› Montenegro Energy Efficiency Project – MEEP 2

Environmental and Social Management Framework (ESMF)

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Contents

List of Acronyms

ACM- Asbestos-Containing Materials
CBD- Convention on Biological Diversity
CETI- Center for eco-toxicological research
CHPA- Cultural Heritage Protection Administration
CRTA- Central Register of Tax Administration
DEE- Directorate for Energy Efficiency
EA- Environmental Assessment
EBRD- European Bank for Reconstruction and Development
EC- European Commission
EE- Energy Efficiency
EIA- Environmental Impact Assessment
EMP- Environmental Management and Mitigation Plan
ENPA- Environmental and Nature Protection Agency
ESD- Energy Services Directive
ESMF- Environmental and Social Management Framework
EU- European Union
GDP- Gross domestic product
GH- General Hospital
GHG- Greenhouse gas
GoM- Government of Montenegro
GRM- Grievance Redress Mechanism
GRS- Grievance Redress Service
HS- Health Station
IBRD- International Bank for Reconstruction and Development
IFI- International Financing Institutions
IMF- International Monetary Fund
MARR- Ministry of Agriculture and Rural Development
MC- Ministry of Culture
ME- Ministry of Economy
MEEP- Montenegro Energy Efficiency Project
MH- Ministry of Health
MLSW- Ministry of Labour and Social Welfare
MPA- Ministry of Public Administration
MSDT- Ministry of Sustainable Development and Tourism
NATO- North Atlantic Treaty Organization
NCSD - National Council for Sustainable Development
OP- Operational Polices
PC- Project Coordinator
PHC- Public health center
PIU- Project implementation unit
POM- Project Operational Manual
RE- renewable energy
SESA- Strategic Environmental and Social Assessment
SH- Special Hospital
UNCCD- United Nations Convention to Combat Desertification
UNESCO- United Nations Educational, Scientific and Cultural Organization
UNFCC- United Nations Framework Convention on Climate Change
WB- World Bank
WMO- World Meteorological Organization
WTO- World Trade Organization
ZHMS- Hydrometeorology and Seismology Institute

0. Executive Summary

According to the World Bank Environmental Safeguard Operational Procedure 4.0.1, Bank requires Environmental and Social Assessment of projects proposed to be financed with a Bank loan in order to ensure that the projects are environmentally and socially sound and apply sustainable decision-making process. The Project under review is Montenegro Energy Efficiency Project 2 – MEEP 2, foreseen to apply the energy efficiency measures in around 18 healthcare buildings throughout the country.

This Project is expected to encompass three main components, while the final project disposition will be agreed afterwards:

i. Component 1 – Energy efficiency improvements in public health sector buildings: This component is expected to primarily support energy efficiency investments and related technical services in around 18 public health sector buildings (sub-projects). Specific investment measures would include: retrofits of building envelopes (including façades, windows and doors, roofs); heating and cooling system upgrades (including fuel switching); lighting and domestic hot water systems.

ii. Component 2 – Development of sustainable financing models and strengthening of the energy efficiency market capacity: This Component is expected to support activities whose main aim is to provide support for development of sustainable energy efficiency financing models and strengthening of the market capacity in Montenegro.

iii. Component 3 – Project implementation support: This component will provide support for the effective implementation and Project management, including Project implementation staff (PIU) and Project-related operating costs.

Environmental and Social Management Framework (ESMF) is prepared in order to identify adverse environmental and social impacts of future small-scale (Category B) projects with site-specific impacts that could be solved with proposed mitigation measures. ESMF provides general policies, guidelines, codes of practice and procedures to be integrated into the implementation of all sub-projects considered for financing. It will also serve as a "roadmap" for teams that will be preparing site-specific Environmental Mitigation and Monitoring Plans with the main aim to ensure effective environmental protection, human health and the community. ESMF identifies whole range of required environmental and social management measures that need to be taken during design, construction and operational stages of small-scale sub-projects. Moreover, it is designed to ensure compliance with relevant national legislation and WB requirements related to environmental impact assessment procedures and social screening for potential social impacts. ESMF is intended to serve as a guidance to Project Implementation Unit during the preparation of the Project Appraisal Document to identify all possible environmental, social health, occupational and community risks occurring as a result of subprojects implementation. Based on ESMF the contract-specific Environmental Mitigation and Monitoring Plan should be prepared as a part of contracts to be signed between Ministry of Health and subcontractors. Chapters of this Environmental and Social Management Framework Document are presented below:

INTRODUCTION: this chapter gives insight into the country background, characteristics of electricity system, generation, demand as well as overall energy efficiency policy.

Montenegro, country located in the west-central Balkans at the southern end of the Dinaric Alps, is bounded by the Adriatic Sea and Croatia (South-West), Bosnia and Herzegovina (North-West), Serbia (North-East), Kosovo (East), and Albania (South-East). Territory of Montenegro occupies approximately 13,812km^2. The energy sector of Montenegro is highly dependent on imports of liquid fuels, gas fuels and electricity. The energy supply is dominated by electric power, biomass / charcoal and oil-based products.

There is no domestic natural gas network or district heating. The Ministry of Economy through the Directorate for Energy Efficiency is responsible for creating and implementing energy efficiency policies. The main objectives and mission of the Directorate for Energy Efficiency are designed to meet EU best practices.

PROJECT BACKGROUND: this chapter deals with project concept, project objective and geographic coverage, but also with the healthcare system in the country.

Project aims to improve energy efficiency of priority public health sector buildings Montenegro by decreasing energy consumption that will lead to (i) lowering of health budget expenses on electricity (and other fuels), (ii) improving the level of comfort of the buildings premises; (iii) decreasing the operation and maintenance costs, (iv) reducing the greenhouse effect and (v) removing "light pollution" by focusing lighting.

Montenegro has a good standard of compulsory, state funded healthcare. The Ministry of Health is responsible for overseeing the system and the State Health Fund is in charge of the insurance fund and executing government policy. Recent regulations concerning healthcare and funding are representing a solid basis for a modern and efficient health system. All citizens are entitled by law to equal access to healthcare while private healthcare is also available.

After MEEP phase I completion in December 2014, the local consulting company CEED Consulting conducted social monitoring and evaluation of the energy efficiency measures implementation both in healthcare and school buildings. The objective of the social monitoring was to measure and verify end users' subjective perception of indoor comfort and satisfaction and level of their information and awareness regarding energy efficiency. The survey has been conducted with patients, medical staff as well as managerial and technical staff in three hospitals (General Hospital Berane, Specialized Hospital for pulmonary diseases in Brezovik near Nikšić and Specialized Hospital for orthopedics, neurosurgeons and neurologies in Risan) before and after the implementation of energy efficiency measures. The main findings of the survey are presented in the box 1. General assessment is that the level of satisfaction among users and medical staffing of the hospitals after EE measures being implemented has been significantly increased in relation to the level before EE measures being implemented.

Another survey, conducted by IPSOS Strategic Marketing in 2017, among users and medical staffing after the EE measures being implemented in PHC Andrijevica showed that almost all patients (98%) and medical staff (97%) were satisfied with the indoor comfort conditions (heating, lighting, quality of doors and windows) in the room where they spent most of their time at the Public Health Center Building.

REVIEW OF POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK INCLUDING REVIEW OF MONTENEGRIN LAWS AND WORLD BANK SAFEGUARD POLICIES: this chapter considers Montenegrin legislation and institutional arrangements and World Bank Safeguard Policies.

Presented national legislative system and institutional set-up includes energy efficiency, environmental, health and safety at work, spatial planning and counstruction of structures, as well as cultural heritage protection regulations. The Project sites are unlikely to be located in sensitive ecosystems and areas of historical and cultural significance – nevertheless, the culture heritage policy is precautionary trigerred. The following WB safeguard policies will be applicable to the project: Environmental Assessment OP/BP 4.01 and Physical Cultural Resources OP/BP 4.11. This project falls into the category B concerning OP/BP 4.01 ENVIRONMENTAL ASSESSMENT, as its potential adverse environmental impacts on human population or environmentally important areas-including wetlands, forests, grasslands, or other natural habitats - are limited, site specific, and likely reversible, with only a few/if any, irreversible.

PROJECT REVIEW AND ANTICIPATED ENVIRONMENTAL IMPACTS: this chapter presents positive and negative impacts of the project as well as site-specific environmental screening process.

This Project is the most likely to create adverse environmental impacts during reconstruction of existing facilities. If environmental damage cannot be avoided, mitigation measures, as presented in this document, should be applied

and monitored during site selection and all subsequent stages of Project planning and implementation. The environmental check-list and site-specific EMP to manage the potential impacts will be developed for every healthcare building to be considered under this Project.

GENERAL BASELINE CONDITIONS OF THE PROJECT AREA: this chapter provides a summary of the country's physical, biological and socio-economic environment, especially as it relates to the health sector.

As relevant for healthcare services, summary includes description of soils, air quality and hidrology, flora and fauna, socio-cultural, historical and political context, demography (including gender, age, education, marital status, household size etc.), economy, employment, livelihood of population and households, infrastructure (including roads, power, water, wastewater etc.), stakeholder identification and analysis.

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK: this chapter presents the content of generic check-list and Environmental Management and Mitigation Plan for project sites as well as procedures for a complaint handling mechanism should grievances arise due to civil works related activities.

For the purposes of rehabilitation activities, EMP format is developed to preparing EMPs for minor rehabilitation or small-scale works in health building construction. Check-list-type format has been developed to provide "good practice example" and is designed to be user friendly and compatible with safeguard requirements.

The EMP outlines mitigation, monitoring and institutional strengthening measures to be taken during project implementation/project operation to avoid or eliminate negative environmental and social impacts. For projects of environmental risk (Category B) an EMP is an effective way of summarizing the activities needed to achieve effective mitigation of negative environmental/social impacts.

CONSULTATIONS AND DISCLOSURE: this chapter presents reports, minutes and supporting documents from public consultation events.

APPENDICES: Appendix outlines detailed information about (1) Template for an environmental monitoring and mitigation plan - EMP and (2) Template for an environmental screening check-list.

1. Introduction

Montenegro, country located in the west-central Balkans at the southern end of the Dinaric Alps consists of 23 municipalities, with Podgorica as the Capital city. Montenegro has population[1] of 622,387 inhabitants whereas around 63.2% lives in urban areas and 36.7% in rural areas[2].

Montenegro has mostly mountainous landscape and is set by the Adriatic Sea (the coastline is 293km long). Montenegrin economy is considered as economically potentially vulnerable since it relies on investments and capital inflows from abroad, according to the European Commission (EC) Progress Report on Montenegro while maintaining macroeconomic stability is a key challenge for the country.[3] Montenegro experienced substantial economic growth during the first decade of the 21st century (with GDP growth rates of about 10% in 2007), which is followed by an economic recession. In 2016, economic growth was estimated at 2.5%, compared to 3.4% in 2015. In 2015 GDP was split between sectors as follows: agriculture, forestry and fishing - 8.3%; industry - 25.1%; services - 66.6%.[4] In 2016 Montenegrin GDP was equal to USD 4.1 billion with 2.8% estimated annual growth within the period 2018-2020.[5]

Politically, Montenegro is a Parliamentary democracy with an executive branch headed by the Government and a President. One of the dominant aspects of Montenegrin political development is the EU accession process. Montenegro started negotiations to join the EU in June 2012 and intends to complete accession by 2020. As of 2017, it is opened 26 out of 33 negotiation chapters. Moreover, Montenegro is a contracting party to the EU Energy Community, meaning it has committed through this channel to adopt the acquis communautaire related to energy.

Montenegro is a member of the European Bank for Reconstruction and Development (EBRD) as well as the World Bank and International Monetary Fund (IMF). Montenegro joined the World Trade Organization (WTO) in 2011 and the North Atlantic Treaty Organization (NATO) in June 2017.

The Second National Communication of Montenegro to the UNFCCC (2015) identified that energy is the single largest source of greenhouse gas (GHG) emissions generated in the country and changing climate may result in an increased number and scale of droughts and wildfires, heat waves and flooding.

In 2015 total power needs of Montenegro amounted to 3.4 TWh (including distribution losses and the needs of the energy industry), of which 1.41 TWh was generated by the coal-fired power station TPP Pljevlja, 1.46 TWh from a number of hydro plants, while the remainder was mostly net imports (1.04 TWh imported, 0.52 TWh exported). A supply is hampered by old infrastructure, limited investment and high energy intensity. It is also worth noting that in 2015, 2 GWh were produced from solar energy.[6]

Montenegro intends to reduce its dependence on energy imports and become a net exporter of electrical energy by 2020, including, among other means, by increasing the use of local resources and increasing energy efficiency. Currently, the most important local sources of energy include coal, hydro, lignite, firewood and industrial wood wastes. Additionally, Montenegro has significant untapped potential for other forms of renewable energy.

[1] MONSTAT (2017) http://www.monstat.org/cg/page.php?id=273&pageid=48
[2] The Second National Communication on Climate Change (2015)
[3] World Bank (2016) http://www.worldbank.org/en/country/montenegro/overview
[4] MONSTAT (2017) http://www.monstat.org/eng/page.php?id=19&pageid=19
[5] World Bank (2016) http://www.worldbank.org/en/country/montenegro/overview
[6] MONSTAT (2017) https://www.monstat.org/eng/page.php?id=39&pageid=39

The Energy Regulatory Agency monitors and controls the operations of the energy sector and approves tariffs. Tariffs are defined for end-users and are reflecting actual costs including operational costs, depreciation and return on assets. Currently the retail cost of electricity is 0.11 EUR/kWh.

The electricity sector is currently dominated by three partially privatised companies: Montenegrin Power Utility, Montenegrin Transmission System Operator and Montenegrin Distribution System Operator. The wholesale market is still not functional. Generators are obliged to supply only tariff customers (until a competitive market for electricity is established). The threshold is set at 25 GWh in electricity, 50 million m^3 of natural gas, and 5000 GJ of heat.[7]

Total energy demand in Montenegro is growing quickly and is driven by the growth in consumption of the population (i.e. not from the industry, but this would include tourism), increasing use of transport and increasing living standard. In 2015, total final energy consumption was 29.86 PJ. According to the Strategy for energy development until 2030, the total energy demand may grow by over 3% per year (relative to the base year of 2015) depending on the rate of overall growth and development and the degree of application of energy efficiency. The public, residential and commercial sector as well as the transport sector increased dramatically since 2003 while the industry sector demand has been reduced. There is no natural gas supply in Montenegro – meaning that wood and electricity are the dominant sources of energy for heating. Aside from wood (used only for heating), electricity is the main source of energy for the residential and commercial sectors.

Future energy demand will be met through a number of means, including diversification of energy sources, utilisation of renewable energy sources as well as development and adoption of efficient energy technologies.

1.1. Overall energy efficiency policy

The Ministry of Economy through the Directorate for Energy Efficiency is responsible for creating and implementing energy efficiency policies. The main objectives and mission of the Directorate for Energy Efficiency are designed to meet EU best practices. Main objectives are addressing following:

- Identifying, analysing and developing technically feasible and cost-effective policies and demand-side measures to improve EE;
- Encouraging and promoting activities targeting energy savings and other EE activities, as well as reducing negative environmental impacts caused by energy conversion and use;
- Promoting renewable energy (RE) use and the use of other non-traditional sources with low environmental impact;
- Promoting and participating in sharing knowledge and information with similar authorities of other countries and with international institutions and associations active in the EE.

Directorate for Energy Efficiency operates through a web portal that represents main source of information related to EE policy, projects, activities, events and financing (web address of the portal is: http://energetska-efikasnost.me). Directorate for Energy Efficiency, in addition to policy development and adoption, has organised most of the EE promotion in Montenegro, mainly with international donor support.

[7] Source: http://www.reegle.info/policy-and-regulatory-overviews/ME

2. Project background

An Environmental and Social Management Framework (ESMF) is prepared for Montenegro Energy Efficiency Project – MEEP 2. Government of Montenegro (GoM) initiated activities in order to receive a loan from the International Bank for Reconstruction and Development (IBRD) in the amount of 6.0 million € for implementation of the second phase of Montenegro Energy Efficiency Project (MEEP) in order to apply the energy efficiency measures in around 18 healthcare buildings. The objective of the new MEEP 2 project is to improve energy efficiency in public health buildings and to support the development of sustainable energy efficiency financing models. The second phase of MEEP will be launched in September 2018 and it will last until September 2022. The Ministry of Health (MH) is competent for the implementation of the project in healthcare buildings and the Ministry of Economy (ME) is responsible for coordination of the project and for providing assistance to the Ministry of Health.

The ESMF covers procedures and mechanisms that will be triggered by the Project to comply with the World Bank Policy 4.01 - Environmental Assessment, legislation and normative and legal acts of Montenegro governing preparation and implementation of environmental protection requirements.

ESMF will allow ensuring environmental and social sustainability of activities throughout MEEP 2 project implementation cycle and will provide the engineering and technical staff and consultants with adequate institutional, normative and technical framework for:

(i) Identification of environmental and social assessment impacts, implementation arrangements and risk mitigation, including assessment of conflict stressors of activities implemented under the MEEP 2;

(ii) Development of separate EMPs for each subproject integrating the complex of social and environmental impact mitigation measures, environmental monitoring and institutional responsibility into the general project implementation plan by including the EMP into the bidding documents to ensure funding and supervision along with other components of the subproject;

(iii) Identification of environmental monitoring requirements and activities on institutional strengthening conducive to beneficial impacts of the project.

2.1. Project concept

MEEP 2 is envisaged to start with implementation by mid-2018 and will include three components:

- Component 1 – Energy efficiency improvements in public health sector buildings - This component is expected to primarily finance energy efficiency investments and related technical services in around 18 public health sector buildings (subprojects). Specific investment measures would include: retrofits of building envelopes (including façades, windows and doors, roofs); heating and cooling system upgrades (including fuel switching); lighting; and domestic hot water systems.

- Component 2 – Development of sustainable financing models and strengthening of the energy efficiency market capacity - This Component is expected to support activities aimed to support development of sustainable energy efficiency financing models and strengthening of the market capacity in Montenegro.

- Component 3 – Project implementation support - This component will provide support for the effective implementation and management of the Project, including Project implementation staff (PIU) and Project-related operating costs.

2.2. Project objective and geographic coverage

Main project goal is to improve energy efficiency of priority public health sector buildings Montenegro wide by decreasing energy consumption that will lead to (i) lowering of health budget expenses on electricity (and other fuels), (ii) improving the level of comfort of the buildings premises; (iii) decreasing the operation and maintenance costs, (iv) reducing the greenhouse effect and (v) removing "light pollution" by focusing lighting.

Following public health sector buildings would be considered to be covered by this Project: Public health center (PHC) Berane, PHC Plav, PHC Rožaje, General Hospital (GH) Bar, PHC Ulcinj, GH Nikšić, PHC Tivat, PHC Podgorica-Golubovci, Special Hospital (SH) Dobrota, SH Risan, PHC Danilovgrad, PHC Mojkovac, Health Station (HS) Žabljak, PHC Herceg Novi, PHC Bar, PHC Budva, PHC Podgorica - Blok 5 and PHC Podgorica – Konik.

2.3. Healthcare system

Montenegro has a good standard of compulsory, state funded healthcare. MH is responsible for overseeing the system and the State Health Fund is in charge of the insurance fund and executing government policy. Recent regulations concerning healthcare and funding represents a solid basis for a modern and efficient health system. All citizens are entitled by law to have equal access to healthcare while private healthcare is also available. Figure 1. shows network of healthcare institutions in Montenegro.

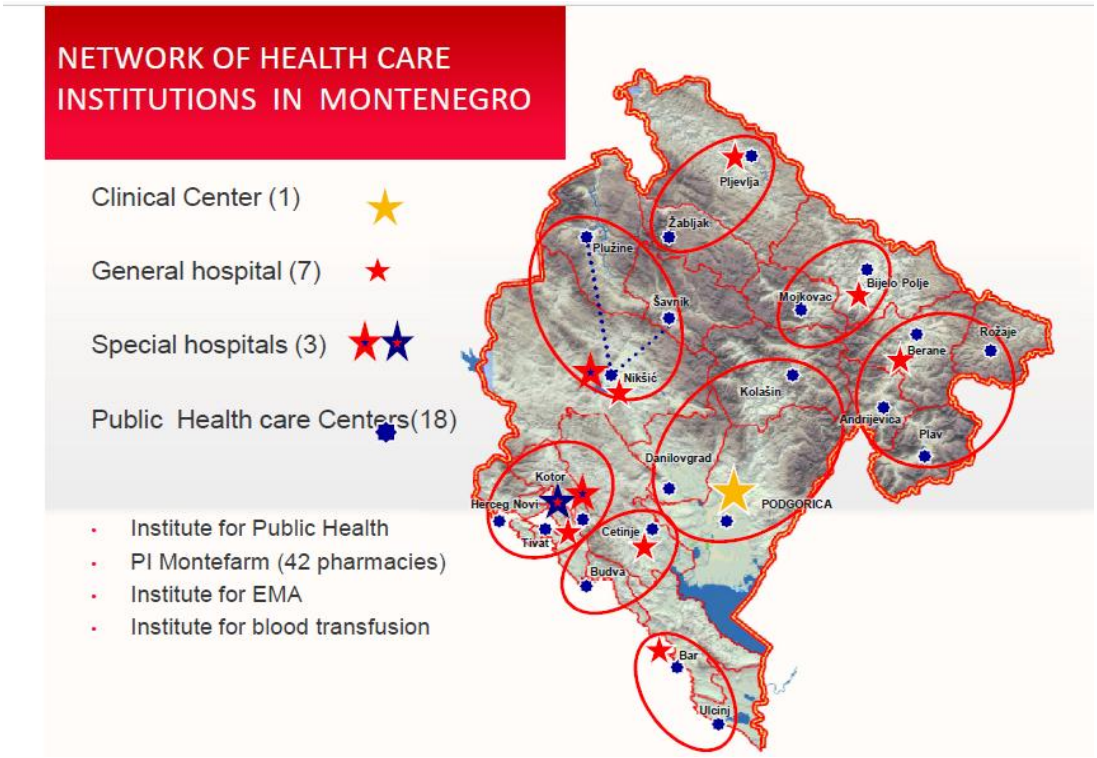

Figure 1. Network of health care institutions in Montenegro

PHCs are known as ''Dom Zdravlja'' and there are 18 of them throughout the country. Health centers only provide outpatient care but they do offer a wide variety of specialist services. Qualified doctors and nurses represent staff in health centers. They are responsible for general medicine, pediatrics, maternity care, home visits and treatment,

dental care, laboratory and radiological diagnostics and emergency services. Doctors in PHCs are the first point of contact with the Montenegrin health system. Citizens can register with the doctor of their choice; however, people seeking state medical care must make sure that their doctor is contracted into the state scheme. They are responsible for prescribing drugs and making referrals, treating acute and chronic illnesses and providing preventive care and health education. Doctors are well trained but often lack good facilities and supplies.[8] Table 1 shows Primary Health Centers staffing and visits in 2012-2016.

Table 1: Primary Health Centers staffing and visits in 2012-2016

PRIMARY HEALTH CENTER - SPECIALISED HEALTH CARE

2012	2013	2014	2015	2016	
107	**95**	**89**	**91**	**91**	**Organizational units**
167	**173**	**157**	**263**	**...**	***Health staff***
67	68	63	73	...	*Physicians – total*
61	62	60	79	...	*Specialists*
100	105	94	111	...	*High and medium level health workers*
312	**311**	**372**	**366**	**271**	***Visits (to physicians)-Total, in thous***
161	153	205	194	168	*First*
151	158	167	172	103	*Repeated*

Source: Institute of Public Health of Montenegro
[1)] The latest available data on health care professionals are given for 2015

Montenegro Energy Efficiency Project (MEEP) has been implemented with the purpose of improving energy efficiency in educational and health care institutions. Within MEEP project - Phase I (original loan and additional finance), energy efficiency measures were implemented at 16 healthcare buildings, given in the Table 2 below:

Table 2: Healthcare buildings, refurbished through the MEEP (Phase I and Phase II Project)

No.	Healthcare building	Municipality	Year
1	General hospital Berane	Berane	2011
2	General hospital and Health centre Pljevlja	Pljevlja	2012
3	General hospital Bijelo Polje	Bijelo Polje	2012
4	Special hospital Vaso Ćuković – Risan	Kotor	2013
5	Special hospital Jovan Bulajić – Brezovik	Niksic	2013
6	Institute for children diseases (Clinic Centre of Montenegro)	Podgorica	2013 and 2015
7	General hospital Kotor	Kotor	2015
8	Health center Kotor	Kotor	2015
9	General hospital "Danilo I"	Cetinje	2015

[8] http://www.mzdravlja.gov.me/ministarstvo

10	Health center Cetinje	Cetinje	2015
11	Clinic Centre of Montenegro	Podgorica	2016
12	Health station Petnjica	Petnjica	2017
13	Healh station Murino	Plav	2017
14	Health center Kolašin	Kolašin	2018
15	Health center Nikšić	Nikšić	2018
16	Health center Andrijevica	Andrijevica	2018

After MEEP phase I-original loan completion in December 2014, the local consulting company CEED Consulting conducted social monitoring and evaluation of the energy efficiency measures implementation both in healthcare and school buildings. The objective of the social monitoring was to measure and verify end users' subjective perception of indoor comfort and satisfaction and level of their information and awareness regarding energy efficiency. The survey has been conducted with patients, medical staff as well as managerial and technical staff in three hospitals (General Hospital Berane, Specialized Hospital for pulmonary diseases in Brezovik near Nikšić and Specialized Hospital for orthopedics, neurosurgeons and neurologies in Risan) before and after the implementation of energy efficiency measures. The main findings of the survey are presented in the box. General assessment is that the level of satisfaction among users and medical staffing of the hospitals after EE measures being implemented has been significantly increased in relation to the level before EE measures being implemented.

Box 1: MEEP phase I – Key outcomes of implemented energy efficiency measures in hospitals (2013)

- Level of satisfaction among medical staff after implementation of EE measures significantly increased.

	Before **implementation of EE measures**	***After*** **implementation of EE measures**
Quality of heating	2,90	4,32
Windows sealing	2,50	4,38
Artificial lighting	3,43	3,77

Average satisfaction rates (on a scale from 1 – very dissatisfied to 5 – very satisfied) – Medical staff

- Level of satisfaction among patients after implementation of EE measures increased as well.

	Before **implementation of EE measures**	***After*** **implementation of EE measures**
Quality of heating	3.66	4.55
Windows sealing	3.27	4.79
Artificial lighting	4.06	4.81

Average satisfaction rates (on a scale from 1 – very dissatisfied to 5 – very satisfied) – Patients

Before: Every fifth patient (21.3%) said the air was 'stuffy' in the premise they stayed in (this means the air was heavy/stale and loses its natural humidity).
After: The implementation of energy efficiency measures has contributed to the improvement of indoor comfort conditions in the hospitals and now only 4.7% of patients claim the air was 'stuffy' in premises they stay in.
Before: 90.0% of medical staff knew the meaning of the term energy efficiency.
After: all representatives of medical staff were able to define energy efficiency and usually obtain information about it via TV.
Before: 55.3% of patients and 93.3% of medical staff applied some of energy efficiency measures at their home.
After: 59.6% of patients and 96.6% of medical staff showed willingness to apply some of these measures in their households.

Table: Level of satisfaction with implemented EE measures among patients and medical staff

	Patients	**Medical staff**

	Before implementation of EE measures	**After** implementation of EE measures	**Before** implementation of EE measures	**After** implementation of EE measures
Heating quality	Satisfied – 72.4%	Satisfied –92.3%	Satisfied –53.3%	Satisfied – 83.7%
"Sealing" of windows	Satisfied – 58.1%	Satisfied – 97.0%	Satisfied – 46.7%	Satisfied – 83.9%
Artificial lighting	Satisfied – 89.4%	Satisfied – 94.6%	Satisfied – 66.7%	Satisfied – 80.6%
Source: Social Monitoring and Evaluation of Energy Efficiency Measures in Schools and Hospitals, 2013.				

Another survey for the MEEP phase I-additional finance, conducted by IPSOS Strategic Marketing in 2017, among users and medical staffing after the EE measures being implemented in PHC Andrijevica showed that almost all patients (98%) and medical staff (97%) were satisfied with the indoor comfort conditions (heating, lighting, quality of doors and windows) in the room where they spent most of their time at the Public Health Center Building. The survey will be finished by end of March 2018, and data will be share to the public.

3. Review of Policy, Legal and Administrative Framework including Review of Montenegrin Laws and World Bank Safeguard Policies

This section describes key environmental regulations and standards relevant to the project and makes reference to the institutions at the local and national levels responsible for issuing permits, licenses and enforcing compliance with environmental standards.

3.1. Montenegrin legislation and institutional arrangements

3.1.1. Energy efficiency and policy commitments on energy efficiency

Ministry of Economy is responsible for creating and implementing energy efficiency policies. Law on Efficient Use of Energy (adopted in 2015) is the key piece of primary legislation that creates a legal basis for EE regulation in the country. The Law on Efficient Use of Energy:

- Develops regulations within the area of efficient energy use in the sectors which consume final energy;
- Sets out the obligation of adopting programmes and plans for improving energy efficiency at national and local levels, as well as at the level of energy entities and consumers;
- Describes the public authorities' responsibilities for the introduction and implementation of energy efficiency policy, as well as all additional energy efficiency measures and entities responsible for their implementation.

Current Law does not refer to the energy efficiency of generation facilities or to the transmission and distribution of energy. Energy efficiency in these facilities is regulated by the Energy Law.

Text of the Law on Efficient Use of Energy is compliant with main EU directives in the field of energy efficiency, as follows:

- Directive 2012/27/EC on energy efficiency;
- Directive 2010/31/EC on the energy performance of buildings;
- Directive 2010/30/EU on energy labelling of energy related products;
- Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products.

The Directorate for energy efficiency has developed a comprehensive set of by-laws, as Rulebooks, Decisions, and Instructions in addition to three Action Plans and Annual Operational Plans. The latest, the third Energy Efficiency Action Plan for 2016-2018, was adopted in November 2016. The same Directorate is in charge of monitoring implementation of these plans. One of the priority requirements of Directive 2012/27/EU on energy efficiency is the obligation to set an Indicative Energy Savings Target. This Directive has subsequently been adopted (in 2016 with some amendments) by the Energy Community – of which Montenegro is a contracting party. The Indicative Target is a planned saving of energy consumption in Montenegro, which is expressed in absolute terms in GWh (or in equivalent unit) and in percentages relative to the average energy consumption.

Pre-dating the Energy Efficiency Directive was the Energy End-Use Efficiency and Energy Services Directive (2006/32/EC – commonly referred to as the Energy Services Directive or ESD) which also required targets for energy savings. Montenegro adopted in April 2011, a Decision on Indicative Energy Savings Target (Oficcial Gazette of Montenegro 48/2011) in order to comply with the requirements of the ESD. The Indicative Target was set at 58.9 ktoe (685 GWh) or 9% of final primary energy consumption in Montenegro. This Indicative Target is defined for the nine-year period 2010-2018. The Indicative Target is calculated on the basis of data on final energy consumption for the five-year period before 2010, according to the Methodology developed by the Ministry of Economy (ME), following recommendations made by Directive 2006/32/EC (Oficcial Gazette of Montenegro 18/2011). This target is expected to be updated in the coming years to reflect the Energy Efficiency Directive 2012/27/EU.

Article 8 of the Law on Efficient Use of Energy defines improving energy efficiency in state-owned buildings. According to this Article, official state-owned buildings used by state bodies must meet minimum energy efficiency requirements in accordance with Article 26 of the same Law, regulating building energy efficiency requirements. ME in co-operation with the authority responsible for property affairs, prepares the draft plan for reconstruction of official buildings. The reconstruction plan shall be prepared by the GoM for a period of three years, as well as Annual Operational Plan for Improving Energy Efficiency. The annual plan shall in particular determine:

- Energy efficiency measures for state property managed by State Authorities administration and facilities used by public services that are state founded;
- Energy efficiency measures for the reconstruction of official buildings;
- Dynamics and implementation method;
- Funds needed to carry out measures, sources and ways of securing them.

3.1.2. Environmental protection

Ministry of Sustainable Development and Tourism (MSDT) is the key institution responsible for formulation and implementation of environmental policy matters. Environmental protection in Montenegro is regulated by national laws, regulations and rulebooks, such as following:

1. Law on Environment (Official Gazette of Montenegro, No. 52/16);
2. Law on the Environmental Impact Assessment (Official Gazette of Montenegro, No. 80/05, 40/10, 73/10, 40/11 and 27/13);
3. Law on Nature Protection (Official Gazette of Montenegro, No. 54/16);
4. Law on Air Protection (Official Gazette of Montenegro, No. 25/10 and 40/11);
5. Law on Protection from Noise in the Environment (Official Gazette of Montenegro, No. 28/11, 1/14);
6. Law on Waste Management (Official Gazette of Montenegro, No. 64/11);
7. Law on Water (Official Gazette of Montenegro, No. 27/07 and Official Gazette of Montenegro, No. 32/11 and 47/11);
8. Law on the Transport of Hazardous Substances (Official Gazette of Montenegro, No. 33/14);
9. Law on Energy (Official Gazette of Montenegro, No. 5/16);
10. Law on Communal Activities (Official Gazette of Montenegro, No. 55/16);
11. Rulebook on the Content of Environmental Impact Assessment (Official Gazette of Montenegro, No. 14/07);
12. Rulebook on Waste Classification and the Procedures for its Treatment, Processing and Removal (Official Gazette of Montenegro, No. 68/09);
13. Rulebook on the Treatment of Construction Waste Management, Manner and Method of Construction Waste Treatment, Conditions and Manners of Disposal of Asbestos Cement Waste (Official Gazette of Montenegro, No. 50/12);
14. Rulebook on Permissible Concentrations of Harmful Substances in the Air (Official Gazette of Montenegro, No. 04/82 and 8/82);
15. Rulebook on the Pollutants Emission into the Air (Official Gazette of Montenegro, No. 25/01);
16. Rulebook on Waste Oil (Official Gazette of Montenegro, No. 48/12);

17. Rulebook on the Methods and Instruments of Noise Measurement and the Conditions to be met by Noise Measure Organizations (Official Gazette of Montenegro, No. 27/14);
18. Rulebook on value limits of Environmental Noise, the Method for Determining the Acoustic Noise Indicators and Assessment Methods of the Harmful Effects of Noise (Official Gazette of Montenegro, No. 60/11);
19. Rulebook on the Procedure for Establishing the System of Taking, Collecting and Treatment of Waste Batteries and Accumulators and System Operation (Official Gazette of Montenegro, No. 39/12, 47/12);
20. Regulation on Determining the Types of Pollutants, Value Limits and other Air Quality Standards (Official Gazette of Montenegro, No. 25/12);
21. Regulation on the Classification and Categorization of Surface and Underground Water (Official Gazette of Montenegro, No. 2/07);
22. Regulation on Projects for which Environmental Impact Assessment is required (Official Gazette of Montenegro, No. 20/07);
23. Regulation on the List of Dangerous Substances, Permitted Quantities and Criteria for Categorization of Hazardous Substances (Official Gazette of Montenegro, No. 5/11);
24. Regulation on the Activities that Affect or may affect the Air Quality (Official Gazette of Montenegro, No. 61/12);
25. Regulation on Maximum National Emissions of Certain Pollutants (Official Gazette of Montenegro, No. 3/12);
26. Declaration on the Method and Conditions of Waste Disposal (Official Gazette of Montenegro, No. 64/11);
27. The National Strategy of Sustainable Development of Montenegro by 2030.

3.1.3. National environmental regulation relevant for the project

- **Law on Environment (Official Gazette of Montenegro, No. 52/16)**

Law on Environment is regulating environmental protection and sustainable development principles, instruments and measures of environmental protection and other issues of importance for the environment.

- **Law on Environmental Impact Assessment (Official Gazette of Montenegro, No. 80/05, 40/10, 73/10, 40/11 and 27/13)**

Law on Environmental Impact Assessment (EIA) regulates the procedure of impact assessment for projects that might have a significant impact on the environment, content of environmental impact assessment, participation of interested authorities and organizations, and public, assessment and approval issuing procedures, notification on projects that might have a significant impact on the environment, supervision and other issues of importance for the assessment of environmental impacts.

Environmental impact assessment determines, describes and values possible direct and indirect impacts of planned project on:

- People's life and health, flora and fauna;
- Land, water, air, climate and landscape;
- Material goods and cultural heritage;
- Mutual element relations from item 1 to item 3.

Regulation is addressing:

- List 1. Projects for which the environmental impact assessment is considered as necessary;
- List 2. Projects for which the environmental impact assessment may be required.

Responsible authorities on national and local levels are deciding whether there is a need for environmental impact assessment or not. In case if EIA is mandatory prior to the start of the project, it should be fulfilled, procedures related to EIA completed and necessary ecological permit obtained from the authorities.

Authorization for the EIA preparation

A legal entity or an entrepreneur can prepare environmental impact assessment, if it is registered in the appropriate register for performing the activities of designing, engineering and assessing studies and analyzes. Relevant state institution (EPA-Environmental and Nature Protection Agency) or local institutions are in charge of the execution of environmental procedures. A legal entity and an entrepreneur may entrust EIA preparation to a multidisciplinary team composed of qualified experts who will analyze the impact of the project on certain important segments of the environment.

A person is qualified to analyze the impact of the project on certain essential segments of the environment if he/she holds a university degree and at least five years of work in the profession or title of a responsible designer or a corresponding scientific title. Licensing of persons who fulfill the conditions for work on the elaborate is done by the Chamber of Engineers of Montenegro.

Stages in the impact assessment process are following:

1. Decision on the need for environmental impact assessment;

2. Scope and content of the Environmental Impact Assessment (EIA);

3. Decision regarding issuing ecological permit.

EIA public discussion

The responsible institution in charge of EIA procedures is obliged to inform interested authorities and organizations and interested public about time and place of public insight into EIA, submission of remarks and opinions, as well as the time and place of holding a public discussion on the EIA within 10 days period from the date of receipt of the request for approval. Public discussion is organized and conducted by the competent authority. In the public debate, the project owner and at least one person who participated in the preparation of EIA are involved.

Commission for EIA Evaluation

In order to determine the scope and contents of the EIA and evaluation of the EIA, competent authority establishes a Commission for determination of the scope and content of the EIA and evaluation of the EIA. Environmental Impact Assessment Evaluation Commission shall be established from the employees of the competent authorities and other experts.

EIA Evaluation

Responsible authority shall, within seven days from the day of the public hearing, submit to the Environmental Impact Assessment Commission an EIA with review of observations and opinions during public insight and public hearing. Environmental Impact Assessment Evaluation Commission may require from project owner to make certain amendments in the submitted EIA.

The Project owner is obligated to act based on this request and Environmental Impact Assessment Evaluation Commission shall submit updated and supplemented drafts within the deadline set by the Commission.

If the project owner fails to comply with this request, Environmental Impact Assessment Evaluation Commission need to continue to operate based on the available documentation. Environmental Impact Assessment Evaluation

Commission need to submit the evaluation report to the competent body no later than 30 days from the date of receipt of the documentation.

Decision on approval

Based on the reports and the proposal of the decision of Environmental Impact Assessment Commission, responsible authority is deciding about issuing ecological permit or rejection on the request for approval of the EIA. Responsible authority is making a decision and submitting to the project owner within ten days from the date of receipt of the report and the proposal of the decision of Environmental Impact Assessment Commission. Responsible authority is obliged to inform interested parties, organizations and the public about the taken decision and to provide them for review:

1. Content of the decision and the conditions, if determined;

2. Reasons on which the decision is based, including the reasons for accepting or rejecting the received objections, proposals, opinions of interested bodies, organizations and the public;

3. If necessary, description of the most important measures that project owner obligated to take in order to prevent, eliminate, mitigate or recovery the harmful effects.

Realization of measures defined in EIA

Project owner is obligated to implement all the measures proposed by the EIA to which the consent was given.

Note: New Draft Law on EIA is prepared, public consultations conducted and could be adopted in a due time.

- **Law on Nature Protection (Official Gazette of Montenegro, No. 54/16)**

Law on Nature Protection regulates conditions and manner of nature protection and conservation.

- **Law on Waste Management (Official Gazette of Montenegro, No. 64/11)**

Law on Waste Management regulates types and classification of waste, planning, conditions and manner of waste management and other issues of importance for waste management.

- **Law on Water (Official Gazette of Montenegro, No. 27/07 and Official Gazette of Montenegro, No. 32 /11 and 47/11)**

This law regulates legal status and method of integral water management, water and coastal land and water facilities, conditions and manner of performing aquatic activities and other issues of importance for water and water management.

- **Law on Air Protection (Official Gazette of Montenegro, No. 25/10 and 40/11)**

This law regulates ways of monitoring of air quality, protection measures, assessment and improvement of air quality, as well as air quality planning and management. Air, as a natural value of general interest, is part of the environment and has special protection. Air protection from pollution by radioactive substances, genetically modified organisms, noise and natural disasters is regulated by special regulations.

- **Rulebook on the Treatment of Construction Waste Management, Manner and Method of Construction Waste Treatment, Conditions and Manners of Disposal of Asbestos Cement Waste (Official Gazette of Montenegro, No. 50/12);**

This Regulation is addressing treatment of construction waste, method and procedure for the processing of construction waste, conditions and method of disposal of cement asbestos waste and the conditions that the plant for the processing of construction waste need to fulfilled.

3.1.4. Relevant institutions for environmental protection

Relevant institutions for environmental protection in Montenegro are:

- Ministry of Sustainable Development and Tourism (MSDT);

MSDT carries out jurisdiction tasks in: integral spatial planning, management and valorization; sustainable development; realization of programs and projects of sustainable development; providing professional, organizational and administrative support to the work of the National Council for Sustainable Development (NCSD); strategic spatial and environment planning; preparing statial planning documents; giving opinions and approvals to the local spatial planning document; coastal zone; licensing for carrying out the activities of drawing up planning documents; conducting development and strategic policies in the field of civil engineering; development of tourism, catering, tourist offer, conditions of business in tourism, selective forms of tourism; connecting coastal and continental tourism; private sector development in tourism; the formation of tourist sites and areas; categorization and classification of tourist facilities; tourism flows on domestic and foreign markets; cooperation with tourist associations in Montenegro and abroad; sustainable valorization of the potential and ecological benefits of national parks and protected areas of nature from the aspect of tourism development; realization of investment programs of interest for sustainable tourism development; monitoring infrastructural projects in the function of tourism development; monitoring and promotion of investments in the tourism sector; coordination of activities for preparation and monitoring of tourist season; housing cooperatives; the policy of improving the housing stock; private-public partnership in housing; an integral system of environmental protection and sustainable use of natural resources; area of impact assessment and strategic environmental impact assessment, integrated pollution prevention and control; nature protection; air quality; climate change and approval and monitoring of projects that are implemented in the goal alleviating the effects of climate change; protection of the ozone layer; noise and vibration protection; chemicals; radiation protection (radioactive metering and ionizing radiation); non-ionizing radiation; soil protection from pollution; Integrated Coastal Zone Management; Integrated pollution protection; control of industrial pollution and risk management; the application of new and cleaner technologies; waste and wastewater management; system of communal activities; coordination of regional water supply systems; genetically modified organisms; development of standards of environmental protection; monitoring the environment; monitoring investments from the ministry; cooperation with international financial institutions and European Union funds in the area of environmental and communal activities; cooperation with non-governmental organizations; proposing current and development policy measures and analyzing their impact on the economic position of business entities and entrepreneurs; promotional activities; international cooperation and international agreements within the competence of the ministry; harmonization of domestic regulations within the framework of their jurisdiction with the legal order of the EU.

MSDT has following Directorates:

1. Directorate for Spatial Planning
2. Directorate for Construction
3. Directorate for Tourism Development and Standards
4. Directorate for Tourism Destination Management
5. Directorate for Housing Development
6. Directorate for Environment
7. Directorate for Waste Management and Utility Development
8. Directorate for EU Integration and International Cooperation
9. Directorate for Mediterranian Affairs and Climate Change

Directorate for Environment is responsible for: policies and systems for protection and improvement of the environment (air, land, sea, plant and animal life in the totality of mutual activity); development of strategies and other development documents, programs and projects in the field of environment; participation in harmonization of national legislation with EU environmental legislation; participation in the negotiation process for accession to the EU under Negotiation chapter 27 - environment and climate change; proposing systematic measures for the implementation of strategic documents, plans and programs in the field of environment; analyzing, observing, and evaluating the state of the environment.

- Environmental and Nature Protection Agency (ENPA);

The ENPA is the authority within the MSDT. The Agency performs activities related to: organization, planning and participation in environmental monitoring, including the proposal of a national list of indicators of environmental protection; participation in the monitoring of waste collection from ships; an analysis of the environment, phenomena and events that could endanger the environment and suggest and take measures to prevent and remedy them; reporting and co-ordination of reporting on the state of the environment as well as the occurrences and events of importance for the quality of the environment in accordance with the regulations; implementation of strategies and programs in the field of environmental protection; Ensuring the application and enforcement of environmental protection regulations; the execution of international treaties under the authority of this body; preparation of expert backgrounds for drafting regulations in the field of environmental protection; cooperation, communication and coordination with domestic and international organizations and institutions; keeping an information system in the field of environment; conducting cadastre of polluters; conducting the first instance administrative procedure in the areas of: air protection of pollution, climate change, protection of the ozone layer, ionizing protection radiation protection and safety of radioactive sources, non-ionizing radiation protection, chemistry, noise protection, genetically modified organisms, radiation protection, hazardous substances, waste management, strategic impact assessment and environmental impact assessment; issuing of integrated plant operating permits for which a special regulation has determined that they must have an integrated permit; issuing permits for the collection, use, cultivation, holding and trafficking of wild animal species; issuing permits for picking, collecting, using, cultivating, keeping and transporting wild species of plants and fungi; issuing licenses for scientific educational research on protected natural resources, speleological permits; issuing licenses for the circulation and use of radioactive materials and sources of ionizing radiation; issuing permits for import and export of substances that damage the ozone layer; issuing permits for cross-border movement of waste; issuing permission for waste collection installations in ports.

- Water Directorate;

Water Directorate carries out tasks related to: provision and implementation of measures and works on water and water management, protection against harmful effects of water and protection of water from pollution; securing the use of water, materials from watercourses, water and water facilities in the state property, through concessions, leases and so on. and making the documentation bases related to this; water management facilities for protection against harmful effects of water; conducting investment tasks, conducting professional supervision and quality control of the performed works; technical inspection and acceptance of completed works; issuing water licenses; calculation of fees payable in this area and attention to the purposeful and rational use of the funds raised on that basis in accordance with the government program; establishment and management of water information system, water cadastre, water register of importance for Montenegro and monitoring of natural and other phenomena in order to provide data for protection against harmful effects of water; preparation of expert bases for the adoption of regulations, plans and programs issued by the government or ministry responsible for water affairs; Determining the boundaries of water resources and determining the status of public water resources; the protection of water and water from unauthorized appropriation and use, professional training (counseling, courses, etc.), cooperation with relevant international organizations and institutions.

- Forestry Directorate;

Forestry Directorate carries out tasks related to: providing and improving the state of forests; forest management; measures and actions on care, regeneration, raising and melioration of forests (biological reproduction), separation of

seedlings; health inspection and control of the production of reproductive material of forest trees; provision of seed and planting material; measures and actions for the conservation of the natural and work-created values of forests, the prevention and elimination of the adverse consequences of all biotic and abiotic factors that endanger these values and the restoration of the existing condition; the protection of forests and forest land from the unlawful appropriation and use, fire and other; conducting the reporting - prognostic service; forest management planning, which is realized through the development of forestry programs and plans, execution plans and programs and plans for barking; sending trees, surveying and stamping of wood and issuing certificates on the origin of forestry assortments; providing forests in state ownership for use through contracts; monitoring of forest management measures, expert supervision and quality control of performed works; keeping records and databases for forestry (information system); use of hunting grounds of special purpose; professional training (counseling, courses, etc.), cooperation with relevant international organizations and institutions.

- Ecological Inspection;

Department for Ecological Inspection represents a unit of the Department of Spatial and Environmental Protection within the Administration for Inspection Affairs. The Division for Ecological Inspection performs the following tasks: inspection supervision over the application of laws, bylaws and other regulations in the field of environmental protection and chemicals; undertaking and executing administrative and other measures and actions in order to eliminate irregularities and to comply with the regulations; issuing misdemeanor orders, filing a petition for initiating misdemeanor proceedings, filing criminal and other relevant applications (initiating proceedings before the competent authorities); other regulations and general acts and proposing measures to improve the situation in this area of supervision; preparation of analyzes, reports and information from the department's scope of work; realization of cooperation with other administration bodies, institutions and business entities; as well as other tasks within the department's competence.

- Cultural Heritage Protection Administration (CHPA);

The Cultural Heritage Protection Administration performs tasks related to: research, study, documentation and recording of cultural goods; collection, expert processing and preservation of documentation on cultural goods; establishment of prior protection of objects, objects, sites and areas and other material goods for which it is believed to have cultural value; determining the cultural value of cultural goods; establishing the cultural heritage status and establishing permanent protection of cultural goods; continuous monitoring of the status of cultural goods and revaluation of their cultural value; Determining the reasons and issuing a decision on termination of the status of a cultural good; the formation of cultural heritage records; establishing and keeping registers of cultural goods in analogous and electronic form; establishment and management of the information system of cultural goods and its connection with other relevant information systems; cooperation with owners and holders of cultural goods and non-governmental organizations dealing with the protection of cultural goods; setting an interim old-fashioned cultural asset; giving opinions on the temporary export of cultural goods; aging about the cultural assets that have been introduced; the repatriation of cultural objects that have been unlawfully removed from the territory of the Member States of the European Union, the territories of other states and Montenegro; taking care of the timely return of temporarily presented cultural goods and determining the condition in which it was returned; determining the purpose and manner of use of cultural goods for the purpose of sustainable development and granting approval for the use of cultural goods for commercial purposes; the recording of objects, objects, locations, areas and other material goods that enjoy previous protection; issuing a permit for archaeological and conservation research; suspension of research and revocation of research approval; determining the value and status of random findings; making and conducting studies on the protection of cultural goods for the purpose of producing state and local planning documents; co-operation with preparatory workshops and scheduling processors; consideration and giving opinions on the draft document; giving consent to geological research in the vicinity of cultural goods; issuing conservation conditions and consenting to conservation projects; temporarily or permanently suspending the carrying out of conservative measures or carrying out works on a cultural asset; the reception of works performed on a cultural asset, after conservative measures have been taken; Suspension of works on cultural property carried out without or without the approved conservation project; providing expert assistance to owners and holders of cultural goods; performing

inspection supervision in relation to the status of cultural goods; the respect of established regime and the implementation of protection measures on cultural goods as well as the exercise of the rights and obligations of owners and holders of cultural goods.

- Municipal Police

Municipal Police performs tasks related to: public purity, transport and disposal of municipal and other waste; construction, maintenance and use of landfills; editing and maintenance of pots, cemeteries, parks, green and other public areas, public lighting, local roads and streets, traffic signs and signaling; passenger transport in urban and suburban line traffic; car taxis and extraordinary transport; the installation of temporary, auxiliary and montage objects of temporary character; housing in residential buildings; keeping pets; protection against noise in the environment; heat supply; working time controls; water management, water management, collection and discharge of atmospheric waters, carrying out activities in the area of exploration and deposition of river-based waterborne impacts.

Additionally, Montenegro has a list of accredited laboratories in charge of environmental monitoring and measurements. All presented institutions are responsible for implementation and control of implementation of the legislation related to environmental protection in Montenegro.

3.1.5. Health and safety at work

Ministry for Labour and Social Affairs articulates health and safety at work policy. Health and safety at work needs to provide working conditions that will not lead to work injuries, professional diseases and work related illnesses, and create preconditions for full physical and psychological protection of employees. Main legal documents related to health and safety at work in Montenegro (addressing project such as MEEP 2) are following:

1. Law on Health and Safety at Work (Official Gazette of Montenegro, No. 34/14);
2. Rulebook on the Use of Personal Protective Equipment and Equipment at Work (Official Gazette of Montenegro, No. 34/14);
3. Rulebook on the Manner and Procedure for Performing Previous and Periodical Specialist Medical Examinations of Workers (Official Gazette of Montenegro, No. 25/80, 1/81);
4. Rulebook on Health and Safety Measures at Works against Exposure to Noise (Official Gazette of Montenegro, No. 37/16);
5. Rulebook on Protection Measures at the Workplace (Official Gazette of Montenegro, No. 34/14);
6. Rulebook on Protection Measures during Using of Working Equipment (Official Gazette of Montenegro, No. 34/14);
7. Rulebook on Equipment and Procedure for First Aid and Organization of Rescue Service in the Event of an Accident at Work (Official Gazette of FRY, No. 15/65 and 28/66);
8. Rulebook on Protection Measures during Manual Transfer of Cargo (Official Gazette of Montenegro, No. 34/14);
9. Rulebook on the Manner and Procedure of Training Employees for Safe Work (Official Gazette of Montenegro, No. 79/04);
10. Rulebook on the Procedure and Deadlines for Conducting Periodic Examinations and Testing of Working Equipment, Working Equipment of Personal Protection at Work and Working Environment Conditions (Official Gazette of Montenegro, No. 79/04);
11. Rulebook on the Content and Method of Issuing the Report on Injury at Work (Official Gazette of Montenegro, No. 18/93);
12. Rulebook on the Manner and Procedure of Risk Assessment at the Workplace (Official Gazette of Montenegro, No. 79/04);
13. Rulebook on the Contents of the Study an Elaborate on the Arrangement of Construction Site (Official Gazette of Montenegro, No. 4/99);
14. Rulebook on the Conditions to be met by a Legal or Physical Person for the Performance of Professional Work for the Protection at Work and on the Procedure for Determining the Fulfillment of these Conditions (Official Gazette of Montenegro, No. 79/04);
15. Rulebook on Keeping Records in the Field of Safety at Work (Official Gazette of Montenegro, No. 79/04);
16. Rulebook on Protective Measures against the Danger of Electricity in Working Spaces and on construction sites (Official Gazette of Montenegro, No. 6/86 and 16/86);
17. Rulebook on Signs for the Health and Safety at Work (Official Gazette of Montenegro, No. 34/14);
18. Rulebook on Health and Safety at Work during Loading and Unloading of Cargo (Official Gazette of Montenegro, No. 13/88);
19. Rulebook on Measures and Norms of Safety at Work on Worktools (Official Gazette of FRY, No. 18/91);
20. Rulebook on Safety at Work in Construction (Official Gazette of FRY, No. 42/68 and 45/68).

Currently, The Law on Health and Safety at Work is subject of amending, whose adoption is expecting by the end of current year. Relevant institution responsible for enforcement of legislation related to health and safety at work is Inspection for health and safety at work, which is part of the Sector for Market and Economy Protection, Games of Chance, Public Procurement within the Administration for Inspection Affairs.

Energy efficiency improvement in buildings means a wide range of jobs that could endanger health and safety of workers who perform works and therefore all the above documents (complete Montenegrin legislation in this field) must be considered and applied on the site. Contractor is obliged to provide measures of protection by preventing, removing and controlling the risks at work, by informing and training of employees, with the appropriate organization and necessary resources.

The employer, in accordance with the scope of the activities, number of employees, organization and manner of work, rights, obligations and responsibilities of health and safety at work regulates by an act or contract concluded with an employee. This Act regulates in detail the rights, obligations and responsibilities of all employees; manner of performing professional works in the field of health and safety at work; the manner of determining and checking the health condition of employees working in jobs with special working conditions and other employees; the way of training and checking the qualifications of employees for safe work, the use of working equipment and equipment of personal protection at work, and other issues of importance for health and safety at work.

Health and safety at work system also includes Authorized organizations for health and safety at work tasks, those being legal or natural personal persons qualified in terms of human resources, organizational, technical and other conditions prescribed by the Ministry of Labour and Social Welfare for performance of the following tasks:

- Preparation of the risk assessment act with the proposed measures for their elimination;
- Periodic inspection and testing of work equipment, electrical and other installations and facilities and equipment for personal safety;
- Examination of the working conditions (chemical, physical and biological hazards, lighting and microclimate);
- Audit (assessment) of technical documentation in terms of applicability of health and safety at work measures, technical regulations and standards, establishing provision of protection to employees in facilities for which technical documentation was developed, for the work processes to be performed by them;
- Training and capability test for employees for safe and healthy work.

Employer is obliged to prepare a risk assessment act for all workplaces, determine the manner and measures for eliminating risks and ensure its implementation. In the Risk Assessment Act, the employer identifies workplaces with high risks, health conditions related requirements for a particular work that must be met by employees in the work process, or for the use of certain working equipment on the basis of an expert's assessment of the authorized institution for the health protection of employees.

Employer organizes and carries out expert works in the area of health and safety at work, based on the scope of the work process, number of employees participating in the work process, number of work hours.

For the purpose of performing this work, employer may:

1. Appoint an expert (health and safety specialist);

2. Organize an expert service for health and safety at work;

3. Engage legal entity or entrepreneur who has the authority to perform professional activities (in the field of health and safety at work).

Relying on previous practice and analyzing the types of work preforming during the retrofitting of the building in order to increase energy efficiency, the greatest danger to the health and safety of workers are: using of electricity and works at a height.

Usage of electricity

During execution of the building retrofitting works the best form of protection from the electricity is the use of mobile power tool (e.g. drill) on the principle of charging the battery in order to protect themselves from the dangers of e.g. electric shock. If there is no possibility to use such devices it is necessary to provide an electrical installation (temporary character) on the construction site. This electrical installation should be inspected and tested by an authorized firm working on health and safety at work and which has the authority from Ministry of Labour and Social Welfare to scrutinize temporary electrical installations on buildings and construction sites where the electricity is used. After testing is carried out inspection, an expert finds opinion has to be issued indicating that the installation is done according to the regulations required for this type of electrical installation, which means that these installations are safe for operation.

Work at height

Rulebook on Safety at Work in Construction (Official Gazette of FRY, No. 42/68 and 45/68) prescribes special measures and norms of safety work applicable to the execution of works in the field of construction (among other things work at height).

3.1.6. Spatial planning and construction of structures

Ministry of Sustainable Development and Tourism is the line ministry for spatial planning and construction of structures. The Law on Spatial Planning and Construction of Structures (Official Gazette of Montenegro, No. 64/17) regulates the system of space planning, the manner and conditions for construction of objects, the legalization of illegal buildings and other issues of importance for the planning and construction of objects.

Considering that the project includes energy efficiency improvement in public healthcare buildings, planned works can be considered as reconstruction or adaptation. In accordance to the Law, reconstruction include preforming of works on an existing building, where it will be performed: upgrade; repair of the damaged building; strengthening of the structure; replacement of installations, devices, plants and equipment, changes in the technological process and other works that effect on stability and security of the object; change constructive elements; changes the outside appearance of the building in relation to the main project; affects the environment and the safety of neighboring objects and traffic; changes the water regime; change the conditions of protection of natural and cultural heritage property, goods that have the previous protection and protection of its protected environment.

The planned works can also be considered, depending on the scope of works on particular site, as adaptation works where in accordance to the Law, adaptation is the execution of works on an existing object, which changes spatial organization of the building, replaces the equipment and installations, does not affect the stability and safety of the object, does not change the constructive elements, does not change the external appearance and does not affects the safety of adjacent buildings, traffic, fire and environment protection.

Registration of reconstruction works

The owner or holder of another right on the existing building or part of the building shall submit an application on the reconstruction works to the competent inspection body. The inspection supervision for reconstruction works is performed through the Department for Urban Planning and Construction Inspection, part of the MSDT. The application shall be prepared in accordance with Art. 89 (Inform the local public about the construction), Art. 91 (Construction condition) Art. 92 (Application submission) and Art. 93 (Investor obligations) of the Law on Spatial Planning and Construction of Structures. The competent inspection body is obligated to publish applications on the web site within one day from the day of submission the application.

The investor performs reconstruction based on an application for reconstruction and necessary documentation:

1. Main project certified in accordance with the law;

2. A report on the positive audit of the main project;

3. Proof of insurance from the responsibility of the designer who drafted or the auditor who oversaw the main project, in accordance with the law;

4. Contract for engagement of a contractor;

5. Contract for engagement of supervision;

6. Proof of the ownership right on the building or other right to construction.

The investor is obliged to submit application for reconstruction and the above documentation to the competent inspection within 15 days prior to the start of the reconstruction. Art. 95 of this Law defines obligations of supervisor and what contractor on construction site need to fulfill during reconstruction.

Supervisor is obliged to inform the investor in written form if the works are not carried out in accordance with the revised main project, the law and special regulations and/or order contractor to eliminate the identified defects within the determined deadline. If the contractor does not remove the deficiencies, expert supervision is obliged to inform relevant inspection in case if reconstruction of building does not meet requirements given in the Main design.

Professional supervision is obliged that in the final report about performed supervision, state correct conclusions about performed works on the construction of the object and give written statement that object is constructing in accordance with main project, law on spatial planning and construction of objects and special regulations, respectively that the object is suitable for use and that it can be used for specific purposes.

The investor is obliged to submit a request for registration in the cadaster of immovable property within 15 days from the date of receipt of the final expert supervision report. Maintenance of the building should be carried out based on the study for building maintenance.

Registration of adaptation works

The owner or holder of another right on the existing object or part of the facility is obliged to submit the application to the competent inspection body for the adaptation works. The person referred to in paragraph 1 of this Article, upon application, shall submit a description of the works he intends to perform. If the body referred to in paragraph 1 of this Article determines that the works mentioned in the application are considered as reconstruction of the facility, it is obliged that within 7 days from the date of receipt of the application, to warn the person referred to in paragraph 1 of this Article of the necessity of proceeding in accordance with Art. 89, 91 and 92 of this Law. The

competent inspection body is obliged to report the adaptation works referred to in paragraph 1 of this Article to the web site within one day of the filing of the application.

3.1.7. Cultural heritage protection

Ministry of Culture is in charge of the cultural and historical sites protection policy. Protection of cultural heritage in detail regulates The Law on Cultural Heritage Protection (Official Gazette of Montenegro, No. 49/10). The law regulates types and categories of cultural heritage, the manner of establishing the protection, a regime and measures of protection, rights and obligations of the owners of cultural heritage and other issues of importance for the protection and preservation of cultural heritage.

Cultural good can be: movable cultural good and non-material cultural good. Protection of cultural good is established by determining the previous protection and by determining of the status cultural good.

Cultural value of the immovable, movable and non-material heritage is determined by a professional body, of at least three members, formed by the Cultural Heritage Protection Administration (Art. 23 of the Law).

Cultural goods are registered in the register of cultural heritage managed by the Administration in an analogous and electronic form. The register is a public record that everyone has the right to inspect.

A protective sign for a cultural heritage marks immovable cultural heritage. Appearance and content of the protective sign and the manner of marking cultural property is prescribed by the Ministry of Culture. Each year, in accordance with the law, Government is presenting the Program of the Cultural Heritage Protection and Preservation.

In accordance with the mentioned Law, when performing construction, agricultural or any other works, and activities on land or in water occur on findings of archeological significance, the contractor (the accidental inventor) is obliged to:

1) terminate the works and to secure the site or part of the site with the findings against possible damage, destruction and unauthorized access of other persons;

2) immediately report the location, ie findings to the Cultural Heritage Protection Administration, the nearest public institution for protection of cultural heritage, the administration authority responsible for police affairs or the administration body responsible for marine security affairs in case of findings in the sea;

3) keep the detected objects at the place of destination in the condition in which they were found until the arrival of the authorized persons of the subjects referred to in item 2 of this paragraph;

4) provide all relevant information regarding the location and location of the findings at the time of disclosure of the circumstances under which they were discovered.

In accordance with the same Law, for the works performed on cultural heritage property, conservation measures have to be applied. The contractor of works on cultural heritage property is obliged to notify the Administration about the beginning of the works. The administration requests design of conservation project document, prior to the execution of works on cultural heritage property. For the design of conservation project document for the execution of works on cultural heritage property for which urban-technical conditions are not issued, the Administration, on the request of the owner or holder of the cultural property, issues conservation conditions. Conservation conditions

shall, depending on the type of cultural heritage property and the planned works, contain the type of conservation measure, and other conditions ensuring the authenticity and integrity of the cultural heritage property.

Conservation measures on cultural heritage goods are conservation, restoration, reconstruction, anastillosis, consolidation, remediation, adaptation and other works and activities that maintain or change the existing state of cultural heritage goods.

Conservation project is a technical documentation for the implementation of conservation measures on cultural heritage property. Conservation projects, depending on the type of cultural heritage property, may be created by public institutions for the protection of cultural heritage goods and other legal and natural persons who have a conservation license. Consent to the Conservation Project is given by the Adminiministration, at the request of the owner or holder of the cultural property. Prior to design a conservation project, all necessary research has to be carried out.

3.2. World Bank safeguard policies

A key document regulating WB environmental safeguard procedures is OP 4.01 Environmental Assessment, which is one of ten safeguard policies that the projects submitted for the Bank financing are to comply with. Depending on the project, a range of instruments can be used to satisfy the Bank's EA requirement: environmental impact assessment (EIA), regional sectoral EA, strategic environmental and social assessment (SESA), environmental audit, hazard or risk assessment, environmental management plan (EMP) and environmental and social management framework (ESMF). EA applies one or more of these instruments, or elements of them, as appropriate. When the project is likely to have sectoral or regional impacts, sectoral or regional EA is required.

Ten safeguard policies and the +1 policy on Access to Information represent the framework of safeguard mechanisms applied by the World Bank for the sake of interests of beneficiaries, clients, stakeholders and that of the Bank. Applying these policies allows avoiding adverse impacts on the environment and people's lives, minimizing and mitigating potential unfavorable environmental and social project impacts. The World Bank's environmental safeguards policies are:

1. Environmental Assessment (OP 4.01);
2. Natural Habitats (OP 4.04);
3. Pest Management (OP 4.09);
4. Physical Cultural Resources (OP 4.11);
5. Forests (OP 4.36);
6. Safety of Dams (OP 4.37);
7. Involuntary Resettlement (OP 4.12);
8. Indigenous Peoples (OP 4.10);
9. Projects on International Waterways (OP 7.50);
10. Projects in Disputed Areas (OP 7.60);
11. Access to Information.

Key objectives of 10+1 safeguard policies are to:

- Avoid negative impacts where possible; otherwise minimize, reduce, mitigate, compensate;
- Match level of review, mitigation and oversight to level of risk and impacts;
- Inform the public and enable people to participate in decisions which affect them;
- Integrate environmental and social issues into project identification, design and implementation.
- The main principles in application of the Bank's safeguards policies are:

- In case of discrepancy between the requirements of OPs and those of the national legislation norms, the more stringent ones will prevail;
- In case if there is a conflict between the OPs and the national environmental requirements, the World Bank's policies will prevail.

3.2.1. Safeguard policies related to this project

By its design, the MEEP 2 Project involves small scale construction activities for installation or replacement of energy efficient technologies and equipment under Component 1. Project is of limited scale, associated with minor environmental risks that can be easily mitigated during its implementation by application of good engineering practices. The EA will determine potential adverse and favorable environmental impacts of the project and will recommend measures to prevent, minimize, mitigate or compensate for adverse impacts and improve environmental indicators. Project will not have irreversible impacts and most likely will not impact cultural heritage sites. Besides that, project does not foresee any involuntary resettlement, as facilities and land where works will take place are public and state owned. Regarding to that, the following safeguard policies will be applicable to the project: (1) Environmental Assessment OP/BP 4.01; (2) Physical Cultural Resources OP/BP 4.11.

3.2.2. Safeguard policy OP 4.01 Environmental assessment (EA)

Major document regulating the WB environmental safeguard policy is OP 4.01 Environmental Assessment, which is one of ten safeguard policies that the projects submitted for the Bank financing are to comply with.

Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA. Bank classifies the proposed projects into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts.

Category A: Proposed project is classified as Category A if it is likely to have significant adverse environmental impacts that are sensitive, diverse or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works. EA for a Category A project examines the project's potential negative and positive environmental impacts, compares them with those of feasible alternatives (including the "without project" situation), and recommends any measures needed to prevent, minimize, mitigate, or compensate for adverse impacts and improve environmental performance. For a Category A project the borrower is responsible for preparing a report, normally an EIA (or a suitably comprehensive regional or sectoral EA).

Category B: Proposed project is classified as Category B if its potential adverse environmental impacts on human populations or environmentally important areas – including wetlands, forests, grasslands, and other natural habitats--are less adverse than those of Category A projects. These impacts are site-specific; few if any of them are irreversible; and in most cases, mitigation measures can be designed more readily than for Category A projects. The scope of EA for a Category B project may vary from project to project, but it is narrower than that of Category A EA. Like Category A EA, it examines the project's potential negative and positive environmental impacts and recommends any measures needed to prevent, minimize, mitigate or compensate for adverse impacts and improve environmental performance.

Category C: Proposed project is classified as Category C if it is likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C project.

Category FI: A proposed project is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts.

3.2.3. Safeguard policy OP/BP 4.11 Physical cultural resources

Physical cultural resources are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Their cultural interest may be at the local, provincial or national level, or within the international community. Physical cultural resources are important as sources of valuable scientific and historical information, as assets for economic and social development, and as integral parts of a people's cultural identity and practices. Bank assists countries to avoid or mitigate adverse impacts on physical cultural resources from development projects that it finances. The borrower addresses impacts on physical cultural resources in projects proposed for Bank financing, as an integral part of the environmental assessment (EA) process. When project is likely to have adverse impacts on physical cultural resources, the borrower identifies appropriate measures for avoiding or mitigating these impacts as part of the EIA process. These measures may range from full site protection to selective mitigation, including salvage and documentation, in cases where a portion or all of the physical cultural resources may be lost.

4. Project Review and Anticipated Environmental Impacts

MEEP 2 project is classified as a category B project due to limited adverse environmental impacts which are site specific, largely reversible and can be readily addressed through mitigation measures. Activities under Component 1 will involve retrofitting works and installment of energy efficient technologies and equipment. Sites chosen for EE retrofittings under MEEP 2 will be located in urban and/or semi-urban areas and not in sensitive ecosystems, and most probably will avoid areas of historical and cultural significance. Besides that, MEEP 2 is not likely to cause any significant adverse environmental and social impacts during construction and operation. Project brings benefits to the environment by contributing to reduction of GHGs emissions, thus mitigate climate change, reduction of other pollutants, coming from fossil fuel combustion for energy purposes, increasing energy savings and encouraging the promotion of the environmentally good practices. Moreover, most of associated impacts are temporary and limited to the construction phase. Operational phase of MEEP 2 impact will have a negligible footprint.

The screening process and impact identification of activities foreseen by the Project is going to be carried out against the baseline conditions identified in this document. The environmental sensitive areas, value/sensitivity of resources and receptors during any of the project phases shall be identified. In order to assess the impacts of activities, the following assessment criteria are used: type of impact (direct, indirect and cumulative impacts), duration of the impact (immediate and long – term), avoidance and reversibility. In assessing the level of impacts that the project activity would cause, the resultant impact of an activity's interaction with the legal, natural and/or social environments can be positive or negative. The above mentioned criteria should be used during environmental and social impact assessments of activities to be implemented under the Project Component 1 for every individual facility/operational site, once design stage starts.

4.1. Project positive impacts

During the construction phase important social positive impacts are increased economic activity, new employment and creation of green jobs through the engagement of construction companies a certain number of construction workers and procure equipment. The project activities contribute to the growth of resource productivity and the reduction of material resource consumption, as well as generate green investment. [9]

During the operation phase of the project, positive environmental impacts include improved energy efficiency of existing health institutions in whole country, which will contribute to:

- saving heat and electricity;
- decreasing the greenhouse effect;
- reduction of "light pollution" through upgrading of the lighting systems and

[9] Source: Developing Enabling Environment for Green Jobs and Enterprises in Montenegro, ILO, 2017

- projected introduction of renewable energy sources will contribute to sustainable “green” development.

Additionally, positive social impact includes improved working conditions for the employees in public health sector buildings, as well as improved comfort conditions for healthcare users. All these positive impacts are assessed as long-term and cumulative impacts.

4.2. Negative impacts of the project

Key project interventions refer to the rehabilitation of public health sector buildings all over the country. While the environmental impact of the project will be largely positive, some adverse impacts may be generated.

Construction and installation activities for retrofitting works under MEEP 2 are those whose potential environmental impacts have limited extent, temporary and reversible, and readily managed with good construction practices. All these impacts can be effectively prevented, minimized, or mitigated by including into the work contracts specific measures to be taken by contractors under close supervision of compliance. So, these impacts will be included in the design, planning and construction supervision process, as well as during the operation of the facilities, with the objective to prevent pollution and exhaustion of natural resources. In any case, for each subproject, environmental check-list and EMP will be prepared, to manage the potential impacts.

Potential adverse impacts of project implementation are mainly related to dismantling/construction works which may include:

- increased pollution due to dismantling /construction waste (direct, short-term, and unavoidable);
- generation of dust, noise, and vibration due to the movement of trucks and machinery (direct, short-term and unavoidable);
- associated risks due to improper disposal of debris, asbestos and asbestos-containing materials, or minor operational or accidental spills of fuel and lubricants from the trucks and machinery (direct, short-term and avoidable);
- slight increase in traffic during construction which may impact community (indirect, short-term and unavoidable);
- impact on workers and community health and safety during construction activities (cumulative, short-term and avoidable);
- improper reinstatement of construction sites upon completion of works (indirect, short-term and avoidable);
- possible negative impacts on buildings with cultural importance (indirect, short-term and avoidable);
- unsafe practices during operation of the building (indirect, short-term and avoidable).

Use of construction materials that are hazardous to human health (e.g., asbestos, asbestos contained materials) will not be permitted. Asbestos-contained materials waste will be collected, transported and finally disposed by applying special protective measures in accordance with the hazardous waste handling standards.

Possible impacts during operation phase of new equipment and facilities may include safety issues, air emissions due to burning of fossil fuel, production of solid waste.

The environmental screening process will include review in respect to physical cultural resources. In addition, cultural heritage/chance find procedures will be included in generic EMP and in all works contracts.

4.3. Site-specific environmental screening

As a part of the ESMF/EMPs, all project-supported activities for rehabilitation of the healthcare buildings would be subject to a site-specific environmental screening process. This process is based on identification of site-specific environmental impacts and uses a standardized appraisal format that includes, but is not limited to the reviewing of:

- potential environmental impacts, if any, caused by the project (disposal of waste from reconstruction works, waste handling, reconstruction noise and dust etc.);
- culture heritage status of the facility and/or any cultural assets that might be found in the place of construction, and
- potential pedestrian and vehicle traffic disruption and associated public safety risks.

All these potential adverse impacts will be mitigated by measures stipulated in the individual EMP that have to be developed for each subproject with the objective to prevent pollution and exhaustion of natural resources. So, each subproject EMP has to be focused on mitigation of the following impacts:

- To reduce dust, due to the demolition and reconstruction, well-know practices will be applied, such as board fencing, water sprinkling, covers of engines;
- Disposal of debris, reconstruction wastes, accidental spillage of machine oil, lubricants etc. will be stored within the work site;
- Inadequate handling of hazardous materials such as asbestos and paint will be minimized by enclosure of reconstruction sites;
- To reduce noise and vibration, works will be restricted during certain hours;
- Open burning and illegal dumping will not be permitted.
- Proper sites for earth/clay and sand disposal will be determined;
- Stock piling of reconstruction debris on site will be avoided and waste will be disposed of on a regular basis at the authorized dumping ground. Debris chutes will be provided to transfer debris from higher floors to the ground.

4.3.1. Energy efficiency, insulation and ventilation

Insulation should be tailored to the seasonal impacts of climate, internal thermal load, and characteristics of exposure. Vapor berries should prevent moisture intrusion in the roof insulation and outer wall cavities and using damp course.

Window location should be determined on view, ventilation, light, thermal gain, privacy control and interior space functions.

High-efficiency systems for heating domestic water (including solar systems) and for interior space heating should be selected with maintenance and long term running costs in mind.

Plumbing should be coordinated to minimize plumbing and also water service to toilets and utility rooms. Water - saving faucets, ring mains and other devices also require consideration. Construction materials will conform to national regulations and internationally accepted standards of safety and environmental impacts.

4.3.2. Electrical systems

Incoming cables should be located under ground. Main entrance feed and panel located away from places of work and waiting areas is prudent in avoidance of electromagnetic fields. Ground faulty wiring near any plumbing fixture is a recommended precaution. Selecting the most energy efficient light fixtures, lamps, appliances and equipment will reduce energy demand but can introduce undesirable electromagnetic fields. Close proximity to table, floor and desk halogen, fluorescent and other high-efficiency fixtures and lamps can cause an exposure to harmful electromagnetic fields.

4.3.3. Demolition works

Existing building elements (walls, foundations, cement slabs, old fuel tanks, machinery rooms etc.) should be carefully demolished and the debris should be sorted and removed as directed by the EMP (to be fully developed during the desing stage for each facility within the project). All valuable materials (doors, windows, sanitary fixtures etc.) should be carefully dismantled and transported to the storage area assigned for the purpose. Valuable materials should be recycled within the project or sold.

4.3.4. Selection of construction materials and construction methods

Environmentally sound materials and equipment should be selected. Priority should be given to the products which are meeting standards with recognized international or national symbols. Traditionally well-tried materials and methods should be chosen before new and unknown techniques. Construction sites should be fenced off in order to prevent entry of public, and general safety measures should be imposed. Temporary inconveniences due to construction works should be minimized through planning and coordination with contractors, neighbors and authorities. In densely populated areas, noisy or vibration generating activities should be strictly confined to the daytime, in accordance with the national legislation.

4.3.5. Handling of waste

Handling of reconstruction debris will be done according to national regulations, and as specified in the EMP, and described above under site considerations. Monitoring will be the responsibility of site supervisors. In all the specific cases for which contractors should demolish or remove asbestos-containing materials, these categories of works should be done only with qualified personnel and fully in line with the specific legislation related to this specific field.

In Montenegro, the use of asbestos is banned since 2013, through the Regulation on Prohibition and Restrictions of Use, Placing on the Market and Production of Chemicals which represent Unacceptabe Risk for Public Health and Environment (Official Gazette of Montenegro, No. 49/13).

Good practice is to minimize the health risks associated with Asbestos-Containing Materials (ACM) by avoiding their use in new construction and renovation, and, if installed asbestos-containing materials are encountered, by using internationally recognized standards and best practices to mitigate its impact. In all cases, World Bank expects borrowers and other clients to use alternative materials wherever feasible.

ACM must be avoided in new construction. In reconstruction, demolition, and removal of damaged infrastructure, asbestos hazards must be identified and a risk management plan adopted that includes disposal techniques and end-of-life sites.

Any asbestos product or material that is ready for disposal is defined as asbestos waste. Asbestos waste also includes contaminated building materials, tools that cannot be decontaminated, personal protective equipment and damp rags used for cleaning. Always this type of waste must be treated as 'Hazardous Waste'. In this regards, ACM and asbestos waste must be properly removed, stored in a separate closed area and disposed (with the consent of local administration and environmental inspectors). Rulebook on the Treatment of Construction Waste Management, Manner and Method of Construction Waste Treatment, Conditions and Manners of Disposal of Asbestos Cement Waste (Official Gazette of Montenegro, No. 50/12) shall be applied in case of ACM treatment. Removal, repair, and disposal of ACM shall be carried out in a way that minimizes worker and community asbestos exposure to the special area for disposal of that type of waste.

During reconstruction works, workers must avoid destroying asbestos sheets and properly dispose them at construction sites until final disposal happens. Workers must wear protective over garment, gloves and respirators during work with asbestos sheets, in accordance with The Rulebook on Safety Measures from Risk of Exposure to Azbest (Official Gazette of Montenegro, No. 14/17).

5. General Baseline Conditions of the Project Area

Montenegro is taking great effort to reach good environmental standards. Montenegro is signatory party of many environmental international conventions, such as CBD, UNCCD, UNFCCC, Archus Convention, Basel Convention on the control of transboundary movements of hazardous wastes and their disposal, Vienna Convention for the protection of the ozon layer, European Landscape Convention, Convention on biodiversity, Convention on international trade in endangered species of wild fauna and flora, Convention on nuclear security, Open sea Convention, Chemical weapons Convention, Convention for Danube protection, Convention on world cultural and natural heritage, International Convention on flora protection, Ramsar Convention on wetlands.[10]

A set of environmental laws adopted during the last decade contributed to Montenegro to get closer in the process of meeting desired environmental standards. Standards of good environmental practice are applied throughout the country, and progress is particularly visible within the energy sector, also due to the fact that different International Financing Institutions (IFI), which implemented strict environmental systems, financed several projects. However, there is still a lot of work to be done regarding environmental protection in Montenegro and this chapter is focused on issues most commonly present in these fields, which lead to environmental degradation.

5.1. Physical environment

Despite its size the environment of Montenegro is very diverse. Reasons for this comparative richness include: variety of climate, topography, and geology and the long-term ecological and evolutionary history of the region as a biological crossroads. Varied ecosystems of Montenegro in turn give rise to a diversity of valuable ecological processes. Forests are the most extensive ecosystem in Montenegro. Natural forests cover approximately 45% of territory of Montenegro which makes it one of the most forested countries in Europe. Montenegro is also rich in species. The Balkan Peninsula is the most species-rich part of Europe for flowering plants and Montenegro is among the most diverse parts of the Balkan Peninsula.

In general, Montenegro has a number of different types of ecosystems of particular environmental importance, including: forest ecosystems representing different types of forests; high mountain regions with characteristic mountain ecosystems well-represented or preserved, some of which are found on borders and would require trans-boundary management efforts; mountain regions in which traditional human activities have maintained and even increased biodiversity through centuries of maintaining the open pastures of mountain meadows; gorges and canyons that have been identified as important centers for relict and endemic species; coastal area, as well as lakes, wetlands swamps, marshes, ponds which provide key habitat for migratory birds from elsewhere in Europe and have been identified as wetlands of the Ramsar Convention; karst regions in parts of Montenegro, with their numerous caves and pits, supporting a rich fauna; and mountain bogs around mountain and glacial lakes.

5.1.1. Soils

Soil is surface layer of the earth's crust. In Montenegro, due to the natural factors of climate, geological background, relief, vegetation and man, various lands were formed. The following types of soil are distinguished:[11]

[10] Source: GreenHome: http://www.greenhome.co.me/index.php?IDSP=280&jezik=lat

[11] Mapping and typology of Montenegro (IFB No: MNE-LAMP-7647ME-NCB-TS-13-B.1.11.3)

- Rocky (Litosol) and sirozem (regosol), with an area of 38,470 ha, are initial land on compact rocks and worn out regolith;

- Limestone-dolomite black soil (Kalkomelanosol), area of 660.000 ha, is the most widespread land in Montenegro;

- Rendzina, area of 31,205 hectares, similar to limestone black soil by profile construction and properties, but it is formed on a loose carbonate substrate. It contains more skeletons than black soil.

- Humus silicate soil (Ranker), insignificant areas (6,825 ha), because it is formed on silicate substrates above 1500 m above sea level. It is characterized by a highly acidic reaction and high humus content;

- Brown sour soil (Distric cambisol), with an area of 394,825 ha, comes to the second place, most widespread in north-eastern Montenegro;

- Brown land (Eutric cambisol), with an area of 118,275 ha, occupies the lowest parts of the river valleys (old river terraces), basins and karst fields;

- Brown soil on the limestone (Kalko kambisol), about 35.000 ha, is a transitional form between limestone chernozem in red soil;

- Red soil (terra rossa) area of 84,000 ha, distributed in the Montenegrin coast in the basin of the Skadar Lake to about 500-600 m above sea level;

- Deluvial, alluvial and swampy lands, about 43,500 ha, occupy the lowest terrain, the foot of the hills and alluvial flat along the watercourses and the coast of the Sasko, Plavsko and Skadar Lake.

A distinctive feature of Montenegro is terra rossa in its coastal area. This red soil, a product of the weathering of dolomite and limestone rocks, is also found in depressions in the Karst. Mountainous areas above the plateaus have typical gray-brown forest soils and podzols. Due to the natural factors of climate, geological background, relief, vegetation and man, various lands were formed.

Implementation of monitoring, ie. continuous monitoring of state changes in land, agricultural and non-agricultural, is one of the most important measures of protection and conservation of the land, as one of the most important natural resources. Results of soil samples (according to Program for testing of harmful substances in the land of Montenegro) for several years, shown good results on predicted locations when it comes to content:

- dangerous and harmful substances,
- toxic and carcinogenic substances,
- dioxins and furans.[12]

[12] Report on the state of the environment in Montenegro for 2015

5.1.2. Air quality

Permanent monitoring of the air quality is carried out by The Hydrometeorology and Seismology Institute (ZHMS) laboratory, in accordance with the Law on Hydrometeorological Affairs (Official Gazette of Montenegro, No. 26/10), Regulation on the Organization and State Administration Mode of Operation (Official Gazette of Montenegro, No. 59/09) and the program of the World Meteorological Organization (WMO) where Institute has been a full member since 2007. The program scheme is within the scope of the program harmonized with the needs of the national and international programs and it is carried out every year. Also, the authorized laboratory Center for eco-toxicological research (CETI) carries out part of the air quality tests for the ENPA needs. Reports of the measurements and operation of the monitoring network at the monthly level can be found on the ENPA website.

The main goal of testing is control and evaluation of the air pollution level in the lower layer of the atmosphere, following of changes of the state pollution, the impact of local and regional emission sources correlated with meteorological conditions. In addition, obtained data serve as the base for the preparation of studies, projects, spatial plans, then for evaluation the impact of pollution from the atmosphere on terrestrial ecosystems, drinking water and irrigation water, agricultural land, cultural and material assets, construction and other materials, primarily on human health.

Basic network of air quality monitoring includes 17 stations.[13] In addition to physicochemical parameters, these stations measure necessary climate parameters of the ground air layer, in standard synoptic terms. The area of Podgorica is covered with two stations for air quality and one station for rainfall quality. All stations that were in operation (during 2017) had a very high degree of measurement realization, over 270 data per year, that fulfilling the statistical condition for the validity of relevant parameters. Followed parameters of air quality in Montenegro are: SO_2, NOx, PM_{10}, CO, $PM_{2.5}$, O_3, heavy metals (lead, cadmium, arsenic, and nickel), smoke and soot.

5.1.3. Surface and ground-water/hydrology

Montenegro's surface runoff in the north is carried away by the Lim and Tara river systems, which enter the Danube via the Drina River, which forms the border between Bosnia and Herzegovina and Serbia. In southern Montenegro, streams flow toward the Adriatic. Much of the drainage of the karstic region is not on the surface but travels in underground channels.

Lake Skadar, the country's largest lake, lies near the coast and extends across the international border into northern Albania. It is 40 km long and 16 km wide, with a total surface area of 360 km^2, and some three-fifths of it lies within Montenegrin territory. The lake occupies a karstic polje depression, the floor of which lies below sea level. Montenegro's mountainous regions are noted for their numerous smaller lakes.

Systematic testing of the quality of surface and groundwater is carried out in accordance with the Program for systematic testing of water quantity and quality, adopted by the Ministry of Agriculture and Rural Development (MARR). Testing is performed by the ZHMS laboratory. The program defines a network of stations for water quality, as well as the scope, type and frequency of water quality tests. In accordance with the program, the following tests carry out:

- Testing of water from watercourses;

[13] Annual report on the air quality and precipitation in Montenegro in 2014, IHMS

- Testing of water quality from natural accumulation - lakes;
- Water quality testing of the coastal sea;
- Testing the quality of underground waters.

Systematic testing of surface and groundwater quality is carried out in the water quality network and includes sampling, physico-chemical, biological-microbiological and hydrobiological analyzes of water, with the aim of determining relevant water quality indicators. Sampling of the water area of the water course for hydrobiological (saprobiological) analysis are carried out 2-3 times per year, in accordance with the dynamics of the ecological cycle in the tested mediums. Extended physical-chemical and biological analysis of samples, in accordance with the Program, are performed in the central laboratory of the sector.

The greatest sources of pollution of surface and groundwater are communal wastewater. There are also some impacts on water pollution, such as agricultural activities, industry, food industry above all, small and medium-sized companies, as well as the traffic.

As the largest point sources of pollution has identified: the urban waste water and industrial waste water. In addition to these sources of pollution, the most important are scattered sources, such as: rural settlements, agriculture, forestry, improperly arranged landfills, traffic.

Evaluation of the quality of surface and groundwater quality performs on the basis of the relevant water quality indicators, in accordance with the decree of classification and categorization of waters in Montenegro. Water classifies according to its purpose and categorized by prescribing the limit values of water quality indicators.

By general classification of waters, water is classified in classes based on the permissible limit values of certain groups of parameters, for certain purposes.

According to its purpose waters can be classified on water which can be used for:

- drink and food industry;
- fishing and shellfish farming;
- bathing (except pool water and water used for therapeutic purposes).

Waters which can be used for drinking and the food industry are classified in four classes, and that:

1) class A-water which, in the natural state, with eventual disinfection, can be used for drinking;

2) class A1- water which can be used for drinking after simple physical treatment and disinfection process;

3) class A2- water which can be used for drinking after an appropriate conditioning (coagulation, filtration, disinfection);

4) class A3- water which can be used for drinking after treatment which requires intensive physical, chemical and biological treatment with prolonged disinfection and chlorination, ie coagulation, flocculation, decantation, filtration, absorption on activated carbon and ozone or chlorine disinfection.

Classification of waters in the classes parforms based on their natural characteristics, ie the limit values of the quality indicators (50 parameters) defined in the Decree on the classification and categorization of surface and groundwater (Official Gazette of Montenegro, No. 2/07).

Water which can be used for fishing and shellfish farming are classified in classes, and that:

1) class S- water which can be used for the cultivation of noble fish species (salmonids);

2) class Š- water which can be used for shellfish farming;

3) class C- water which can be used for the cultivation of less noble species of fish (cyprinids).

Waters which can be used for bathing are classified in two classes, and that:

1) class K1- excellent,

2) class K2- satisfactory.

The quality class K1 in terms of quality fulfillment must meet the quality of water class A1, and water of class K2 to meet the quality of water class A2.

Waters can be classified into the following classes:

- General water quality: Class A1, A2 and A3;
- Bathing water: 1st and 2nd class;
- Water for fish and shellfish farming: S, C, Š.

Relevant values of the water quality indicators obtain based on the results of the measurements, on the following way:

1. If over 24 measurements were made during the year, the relevant value is 95-percentile of the measurement results;

2. If less than 24 measurements are made during the year, the relevant value is obtained as the arithmetic mean of the two most unfavorable observed values.

5.2. Biological environment

One-third of Montenegro, principally in the high mountains, remains covered with broad-leaved forest. However, bare rock characterizes most of the southern Karst zone, where soils generally are absent. This area remained forested through Classical times, with oaks and cypresses predominating, but removal of forests for domestic fuel and construction led to widespread soil erosion and, ultimately, to replacement of the woodlands by the Mediterranean scrub assemblage known as maquis.

5.2.1. Flora and Fauna

Sparsely populated Montenegro is noted as a habitat for numerous mammals, including bears, deer, martens, and wild pigs (Sus scrofa). It has many predatory wild animals, including wolves, foxes, and wildcats. The country also has a rich variety of birds, reptiles, and fish.

So far, research has shown that the area of Montenegro is one of the important centers of biodiversity in Europe (according to the richness of species of flora and fauna and the diversity of ecosystems, it is one of the leading countries in Europe).

Large number of various ecosystems are spread in the territory of Montenegro: [14]

- Different elements of flora and fauna from Submediterranean thermophilic vegetation, through mesophilic, xerophilic or frigorific deciduous forests, to coniferous forests with different biological species;
- On mountain massifs it is developed high-mountain vegetation with elements of the alpine-highland region. Significant contribution to the high level of biodiversity is given by freshwater and marine ecosystems;
- Almost all terrestrial biomes of Europe are displaced, within which a large number of azonal and intrazonal types of ecosystem are widespread;
- Potential vegetation involves several different phytogeographical regions;
- Special value of biodiversity consists of endemic and relict species and ecosystems that are limited in their distribution only to this territory, and therefore are of global importance;
- Approximately 20% of the total flora belongs to endemic and subendemic plants, of which endemic are widespread only in this or their areal find in small number in the territories of neighboring republics and states;
- Biogeographic position is on the main migration routes of a large number of migratory animal species on the way from continental Europe towards the Mediterranean and further to Africa and Asia has been conditional in the large part of the year the presence of these species, many of which are of international significance;
- Based on available data, it has been found that from 3,250 species of vascular flora, about 20% are endangered, of which only some species have completely disappeared (Ephedra major);
- Invertebrate fauna, since all ecosystems are inhabited, is practically exposed to all the negative effects of human activities, and especially the various forms of pollution of air, water and soil;
- Status of vertebrate fauna, in particular individual taxonomic groups, is more than unsatisfactory with a prominent tendency of further deterioration;
- According to incomplete data, in the category of disappeared species of birds, from this territory, it can be close to 10%, while locally, for smaller areas, these percentages have reached extremely high values.
- Regardless of the extremely high diversity, recent vegetation, and therefore the ecosystems, are today greatly endangered. Degree of vulnerability of certain vegetation forms - ecosystem is not the same and depends primarily on the type and intensity of anthropozoogenic pressure, the spatial position and economic interest of man for their exploitation.

[14] Mapping and typology of Montenegro (IFB No: MNE-LAMP-7647ME-NCB-TS-13-B.1.11.3)

5.3. Socio-economical environment

The country's names, both Montenegro (from Venetian Italian) and Crna Gora denote Black Mountain, in reference to Lovćen Mountain (1,749 metres), its historical centre near the Adriatic Sea and its stronghold in the centuries of struggle with the Turks. Alone among the Balkan states, Montenegro was never subjugated. The old heartland of Montenegro, in the southwest, is mainly a karstic region of arid hills, with some cultivable areas—e.g., around Cetinje and in the Zeta valley. The eastern districts, which include part of the Dinaric Alps (Durmitor Mountain), are more fertile and have large forests and grassy uplands. The drainage system of Montenegro flows in two opposite directions. The Piva, Tara, and Lim rivers follow northerly courses, the Morača and Zeta rivers southerly ones.

5.3.1. Socio-cultural, institutional, historical and political context

Montenegro's history began in the early middle ages into the early Roman Province of Dalmatia that makes up modern-day Montenegro. In the 9th century, there were three principalities in Montenegro: Rascia to the north, Travinua to the west, and Duklea roughly corresponding to the southern half. A revolt led by Stefan Vojislav took place in 1042 and it led to the independence of Duklja and the creation of the Vojislavljevic dynasty. Duklja reached its peak under Mihailo, Vojislav's son, in period (1046 – 1081), and his grandson (1081 – 1101). By the 13th century Duklja was referred to as Zeta, and in the 14th century Zeta, southern Montenegro, came under the governorship of the Balšić noble family, which was then succeeded by the Crnojević noble family. By the 15th century, Zeta was mostly referred to as Crna Gora. From 1496 to 1878, most portions of Montenegro were controlled by the Ottoman Empire and a few others controlled by Venice. Between 1515 and 1851, Cetinje was ruled by prince-bishops, and the House of Petrović-Njegoš was in power until 1918. Since 1918, Montenegro had been a section of Yugoslavia and it was through the independence referendum held on 21st May 2006 that Montenegro was able to declare its independence on 3rd June of the same year.

In the 1940s about seven-eighths of Montenegrins were classified as rural, but over ensuing decades this proportion changed dramatically. By the early 21st century less than two-fifths of the population lived in rural areas. Montenegrin villages are found mainly in the polje depressions of the Karst. Houses are most often constructed of stone, frequently without mortar. Montenegro is composed of 23 municipalities (Andrijevica, Bar, Berane, Bijelo Polje, Budva, Cetinje, Danilovgrad, Gusinje, Herceg-Novi, Kolašin, Kotor, Mojkovac, Nikšić, Petnjica, Plav, Plužine, Pljevlja, Podgorica, Rožaje, Šavnik, Tivat, Ulcinj, Žabljak). The largest town is Podgorica and the town of Cetinje is the country's Old Royal Capital.

Montenegro is a multiethnic state in which no ethnic group forms a majority. Major ethnic groups include Montenegrins and Serbs, others are Bosnian, Albanians and Croats. The number of Montenegrins and Serbs fluctuates widely from census to census due to changes in how people perceive, experience, or choose to express, their identity and ethnic affiliation.

The official language in Montenegro is Montenegrin. Also, Serbian, Bosnian, Albanian and Croatian are recognized in usage. All of these languages, except Albanian, are mutually intelligible. According to the 2011 census, most citizens declared Serbian as their mother tongue. Montenegrin is the majority mother tongue of the population under 18 years of age. Previous constitutions endorsed Serbo-Croatian as the official language in SR Montenegro and the Serbian language during the 1992–2006 period.

Montenegro has been historically at the crossroads of multiculturalism and over centuries this has shaped its unique form of co-existence between Muslim and Christian population. Montenegrins have been, historically, members of the Serbian Orthodox Church (governed by the Metropolitanate of Montenegro and the Littoral), and Serbian

Orthodox Christianity is the most popular religion today. The Montenegrin Orthodox Church was recently founded and is followed by a small minority of Montenegrins although it is not in communion with any other Christian Orthodox Church as it has not been officially recognized.

During the intensified tensions between religious groups during the Bosnian War, Montenegro has remained fairly stable, mainly due its population having a historic perspective on religious tolerance and faith diversity. Religious institutions from Montenegro all have guaranteed rights and are separate from the state. The second largest religious denomination religion is Islam, which amounts to 19% of the total population of the country. One third of Albanians are Catholics (8,126 in the 2004 census) while the two other thirds (22,267) are mainly Sunni Muslims; in 2012 a protocol passed that recognizes Islam as an official religion in Montenegro, ensures that halal foods will be served at military facilities, hospitals, dormitories and all social facilities; and that Muslim women will be permitted to wear headscarves in schools and at public institutions, as well as ensuring that Muslims have the right to take Fridays off work for the Jumu'ah (Friday)-prayer. There is also a small Roman Catholic population, mostly Albanians and Croats.

The Constitution of Montenegro describes the state as a civic, democratic, ecological state of social justice, based on the rule of Law. Montenegro is an independent and sovereign republic that proclaimed its new constitution on 22nd October 2007.

The President of Montenegro is the head of state, elected for a period of five years through direct elections. The President represents the country abroad, promulgates laws by ordinance, calls elections for the Parliament, proposes candidates for Prime Minister, president and justices of the Constitutional Court to the Parliament. The President also proposes the calling of a referendum to Parliament, grants amnesty for criminal offences prescribed by the national law, confers decoration and awards and performs other constitutional duties and is a member of the Supreme Defense Council.

Government of Montenegro is the executive authority of Montenegro. Parliament of Montenegro is a unicameral legislative body. It passes laws, ratifies treaties, appoints the Prime Minister, ministers, and justices of all courts, adopts the budget and performs other duties as established by the Constitution. Parliament can pass a vote of no-confidence in the Government by a simple majority. One representative is elected by 6,000 voters. The present parliament contains 81 seats, with 39 seats held by the Coalition for a European Montenegro after the 2012 parliamentary election.

5.3.2. Demography (including gender, age, health and mortality, education, marital status, household size etc.)

According to the official data Montenegro has 620,029 population whereas 49.4% are men while 50.6% women in 2017 (Monstat, 2017). Based on Census 2011 there were 192,242 households in Montenegro with 3.2 household members in average. Greatest percentage of households are situated in the Capital Podgorica (30%). Figure 2. presents average number of household members in municipalities.

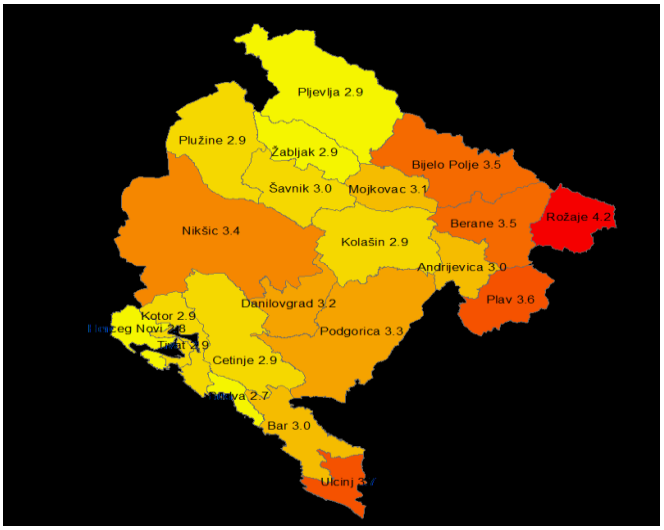

Figure 2. Average number of household members in municipalities (Source: Monstat, Census 2011)

As obvious in Table 3, population analysis by age is showing that greatest percentage of the total population are inhabitants age 60 and over which represents 18.3% of the total population.

Table 3: Population by age group and gender

	TOTAL	Male population	Female population
Age	620,029	306,236	313793
0-4	38,950	20,361	18,589
5-9	38,430	20,016	18,414
10-14	41,371	21,389	19,982
15-19	44,093	22,815	21,278
20-24	42,816	22,084	20,732
25-29	45,793	23,299	22,494
30-34	44,495	22,188	22,307
35-39	41,879	20,523	21,356
40-44	40,496	20,136	20,360
45-49	43,089	21,401	21,688
50-54	43,613	21,817	21,796
55-59	41,223	20,509	20,714
60-64	34,196	15,941	18,255
65 and over	79,337	33,665	45,672
Unknown	248	92	156

Source: Monstat, Statistical Yearbook 2017 (http://monstat.org/userfiles/file/publikacije/godisnjak%202017/4.pdf)

In comparison with the total number of population aged 10 and over, 1.5% of the population is illiterate, while comparing the gender and the total number of illiterate population it can be seen that 80.1% are women while 19.1% are men. Table 4 presents population aged 10 and over by literacy, gender and age groups according to Census 2011.

Table 4: Population aged 10 and over by literacy, gender and age groups according to Census 2011

		Illiterate			Illiterate population %
	Population aged 10 and over	Total	Male	Female	
TOTAL	542,649	8,149	1,559	6,590	1.5

10-19	85,464	673	322	351	0.8
20-34	133,104	882	345	537	0.7
35-64	244,496	1,745	485	1,260	0.7
65 and over	79,337	4,817	403	4,414	6.1
Unknown	248	32	4	28	12.9

Source: Monstat, Statistical Yearbook 2017 (http://monstat.org/userfiles/file/publikacije/godisnjak%202017/4.pdf)

Analysis of recent demographic indicators is showing that natality rate in 2016 was 12.2%, mortality rate 10.4% while general life expectancy was 76.6 years. Basic demographic indicators can be seen in Table 5.

Table 5: Basic demographic indicators

	2012	**2013**	**2014**	**2015**	**2016**
Rates					
Natality	12	12	12,1	11,9	12,2
Mortality	9,5	9,5	9,7	10,2	10,4
Natural increase	2,5	2,5	2,4	1,7	1,8
Marriages	5,3	6,2	5,7	6,2	5,1
Divorces	0,8	0,8	0,9	0,9	1,1
Infant deaths per 1000 live births	4,4	4,4	4,9	2,2	3,4
Under five mortality rates	5,6	5,1	5,7	3,1	3,8
Vital index of live births per 100 deaths	126	126,3	125,2	116,7	117,1
Masculinity rate					
Live born	108,9	107,8	110,2	109,9	103,5
Dead	102,2	108,6	108,7	102,8	109,9
Dead infants	106,3	175	208,3	133,3	73,3
Life expectancy					
Total	76,4	76,6	76,4	76,5	76,6
Male	74,3	74,1	73,9	74,7	74,2
Female	78,4	79	78,9	78,6	79

Source: Monstat, Statistical Yearbook 2017 (http://monstat.org/userfiles/file/publikacije/godisnjak%202017/4.pdf)

Highest enrollment rates are present in primary education and lowest in higher education. On the other hand, number of students on postgraduate studies and specialist studies increased and it was the highest in 2016/2017 comparing with other school years. The same stands for PhD studies as well. Table 6 shows enrollment rates in primary, secondary and higher education

Table 6: Enrollment rates in primary, secondary and higher education

	Enrollment rate in primary schools			**Enrollment rate in secondary schools**			**Enrollment rate in higher education**		
School year	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**	**Total**	**Male**	**Female**
2014/2015	98.55	98.5	98.6	86.49	86.53	86.46	34.28	30.94	37.85
2015/2016	98.14	98.52	97.71	84.87	84.74	85.01	35.41	31.98	39.06
2016/2017	99.01	99.18	98.83	84.99	84.93	85.05	34.53	30.48	38.85

Source: Monstat, Statistical Yearbook 2017 (http://monstat.org/userfiles/file/publikacije/godisnjak%202017/20.pdf)

When analyzing general public health and diseases it can be seen that respiratory infections are most common contagious diseases among the population and its number increased in 2016 for 39% comparing with 2015. Table 7 presents registered cases of contagious diseases.

Table 7: Registered cases of contagious diseases

	2015		2016	
	Infected	**Dead**	**Infected**	**Dead**
Intestinal infections	1479	/	1389	3
Respiratory infections	5124	/	7123	1
Veneral diseases	62	/	72	/
Vector diseases	8	/	17	/
Antropozoonosis	40	/	25	/
Parasitic and mycosis diseases	1092	/	1073	/
Other diseases	71	/	57	/

Source: Monstat, Statistical Yearbook 2017 (http://monstat.org/userfiles/file/publikacije/godisnjak%202017/24.pdf)

5.3.3. Economy & employment

Montenegro's economy is transitioning to a market system. From the beginning of the privatization process in 1999 through 2015, around 85% of Montenegrin state-owned companies have been privatized, including 100% of banking, telecommunications, and oil distribution. Tourism brings in twice as many visitors as Montenegro's total population every year.

Several new luxury tourism complexes are in various stages of development along the coast, and a number are being offered in connection with nearby boating and yachting facilities. Montenegro uses the euro as its domestic currency, though it is not an official member of the euro zone. In January 2007, Montenegro joined the World Bank and IMF, and in December 2011, the WTO. Montenegro began negotiations to join the EC in June, 2012, having met the conditions set down by the European Council, which called on Montenegro to take steps to fight corruption and organized crime. The government recognizes the need to remove impediments in order to remain competitive and open the economy to foreign investors. The biggest foreign investors in Montenegro are Italy, Norway, Austria, Russia, Hungary and the UK. Net foreign direct investment in 2014 reached $483 million and investment per capita was one of the highest in Europe. Montenegro is currently planning major overhauls of its road and rail networks, and possible expansions of its air transportation system. In 2014, the GoM selected two Chinese companies to construct a 41 km-long section of the country's highway system. Construction will cost around $1.1 billion. Montenegro first instituted a value-added tax (VAT) in April 2003, and introduced differentiated VAT rates of 17% and 7% (for tourism) in January 2006. In May 2013, the Montenegrin Government raised the level VAT rate to 19%. In January 2018, the Montenegrin Government raised the higher level VAT rate to 21%.[15]

Data on annual and monthly number of employees are received on the basis of the records regulated by the Law on Records in the Area of Labour and Employment (Official Gazette of Montenegro, No. 69/03; 45/12), kept by Central Register of Tax Administration (CRTA) (Official Gazette of Montenegro, No. 45/08; 80/08; 15/09; 43/09; 32/10;), and regularly used by MONSTAT.

Data on employment and unemployed persons are transmitted by the Employment Bureau, representing the results of monthly and annual survey reports. In December 2017 the unemployment was 22.3%.[16]

5.3.4. Land & livelihood

Land use in Montenegro is consisting of agricultural land: 38.2%, arable land 12.9%; permanent crops 1.2%; permanent pasture 24.1%, forest: 40.4%, other: 21.4% (2011). Data from 2012 are showing slightly increasing trend

[15] http://www.me/index.php/cg/ekonomija44

[16] https://monstat.org/cg/publikacije_page.php?id=1474

in intensity of landscape development in Montenegro. However, with an annual land cover change rate of 0.06%, the overall pace of land cover development in the country is still very low in the European context. On the other hand, artificial development in Montenegro is getting more and more intensive, with an annual artificial land take rate of 0.55%, it became one of the fastest in Europe. Artificial development is also represented by frequent urban development/infilling and recycling of developed urban land. Geographically, the artificial development is concentrated mainly around the capital city of Podgorica and also along the seashore (European Environment Agency, 2012).

When analyzing health system in Montenegro during 2012-2016 number of hospitals and stationary facilities remained the same (13 in total). On the other hand, number of patients admitted to hospitals decreased in 2016 comparing with other years while number of hospital days also decreased in 2016. Total number of physicians increased in 2016 for 2% comparing with 2015. Estimated costs of public health were 267 €/per capita in 2013 (Ministry of health, 2013).[17] Hospitals and stationary facilities 2012-2016 are shown in Table 8.

Table 8: Hospitals and stationary facilities 2012-2016

			Patients			Physicians		
Hospitals		**Beds**	**Admitted patients**	**Released patients**	**Hospital days of treated patients**	**Total**	**Specialists**	**High and medium level health staff**
2012	8	1697	68406	68504	429802	494	388	1109
2013	8	1656	68216	66550	430692	486	344	1156
2014	8	1686	68554	68509	431492	555	423	1223
2015	8	1634	68000	68106	419713	563	399	1173
2016	8	1683	66642	66531	405814	575	398	1151
Stationary facilities								
2012	5	96	3829	3825	18045	8	8	42
2013	5	96	3053	3058	15408	8	8	42
2014	5	96	3343	3331	15390	9	9	36
2015	5	96	3085	3090	15327	9	9	40
2016	5	96	2541	2544	11722	8	8	37

Source: Monstat, Statistical Yearbook 2017 (http://monstat.org/userfiles/file/publikacije/godisnjak%202017/24.pdf)

Number of physicians per 1000 inhabitants in Montenegro is 2.1 which is quite low comparing with other EU countries (Croatia-3, Bulgaria 3.9, Germany 4.9, etc.). On the other hand, according to the Euro Health Consumer Index for 2017 Montenegro shifted from 34th place in 2016 to 25th place in 2017 ("Climber of the Year" in the EHCI 2017) due to health system reforms and IT solutions that are modernizing health system. Montenegro also plans to implement Diagnosis Related Groups (DRGs) and performance-based financing of hospitals (Health Consumer Powerhouse, EHCI 2017).[18] Health workers employed in public health services and number of beds available can be seen in Table 9.

Table 9: Health workers employed in public health services and number of beds available

	Physicians	**Dentists**	**Pharmacists**	**Health workers with high and secondary education**	**Health workers with lower education**	**Beds**	**Released patients**	**Hospitalization days**	**Inhabitants Per 1 physician**	**Inhabitants Per 1 bed**
2012	1308	30	93	3760	8	3942	97828	842177	476	158
2013	1379	28	105	4126	12	3901	97223	851052	450	159

[17] Source: file:///C:/Users/HP/Downloads/REFORME%20ZDRAVSTVA.pdf

[18] Source: https://healthpowerhouse.com/files/EHCI-2017/EHCI-2017-report.pdf

2014	1401	27	106	4078	9	3931	98920	875439	443	158
2015	1521	27	109	3988	9	3879	98916	824496	409	160
2016	1647	29	108	3809	2	3934	99015	808844	378	158

Source: Monstat, Statistical Yearbook 2017 (http://monstat.org/userfiles/file/publikacije/godisnjak%202017/24.pdf)

Number of beds available in public health services increased in 2016 for 1.4% comparing with 2015 while number of hospitalization days decreased 1.9% in 2016. On the other hand, number of inhabitants per one physician decreased significantly in 2016 comparing with previous years (7.5% comparing with 2015 and 20.5% comparing with 2012).

5.3.5. Community characteristics (e.g., number of displaced persons) and social diversity

Migration rate in Montenegro was 8.3 in 2016 which is representing that 8 persons out of 1,000 changed its place for living. According to the data from the Ministry of internal affairs there were 14,187 requests for temporary or permanent stay submitted by internally displaced persons and displaced persons within the period 2009-2016, whereas 95% of requests are solved while the rest is in the procedure (Ministry of Internal Affairs, 2017).

5.3.6. Infrastructure (incl. roads, power, water, wastewater, healthcare facilities etc.)

Bauxite, the principal raw material for aluminum, is Montenegro's chief metallic resource. It is found principally near Nikšić. Montenegro also has a thermoelectric plant, which burns lignite mined near the town of Pljevlja.

The power system of Montenegro is small, with only 285,000 customers and a demand of around 3,400 gigawatt hours (GWh) annually. Electricity generation in 2016 was approximately 2,873 GWh. The majority of electricity is generated at the Pljevlja coal-fired Thermal Power Plant, and the 307 MW Perućica and the 342 MW Piva Hydro Power Plants, with the remainder from other small hydro power plants. Since recent, new forms of renewable energy started to be used at several locations (Wind Power Plant Krnovo 72 MW, already in operation, Wind Power Plant Možura 46 MW, along with Solar Power Plant Možura 2,315 MW and Biogas Power Plant at the Landfill Livade 1 MW).

Montenegro has no infrastructure for natural gas distribution and does not currently extract oil, though the GoM is interested in oil and gas production in the Adriatic Sea. Besides, the country has the potential to develop hydro and thermal power plants, given the abundance of rivers and streams, as well as the potential for some new types of production such as solar and wind energy. Montenegro only uses around 20 percent of its hydro potential and consumes more energy than it produces; there are ample opportunities to develop new energy sources. To fully develop this sector, the country will need a developed/upgraded transmission and distribution network.

The most important development project in the transmission system is the subsea HVDC power cable construction to exchange electricity with Italy, the laying of which was completed in February 2017. According to an agreement, the cable, which cost €800 million, runs for 433 kilometers, up to 1200 meters below the Adriatic Sea surface. The project is expected to be completed by the end of 2018.

Montenegro has two international airports, with their IATA Airport Codes: Podgorica Airport – TGD and Tivat Airport – TIV. Both airports were thoroughly reconstructed in 2006, with a new passenger terminal being built at Podgorica Airport. The airports had a combined traffic of 1,852,710 passengers in 2016.

Total length of the railways is 250 km, standard gauge of 1,435 mm.

Overall length of roads is 5,277 km, of which 1,729 km is paved. The roads are categorized in the following way:

Motorways (Autoputevi) - there are currently no roads built to motorway standards. One motorway is currently being built Bar - Boljare motorway, section from Mateševo (near Kolašin) to Smokovac (near Podgorica). Second motorway, Montenegrin section of Adriatic–Ionian motorway is in initial planning phase.

Main roads (Magistralni putevi) - roads connecting bigger cities or economic regions. Typically, these are paved roads of single carriageway type, featuring one lane per direction, with frequent addition of a third overtaking lane on sections with steep gradients. Curve radius usually allow speeds of up to 80 km/h, and width of a single traffic lane is usually at least 3m.

Regional roads (Regionalni putevi) - these are road connections between regional centers, and connections to the other regional roads, main roads or road network of other countries. Typically, these are paved roads, but with smaller curve radius and narrower lanes than those of the main roads. Thus, lower speed limits are more common on regional roads. These roads are locally labeled with R letter followed by a number.

Local roads (Lokalni putevi) - local roads connections of villages and other settlements of local communities. Quality of road infrastructure varies wildly between local roads, so these can be both unpaved dirt roads, as well as roads resembling regional roads in quality and appearance.

The main consumptive use of water in Montenegro is for the supply of settlements/population. In 2005, 2008 and 2011, annual water abstractions in this category were 102, 107 and 110 million m^3 respectively, whereas some 90% of total abstractions was from groundwater sources. Industry is the second largest user with average annual consumption of 49 million m^3 in the period 2004 – 2008. Industrial facilities predominantly rely on their own supply system (less than 3% of water used by industry is from public water supply systems) with roughly 2/3 of abstractions from surface and 1/3 from groundwater.

Consumption of water by agriculture is extremely small. In 2009, the total irrigated area was only about 2,200 ha and growing slowly. Most of the irrigated area is used to produce table and wine grapes, fruits and vegetables in the area starting from around Podgorica and running to the coast. Almost all of the water used to irrigate crops is drawn from groundwater and distributed by drip irrigation. The most important economic use of water in Montenegro is electricity generation.

The terrain of Montenegro is dominated by highly permeable carbonate rocks. Due to the composition of the rocks, precipitation quickly penetrates into the ground feeding both confined and unconfined karst aquifers that discharge into the zones of erosion bases, coastal sea, Skadar Lake and along the rim of the Zeta-Bjelopavlići plain, the Nikšić field and alongside the waterbeds.

There are significant differences in the distribution and abundance of water resources - starting with arid karst areas to those that are rich in both surface and groundwater. The territory of Montenegro falls among the areas rich in water. The rivers drain into two basins: the Black Sea and the Adriatic Sea. Natural lakes are also an important water resource, the most significant of which are Biogradsko, Plav, Black, Šasko and Skadar Lake. The largest artificial reservoir is Piva Lake with a total accumulation capacity of 880 million m^3. Other significant accumulations include the lakes of Slano, Krupac, Vrtac and Otilovići.

Currently, around 63% of population that lives in urban areas of the municipalities is connected to the sewerage system. The systems for waste water treatment are in function in Podgorica, Budva and Mojkovac. The waste water treatment plant in Podgorica operates the primary waste water treatment of 100,000 ES load and biological waste water treatment with the load of 55,000 ES. The waste water treatment plant in Mojkovac operates the secondary

waste water treatment with the 5,250 ES load. On these plants there is a daily accumulation of 26.5 m^3 sewage sludge. The new wastewater treatment plant will ensure adequate collection and treatment of the wastewater generated by the Podgorica, which is now serviced by a 1970s plant, well under the capacity and level of treatment required by the current demand. Consequently, about 50% of the effluent is discharged directly into the Morača River and then, further on, into the Skadar Lake, a Ramsar wetland area of international importance, jointly managed by Montenegro and Albania.

5.3.7. Cultural heritage sites

Montenegrin cultural heritage is unique and it was under different impacts of western and east civilizations. This is witnessed on many archive materials, library funds and variety of architectural styles.[19] Montenegro is rich in cultural and historical monuments that have remained until the present day against all the numerous wars that this country faced. There are hundreds of ancient cities and monasteries, balneal resorts, unique natural landmarks and beaches of Montenegrin Riviera making Montenegro one of the best countries for tourism development. Podgorica is located in the Skadar Lake Cave at the confluence of five rivers. The territory of Podgorica has been inhabited since the 5th century AD and ancient Duclea (located 3 kilometers away from the modern Podgorica) is one of the biggest antic territories. Cetinje is a true museum city founded in the 8th century AD. One of the most impressing sights of the city is the shrine of Petar Petrović Njegoš who was a Montenegrin poet and philosopher. Shrine is located on the peak of the Lovćen Mountain. Another point of interest is the Cetinje Monastery (1484–1785) that enchases the embalmed arm of St. John the Forerunner, the first printed book of the southern Slavs called Oktoih (The Book of Eight Voices, 1494) and a part of the Cross at which Jesus was crucified. The other remarkable sights are: Vladin Dom (that hosts the National Gallery now and that used to be the House of Parliament in 1910), King Nikola I Palace, House of Prince-Bishop, Local History Museum (1871), Prince-Bishop Petar II Residence, Blue Palace, Vlashka Church, Central Museum of History, Art Gallery and many other interesting historical monuments.

Kotor Bay, or Boka Kotorska, is the largest fiord of the Mediterranean, cutting into the continent for more than 28 km. This bay has always been a refuge for sailors. Ancient towns and villages, here and there stretched out on the shores of the bay, surrounded by the fortress walls, towers and churches, have become a live evidence of legends about the sea and brave seafarers. Beauty of Kotor Bay has always attracted a lot of outstanding people – Lord Byron, Sir Bernard Show and many other well-known people. Boka Kotorska hospitably welcomes its guests by the beauty of sea waves, magnificence of the Islands of St. George and St. Lady of Škrpela and splendor of its ancient towns. From Kotor to the top of Lovćen Mountain there goes a dangerous serpentine highway, whose every bend reveals a marvelous panorama of the bay.

Due to the abundance of historical monuments and medieval constructions, in 1979 UNESCO announced Kotor to be a monument of the World Heritage. Fortress walls and towers of Kotor, Gothic and Romanesque churches and basilicas, ancient buildings with their magnificent fronts, winding paved streets and paved markets are worthy of the most intent attention of their visitors. More than that, Kotor is a place where various cultural activities are held ranging from festivals for children to cheerful enchanting carnivals. The most interesting sights are Cathedral of St. Tripun (1166) with frescoes of the XIV century, numerous fortifications belonging to the antiquity, churches of St. Luca (1195), St. Anna (XII century), St. Mary (1221) and others, Prince's palace (VII century), Palaces of Drago, Bisanti, Pima, Clock Tower in the main square, Napoleon's theatre.

[19] Source: http://www.me/index.php/cg/kultura1

In the ancient times, Risan was chosen by Illirian Czarina Teuta as her own capital, therefore, ancient Roman mosaics are well preserved here, which represent a rich archeological heritage. In tiny Perast, houses built in baroque style are in a better condition than those on the rest of the Adriatic Sea coast.

Since each town in the country has its own list of the cultural heritage sites, during design preparation stage for particular site, this list has to be considered.

5.3.8. Stakeholder identification and analysis

Key purpose of the stakeholder identification is to identify the views of major institutional and other stakeholders such as local communities, and to assess any mitigation measures which may be undertaken to minimize any adverse impacts of the proposals under consideration. Ministry of Health (MH) is competent for the implementation of the project in healthcare buildings and the Ministry of Economy/Directorate for Energy Efficiency (DEE) is through the Project Iplementation Unit (PIU) responsible for coordination of the project and for providing assistance to the MH.

During Project consultation representatives of the following stakeholders (presented in Table 10) should be included:

At national level:

• All relevant ministries and governmental agencies, authorities and administration: ME, MH, MSDT, AENP, MC, CHPA, MPA, MLSW.

• National and international NGOs currently or potentially in MEEP 2 field. There are quite a few NGO's registered in different fields that can contribute to the project, but emphasis should be made to include those that have already contributed to the environmental programs, like Green Home.

• Professional health associations, such as patient associations, national association of nurses and midwifes and the Chamber of Physicians.

• Private sector: businesses, corporations, media, Chamber of Commerce, etc.

At local level same relevant regional or local groups should be included in the network including local governments, health workers, etc.

Table 10: Stakeholders involved in ESMF implementation

Institution/Agency	Roles/responsibilities
Ministry of Economy	Project coordination and project implementation Supervision over the project implementation Coordination with other ministries Coordination with WB Project manager Providing assistance in case if project faces challenges during its implementation
Ministry of Health	Project implementation in selected health buildings Coordination with the Ministry of Economy
Ministry of Sustainable Development and Tourism Inspectorate for Urban Planning and Construction Environmental and Nature Protection Agency	Issuing construction permits Environmental procedures Communication and coordination with ministries responsible for project implementation
Ministry of Public Administration	Communication and coordination with ministries responsible for project coordination and local governments regarding project implementation process

Ministry of Labour and Social Welfare	Health and safety at work procedures
Ministry of Culture	Cultural heritage protection procedures
Administration for Inspection Affairs-Environmental inspection	Responsible for environmental monitoring and assessing measures related to environmental protection in accordance to the Law on Impact Assessment Communication and coordination with ministries responsible for project coordination and institutions in charge for environmental protection
Administration for Inspection Affairs-Health and Safety at Work inspection	Responsible for labour monitoring and Health and Safety procedures and implementation of national laws and standards Communication and coordination with ministries responsible for project coordination and institutions in charge of labour and H&S protection
World Bank	Project supervision and control
NGOs focusing on environmental protection	Participating in solving environmental problems and raising public awareness about energy efficiency
Chamber of Commerce	Public consultations with business sector on national and local levels
Chamber of Physicians	Communication and exchanging information about project realization with key responsible ministries
Patient associations	Public consultations about project realization with key responsible ministries
National association of nurses and midwifes	Public consultations about project realization with key responsible ministries
Media	Information about project realization
Businesses and corporations	Public consultations about project realization with key responsible ministries and Chamber of commerce
Local governments	Public consultations about project realization with key responsible ministries Environmental monitoring on the local level

6. Environmental and Social Management Framework

Preparation and implementation of proposed Project activities is grounded on the basis of both the national legislation and WB safeguards (OPs), namely OP/BP 4.01. Compliance to the above will be maintained throughout the project's lifecycle. For complying with these obligations, the project beneficiary prepared this ESMF and site-specific environmental check lists and EMPs to identify, avoid and/or minimize, mitigate or compensate potential impacts of project investments on the natural and social environment in a way consistent with both national legislation and WB OPs.[20] No loss of or damage to private lands or assets is expected, and if the initial screening finds such an impact may occur for specific investments, their design wil be modified/ alternative site will be identified that will not cause such an impact.

ESMF will allow ensuring environmental and social sustainability of activities throughout their implementation cycle. The ESMF covers the following key area: national and WB rules and procedures; environmental screening of the proposed sub-projects; guidance for preparing subprojects EMPs; description of key potential impacts and mitigation measures; requirements for monitoring and reporting; public consultations. The objective of the ESMF is to provide general policies, guidelines, rules of conduct and procedures that will be integrated into the implementation of the Project and reflected in the subproject EMPs.

The ESMF is subject to public consultation and disclosure on the Bank's InfoShop. The ESMF will be incorporated as an Annex into the Project Operational Manual (POM). Site-specific screening check-lists and Environmental Management and Mitigation Plans (EMPs), based on the ESMF, will be prepared for each site where construction works will be implemented, publicly consulted and disclosed locally before procurement commences for the civil works.

6.1. Environmental management and mitigation plan

6.1.1. Design stage

The PC, along with the whole Project implementation team, will follow the mechanism of development and execution of environmental documents in line with the requirements of environmental legislation and the World Bank OP 4.01. Based on this ESMF, an individual (site-specific) environmental check-list and Environmental Management and Mitigation Plan (EMP) will be produced for each site, including the state of environmental appraisal, the activities ensuring environmental mitigation measures, institutional framework for preventive arrangements, environmental monitoring program with use of templates (see Annex I).

For rehabilitation activities, EMP format is developed to preparing EMPs for minor rehabilitation or small-scale works in health building construction. The check-list-type format has been developed to provide "good practice examples" and designed to be user friendly and compatible with safeguard requirements (see Annex II).

The EMP outlines the mitigation, monitoring and institutional strengthening measures to be taken during project implementation/project operation to avoid or eliminate negative environmental and social impacts. For projects of environmental risk (Category B) an EMP is an effective way of summarizing the activities needed to achieve effective mitigation of negative environmental/social impacts.

[20] Source: https://policies.worldbank.org/sites/ppf3/PPFDocuments/090224b0822f7384.pdf

The construction phase is limited in time. The average construction time for one healthcare building retrofitting could last several months, influenced by the scope of works and by the weather conditions (winter season, mainly).

The EMP supports:

- inclusion of EMP obligatory procedures in the operational processes of the selected buildings;
- highlighting the EMP responsibility in the job description of the inspectorate staff;
- site-specific environmental screening concerning all project supported activities for the rehabilitation of the buildings;
- monitoring and evaluation of mitigation measures identified in the site-specific reviews.

The required mitigation measures and issues to be addressed through this ESMF and EMPs instruments for the project activities are standard and widely used in construction practices. These include proper waste management and disposal of construction debris (including asbestos), proper wastewater treatment; heating and fuel system assembly, dust and noise control, sensitivity of designs to cultural settings, and cultural heritage/chance finds procedures.

6.1.2. Supervision Stage

The environmental issues including mitigation measures would be supervised continuously by the supervisor of the rehabilitation works.

No unusual environmental impacts related to construction activities are anticipated under the proposed program given the relatively small size of most of the investments and the siting in existing developed urban areas. These investments are expected to be environmentally beneficial since they will be following new improved planning and design standards; none of the units to be financed is expected to have any large scale, significant and/or irreversible impacts.

The potential negative environmental impacts are expected to be localized or able to be mitigated during the implementation stage. In addition, there are environmental regulations in force, which make control and supervision of construction works mandatory. Contracts and bill of quantities will include clauses for appropriate disposal of construction debris, including hazardous materials that may be encountered. Existing regulations require, and procurement documents will specify, that no environmentally unacceptable materials can be used. The ESMF/EMP will be provided to contractors engaged in civil works under the project, and will be made an integral part of the civil works contracts.

6.1.3. Environmental guidelines for civil work contracts

Contractors will be obliged to apply environmentally sound construction standards and procedures. All civil works contracts will have the following environment-protecting provisions:

1. Take measures and precautions to avoid adverse environmental impacts, nuisance or disturbances arising from the execution of the works. This shall be done by avoidance or suppression whenever possible rather than abatement or mitigation of the impact once generated;

2. Comply with all national environmental laws and regulation. Assign responsibilities for implementation of environmental actions and to receive guidance and instructions from the engineer and/or environmental authorities;

3. Minimize dust emissions to avoid or minimize adverse impacts on air quality;

4. Maintain foot and vehicular traffic flows and public access to neighboring sites and facilities. Provide markers, lights and temporary connections by bypasses for safety and convenience;

5. Prevent or minimize vibration and noise from vehicles, equipment and machinery operations;

6. Minimize disturbance to and restore vegetation where it is disturbed as a consequence of the works;

7. Protect surface and groundwater and soil quality from pollution. Appropriately collect and dispose of waste material.

8. Take measures for potential removal of old/used fuel tanks from the ground, decommissioning of boiler houses and machinery.

6.1.4. Cultural assets

Cultural or historical assets will not likely be negatively affected by the construction works. Montenegro has a well-developed cultural heritage protection system with responsibility for monitoring and enforcement conducted by the Ministry of Culture (MC). Legal framework for cultural preservation is outlined in the Law on Cultural Heritage Protection (Official Gazette of Montenegro, No. 49/10).

During technical design and obtaining environment permit, it will be reviewed if any of the existing healthcare buildings are certified as “cultural or historical heritage”. With respect to the buildings with such qualifications, the procedures outlined in the Law on Cultural Heritage Protection will be followed, including obtaining permit from ACHP and involving design supervisor engineers who have specific qualifications in the field of historical buildings, certified by MC.

6.2. Content of an EMP check-list

The check-list-type format has been developed to provide “good practices examples” and designed to be user friendly and compatible with safeguard requirements.

The EMP check-list-type format attempts to cover typical core mitigation approaches to civil works contracts with small, localized impacts. It is accepted that this format provides the key elements of an Environmental Management and Mitigation Plan (EMP) or Environmental Management Framework (EMF) to meet World Bank Environmental Assessment requirements under OP 4.01. The intention of this check-list is that it would be applicable as guidelines for the retrofitting contractors and constitute an integral part of bidding documents for contractors carrying out such works under Bank-financed projects.

The check-list has three sections:

Part 1 includes a descriptive part that characterizes the project and specifies the institutional and legislative aspects, the technical project content, the potential need for capacity building program and description of the public

consultation process. This section could be up to two pages long. Attachments for additional information can be supplemented when needed.

Part 2 includes an environmental and social screening check-list, where activities and potential environmental issues can be checked in a simple Yes/No format. If any given activity/issue is triggered by checking "yes", a reference is made to the appropriate section in the following table, which contains clearly formulated management and mitigation measures.

Part 3 represents the monitoring plan for activities during project construction and implementation. It retains the same format required for EMPs proposed under normal Bank requirements for Category B projects. It is the intent of this check-list that Part 2 and Part 3 be included into the bidding documents for contractors, priced during the bidding process and diligent implementation supervised during works execution.

6.3. Content of an environmental management and mitigation plan

An Environmental Management and Mitigation Plan (EMP) outlines the mitigation, monitoring and institutional strengthening measures to be taken during project implementation and project operation phases to avoid or eliminate negative environmental/social impacts. For projects of environmental risk (Category B) an EMP is an effective way of summarizing the activities needed to achieve effective mitigation of negative environmental/social impacts.

The format in Annex I provides a model for the development of such an EMP. The model divides the project cycle into two phases: construction, and operation. For each phase, the preparation team identifies any significant environmental and social impacts that are anticipated based on an environmental screening, including social aspects (if required). For each impact, mitigation measures are identified and listed. The EMP format also provides for the identification of institutional responsibilities for implementation and operation of mitigation devices and methods.

To keep track of the requirements and responsibilities for monitoring the implementation of environmental/social mitigation identified in the analysis included in an environmental screening for Category B projects, a monitoring plan may be useful.

Like the EMP, the project cycle is broken down into two phases (construction and operation). The format also includes a row for baseline information that is needed to achieve reliable and credible monitoring. The key elements of the matrix are:

- What is being monitored? Where is monitoring done?
- How is the parameter to be monitored to ensure meaningful comparisons? When or how frequently is monitoring necessary or most effective?
- Why is the parameter being monitored (what does it tell us about environmental impact)?

In addition to these questions, it is useful to identify the institutional responsibilities. When a monitoring plan is developed and put in place in the context of project implementation, PC will request reports from the implementation actors (supervising engineers, contractors etc.) at appropriate intervals, and include the findings in its periodic reporting to the World Bank; in addition, PC will make the findings available to Bank staff in the course of implementation support missions.

6.4. Grievance redress mechanism

A grievance redress mechanism (GRM) is a formal, legal or non-legal (or 'judicial/non-judicial') complaint process that can be used by individuals, workers, communities and/or civil society organizations that are being negatively affected by certain activities and operations. Grievance redress mechanisms are also called 'dispute', 'complaints handling' and 'accountability' mechanisms. A well-designed grievance procedure is accessible, effective, easy, understandable and without costs to the complainant.

During the implementation of retrofitting works, major irregularities that could lead a complaint to occur are unlikely. However, possible complaints from the population interested in and/or affected by the project living in the affected municipalities (eg complaints of high noise, increased dust emissions, etc.) need to be well studied and seriously taken into account in order to have a good relationship with the public.

The Site manager appointed by Contractor will be responsible for the relations with the local population and for handling possible complaints. Contact information to this person will be made available to the public at all locations where the works are being performed. The available telephone number of the named person 24 hours/day is a good way to solve all complaints in the right way. Contracts shall specify that all complaints received by contractors should be communicated to the PC, who will add these complaints to the grievance log as well.

The grievance redress mechanism for the purpose of this MEEP 2 Project will be organised as two-level mechanism, while the second level of appeal shall occur, if the complainant is unhappy with the result of the grievance resolution process. In the framework of MEEP 2, it will be possible to bring grievances to the attention of responsible persons personally, verbally by telephone, or in writing through e-mail, post, fax or personal delivery. Project-affected residents will have the possibility to voice their complaints to:

1. Project specialist, nominated by the MEEP 2 Project. Name, postal address, e-mail address, phone and fax number will be included in particular EMPs.

2. Ms. Biljana Maslać, MEEP 2 Project Coordinator, Ministry of Economy, postal address: Rimski trg 46, Podgorica, e-mail address: biljana.maslac@ee-me.org. Phone and fax number will be included in particular EMPs.

Grievances will be systematically acknowledged: an interim reply will be sent within 3 working days of receipt and provide the complainant with basic information about next steps. This will be followed by an investigation stage, during which the Project specialist/PC will try to understand the issue from the perspective of the complainant and what action may be required, examine factual evidence and circumstances, carry out complementary research, interview parties involved and confer with relevant stakeholders as appropriate. Once investigated, and depending upon the severity and type of grievance, a provisional decision shall be discussed with the complainant in order to find a satisfactory solution. Unilateral announcements shall be an exception. If an agreement is found, it should be specific and time-bound and will be communicated to the complainant in writing within one month of the grievance receipt. The grievance will be considered "closed" after the implementation of the resolution has been verified. Even when an agreement is not reached, or the grievance was rejected (for example because it did not fall under the scope of the project), actions undertaken, status of the case (e.g. pending due to investigation, closed) and results achieved will be systematically documented.

The PC shall keep a grievance register log that will record the following information at minimum:

- Date the grievance was received;
- Channel through which the grievance was received;
- Gender of the complainant;
- Location concerned by the grievance (city and health facility);
- Brief description of grievance;
- Classification/type of grievance;
- Date of receipt acknowledgement returned to the complainant;
- Description of actions taken (investigation, corrective measures);
- Current status of grievance;
- Date of resolution and closure / provision of feedback to the complainant and redress within 1 month of receipt at the Coordinator address.

Project-affected people may also submit complaints to the municipality communal police in which the works are carried out or to the environmental inspection. All complaints submitted to the municipalities and/or inspection bodies also need to be communicated to the Project Coordinator, who will add them to the grievance log.

In order to monitor the efficacy of the GRM, the following indicators may be used: (i) number of grievances received/resolved; (ii) number of grievances acknowledged within the 3-day timeframe; (iii) number of grievances resolved within one month from receipt.

World Bank GRS: the GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. The project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond.

For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

7. Consultations and Disclosure

In accordance with OP 4.01 World Bank, Ministry of Economy has prepared a document – ESMF for works on rehabilitation of the public healthcare buildings.

Presentation of the ESMF began on February 22nd 2018, the invitation to interested parties in the daily newspaper Pobjeda was published, which was inviting the public auditorium, authorities and institutions to inspect the proposed rehabilitation works and environmental impact with present mitigation measures and monitoring. the document was publicly available at the Ministry of Economy, and also placed on the website of the Ministry of Economy.

Publication of the pre-final document of the ESMF ended on March 2nd 2018 when the public meeting was held in the Ministry of Economy.

During 10 days aimed for insight into the ESMF document, nobody came to ME premises to enquire about the ESMF document. During the disclosure period there were no telephone regarding the proposed ESMF document. MEEP Project coordinator received the e-mail from the Ministry of Sustainable Development and Tourism stating they have no comments on ESMF document.

Public discussion in Podgorica was attended by 7 people, from which 5 persons were from the Ministry of Economy, one person from the Ministry of Health and one person from the KfW. The meeting was also attended by the consultant Nebojša Jablan, who was in charge of document preparation.

The meeting began as planned at 11:00 AM. The representatives of the Ministry of Economy, Mr. Marko Radulović, Director of Directorate for Energy Efficiency and Ms. Biljana Maslać, MEEP project coordinator presented the project concept and project objectives. The Mr. Nebojša Jablan, environmental consultant presented in detail the ESMF to the participants. During the public discussion, there were no complaints regarding environmental and social issues.

During the public consultations, there were no significant questions, comments or remarks in regards to environmental and social protection issues, apart from the following that were immediately responded. The presentations were followed by a discussion concerning some clarifications of the national legislation. The main question, raised by the participants was related recently adopted Law on Urban Planning and Construction of Structures. The consultant explained the main differences that new law brough compared to the previous one. Alse he pointed out where it is stated and explained within the ESMF document. The further discussion, asked by KfW representative, was regarding new draft Law on Environmental Impact Assessment, that will be subject of adoption in following copule of months. The consultant responded that new law is already passed public consultation and have to be taken into consideration during project implementation stage. The same is with the Law on Health and Safety at work that is also subject of amending, expecting to be adopted, by the end of this year.

The public discussion ended at 12:30 PM local time.

APPENDICES

Annex I Generic (sample) Environmental Management and Mitigation Plan (EMP)

Design Stage EMP

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Increased pollution due to construction waste	Site organization construction works	Contamination of adjacent area, soil, water resources. Dusting.	Prior to commencement of works, means of collection and removal of waste should be applied together with location of main types of waste produced during dismantling and construction works. Mineral waste from construction and dismantling works should be separated from common waste and organic, liquid and chemical waste through sorting and keeping in special containers. All documents on waste removal and disposal should be maintained properly as a proof of appropriate management of waste at the site. In all possible cases, contractor should ensure recycling of materials (except for asbestos). Asbestos materials shall be subject to immediate burial. Proper collection and removal of construction waste should be undertaking by a contracted utility. As for domestic waste, installation of collection tanks and timely removal of waste should be arranged with local waste collection companies.	Design engineers / Architects	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Generation of dust, noise, and vibration	Movement of heavy vehicles and machinery	Dust from machinery and from transporting Noise causes less focused attention, and increased defaults in performance of works.	Protection of site proximity area by using board fencing or special materials against dust. Protection of soil surfaces. Dust control by periodical water sprinkling or other means. Ensure maintenance and repair of machinery in compliance with the requirements of exploitative documents of manufacturing plant. Operation of vehicles with defective fuel system exceeding the norms of toxicity of exhausted gases is not allowed. Limitation of the speed of vehicles and selection of relevant transportation routes for minimization of impact on the receptors sensitive to dust. It is needed to ensure cleanliness of adjacent area, not allowing construction waste to minimize dusting and contamination. During operations, covers of engines and generators, air compressors and other driving mechanisms should be closed; equipment should be located at the maximum distance from residential premises. Minimize noise likely to affect health of the people in the vicinity of the area affected by the construction works by: - restricting the time schedule of construction works; - restricting the time schedule of deliveries and use of heavy equipment.	Design engineers / Architects	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Possible asbestos waste materials	Improper disposal of construction waste, asbestos and asbestos-containing materials, or minor operational or accidental spills of fuel and lubricants from the construction machinery	Contamination of adjacent area, soil, water resources.	Identify waste material containing asbestos Establish codes for the sorted waste, according to the Rulebook establishing a list of wastes. Employ a licensed waste operator to remove asbestos waste using appropriate safety equipment. Dispose of asbestos waste at a landfill site licensed to receive such waste. Execute the respective works with authorized companies/specialists.	Design engineers / Architects	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Increase in traffic during construction	Site organization construction works	Potential pedestrian and vehicle traffic disruption and associated public safety risks	Traffic control. Temporary traffic regulations. Maintain foot and vehicular traffic flows and public access to neighboring sites and facilities. Provide markers, lights and temporary connections by bypasses for safety and convenience.	Design engineers / Architects	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Impact on workers and community health and safety	General conditions of works	Industrial accidents	Local communities will be properly notified on works by means of publications and /or notices in bill boards at work sites. In addition, fences will be installed; in case trenches are excavated, lighting will be provided. Individual protective means should meet safety standards (obligatory application of helmets, protective face masks, when needed, protective glasses, safety belts and boots). Sites will be provided with proper information boards and signs informing the workers about the rules and norms of works to be followed.	Design engineers / Architects	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Improper reinstatement of construction sites after works completion	Construction works	Deterioration in existing landscape quality or visual comfort Disturbance of habitat.	Avoid, reduce, and where possible remedy or offset any adverse effects on the environment arising from the proposed works. Address the remaining/residual adverse effects arising from the executed works. Address landscape and visual impacts.	Contractors Design engineers / Architects	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Historical and cultural sites	Damage and degradation of site structures	Possible negative impacts on buildings with cultural importance	If works are carried out at the site being a protected historical monument, or works are carried in close proximity to such site or at protected historical site, national authorities should be notified thereof. If needed, respective permission should be obtained. Once permission is obtained, works should be carried out in thorough compliance with provisions and norms of national legislation. Works will be arranged to ensure that all artifacts or other incidental findings detected in construction works are registered and documented properly.	Design engineers / Architects	Supervising engineers, state authorities

Construction Stage EMP

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Increased pollution due to construction waste	Site organization construction works	Contamination of adjacent area, soil, water resources. Dusting.	Prior to commencement of works, means of collection and removal of waste should be applied together with location of main types of waste produced during dismantling and construction works. Mineral waste from construction and dismantling works should be separated from common waste and organic, liquid and chemical waste through sorting and keeping in special containers. All documents on waste removal and disposal should be maintained properly as a proof of appropriate management of waste at the site. In all possible cases, contractor should ensure recycling of materials (except for asbestos). Asbestos materials shall be subject to immediate burial. Proper collection and removal of construction waste should be undertaking by a contracted utility. As for domestic waste, installation of collection tanks and timely removal of waste should be arranged with local waste collection companies.	Contractors	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Generation of dust, noise, and vibration	Movement of heavy vehicles and machinery	Dust from machinery and from transporting Noise causes less focused attention, and increased defaults in performance of works.	Protection of site proximity area by using board fencing or special materials against dust. Protection of soil surfaces. Dust control by periodical water sprinkling or other means. Ensure maintenance and repair of machinery in compliance with the requirements of exploitative documents of manufacturing plant. Operation of vehicles with defective fuel system exceeding the norms of toxicity of exhausted gases is not allowed. Limitation of the speed of vehicles and selection of relevant transportation routes for minimization of impact on the receptors sensitive to dust. It is needed to ensure cleanliness of adjacent area, not allowing construction waste to minimize dusting and contamination. During operations, covers of engines and generators, air compressors and other driving mechanisms should be closed; equipment should be located at the maximum distance from residential premises. Minimize noise likely to affect health of the people in the vicinity of the area affected by the construction works by: - restricting the time schedule of construction works; - restricting the time schedule of deliveries and use of heavy equipment.	Contractors	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Possible asbestos waste materials	Improper disposal of construction waste, asbestos and asbestos-containing materials, or minor operational or accidental spills of fuel and lubricants from the construction machinery	Contamination of adjacent area, soil, water resources.	Identify waste material containing asbestos. Establish codes for the sorted waste, according to the Rulebook establishing a list of wastes. Employ a licensed waste operator to remove asbestos waste using appropriate safety equipment. Dispose of asbestos waste at a landfill site licensed to receive such waste. Execute the respective works with authorized companies/specialists.	Contractors	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Increase in traffic during construction	Site organization construction works	Potential pedestrian and vehicle traffic disruption and associated public safety risks	Traffic control. Temporary traffic regulations. Maintain foot and vehicular traffic flows and public access to neighboring sites and facilities. Provide markers, lights and temporary connections by bypasses for safety and convenience.	Contractors Local authorities	Supervising engineers, state authorities

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Impact on workers and community	General conditions of	Industrial	Local communities will be properly notified on works by means of publications and /or notices in bill boards at work sites. Clear information will be provided	Contractors	Supervising engineers,

health and safety	works	accidents	regarding whom to contact and how in case project-affected people would like to file a complaint. In addition, fences will be installed; in case trenches are excavated, lighting will be provided. Individual protective means should meet safety standards (obligatory application of helmets, protective face masks, when needed, protective glasses, safety belts and boots). Sites will be provided with proper information boards and signs informing the workers about the rules and norms of works to be followed.		state authorities

Potential environmental impact/risks	**Activity types**	**Main types of environmental impact**	**Preventive/mitigation measures**	**Responsible**	**Monitoring**
Improper reinstatement of construction sites after works completion	Construction works	Deterioration in existing landscape quality or visual comfort Disturbance of habitat.	Avoid, reduce, and where possible remedy or offset any adverse effects on the environment arising from the proposed works. Address the remaining/residual adverse effects arising from the executed works. Address landscape and visual impacts.	Contractors Design engineers / Architects	Supervising engineers, state authorities

Potential environmental impact/risks	**Activity types**	**Main types of environmental impact**	**Preventive/mitigation measures**	**Responsible**	**Monitoring**

Historical and cultural sites	Damage and degradation of site structures	Possible negative impacts on buildings with cultural importance	If works are carried out at the site being a protected historical monument, or works are carried in close proximity to such site or at protected historical site, national authorities should be notified thereof. If needed, respective permission should be obtained. Once permission is obtained, works should be carried out in thorough compliance with provisions and norms of national legislation. Works will be arranged to ensure that all artifacts or other incidental findings detected in construction works are registered and documented properly.	Contractors Design engineers / Architects	Supervising engineers, state authorities

Operation Stage EMP

Potential environmental impact/risks	Activity types	Main types of environmental impact	Preventive/mitigation measures	Responsible	Monitoring
Unsafe practices during the operation of the building		Contamination of adjacent area, soil, water resources. Dusting.	Prevention Maintenance Plan for regular and preventive maintenance should be prepared to ensure proper operation of installed infrastructure components in the health building (heating devices). Procedure for keeping records should be established in order to ensure proper storage of all technical documentation.	Health building staff	State authorities

Annex II Generic (sample) Environmental Check-list (ECL)

PART 1: INSTITUTIONAL & ADMINISTRATIVE					
Country					
Project title					
Scope of project and activity					
Institutional arrangements	WB	Project specialist	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements	Safeguard Supervision	Counterpart Supervision		Inspectorate Supervision	Contactor
SITE DESCRIPTION					
Name of site					
Describe site location				Attachment 1: Site Map [ ]Y [] N	
Who owns the land?					
Geographic description					
LEGISLATION					
Identify national & local legislation & permits that apply to project activity. Indicate the institutional authorities with responsibility for implementing each piece of legislation or issuing permits					
PUBLIC CONSULTATION					
Identify when / where the public consultation process took place					
INSTITUTIONAL CAPACITY BUILDING					
Will there be any need for environmental management capacity building (e.g. environmental training, monitoring equipment etc.)?	[ ] N or [ ]Y if Yes, Attachment 2				

PART 2: ENVIRONMENTAL /SOCIAL SCREENING			
Will the site activity include/involve any of the following potential issues and/or impacts:	**Activity and examples of potential issues and/or impacts**	**Status** **If Yes for any**	**Additional references**
	1. Building rehabilitation • Site specific vehicular traffic • Increase in dust and noise from demolition and/or construction • Construction waste • Safety at the site	[ ] Yes [ ] No	See Section **B** below
	2. New construction • Excavation impacts and soil erosion • Site specific vehicular traffic • Increase in dust and noise from demolition and/or construction • Construction waste	[ ] Yes [ ] No	See Section **B** below
	3. Individual wastewater treatment system • Effluent and / or discharges into receiving waters	[ ] Yes [ ] No	See Section **C** below
	4. Acquisition of land[21] • Acquisition of private land is not allowed (see definition of land acquisition in footnote 22)	[ ] Yes [x] No	See Section **D** below
	5. Hazardous or toxic materials[22] • Use of hazardous/toxic materials (solvents, fuels, surface coatings etc.) • Removal and disposal of toxic and/or hazardous demolition and / or construction waste (e.g. asbestos) • Storage of machine oils and lubricants	[ ] Yes [ ] No	See Section **E** below
	6. Impacts on forests and/or protected areas • Encroachment on designated forests, buffer and /or protected areas	[ ] Yes [x] No	See Section **F** below
	7. Handling / management of medical waste • Clinical waste, sharps, pharmaceutical products (cytoxic and hazardous chemical waste), radioactive waste, organic domestic waste, non-organic domestic waste • On site or off-site disposal of medical waste	[ ] Yes [ ] No	See Section **G** below
	8. Traffic and Pedestrian Safety • Site specific vehicular traffic • Site is in a populated area	[ ] Yes [ ] No	See Section H below

[21] Land acquisition includes loss of or damages to private assets such as lands, structures, trees and standing crops, as well as physical relocation of local population, without regard to the legal status of affected people.

[22] Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

PART 3: MITIGATION PLAN		
ACTIVITY	**PARAMETER**	**GOOD PRACTICES MITIGATION MEASURES CHECK-LIST**
A. General Conditions	Notification and Object Users Safety	(a) 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). (b) All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighbouring residents and environment. (c) The works dynamic for all phases is agreed with the management. (d) The employee has been informed with nature of works, works dynamics and safety measures during work implementation. With physical measures the access to the construction site will be disabled.
	Notification and Worker Safety	(e) The local construction and environment inspectorates and communities have been notified of upcoming activities. All legally required permits (to include not limited to land use, resource use, and dumping, sanitary inspection permit) have been acquired for construction and/or rehabilitation (f) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots). (g) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
B. General Rehabilitation and /or Construction Activities	Air Quality	(a) Keep demolition debris in controlled area and spray with water mist to reduce debris dust. (b) Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site. (c) Keep surrounding environment (side walks, roads) free of debris to minimize dust. (d) There will be no open burning of construction / waste material at the site. (e) There will be no excessive idling of construction vehicles at sites. (f) Water dusty areas, particularly during hot, dry or windy weather.
	Noise	(a) Construction noise will be limited to restricted times agreed to in the permit. (a) During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible.
	Water Quality	(a) The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.
	Waste management	(a) Waste collection, transport, and disposal sites will be identified for all major waste types expected from demolition and construction activities. (b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers. (c) Construction waste will be collected and disposed properly by licensed collectors. (d) The records of waste disposal will be maintained as proof for proper management as designed. Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos).
	Civil-construction works	(a) During interior demolition use enclosed debris-chutes above the first floor. (b) During demolition, the safety of workers and other users will be provided, as well the safety of

PART 3: MITIGATION PLAN		
ACTIVITY	**PARAMETER**	**GOOD PRACTICES MITIGATION MEASURES CHECK-LIST**
		equipment. (c) Provide disposal and reallocation of equipment, in a way that equipment is allocated on the marked, enclosed and safety place. (d) Provide disposal of demolished material, in a way that material is allocated on the marked, enclosed and safety place. (e) Ensure disposal of unusable material.
	Waste transportation	(a) Transport of waste will be organized in a way that excludes environmental pollution. In the case of pollution appear during the transportation, contaminated area should be cleaned and bring to a state before the pollution.
C. Wastewater	Water Quality	(a) The approach to handling sanitary wastes and wastewater from building sites (installation or reconstruction) must be approved by the local authorities. (b) Before being discharged into receiving waters, effluents from individual wastewater systems must be either treated or approved for discharge into the public sewerage system in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment.
D. Land acquisition	Acquisition of private land is not allowed	(a) If expropriation of land was not expected and is required, or if loss of access to income of legal or illegal users of land was not expected but may occur, the Bank task Team Leader is consulted. (b) Design will be modified or a new site will be identified that will not require land acquisition or asset loss.
E. Toxic Materials	Asbestos management	(a) If asbestos is located on the project site, mark clearly as hazardous material. (b) Asbestos is to be appropriately contained and sealed to minimize exposure. (c) The asbestos prior to removal (if removal is necessary) will be treated with a wetting agent to minimize asbestos dust. (d) Asbestos will be handled and disposed by skilled & experienced professionals licensed. Any personal involved with handling asbestos must have personal protection clothing or equipment in accordance with applicable international standards. (e) If asbestos material is be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately. (f) The removed asbestos will not be reused, and disposed in officially authorized sites.
	Toxic / hazardous waste management	(a) Temporarily storage on site of all hazardous or toxic substances will be in safe containers labeled with details of composition, properties and handling information because there is no toxic or hazardous materials. (b) The containers of hazardous substances should be placed in a leak-proof container to prevent spillage and leachingbecause there is no toxic or hazardous materials. (c) The wastes are transported by specially licensed carriers and disposed in a licensed facility, because there is no toxic or hazardous materials. (d) Paints with toxic ingredients such as solvents or lead will not be usedbecause there is no toxic or hazardous materials.

PART 3: MITIGATION PLAN		
ACTIVITY	**PARAMETER**	**GOOD PRACTICES MITIGATION MEASURES CHECK-LIST**
	Management of waste fuels, oils and lubricantst	(a) Collect waste fuels, oils and lubricants. (b) Provide temporarily storage of waste fuels, oils and lubricatns that are closed or covered, and labelled. (c) Prevent leaching or evaporation, and change the quality of waste fuels, oils and lubricants.
F. Affects forests and/or protected areas	Protection	(d) For large trees in the vicinity of the activity, mark and cordon off with a fence large tress and protect root system and avoid any damage to the trees. (e) Adjacent wetlands and streams will be protected, from construction site run-off, with appropriate erosion and sediment control feature to include by not limited to hay bales, silt fences. (f) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.
G. Disposal of medical waste	Infrastructure for medical waste management	(a) In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to: ▪ Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal: - obligation of the hospital management staff a. Clinical waste: yellow bags and containers. b. Sharps – Special puncture resistant containers/boxes. c. Domestic waste (non-organic): black bags and containers. ▪ Appropriate storage facilities for medical waste are in place; and-obligation of the hospital management staff. ▪ If the activity includes facility-based treatment, appropriate disposal options are in place and operational-obligation of the hospital management staff.
H Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	(b) In compliance with national regulations the contractor will insure that the construction site is properly secured and construction related traffic regulated. This includes but is not limited to: ▪ Signposting, warning signs, barriers and traffic diversions: site will be clearly visible and the public warned of all potential hazards. ▪ Traffic management system and staff training, especially for site access and near-site heavy traffic. Provision of safe passages and crossings for pedestrians where construction traffic interferes. ▪ Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement. ▪ Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public.
I Land clearing and vegetation removal	Pesticide Use	(a) Land clearing vegetation removal shall be done either manually or mechanically. No pesticides shall be used.

PART 3: MITIGATION PLAN		
ACTIVITY	**PARAMETER**	**GOOD PRACTICES MITIGATION MEASURES CHECK-LIST**
J Use of materials in compliance in international protocols	Insulating materials comply with Montenegro commitments to the Montreal Protocol	(a) No insulating materials produced with or containing greenhouse gas agents (foaming or blowing agents) are to be used.

Remark: If in the design stage, existing information does not confirm presence of asbestos and other hazardous materials in object, and the Contractor finds asbestos or other hazardous materials during the Project implementation, he will immediately inform the Project Manager and he will follow up the procedure described in this Mitigation plan: Part 3: Part E- Asbestos management.

PART 4: MONITORING PLAN							
Phase	**What** (Is the parameter to be monitored?)	**Where** (Is the parameter to be monitored?)	**How** (Is the parameter to be monitored?)	**When** (Define the frequency / or continuous?)	**Why** (Is the parameter being monitored?)	**Cost** (if not included in project budget)	**Who** (Is responsible for monitoring?)
During activity **preparation**	Notification and Worker Safety	close to the object	regular supervision Inspection	Permanent	safety quality of works	Included in the project budget	Work Supervision Inspectorate Supervision
During activity **implementation**	Building reconstruction	on object	regular supervision	Permanent	Quality of works		Work Supervision Inspectorate Supervision
During activity **supervision**	Notification and Worker Safety	close to the object	Inspectorate Supervision Work Supervision	Permanent	safety		Inspectorate Supervision Work Supervision
	Traffic and Pedestrian Safety	on construction	Inspectorate Supervision Work Supervision	Permanent	protection		Inspectorate Supervision Work Supervision
	Air Quality	on construction	Inspectorate Supervision Work Supervision	Permanent	protection		Inspectorate Supervision Work Supervision
	Noise	on construction	Inspectorate Supervision Work Supervision	Permanent	protection		Inspectorate Supervision Work Supervision
	Waste management	on construction	Inspectorate Supervision Work Supervision	Permanent	protection		Inspectorate Supervision Work Supervision Contractor Project Manager

Remark: Selected Contractor and Project Manager have common responsibility to provide and collect information, documentation, measurements results and to collect progress and work photos that confirm fulfilment of the mitigation plan and monitoring plan during the implementation on the field.

Annex III Public consultations related documents

List of participants

LISTA UČESNIKA

PREDMET JAVNIH KONSULTACIJA		MJESTO ODRŽAVANJA JAVNIH KONSULTACIJA	
OKVIRNE SMJERNICE ZA ZAŠTITU ŽIVOTNE SREDINE I UTICAJA NA DRUŠTVO ZA PROJEKAT ENERGETSKA EFIKASNOST U CRNOJ GORI – FAZA II		Ministarstvo ekonomije, ulica: Rimski trg 46, Podgorica Datum javnih konsultacija: 02.03.2018. godine	
R.b.	**Ime i prezime**	**Organizacija - adresa**	**Telefon i e-mail**
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8.	Nebojša Jablan	Konsultant	jablann@yahoo.com
9.			
10.			
11.			

Documentation

Montenegro
Ministry of Economy

In accordance with the World Bank Operational Policies(OP 4.01)
MINISTY OF ECONOMY
issues invitation for

PUBLIC CONSULTATIONS

for the public, bodies and organizations interested in
Environmental and Social Management Framework (ESMF)
for the project Energy Efficiency in Montenegro – phase II

Interested parties can get an insight into the ESMF document on following address: Ministry of Economy, Directorate for Energy Efficiency, street: Rimski trg 46, Podgorica, IV floor, on working days from 9AM to 11AM, within 7 days in regards to the date of public announcement of this invitation.
Remarks and suggestions in regards to the ESMF document shall be submitted in written form to the Ministry of Economy, Directorate for Energy Efficiency, street: Rimski trg 46, Podgorica. Remarks can be also provided on following internet address: info@ee-me.org.
On March 2nd, 2018, at 11:00 AM (local time) public consultation and presentation of the subject ESMF document will be organized in premise of the Ministry of Economy, street: Rimski trg 47, Podgorica, conference room on third floor.
If you need any additional information, please contact:

Ministry of Economy
Directorate for Energy Efficiency
Street: Rimski trg 46
Podgorica
Phone: + 382 20 482 185
E-mail: info@ee-me.org

Crna Gora
Ministarstvo ekonomije

Saglasno operativnoj politici Svjetske banke (OP 4.01)
MINISTARSTVO EKONOMIJE
poziva na

JAVNE KONSULTACIJE

javnost, organe i organizacije zainteresovane za
Okvirne smjernice za zaštitu životne sredine i uticaja na društvo
za projekat Energetska efikasnost u Crnoj Gori – faza II

Uvid u predmetni dokument Okvirne smjernice za zaštitu životne sredine i uticaja na društvo može se izvršiti u prostoriji Direktorata za energetsku efikasnost Ministarstva ekonomije, ulica: Rimski trg 46, Podgorica, četvrti sprat, svakog radnog dana od 9h do 11h u roku od 7 dana od dana objavljivanja ovog obavještenja.
Primjedbe i mišljenja u vezi sa dokumentom Okvirne smjernice za zaštitu životne sredine i uticaja na društvo se podnose u pisanom obliku i dostavljaju na adresu Ministarstvo ekonomije, Direktorat za energetsku efikasnost, ulica: Rimski trg 46, Podgorica. Primjedbe se mogu dostaviti i elektronskom poštom na adresu info@ee-me.org.
Dana 02.03.2018. godine, sa početkom u 11h biće održane javne konsultacije i prezentacija predmetnog dokumenta u prostoriji Ministarstva ekonomije, sala za sastanke na 3 spratu, ulica: Rimski trg 46, Podgorica.
Za dodatne informacije, obratite se na sledeću adresu:

Ministarstvo ekonomije
Direktorat za energetsku efikasnost
Rimski trg 46
Podgorica
Telefon: + 382 20 482 185
E-mail: info@ee-me.org

2) Opšti depozit;
3) Potpisali nacrt ugovora;
4) Registrovani kao učesnici

Depozit se uplaćuje na žiro račun Op
nadmetanju".

3.2 Vrijeme i mjesto podnošer
Prijave za Javno nadmetanje i dokaz
javnom pozivu za prodaju nepokretn
sprovođenje postupka Javnog nadmet
8 do 14 časova, počev od 22.02.2018.
Obrazac prijave za javno nadmetanje s

3.3 Aukcijska dokumentacija
Aukcijska dokumentacija se može po
Opštine Šavnik -prvi sprat kod P
22.02.2018.godine do 06.03.2018.godi
Na ime otkupa aukcijske dokumentacij
kod Prve banke CG sa naznakom "otk

3.4 Vrijeme i mjesto registracij
Registracija učesnika za oba predme
08.03.2018. godine sa početkom u 1(
depozita.

3.5 Vrijeme i mjesto održavanj
Javno nadmetanje (aukcija) će se održ
- za nepokretnost iz tačke 1
- za nepokretnost iz tačke 1

3.6 Obilazak predmetnih nepo
Ponuđači zainteresovani za obilazak r
Opštine Šavnik-prvi sprat, kod Pred
godine u 11 časova.

4. Postupak javnog nadmet
Postupak javnog nadmetanje smatrać
prijave se registruje i prisustvuje javr
nadmetanju proglašava kupcem, a po
cijenu gubi pravo na povraćaj depozita.
Promjena raspona ponude u postupku
Kupcem se proglašava učesnik koji
kupovinu predmetne imovine.
Postupak nadmetanja se završava ak
najveće cijene.
Ukoliko je najveću cijenu ponudio jed
cijenu kupcem se proglašava učesnik k
Podnosioci prijava čije su prijave nepot
O početku, toku i završetku aukcije sa
zapisnik. Prigovor ne odlaže aukciju,
Odluka Komisije po prigovoru je konač
Komisija proglašava kupca i isto utvrd
članova Komisije, kupca, prodavca i os

5. Povraćaj uplaćenog depo
Učesnicima javnog nadmetanja koji ne
zaključenja kupoprodajnog ugovora.

6. Zaključenje ugovora
Kupac je dužan da sa Opštinom Šavr
protivnom gubi pravo na povraćaj dep
kupoprodaji sa drugim učesnikom javn
Uplaćeni depozit kupca se uračunava u
Troškove ovjere ugovora, uknjižbe i po

Bliža obavještenja i informacije u vezi
telefon 040/266-108 ili neposredno u pr

Komi

Photographs