community and physical environment need to be maximized, (b) where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels; (c) residual adverse impacts and risks need to be removed or mitigated to the acceptable level; (d) where significant residual impacts remain, compensate where technically and financially feasible.

For projects which involve a set of subprojects, identified, prepared and implemented during the Project, environmental and social assessment is carried out using the instrument of Environmental and Social Management Framework (ESMF). The ESMF sets out the principles, rules, guidelines and procedures to assess the environmental and social risks and impacts of any future subprojects.

Environmental and Social Standard 2 – Labor and Working Conditions regulates working conditions, and scope of its application depends on type of employment relations between the Borrower and project workers. The term “project worker” is related to:

a) people employed or engaged directly by the Borrower (including the project proponent and the project implementing agencies) to work specifically in relation to the project (direct workers);
b) people employed or engaged through third parties to perform work related to core functions of the project, regardless of location (contracted workers); (c) people employed or engaged by the Borrower’s primary suppliers (primary supply workers); and (d) people employed or engaged in providing community labor (community workers).

[30] Available in English at: http://www.worldbank.org/en/projects-operations/environmental-and-social-framework/brief/environmental-and-social-framework-resources#guidancenotes

[31] The term “Associated Facilities” means facilities or activities that are not funded as part of the project and are: (a) directly and significantly related to the project; (b) carried out, or planned to be carried out, contemporaneously with the project; and (c) necessary for the project to be viable and would not have been constructed, expanded or conducted if the project did not exist. For a facility or an activity to be defines as associated facility, all three criteria must be fulfilled.

ESS2 objectives are:

- To promote safety and health at work
- To promote the fair treatment, nondiscrimination and equal opportunity of project workers.
- To protect project workers, including vulnerable workers such as women, persons with disabilities, children (of working age, in accordance with this ESS) and migrant workers, contracted workers, community workers and primary supply workers.
- To prevent the use of all forms of forced labor and child labor
- To support the principles of freedom of association and collective bargaining of project workers in a manner consistent with national law.
- To provide project workers with accessible means to raise workplace concerns.

Environmental and Social Standard 3 - Resource Efficiency and Pollution Prevention and Management sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle consistent with Good International Industrial Practice. Applicability of this EES is established during environmental and social assessment.

The Borrower shall be obliged to apply technically and financially feasible measures to improve efficient consumption of energy, water and raw material, as well as other resources. Such measures shall integrate cleaner production principles into the product design and production processes in order to conserve raw material, energy, water and other resources.

Besides, the Borrower will avoid the release of pollutants or, when avoidance is not feasible, minimize and control the concentration and mass flow of their release using the performance levels and measures specified in national law or the World Bank Group Environmental, Health and Safety Guidelines[32], whichever is most stringent. This applies to the release of pollutants to air, water and land due to routine, non-routine, and accidental circumstances, and with the potential for local, regional, and transboundary impacts.

Pollution prevention and management includes management of:

1. Air pollution
2. Hazardous and non-hazardous waste
3. Chemicals and hazardous material
4. Pesticides

Environmental and Social Standard 4 – Community Health and Safety addresses the health, safety, and security risks and impacts on project-affected communities and the corresponding responsibility of Borrowers to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable.

Objectives of ESS4 are the following:

5. To anticipate and avoid adverse impacts on the health and safety of project-affected communities during the project life cycle from both routine and non-routine circumstances.
6. To promote quality and safety, and considerations relating to climate change, in the design and construction of infrastructure, including dams.
7. To avoid or minimize community exposure to project-related traffic and road safety risks, dis-eases and hazardous materials.
8. To have in place effective measures to address emergency events.

[32] World Bank Group Environmental, Health and Safety Guidelines (EHSG), available at: https://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/EHS-Guidelines/

9. To ensure that the safeguarding of personnel and property is carried out in a manner that avoids or minimizes risks to the project-affected communities.

Environmental and Social Standard 5 – Land Acquisition, Restriction on Land Use and Involuntarily Resettlement is applicable to this project. A Resettlement Policy Framework has been developed and any subproject involving land acquisition and involuntary resettlement, regardless of whether physical relocation is present, will develop a Resettlement Plan as per the RPF and this will be approved by the World Bank and disclosed in-country. The screening process will screen for all the subprojects which may involve involuntary land acquisition.

Environmental and Social Standard 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources is applicable to all projects that potentially affect biodiversity or habitats, either positively or negatively, directly or indirectly, or that depend upon biodiversity for their success It is also applied to projects that involve primary production and/or harvesting of living natural resources[33].

The Borrower is obliged to avoid adverse impacts on bio-diversity and habitats. When avoidance of adverse impacts is not possible, the Borrower will implement measures to minimize adverse impacts and restore biodiversity in accordance with the mitigation hierarchy provided in ESS1 and with the requirements of this ESS. Where significant risks and adverse impacts on biodiversity have been identified, the Borrower will develop and implement a Biodiversity Management Plan[34].

Environmental and Social Standard 7 – Indigenous Peoples is not applicable to this Project given the fact that in Bosnia and Herzegovina, there are no any social or cultural groups of specific characteristics defined in ESS7.

Environmental and Social Standard 8 – Cultural Heritage sets out general provisions on risks and impacts to cultural heritage from project activities. Objective of ESS 8 are the following:

10. To promote the equitable sharing of benefits from the use of cultural heritage.
11. To address cultural heritage as an integral aspect of sustainable development.
12. To promote meaningful consultation with stake-holders regarding cultural heritage.
13. To protect cultural heritage from the adverse impacts of project activities and support its preservation.

The requirements of this ESS8 will apply to all projects that are likely to have risks or impacts on cultural heritage. This will include a project which:

a) Involves excavations, demolition, movement of earth, flooding or other changes in the physical environment;
b) Is located within a legally protected area or a legally defined buffer zone
c) Is located in, or in the vicinity of, a recognized cultural heritage site
d) Is specifically designed to support the conservation, management and use of cultural heritage.

Environmental and Social Standard 9 – Financial Intermediaries is not applicable to this Project.

Environmental and Social Standard 10 – Stakeholder Engagement and Information Disclosure recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice. Effective stakeholder

[33] Harvesting of living natural resources, such as fish and all other types of aquatic and terrestrial organisms and timber, refers to productive activities that include extraction of these resources from natural and modified ecosystems and habitats.
[34] Depending on the nature and the scale of the risks and impacts, to address cultural heritage as an integral aspect of sustainable development the project, the Biodiversity Management Plan may be a stand-alone document or it may be included as part of the Environmental and Social Commitment Plan prepared under ESS1.

engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation.
ESS10 objectives are the following:

14. To establish a systematic approach for stakeholder engagement that will help Borrowers identify stakeholders and build and maintain a constructive relationship with them, in particular project-affected parties
15. To assess the level of stakeholder interest and support for the project and to enable stake-holders' views to be taken into account in project design and environmental and social performance.
16. To promote and provide means for effective and inclusive engagement with project-affected par-ties throughout the project life cycle on issues that could potentially affect them
17. To ensure that appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner and format.
18. To provide project-affected parties with accessible and inclusive means to raise issues and grievances, and allow Borrowers to respond to and manage such grievances.

5.1.2 Other Applicable Criteria and Guidelines

OP 7.50 – Projects on international waterways applies to various international waterways, such as: any river, lake, canal or similar water body that forms the border between two units; any river or surface water body that flows through two or more countries; any tributary or other surface water body that is a component of any waterway and any creek, bay, gorge or canal connecting two or more countries. Or, if within one state, that is recognized as a necessary communication canal between the open sea and other states and any river that flows into such waters. Required action involves respecting the notification procedure. The project details attached to the notification letter usually relies on environmental impact assessment and/or environmental assessment, to make determination that the Bank financed Project will not cause damage to riparian countries. For the purposes of this project the activities will be communicated to the riparians through The International Commission for the Protection of the Danube River (ICPDR), upon request of the borrower countries, as noted in the session of the Sava River Commission.

5.2 Overview of Environmental and Social Requirements in Montenegro

5.2.1 Environmental Assessment Procedure

In Montenegro, the procedure for conducting the Environmental Impact Assessment (EIA) is regulated by:

- the Law on EIA[35],
- the Decree on Project Subject to Environmental Impact Assessment[36]

The Decree classifies projects into two groups (lists):

- Projects under List 1, subject to mandatory EIA, and
- Projects under List 2, for which the competent state or local authority should decide whether development of an EIA study is required, depending on the potentially significant environmental impacts. The public and other parties need to be consulted as well.

The Law on EIA prescribes the procedures for developing EIA studies for projects that may have significant environmental impacts. Contents of the EIA study, participation of interested parties, evaluation of EIA studies and issuing approvals, notification of other states on projects with potential transboundary effects, supervision and other relevant issues are also addressed.

Pursuant to the Law, the entire EIA process includes three specific procedures:

[35] Official Gazette of Montenegro, No. 75/18
[36] Official Gazette of Montenegro, No. 20/07 and 47/13

- Screening as the stage of determining whether an EIA is required;
- Scoping as the stage of determining the scope or extent of the EIA;
- Review as the stage of reviewing the EIA Study to see if it has been undertaken to an acceptable standard and in accordance with the legal requirements.

The competent authorities for EIA are: Nature and Environmental Protection Agency for projects subject to Construction Permits, and the local self-government units (municipalities) for projects not subject to the Construction Permits and which need a Construction Notification. The EIA procedure has to be conducted before the Construction Permit is issued and before starting any construction activities.

Screening procedure:

1. The investor submits an application to the competent authority to decide on the need for EIA.
2. The competent authority checks whether the prescribed documentation has been submitted. If the documentation is incomplete, it requests additional information from the investor within three days and sets the deadline for their submission. If the applicant fails to submit the additional information, the competent authority refuses the application as incomplete.
3. The competent authority has to inform the interested authorities, organizations and public of the submitted application within three days from the receipt of a complete application. They can submit their opinions within five days.
4. The competent authority decides on the need for developing an EIA Study within four days from the date of receipt of the opinions of interested parties.
5. The competent authority informs the interested parties on the adopted decision.
6. The adopted decision may be appealed to the Ministry or the Chief Administrator.

Scoping procedure:

1. The investor may submit an application to ask for a decision on the scope and contents of the EIA Study.
2. The competent authority verifies that the documentation is complete.
3. Within three days, the competent authority sends the complete application to the Commission appointed by the competent authority.
4. The Commission evaluates the application and submits a proposal of the contents and scope of the EIA Study to the competent authority within ten days.
5. The competent authority informs the investor, interested authorities, organizations, and the public about the proposal of the Commission within five days. They can submit their opinions within twenty days.
6. The competent authority makes a decision on the contents and scope of the EIA Study within five days, after which it sends the decision to the investor and all stakeholders within three days.
7. The adopted decision may be appealed to the Ministry or the Chief Administrator.

Review and approval of the EIA Study:

1. The investor submits an application for approval of the EIA Study to the competent authority. In case of prior scoping, the investor submits the application within two years from the receipt of the final decision on the scope and contents of the EIA Study.
2. Within five days, the competent authority organizes a public hearing and informs all stakeholders.

3. The EIA Study has to be published on the website of the competent authority and on the e-Government portal at least 10 working days before the day of the hearing.
4. Within two days from the hearing, the competent authority submits the EIA Study to the Commission together with the remarks and opinions obtained during the public disclosure period and the hearing.
5. After evaluation, the Commission submits its own report on the EIA Study, with a proposal of its approval or rejection to the competent authority within 25 days.
6. The competent authority decides on granting the approval or rejecting the application, sends the decision to the investor and informs all stakeholders.

5.2.2 Waste Management Regulations

The Law *on Waste Management*[37] regulates waste types and classification, planning of waste management, conditions for waste collection, transport, treatment, storage and disposal, rights, duties and responsibilities of legal and physical persons involved in waste management, and conditions and procedures for waste management permits.

A waste producer that produces more than 200 kg of hazardous waste or more than 20 tons of non-hazardous waste annually is required to develop a Waste Management Plan. The Plan contains the following:

- Information on the type, amount and location of generation of individual types of waste on an annual basis, in accordance with the waste catalogue,
- Period during which the process or activities resulting in waste production will be carried out,
- Measures to prevent the production of waste or reduce the amount of waste and its negative impact on the environment,
- Waste management methods, which includes collection, temporary storage (location), transport and treatment of waste.

The Rulebook on waste classification and waste catalogue[38] defines waste categories by activities. Some waste categories which may be generated as a result of activities potentially included in this Project are provided below.

Table11: Waste Generated by the Activities Potentially Included by the Project

Activity from which the Waste Originates	Rulebook Code
Construction waste and demolition waste (including excavated soil from contaminated sites)	17
Municipal waste (household waste and similar waste from commercial activities and industrial facilities), including separately collected fractions	20

5.2.3 Water Management Regulations

The *Law on Water*[39] regulates the legal status and manner of integrated management of water, water and coastal land and water facilities, conditions and manner of conducting water related activities and other issues of importance for waters and waters management.

In case of project which includes e.g. construction of flood protection facilities, as well as any other activity which may affect volume and quality of water, the following water management acts must be obtained:

- Water Requirements (WR), which prescribe the terms and conditions under which the responsible Water Administration will allow water use. The investor must obtain the WR for the preparation of technical documentation for the construction of new or reconstruction of existing structures and the execution of geological surveys and other works that may permanently, occasionally or temporarily

[37] Official Gazette of Montenegro, No64/11and 39/16
[38] Official Gazette of Montenegro, No. 059/13 and 083/16
[39] Official Gazette of Montenegro, No. 27/2007, 32/2011, 47/2011 48/2015 and 52/2016, 55/16, 02/17.

lead to changes in the water regime. WR cease to be valid after one year, unless a duly filed application for the issuance of a Water Permit has been submitted within that period. If during the process of issuing WR it is determined that the facilities and works cannot cause changes in the water regime or that they cannot be affected by the water regime, the responsible authority informs the investor that the WR are not needed.

- Water Consent (WC), which is necessary before construction of new, and reconstruction of existing structures and facilities and the execution of other works subject to WR. The WC confirms that the technical documentation for the facilities and works is in compliance with the WR. The WC determines the period of its validity, depending on the nature, complexity and extent of construction or reconstruction of buildings and facilities, or other works, the period of validity of the Construction Permit (when required), as well as contractual conditions. The period of validity of a WC may not exceed two years.
- Water Permit (WP) which confirms that all the requirements set in the WC are met, and which has to be issued before starting using a building or facility (or before the issuance of a Use Permit when required). The WP determines the manner, conditions and extent of water use, permitted quantities, limit values, manner and conditions of discharge of waste water, manner and conditions of storage and discharge of hazardous and other substances that can pollute water, as well as conditions for other activities or works that affects the water regime. The WP is valid up to a maximum of 10 years.

Water documentation is issued by the Water Administration of Montenegro or local self-government unit depending on type of activities which may affect the volume and quality of water. For example, for regulation of watercourses and construction of flood protection facilities on waters of significance for Montenegro, water documentation is issued by the Water Administration of Montenegro, while for regulation of watercourses and construction of flood protection facilities on waters of local significance, water documentation is issued by the local self-government unit.

5.2.4 Construction Regulations

In 2017, a new *Law on Spatial Planning and Construction*[40] was passed. The Law requires urban-technical conditions instead of a construction permit. Also, instead of a use permit, the Law envisages the merging of technical inspection and professional supervision, which relieves the system of double controls. A construction permit and use permit are only needed for complex engineering facilities[41].

The Law requires from contractors to have a specific set of documents on construction sites, including a Construction Site Organization Plan.

5.2.5 Regulations on Working Conditions

In Montenegro, labor legislation and safety at work are regulated by the following regulations:

Montenegro	
Labor Law[42]	Regulates the rights and obligations of employees under employment contracts, the manner and procedure of their realization, the promotion of employment and the facilitation of flexibility in the labour market, conclusion of employment contract, working hours, salary, work contract termination, right and obligations under employment contracts and collective bargaining. The Law, inter alia, treats working hours, breaks and leave, general protection of workers, salaries, allowances and other receipts.
Law on Safety and Health at Work[43]	Regulates measures to encourage improvements of occupational safety and health, measures related to working conditions and measures related to special protection of workers, rights, obligations and responsibilities of organization, employer and worker, records, inspection surveillance and penalty provisions.

[40]Official Gazette of Montenegro No. 064/17, 044/18, 063/18

[41] Activities foreseen by this Project in the Drina River Area are not classified as complex engineering facilities.

[42] Official Gazette of Montenegro, No. 049/08, 026/09, 088/09, 026/10, 059/11, 066/12, 031/14, 053/14, 004/18

[43]Official Gazette of Montenegro, No. 34/14, 44/18

The key provisions of the **Labor Law** in Montenegro are the following ones:

- **Employment contracts** can be concluded as **open ended or fix-term**, part-time, for temporary and occasional work, as well as for work outside of employer's premises.
- The Law **prohibits discrimination** in terms of employment requirements and selection of candidates, education, training and professional development, promotion and employment contract termination. Pregnancy and maternity leave cannot be a reason not to hire a woman or extend her employment contract.
- The Law prohibits mobbing, harassment and sexual harassment at work and in connection with work.
- The Law prescribes the **minimum employment age** of 18 for concluding an employment contract, with exception of allowing persons between 15 and 18, with the consent of their legal custodians and based on a medical certificate issued by health facility, and provided that the given job does not endanger the minor's health, moral and education.
- **Employers are required** to register workers for pension and disability, health and unemployment insurance.
- **Workers are entitled** to a salary and salary compensation during absence from work, as well as to working conditions which ensure safety and protection of their life and health at work.
- **Full time work** is, as a rule, 40 hours a week. **Overtime** work is allowed in Montenegro in the duration of maximum 10 hours a week.
- Workers are entitled to an **increased** salary for overtime, night work and work during holidays.
- The Law defines in detail **breaks** from work to which workers are entitled (breaks during working hours, daily, weekly and annual leave).
- The Law envisages **that** a worker who believes that the employer violated any of his/her employment-related rights can **request from the employer to provide him/her with such right**. The employer is obliged to respond to such request within 15 days. The Law envisages a mechanism of **amicable dispute resolution** (by the Agency for the Amicable Labor Dispute Resolution) as well as **lodging court suits**.

Key provisions of the **legislation on occupational health and safety** (OHS) in Montenegro are the following ones:

- Employers are obliged to ensure protective measures by preventing, eliminating and controlling work related risks and organizing training for workers,
- Employers are required to implement safety measures and select work and production methods that will ensure improved or higher levels of OHS,
- While assigning an employee to a position with special working conditions or with increased risk, the employer is required to take into account the employees' abilities, which may affect their protection and health.
- Employers are obliged to provide employees with training for safe work at the time of employing a new employee, assigning him/her to another position, introducing new technology, introducing new or replacing work equipment, making changes in work processes and re-assigning him/her to work after absence of more than one year.
- Workers must be provided with a working environment, assets for work and personal protection equipment that do not endanger the safety or health of workers and other persons,
- Workers must use personal protection equipment and comply with other instructions related to safety at work.

6 INSTITUTIONAL STRUCTURE

6.1 Institutions Relevant for Water Management

The key government institutions in charge of water management in Montenegro are the Ministry of Agriculture and Rural Development and the Water Administration. Table 12 provides an overview of institutions and their responsibilities relevant for this Project.

Table 12: Institutions Relevant for Water Management in Montenegro

Institution	Responsibilities
Ministry of Agriculture and Rural Development	The main institution responsible for water policy in Montenegro. The scope of work and responsibilities of the Ministry includes (among other): • development of water management policy, • systemic solutions for water supply and use, • protection of waters against pollution, • regulation of water and watercourses and protection against harmful effects of water, • keeping of relevant records, • international cooperation within jurisdiction of the Ministry, • harmonization of national legislation with acquis communautaire.
Water Administration	Pursuant to the Law on Water[44], a Water Administration was established for performing operational and management tasks within the Ministry of Agriculture and Rural Development. It performs tasks in field of water management, including: • providing and implementing measures and works on the regulation of water and watercourses, • protection against harmful effects of water and water protection from pollution, • ensuring the use of waters, materials from watercourses, water lands and state-owned water bodies through concessions, leases, etc., • management of water facilities for protection against harmful effects of water, • investment management, professional supervision and quality control of works performed, • issuing of water documents (Water Requirements, Water Consents and Water Permits), • calculation of water fees, establishment and maintenance of a water information system, water cadasters, a register of waters of importance for Montenegro and monitoring of natural and other phenomena in order to provide data for protection against the harmful effects of water, • preparation of expert bases for regulations, plans and programs, • defining the boundaries of a water body and determining the status of a public water body, • protection of water and water land from unlawful acquisition and use, • cooperation with relevant international organizations and institutions within the established competences.

Pursuant to the Law on Water of Montenegro, local self-government units are responsible for a significant part of water management activities. This division of responsibilities is made according to the division of waters regulated by the mentioned Law which divides waters into waters of significance for Montenegro and waters of local significance. Local self-government units are responsible for adopting certain planning documents and legal acts, which regulate water management issues at the local level (of local significance), including administrative and inspection supervision within their jurisdiction.

[44]Official Gazette of Montenegro, No. 27/2007, 32/2011, 47/2011 48/2015 and 52/2016, 55/16, 02/17.

6.2 Institutions Relevant for Environmental Protection

The key government institutions in charge of environmental protection in Montenegro are the Ministry of Sustainable Development and Tourism, and Nature and Environmental Protection Agency of Montenegro. Table 13 provides an overview of institutions and their responsibilities relevant for this Project.

Table 13: Institutions Relevant for Environmental Protection in Montenegro

Institution	Responsibilities
Ministry of Sustainable Development and Tourism	Responsible for: • policymaking for urban planning, construction, environment and sustainable development • implementation of sustainable development programs and projects, • provision of technical, organizational and administrative support to the National Council for Sustainable Development and Climate Change, • spatial and environmental strategic planning, system of integrated environmental protection and sustainable utilization of natural resources, integrated pollution prevention and control, • organization of communal services, including water supply and sewerage, and wastewater treatment, • developing environmental protection standards, monitoring environmental conditions, • cooperation with international financial institutions and EU funds in environmental protection and utility services projects, • cooperation with NGOs, harmonization of regulations with EU *acquis,* • issuing construction permits.
Nature and Environmental Protection Agency[45]	Responsible for: • implementation of strategies, programs, laws and regulations in the field of environment, • implementation of international treaties within its jurisdiction, • monitoring the state of the environment and nature conservation, • collecting and updating data on the quality of all segments of the environment, including waters and reporting to national and European institutions, • EIA process and issuance of environmental permits.
Ministry of Interior (through the Emergency Directorate)	Responsible for: • establishing programs for equipping and developing protection and rescue systems, • providing guidance on protection and rescue management and proposing measures to protection and rescue participants, • collecting information on threats, causes and consequences of emergencies, • providing assistance in emergency response, • emergency management according to the Flood Directive 2007/60/EC.
Institute for Public Health (Ministry of Health)	Performs physical and chemical analyzes of water and microbiological testing of drinking water, and is responsible for controlling and monitoring the safety of drinking water.
Ministry of Transport and Maritime Affairs	Responsible for transport (road, rail, air) and maritime affairs in Montenegro.
Institute for Hydrometeorology and Seismology	Responsible for monitoring the quality and quantity of surface and groundwater, flood forecasting and monitoring of the hydrological situation, giving warnings to institutions responsible for managing flood risks.

[45]Established in 2008 by the Regulation on the Amendments of the Regulation on the Organization and Operation of Public Administration (Official Gazette of MNE, No. 68/08) and operational since 2009

7 ENVIRONMENTAL AND SOCIAL ASSESSMENT OF THE PROJECT

7.1 ESSs Relevant to the Project

Following is an overview of the WB E&S standards considered applicable to the SDIP and a brief explanation of their relevance.

Table 14: ESSs considered relevant for the SDIP project at the time of the Project appraisal

ESS		Relevance to the SDIP
ESS1	Assessment and Management of E&S Risks and Impacts	This standard guides the preparation of E&S instruments including those that have been prepared for SDIP: (i) ESMF, (ii) SEP, (iii) RPF (iv) LMP and appropriate risk assessment for individual activities implemented under the project.
ESS2	Labor and Working Conditions	This standard guides the creation of sound worker-management relationships. The primary labor risk is the risk of informal work. The risks of unpaid and underpaid work, work overload, poor terms and conditions of engagement, lack of occupational health and safety measures, and denied access to social security, pension or health insurance are associated with informal work. Labor Screening and Compliance Checklist, and Monitoring and Evaluation procedures have been developed to be included as mandatory in the tender documentation providing compliance of third parties i.e. different contractors to the ESS2 requirements.
ESS3	Resource Efficiency and Pollution Prevention and Management	This standard sets out the requirements to address resource efficiency and pollution prevention and management throughout the project life cycle. Considering that most of the activities involve construction works, the major risk is that Contractors will not be aware of best practices to avoid or minimize pollution from project activities or avoid or minimize adverse impacts on human health and the environment. The site-specific ESMP will guide contractors to implement adequate pollution prevention and management measures.
ESS4	Community Health and Safety	This ESS sets out the requirements to avoid or minimize community exposure to project-related traffic and road safety risks, diseases and hazardous materials and to have in place effective measure to address emergency events. The works anticipated in this project will be carried out mostly in remote or publicly restricted areas and will not employ use or generation of hazardous substances and waste. The main risk associated with the project is related to workers health and safety that is addressed by ESS2.
ESS5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	This ESS guides the procedures to avoid or implement involuntary resettlement and economic displacement with least possible impacts. The SDIP involves the possibility of land acquisition and economic displacement. To minimize the risk, an appropriate RPF has been developed at the project level, while a site-specific RAP will be developed where needed. The main risk is associated with appropriate implementation of the RPF.
ESS6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	The project area is the whole country, which includes several nationally and internationally recognized natural and critical habitats, protected areas, wetlands and Ramsar sites as well as hundreds of locally designated nature sites. The activities will be assessed for relevant risks, and the mitigation hierarchy will be applied. Development of site-specific ESMPs will be considered as part of screening and approval procedure. Environmental screening will ensure that no activities with potential negative impacts are eligible for funding in natural or critical habitats. In case of activities to be funded by the project and to be implemented in modified habitats, the project-level will present requirements to avoid or minimize the respective impacts on biodiversity and implement mitigation measures as appropriate.

ESS8	Cultural Heritage	Information that are available in the project appraisal phase indicate that it is very unlikely that there will be any interaction of construction works with known cultural heritage sites. In the event of chance finds, the Borrower will deal with it taking into account national legal requirements that are fully consistent with UNESCO and good international practice.
ESS10	Stakeholder Engagement and Information Disclosure	This ESS guides the inclusion of relevant stakeholders in the project lifecycle. In line with the requirements of this ESS, a Stakeholder Engagement Plan including a Grievance Mechanism has been developed for this project. The main risk is associated with appropriate implementation of SEP.

7.2 Preliminary Identification of Potential E&S Impacts with Proposed Mitigation Measures

The proposed SDIP components and sub-components that will be implemented in Phase I of the SDIP in MNE are briefly described in the table below.

Table 15: Description of project components

Component	Sub-component	Sub-component description
Component 2: Integrated Management and Development of the Drina River Corridor	Sub-component 2.2 Integrated development of upper Drina watershed in Montenegro	This project will finance improved watershed management in the Lim and Grncar River basins of Montenegro. This activity will finance works related to flood protection, drainage and irrigation measures. The design of these investments and solutions are under preparation within the ongoing GEF-SCCF Drina project.
Component 3: Project preparation and management	Sub-component 3.1: Project preparation.	Preparation of project documentation for phase II of the program, including E&S risk assessments.
	Sub-component 3.2: Institutional strengthening and project management	PIU and project management, Phase I Implementation and Operations Cost, Phase I

Sub-component 2.2 of Component 2 is expected to have negative E&S impacts in the pre-construction and construction phase.

In the pre-construction phase, land acquisition impacts might be an issue for some of the projects.

In the construction phase, E&S impacts are the direct consequence of human presence and construction/reconstruction/dragging works at locations, such as placing embankments and gabions as flood prevention measures, stabilization of landslides, riverbed cleaning and regulation in the river, etc. Pollution that occurs in the phase of (re)construction, rehabilitation and/or repair is local, temporary in scope and limited in intensity, although it can cause consequences if breakdowns occur. However, a significant impact on the environment and local population is not expected. The breach of nationally allowed concentrations of pollutants into the air, soil or water are not expected as the works will be implemented with best practices and in accordance with legislative requirements, adjoined with the defined mitigation measures prescribed (where needed) by the ESMP/EIA to be developed for each subproject prior to its implementation. The implementation of the ESMP will minimize and prevent the identified negative impacts, through a set of specific environmental mitigation and monitoring requirements to be followed by the contractor and/or responsible parties (during implementation and operation).

Sub-components 3.1 and 3.2 of Component 3 are not expected to have negative impacts on the environment, since this phase involves the preparation of conceptual or main design of works to be implemented, as well as plans and studies, and institutional capacity building activities. Impacts in terms of land acquisition during this

phase are also not expected. The overall impacts are considered very positive as the objective of the SDIP is to enhance regional economic integration and growth by strengthening capacity for integrated river basin management and development. Therefore, Component 3 is excluded from further assessment in this document.

An overview of **initial E&S assessment of sub-component 2.2** with preliminary mitigation measures and monitoring requirements is presented in Table 16. The initial assessment is given at a general ("generic") level and based on the level of subproject information known at the time of preparation of this document – October 2019.

The table also provides a preliminary risk assessment for each sub-component based on two factors:

- Likelihood – how likely is the negative impact: low, moderate, high.
- Magnitude of consequences (harmfulness) – how much damage can occur if the negative impact occurs: minor, moderate, major.

The following matrix is used to assess risk level:

Likelihood	Magnitude of consequence		
	Minor	Moderate	Major
Low	**Low risk**	**Low risk**	**Moderate risk**
Moderate	**Low risk**	**Moderate risk**	**High risk**
High	**Moderate risk**	**High risk**	**High risk**

A generic ESMP has been prepared for the purpose of this project and is provided in Annex B to this ESMF. The generic ESMP provides mitigation measures and monitoring structure for construction works. In addition, legislative requirements on the need for an environmental impact assessment of project encompassing works and/or environmental analyses must be respected (relevant opinion on the need for undertaking an EIA shall be sought, where applicable and needed), as well as relevant permits obtained.

Table 16: Preliminary identification of environmental and social impacts of proposed sub-projects

NAME OF THE COMP, SUB-COMP AND RELATED SUB-PROJECTS		DESCRIPTION OF ACTIVITIES	PRELIMINARY ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT	MITIGATION MEASURES AND MONITORING
COMPONENT 2: INTEGRATED MANAGEMENT AND DEVELOPMENT OF ENVIRONMENTAL ASSETS ALONG THE DRINA RIVER CORRIDOR				
Sub-component 2.2: Integrated development of lower Lim watershed				
a)	Regulation of the Lim River from Lukin Vir to the flowing point of Krastica (Municipality of Andrijevica)	Actions needed for flood protection, bank stabilization, drainage and river training works, and reservoir management in the Drina Corridor. This sub-component will finance selected priority investments in line with the project development objective including any further studies that may be needed.	**Impacts:** *In the pre-construction phase*, the identified social impact are related to possible acquisition of land at the locations of the works. *In the construction phase,* the social impacts are mainly related to community health and safety during construction; minor negative impacts could be expected through human presence and nature of construction works at the site, which are limited to the location of works or its surrounding vicinity. A large influx of workers from outside communities is not expected. The regulation of the riverbed and possible need for stabilization of active landslides may have certain impacts on the environment/water resources during construction/reconstruction and removal of materials. Analyses to be performed should provide the best available materials for collection and separation of waste; impact of transporting machinery to the site; noise during construction; waste, noise, dirt and dust at the location and the access roads. *In the operational phase,* the expected impacts are mainly related to maintenance of these structures and have a similar effect on environment as the construction works as they involve the presence of workers and machinery on the site. **Likelihood:** Moderate **Scope of consequence:** Moderate **ASSESSMENT: MODERATE RISK**	**Mitigation measures:** the prepared generic ESMP provides general mitigation measures and monitoring structure for construction works, and/or analyses that might take place within the projects' implementation. Safety procedures must be observed by contractors during the construction work and removal of structures; construction best practices for waste management and disposal, equipment maintained during construction, materials used, attested transportation vehicles; the noise level will be controlled at all times and the activities will be controlled to avoid excessive disturbance as set out in the generic ESMP. As part of the due diligence of applying the ESMP, land ownership titles will be verified. In the event that any private land rights are identified, they will be compensated as appropriate under the RPF, with due consideration to the legacy of use. A project-specific action plan for resettlement will be prepared to mitigate
b)	Regulation of the Lim River at the location of Ulotina (Municipality of Andrijevica)			
c)	Regulation of the Lim River at the location of Zorici (Municipality of Andrijevica)			
d)	Regulation of the Lim River at the location of Berane-Urban area (zone) (Municipality of Berane)			
e)	Regulation of the Lim River from the flowing point of Kaludarska River to Trepce (Municipality of Berane)			
f)	Regulation of the Lim River from Metanjac to Strijtanica and Bistrica River in the river mouth area (Municipality of Bijelo Polje)			
g)	Regulation of the Lim River upstream of Zaton (Municipality of Bijelo Polje)			
h)	Rehabilitation of the left Lim riverbank on the area from the fire station to Limska Street (Municipality of Bijelo Polje)			
i)	Regulation of the Grnčar River from the flowing point in Ljuča to traffic bridge (Municipality of Gusinje)			

NAME OF THE COMP, SUB-COMP AND RELATED SUB-PROJECTS		DESCRIPTION OF ACTIVITIES	PRELIMINARY ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT	MITIGATION MEASURES AND MONITORING
j)	Regulation of the Grnčar River upstream of city area (zone) to the Country border (Municipality of Gusinje)			this impact. **Monitoring:** by the implementing agency
k)	Regulation of the Lim River at the location of Murino (Municipality of Plav)			
l)	Regulation of the Lim River at the location of Novsici (Municipality of Plav)			
m)	Regulation of the Lim River at the location of Brezojevic (Municipality of Plav)			

7.3 Environmental and Social Requirements

Since SDIP involves a set of subprojects to be identified, prepared and implemented during the project, pursuant to the WB E&S requirements described in ESS 1 – Assessment and Management of E&S Risks and Impacts, the PIU will assess the E&S impacts of each sub-component and related subprojects using this ESMF.

For each individual subproject, the PIU will prepare an ESIA or ESMP using guidance provided in this ESMF. The selection of the E&S instrument will be based on the screening process and the determined subproject E&S risk as follows:

- for "high" risk subprojects, an ESIA will be prepared in accordance with this ESMF and provisions set forth under ESS1 and the ESF,
- for "moderate" and "low" risk subprojects, an assessment will be carried out in line with national environmental requirements and will include the preparation of a site-specific ESMP in line with this ESMF.

The preliminary E&S assessment presented in Table 16 indicates that, for now, none of the project activities are assessed to be of high risk.

Table 17 provides a review of the activities that will be implemented in framework of Component 2 versus the WB and the national E&S requirements that need to be fulfilled in the process of project approval. The national requirements stem from the legal requirements in the field of environmental protection, water management and physical planning and construction previously described in detail in Chapter 5.2 Overview of Environmental and Social Requirements in Montenegro.

Table 17: Environmental and social requirements for the Phase I of the Program

Type of activities	WB requirements		National requirements		
	Category pursuant to WB	Environmental assessment instrument	Environmental protection	Water management	Physical planning and construction
Flood protection, drainage and irrigation activities in the Lim and Grncar River basins of Montenegro	Moderate risk	ESIA or site-specific ESMP, depending on project type and location	The construction of flood protection structures is subject to an EIA based on which the ministry decides on the necessity to conduct a full EIA and ultimately issues the Consent on EIA Study. Note: Although other types of works do not require an environmental assessment, a decision on the necessity to undertake EIA procedure shall be requested by the relevant national authority.	Water Management Acts	Construction related permits

In case the Borrower proposes other types of activities which are not mentioned in the table above, the decision to finance such activities will be made through a dialogue with the Bank and based on project categorization and adequate due diligence.

7.4 Environmental and Social Screening Process (Step-by-Step)

For the future implementation of the sub-components and related subprojects, the following steps concerning the E&S assessment process should be undertaken:

Step 1. Confirm the preliminary determined project risk and carry out an E&S assessment in line the WB requirements

a) For high risk sub-projects[46], prepare an **ESIA Study** in line with the requirements of ESS1 and taking into account all the relevant ESS requirements (see Chapter 7.1 ESSs Relevant to the Project). An indicative outline of the ESIA is given in Annex B.

b) For "moderate" and "low" risk subprojects, prepare a **site-specific ESMP** in line with the requirements of ESS1 and taking into account all requirements from relevant ESSs. An indicative outline of ESMP is given in Annex C.

Any doubtful project risk assessment will be subject to the review and guidance by the World Bank team following the procedure illustrated in Figure 5 and taking into account all relevant ESS requirements (e.g. for activities on habitats, protected areas or sensitive areas include provisions of ESS6).

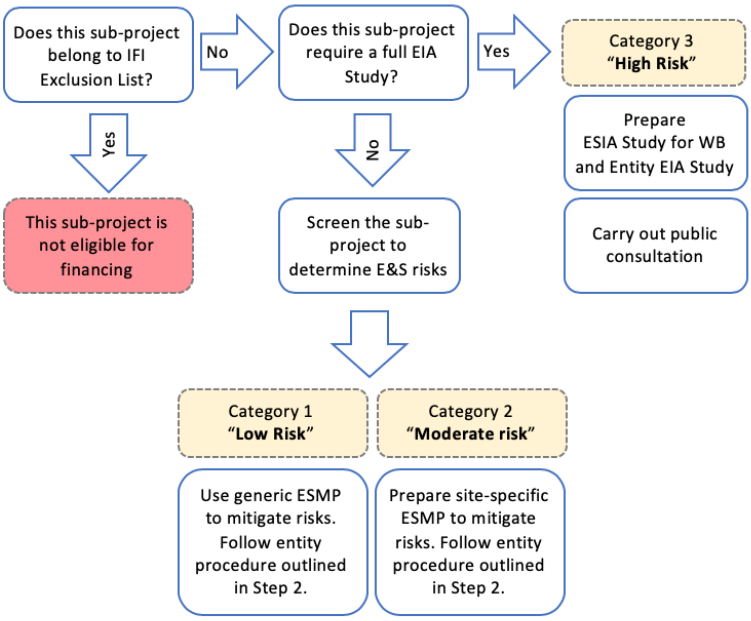


Figure 5: Assessing Due Diligence on Subprojects

According to the preliminary risk assessment, the following actions will be taken:

[46] The complete definition of project categories is given in the World Bank Environmental and Social Directive for Investment Project Financing, Section III, Part C, para 1-8

Type of activities	Action to be taken	Result of the action
Flood protection, drainage and irrigation activities in the Lim and Grncar River basins of Montenegro	Prepare an ESIA or site-specific ESMP (depending on the categorization and the requirements of the local permitting process) and follow guidance on disclosure and consultations. In the ESIA or site-specific ESMP, include sections related to all applicable ESSs.	The WB requirements on E&S impacts mitigation and monitoring included in the tender dossier.

Additionally, the PIU shall:

- in case of any land acquisition issues identified, prepare a site-specific Resettlement Plan in line with the guidance given in the Resettlement Framework developed for the SDIP project,
- implement the developed Labor Management Procedure, and update it as necessary,
- undertake stakeholder engagement and disclose appropriate information in accordance with the Stakeholder Engagement Plan developed for the SDIP project,
- conduct monitoring and reporting on the E&S performance of the SDIP project against the program-specific ESMF, RPF, SEP and LMP.

Step 2. Carry out an environmental assessment in line with the national requirements

For the flood protection subprojects, carry out an environmental assessment as explained in Chapter 5.2.1 Environmental Assessment Procedure, and obtain the Approval of the EIA Study.

If the assessment indicates that a subproject is high risk and requires the development of an ESIA according to WB standards (Step 1), the WB ESIA study can be used in the national EIA procedure (if required).

For subprojects for which the Bank requires the development of a site-specific ESMP, the ESMP requirements shall be integrated in the environmental documentation submitted to responsible authorities.

Step 3. Organize consultations with stakeholders at the location closest to the project implementation site in line with the requirements of the SEP developed for the SDIP. If the subprojects require the development of a nationally required and regulated EIA, such process also includes public involvement, public hearings and a publicly disclosed study in the manner prescribed by national legislation (comments on public document recorded and responses provided by the institution/organization responsible for preparing the EIA). Ensure such public consultations are also in line with the requirements of WB and the SEP. For certain activities, a decision on the necessity to undertake an EIA procedure shall be requested by the relevant national authority.

Step 4. (*If needed and where applicable*) Obtain various permits and approvals

- *Water Management Acts* in line with the requirements of the Water Law as described in Chapter 5.2.3
- *Construction related acts* in line with the requirements of the Law on Spatial Planning and Construction as described in Chapter 5.2.4.

7.5 Labor Management

Chapter 5.1 The World Bank Requirements describes the labor categorization for projects financed by wb. According to such categorization, project workers include:

- **Direct workers** (Ministry staff involved in the project (civil servants) and external consultants for E&S issues, to be hired for Project purposes)
- **Contracted workers** (workers of companies which would provide services under Component 2, such as river regulation, rehabilitation of embankments for flood protection, drainage and irrigation measures).

Contractors (companies which would provide services) would be required to comply with the current legislation on labor and safety at work and to the requirements prescribed in this Framework.

Pursuant to WB requirements, a Labor Management Procedure has been developed as a separate document. The procedure aims to ensure fair treatment of workers and provision of safe and healthy working conditions.

Contractors' labor management compliance with local legislation requirements related to labor and safety at work would be monitored based as described in *Chapter 7.6 Monitoring and Reporting*. In case any irregularities are identified based on such reports or the project grievance redress mechanism, the PIU would notify the responsible Labor Inspection.

7.6 Monitoring and Reporting

The PIU shall monitor the implementation of this Framework, both at overall Program level and individual subproject level. The PIU shall ensure that the requirements of the site-specific ESMPs and environmental permit are included in employer's requirements. Within its usual monitoring activities, it will perform monitoring (including on-site monitoring, as needed) to ensure that Contractors comply with their contractual obligations.

It is the responsibility of the Contractor to ensure the proper execution of works, according to prescribed measures and in line with national and international standards. Therefore, the Contractor should appoint a person responsible for environment protection (B.Sc. environmental engineering) with adequate experience to be responsible for the implementation of all environment protection requirements and ESMP implementation. The appointed person shall ensure compliance with environmental standards and is responsible for environmental protection according to the ESMP, in line with clearly defined tasks and responsibilities, which include, among others: works are executed in line with good construction practices, waste is adequately managed at the construction site, environmental protection issues are communicated with the supervising body and the local community. The works are supervised by the nominated supervising body, which controls that the activities are taken in line with the environmental management plan. Preparation of site-specific ESMPs for priority investments will be undertaken by qualified staff. They will also be responsible for the initial environmental screening documents, checklists and other environmentally related documentation during the Program execution. In each PIU, a dedicated environmental specialist will be in charge of this process, as well as environmental monitoring and reporting. Details of these arrangements will be fully specified in the Project Operational Manual.

Contractors' labor management compliance with local legislation requirements related to labor and safety at work would be monitored based on the basis of Reports on Compliance of Conditions of Work with the ESS 2, which the contractors shall submit to the PIU and Supervision Consultant (external consultant) on a semi-annual basis. The format of the report is provided in LMP's Annex.

The PIU shall establish and maintain records on information and engagement of all stakeholders in accordance with the SEP.

The PIU will report on regular basis to WB on subproject screening, approval and monitoring results.

8 PUBLIC CONSULTATION PROCESS

TBA incl. Annex D.

ANNEXES

A	Generic Environmental and Social Management Plan for the Project
B	Indicative outline of ESIA
C	Indicative outline of site-specific ESMP
D	Minutes from the public consultations

A. Generic Environmental and Social Management Plan for the Project

Project Phase / Activities	Possible Environmental Impacts	Mitigating Measures	Monitoring parameters	Responsible Body
Construction phase				
Mobilization/ Temporary facilities/ Construction/ De-mobilization	**General Site Conditions and Safety Notifications**			
	• Notification of public and Overall Site Safety	• The local construction and environment inspectorates and • communities have been notified of upcoming activities • The public has been notified of the works through appropriate • notification in the media and/or at publicly accessible sites (including the site of the works) • All legally required permits have been acquired for construction and/or rehabilitation • The Contractor formally agrees that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. • Workers' personnel protective equipment (PPE) will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) • Appropriate signposting of the sites will inform workers of key rules and regulations to follow and emergency contact numbers • Provide on-site medical services and supplies for any emergency, through institutional and	• Keep written proof of notifications, local permits, and/or media announcement, clippings • Supervisor to ensure use of PPE • Supervisor to visually inspect adequate signage	• Site supervisor • PIU • Contractor for execution of civil works

Project Phase / Activities	Possible Environmental Impacts	Mitigating Measures	Monitoring parameters	Responsible Body
		administrative arrangements with the local health unit • Provide portable water & sanitary facilities for construction workers		
Mobilization/ Temporary facilities/ Construction/De-mobilization	**Material supply**			
	• Indirect impact on environment by purchasing material for unlicensed companies	• Sourcing of materials from authorized and licensed sites	• Insight in contracts with suppliers	• Site supervisor • PIU • Contractor for execution of civil works
	• Use of borrow pits for materials	• Borrow pits shall be subject to complete restauration works following closure	• Inspection of borrow pits following closure	• Site supervisor • PIU
Mobilization/ Temporary facilities/ Construction/De-mobilization	**Traffic and Pedestrian Safety**			
	• **Increased traffic** due to heavy equipment/vehicle movement/works in vicinity of main/local roads • **Decreased public access** through the construction area	• Schedule vehicle movement during lean daytime traffic hours or at night. • Provide traffic aides/flagmen, traffic signs to help ensure the free and safe flow of traffic • Maintain & Repair temporary alternative route of vehicles & pedestrians • Designate an alternate route for pedestrian and/or vehicles in coordination with the Municipal Authorities or provide safe passageway through the construction site	• Presence of traffic signs • Public complaints received • Occurrence of traffic jams • Public complaints received	• Contractor
	Air Quality – dust and noise suppression			
	• **Gas & particulate** emissions from vehicles, equipment & generators	• Regular equipment maintenance • Contractor to present proof of compliance with emission standards as part of the annual	• Presence of black smoke from construction vehicles • Attestation documentation	• Contractor • _____

Project Phase / Activities	Possible Environmental Impacts	Mitigating Measures	Monitoring parameters	Responsible Body
		vehicle registration process		
	• **Dust suspension** vehicle movement in unpaved roads & construction works	• Wet areas of dust sources to minimize discomfort to nearby residents • Control of vehicle speed to lessen suspension of road dust	• Public complaints received • General observation	• Contractor
Mobilization/ Temporary facilities/ Construction/De-mobilization	• **Noise generation** from equipment & operations	• Schedule equipment movement during non-peak hours of daytime vehicular traffic • Avoid night-time construction activities and abide by local • laws on construction hours • Provide silencers/mufflers for • heavy equipment	• Public complaints received • Measure a noise level in case of complaints	• Contractor: • _____
	Waste and Inert Material Management			
	• Environmental pollution caused by improper **waste management**	• Waste collection and disposal pathways and sites will be identified for all major waste types expected from construction activities. • Mineral construction will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. • Construction waste will be collected and disposed properly by licensed collectors • No open burning of wastes on or off site	• Visual inspection of separate waste management piles • Written receipts of all separate waste streams handled by the designated authorities • Visual inspection of burn marks on site	• Contractor for execution of civil works • _____
Mobilization/ Temporary facilities/ Construction/De-mobilization	**Soil quality – erosion and vegetation cover**			
	• **Soil erosion and landslides** due to clearing and/or excavation	• Provide slope protection through bank compaction, riprapping on critical sections, or vegetative	• Presence of eroded areas near the site • Signs of a potential/imminent landslide (unstable soil, signs of slippage, etc.)	• Contractor for execution of civil works • _____

Project Phase / Activities	Possible Environmental Impacts	Mitigating Measures	Monitoring parameters	Responsible Body
		stabilization • Designate a Spoils Storage Area, with topsoil set aside for later use and allow maximum re-use of spoils • Use material for restoration of degraded areas		
	• **Removal of vegetation**	• Do replacement planting that would restore removed vegetation • Secure: (i) environmental permit, (ii) Urban consent and (iii)Tree cutting consent	• Area replanted • Number and type of plants replanted	• Contractor • _____
	Water Quality and Quantity			
	• **Increased surface and groundwater turbidity & siltation**, causing inconvenience in community use of the affected surface or ground waters along the path of the irrigation canals	• Set up sediment traps along rivers and/or gabions along banks to filter out eroded sediments • Same measures above for erosion control and slope stabilization	• Complaints received • Visually for presence of turbidity in surface water • Analyze surface water quality in case of complaints (for pH, turbidity, conductivity and suspended solids) • If groundwater is used for drinking water supply, analyze tap water for drinking water • quality parameters as prescribed in • national legislation	• Contractor: • _____
	• **Oil & grease contamination of water bodies** due o for poor equipment M&R & refueling	• Provide oil & grease traps in stilling ponds • Provide ring canals around fueling tanks/motor pool/maintenance areas • Collect used oils in containers and hand over to authorized agency for handling	• Complaints received • Analyze surface water quality in case of complaints (for COD and total mineral oils) • If groundwater is used for drinking water supply, analyze tap water for drinking water quality parameters as prescribed in national legislation • Presence of oil film on water surface	• Contractor: • _____

Project Phase / Activities	Possible Environmental Impacts	Mitigating Measures	Monitoring parameters	Responsible Body
Mobilization/ Temporary facilities/ Construction/De-mobilization	**Cultural Property and Chance Findings**			
	• **Damage to cultural property** or chance findings which may be traversed reencountered during construction	• Stop the works and observe reporting and conservation protocols based on prior coordination with the responsible agency: Institute for Protection of Cultural & National Heritage	• Approval to continue or other relevant documentation from the nationally competent institution	• Contractor: • _____
Operation and Maintenance				
Maintenance	**Traffic and Pedestrian Safety**			
	• **Access restrictions** during maintenance	• Introduce appropriate traffic signalization and appropriate warning signs • Implementation of SEP, in particular the provisions on providing timely information to citizens through the media about upcoming maintenance, expected duration of the works, alternative routes, etc.	• Visual inspection of warning signs • Insight in information published	• Contractor: • Owner or flood protection structures • _____
Maintenance	**Noise suppression**			
	• **Noise** emission and noise disturbance	• In case of noise complaints by local residents, the reduction of permissible vehicle speed limit should be performed	• Limit noisy activities (e.g. earthmoving, truck unloading, etc.) to the least noise-sensitive times of day and schedule activities to occur at the same time. Machinery should be shut down or throttled down to a minimum when not in use.	• Contractor • _____
Maintenance	**Waste management**			
	• Improper **management of waste** from maintenance activities	• Waste collection and disposal pathways and sites will be identified for all major waste types expected from maintenance	• Visual inspection of separate waste management piles • Written receipts of all separate waste streams handled by the designated	• Contractor • _____

Project Phase / Activities	Possible Environmental Impacts	Mitigating Measures	Monitoring parameters	Responsible Body
		activities. • All waste will be collected and disposed properly by licensed collectors • No open burning of wastes/removed vegetation on or off site	authorities • Visual inspection of burn marks on site	

B. Indicative outline of ESIA

(a) Executive Summary

- Concisely discusses significant findings and recommended actions.

(b) Legal and Institutional Framework

- Analyzes the legal and institutional framework for the project, within which the environmental and social assessment is carried out, including the issues set out in ESS1, paragraph 26[47].
- Compares the Borrower's existing environmental and social framework and the ESSs and identifies the gaps between them.
- Identifies and assesses the environmental and social requirements of any co-financiers.

(c) Project Description

- Concisely describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary suppliers.
- Through consideration of the details of the project, indicates the need for any plan to meet the requirements of ESS1 through 10.
- Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts.

(d) Baseline Data

- Sets out in detail the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include a discussion of the accuracy, reliability, and sources of the data as well as information about dates surrounding project identification, planning and implementation.
- Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions.
- Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences.
- Takes into account current and proposed development activities within the project area but not directly connected to the project.

(e) Environmental and Social Risks and Impacts

- Takes into account all relevant environmental and social risks and impacts of the project. This will include the environmental and social risks and impacts specifically identified in ESS2–8, and any other environmental and social risks and impacts arising as a consequence of the specific nature and context of the project, including the risks and impacts identified in ESS1, paragraph 28.

(f) Mitigation Measures

- Identifies mitigation measures and significant residual negative impacts that cannot be mitigated and, to the extent possible, assesses the acceptability of those residual negative impacts. Identifies

[47] ESS1, paragraph 26, states that the environmental and social assessment takes into account in an appropriate manner all issues relevant to the project, including: (a) the country's applicable policy framework, national laws and regulations, and institutional capabilities (including implementation) relating to environment and social issues; variations in country conditions and project context; country environmental or social studies; national environmental or social action plans; and obligations of the country directly applicable to the project under relevant international treaties and agreements; (b) applicable requirements under the ESSs; and (c) the EHSGs, and other relevant GIIP.

differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable.

- Assesses the feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of proposed mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the proposed mitigation measures.
- Specifies issues that do not require further attention, providing the basis for this determination.

(g) Analysis of Alternatives

- Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental and social impacts.
- Assesses the alternatives' feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; and the institutional, training, and monitoring requirements for the alternative mitigation measures.
- For each of the alternatives, quantifies the environmental and social impacts to the extent possible, and attaches economic values where feasible.

(h) Design Measures

- Sets out the basis for selecting the particular project design proposed and specifies the applicable EHSGs or if the EHSGs are determined to be inapplicable, justifies recommended emission levels and approaches to pollution prevention and abatement that are consistent with GIIP (if applicable).

(i) Key Measures and Actions for the Environmental and Social Commitment Plan (ESCP)

- Summarizes key measures and actions and the timeframe required for the project to meet the requirements of the ESSs. This will be used in developing the Environmental and Social Commitment Plan (ESCP).

(j) Appendices

- List of the individuals or organizations that prepared or contributed to the environmental and social assessment.
- References—setting out the written materials both published and unpublished, that have been used.
- Record of meetings, consultations and surveys with stakeholders, including those with affected people and other interested parties. The record specifies the means of such stakeholder engagement that were used to obtain the views of affected people and other interested parties.
- Tables presenting the relevant data referred to or summarized in the main text.
- List of associated reports or plans.

C. Indicative outline of site-specific ESMP

The content of the site-specific ESMP will include the following:

(a) Mitigation

- The ESMP identifies measures and actions in accordance with the mitigation hierarchy that reduce potentially adverse environmental and social impacts to acceptable levels. The plan will include compensatory measures, if applicable. Specifically, the ESMP:

  i) identifies and summarizes all anticipated adverse environmental and social impacts (including those involving indigenous people or involuntary resettlement);
  ii) describes—with technical details—each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
  iii) estimates any potential environmental and social impacts of these measures; and takes into account, and is consistent with, other mitigation plans required for the project (e.g., for involuntary resettlement, indigenous peoples, or cultural heritage).

(b) Monitoring

- The ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

(c) Capacity Development and Training

- To support timely and effective implementation of environmental and social project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level.
- Specifically, the ESMP provides a specific description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g., for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training).
- To strengthen environmental and social management capability in the agencies responsible for implementation, the ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

(d) Implementation Schedule and Cost Estimates

- For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

(e) Integration of ESMP with Project

- The Borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the ESMP (either stand alone or as incorporated into the ESCP) will be executed effectively. Consequently, each of the measures and actions to be implemented will be clearly specified, including the individual mitigation and monitoring measures and actions and the institutional responsibilities relating to each, and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.

MITIGATION PLAN TABLE FORMAT

Phase	Issue	Mitigation measure	Cost of mitigation (If substantial)	Responsibility*	Supervision observation and comments (to be filled out during supervision)
Preparation phase					
Project Execution / operate					
Post-project phase					

*Items indicated to be the responsibility of the contractor shall be specified in the bid documents

MONITORING PLAN TABLE FORMAT

Phase	What parameter is to be monitored?	Where is the parameter to be monitored?	How is the parameter to be monitored/ type of monitoring equipment?	When is the parameter to be monitored- frequency of measurement or continuous?	Monitoring Cost What is the cost of equipment or contractor charges to perform monitoring?	Responsibility*	Supervision observation and comments (to be filled out during supervision with reference to adequate measuring reports)
Preparation phase							
Project Execution / operate							
Post-project phase							

*Items indicated to be the responsibility of the contractor shall be specified in the bid documents

D. Minutes from the public consultations

TBA.