Ministry of Health of Romania

ENVIRONMENTAL and SOCIAL MANAGEMENT FRAMEWORK (ESMF)

FOR

Health Sector Reform – Improving Health System Quality and Efficiency Project

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Executive Summary

This project, Health Sector Reform - Improving Health System Quality and Efficiency Project, aims at strengthening prevention and health promotion, rationalizing the health service delivery, increasing secondary specialized ambulatory services, and promoting the implementation of clinical pathways for the most prevalent non-communicable diseases (NCDs). To achieve this over a six-year period, this operation has focused on three main areas: (a) rationalization of the health facility network; (b) strengthening of prevention, health promotion, and the primary care level; and (c) improvement of health sector governance and stewardship. The proposed level II restructuring of this operation will entail adding a new component on "Strengthening of Public Health Emergency Response to COVID-19". This is intended to support the Government of Romania in the acquisition of medical equipment for *triage, intermediate and intensive care units in COVID-19 hospitals; and purchasing of laboratory equipment and kits to expand testing and early detection of COVID-19.*

The project will be financed by the World Bank (WB). The project will be managed centrally by a Project Management Unit (PMU), within the Ministry of Health.

This Environmental and Social Management Plan (ESMP) describes the overall management system which has been put in place and which will govern the activities of the Health Sector Reform - Improving Health System Quality and Efficiency Project. The purpose of the ESMP is to set out the environmental and social standards and procedures that must be followed, where relevant, and applied in a transparent and consistent manner. This ESMP is intended to fulfill these pre-requisites.

Section 2.1 of the ESMP summarizes the main pieces of EU environmental legislation that apply or may apply to the Health Sector Reform - Improving Health System Quality and Efficiency Project. These include Directives on Environmental Impact Assessment (EIA), waste management, water, air quality, protection against radiation and noise and energy efficiency and product safety. The majority of these Directives have already been transposed into Romanian legislation (section 2.2). As indicated in section 2.3, one of the transition periods that has been agreed with the European Commission concerned the incineration of waste, which was granted on account of the problems with existing incinerators for medical waste. Section 2.4 summarizes additional Romanian legislation of relevance to the implementation of Health Sector Reform - Improving Health System Quality and Efficiency Project, including legislation on building authorizations, radiation protection, and medical waste management.

The likely main environmental issues and impacts from the implementation of Health Sector Reform - Improving Health System Quality and Efficiency Project are discussed in section 3. These are divided into those related to the construction and operational phase of the medical facilities rehabilitated under the project. During construction, the main impacts relate to waste management, especially inert and non-hazardous demolition waste, as well as possible hazardous waste (including

asbestos, CFCs, PCB/PCTs). Measures to prevent/minimize noise, dust, water pollution and to ensure health and safety during the construction phase are also identified. During the operational phase, the main impacts relate to radiation protection and waste management, especially the safe disposal of clinical waste (both infectious and non-infectious). Regarding the new component "Strengthening of Public Health Emergency Response to COVID-19" main risk and impacts are:

- Risks related to medical waste management and disposal;
- Risks related to spread of the virus among healthcare workers;
- Risks related to the spread of COVID-19 in local communities.
- Potential risk that vulnerable and disadvantaged social groups may have difficulties accessing COVID-19 support

The environmental and social impacts of the restructured Project are expected to be positive. Some health care services and inpatients could be affected during civil works, which could involve transferring of inpatients to other hospitals. In order to mitigate negative impacts, standardized procedures will be applied to: (a) inform both health service providers and patients about the planned civil works well in advance, and (b) transfer them to other hospitals through standardized procedures as outlined in the POM. These risks are anticipated in advance of project implementation and addressed by local regulations and direct mitigation activities in the design, planning and construction supervision process as well as during the operation of the facilities.

Without claiming to pre-judge any decision by the competent authorities, it is considered unlikely that any of the rehabilitation plans under the Health Sector Reform - Improving Health System Quality and Efficiency Project will fall within the scope of the EIA Directive (Directive 2011/92/EU repealing Directive 85/337/EEC). All changes and new investments are to be made in accordance with the building permit which is issued on the basis of an administrative act issued by the environmental protection authority. However, this possibility cannot be excluded at this stage, and site-specific assessment will have to be carried out at each unit that is to be rehabilitated. Thus the procedures for determining whether an EIA may be required are set out in section 4. The PMU will inform the WB should any of the rehabilitation projects covered in Health Sector Reform - Improving Health System Quality and Efficiency Project fall within the scope of the EIA Directive. The procedures to be followed to obtain the necessary construction permits and environmental permits are also explained.

As detailed in section 5, the PMU will take responsibility for ensuring that all contractors are familiar with the provisions of this EMP, and that all contracts comply with the relevant provisions of the EMP. The roles and responsibilities of the State environmental authorities are also discussed.

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Abbreviations

ABC	Automated Brightness Control
CA	Competent Authority
CFCs	Chlorofluorocarbons
EA	Environmental Assessment
EEE	Electrical and Electronic Equipment
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ELVs	Emission Limit Values
EMP	Environmental Management Plan
GD	Government Decision
GEO	Government Emergency Ordinance
GO	Government Ordinance
ISO	International Organization for Standardization
HCFCs	Hydrochlorofluorocarbons
HTA	Health Technology Assessment
LEPA	Local Environmental Protection Agency
LTC	Long-Term Care
M&E	Monitoring and Evaluation
MECC	Ministry of Environment and Climate Changes
MO	Ministerial Order
MoH	Ministry of Health
NAMMD	National Agency for Medicines and Medical Devices
NCD	Non-Communicable Disease
NCNAC	National Commission for Nuclear Activities Control
ODS	Ozone-Depleting Substances
PCB/PCT	Polychlorinated biphenyls and polychlorinated terphenyls
PMU	Project Management Unit
QC	Quality Control
QMP	Quality Management Program
RSA	Radiologic Security Authorization
RSN	Radiologic Security Norms
SDC	Swiss Agency for Development and Cooperation
TRC	Technical Review Committee
UWWT	Urban Waste Water Treatment
VOC	Volatile Organic Compound
WB	World Bank
WEEE	Waste Electrical and Electronic Equipment

1 Introduction

1.1 Content of this ESMF

In order to address safeguard issues, the Borrower (Ministry of Health) has developed the ESMF. In accordance with this ESMF, all participating hospitals will develop site-specific ESMPs for every subproject (new construction/rehabilitation works) to be implemented in each of these. These ESMPs will specify potential adverse environmental and social impacts and related mitigation measures, as well as monitoring indicators, timing, methods, and institutional responsibilities.

As an overall management system, this ESMF will set out:

- a description of the project (sections 1.1 & 1.2)
- the relevant organizational structure for the project (section 1.3)
- EU,Romanian and World Bank Environmental and Social Assessment Policies, Rules and Procedures, including occupational health and safety(section 2) Baseline Data
- Potential Environmental and Social Impacts of Project Activities
- Project Environmental and Social Management Framework
- Institutional Arrangements
- Grievance Redress Mechanism
- Disclosure and Consultations
- Other detailed information (e.g. Romanian Environmental Guidelines, Romanian Radiation Protection Guidelines, Checklist for Small Works, etc.) presented as annexes

1.2 Background

This project, Health Sector Reform - Improving Health System Quality and Efficiency Project, aims at strengthening prevention and health promotion, rationalizing the health service delivery, increasing secondary specialized ambulatory services, and promoting the implementation of clinical pathways for the most prevalent non-communicable diseases (NCDs). To achieve this over a six-year period, this operation has focused on three main areas: (a) rationalization of the health facility network; (b) strengthening of prevention, health promotion, and the primary care level; and (c) improvement of health sector governance and stewardship. The project is being financed by the World Bank (WB) and is being managed centrally by a Project Management Unit (PMU), within the Ministry of Health. As a part of a level II project restructuring, a fourth component on "**Strengthening of Public Health Emergency Response to COVID-19**" will be included in this project. This component will support the Government of Romania in the acquisition of medical equipment for triage, intermediate and intensive care units in COVID-19 hospitals; and purchasing of laboratory equipment and kits to expand testing and early detection of COVID-19.

The project will establish an order of priority of the works to be carried out, starting with the medical units in possession of an operating license.

The four project components are the following:

1. **Strengthening Health Service Delivery**
2. **Public Health Sector Governance and Stewardship Improvement**
3. **Project Management, Monitoring and Evaluation**
4. **Strengthening of Public Health Emergency Response to COVID-19**

Activities under the first component of the Project, **Strengthening Health Service Delivery,** will focus on access and quality of selected key services (life-saving services and screenings). Specifically, this component would strengthen key hospitals that will become the backbone of the hospital network and improve cancer screening network through the provisions of goods, works, non-consulting services, consultants' services and training in support of the following activities: (a) improving life-saving medical services, such as medical services in the operating rooms, intensive care units (including Advanced Surveillance and Treatment Units for Critical Cardiac Patients – USTACC), burn units, radiotherapy units/centers, as well as emergency services (including emergency telemedicine systems) and medical imaging diagnosis services. Performing works of rehabilitation and new constructions for four large medical units, as well as reorganization of their medical flows; performing various rehabilitation works for other existing medical units; (b) improving cervical cancer screening network by supplying mobile units for cervical cancer screening, and by strengthening the technical capacity of the regional pathology and cytology laboratories. ,

The second component, **Public Health Sector Governance and Stewardship Improvement** , aims at improving sector governance and stewardship of the MoH and other relevant governmental institutions to bridge the gap between policy and practice and to strengthen the capacity of improving the quality of medical care services through the provisions of goods, non-consulting services, consultants' services and training, through the following activities: (a) adapting evidence-based standards and protocols; (b) strengthening and supporting the implementation of health technology assessments (HTA); (c) strengthening the capacity of the health sector to conduct surveys and studies, and make evidence-based health policies; (d) supporting selected national health programs to move the focus toward preventive care and promotion of health services among the population; and (e) strengthening the communication strategy of the MoH to inform the general public on reform program and expected outcomes.

The third component, **Project Management, Monitoring and Evaluation**, includes support to the MOH and the Project Management Unit ("PMU") in Project management and implementation, including fiduciary tasks, monitoring and evaluation and reporting through the provisions of goods, non-consulting services, consultants' services, training, auditing and incremental operating costs.

The fourth component, **Strengthening of Public Health Emergency Response to COVID-19** will support the Government of Romania in the implementation of selected activities to respond to the COVID-19 outbreak. The Government's plan focuses on strengthening the country's capacity for early detection of cases and the development of the network of public health laboratories; reorganizes health service delivery to implement patient triage and establish COVID-19 related services in COVID-19-specific facilities; expands public health surveillance and active monitoring of people exposed to COVID-19 patients; and strengthen the capacity of COVID-19 facilities. Specifically, the component will finance the following activities: (i) acquisition of medical equipment for triage, intermediate and intensive care units in COVID-19 hospitals; and (ii) purchasing of laboratory equipment and supplies to

expand the detection of COVID-19. It will be financed through a reallocation of US$77 million (EUR70 million equivalent) from Component 1.

1.3 Main investment components

The main physical investment components of the Health Sector Reform - Improving Health System Quality and Efficiency Project are:

a) rehabilitation of intensive care units
b) rehabilitation of operating (surgery) rooms
c) rehabilitation of emergency departments
d) improvement of Diagnostic Imaging Services
e) creation of 3 new burn units (with about 6 beds each within a regional hospital)
f) development of regional radiotherapy units
g) establishment of hub centers for ambulatory diagnostic and treatment
h) community care centers.

The Project activities will be implemented country-wide.

Project environmental category. The World Bank has established its social and environmental safeguards policies in order to prevent and mitigate potential adverse impacts associated with the Bank's lending operations to people and their environment. These policies are triggered if a project is likely to have potential adverse environmental risks and impacts on the natural environment (air, water and land); human health and safety; physical cultural resources; social environment. Since the potential social and environmental impacts of the restructured Project are not likely be significant, long-term, or irreversible, the project is classified under the Environmental Category B in accordance with World Bank operational policies and requires the preparation of this Environmental and SocialManagement Framework (ESMF). In addition to the overall project ESMF which identifies the range of possible problems, individual environmental and social management plans (ESMPs) will be drawn up for each sub-investment (construction) and administrative permit (as needed) issued by the local (county) environment protection agencies will be obtained. These ESMPs will specify potential adverse environmental and social impacts and mitigation measures. Within each ESMP, Environmental and Social Monitoring Plans will be prepared for each subproject, where monitoring indicators, timing, methods, and institutional responsibilities will be specified. The immediate impact of the proposed investment activities on the environment would be limited and can be divided into construction impacts and operational impacts. Potential adverse environmental impacts from construction activities and from operations of proposed investments are summarized below and are restricted in scope and severity.

The major areas of environmental and social risks, particularly in the context of COVID-19 are:

- Risks related to medical waste management and disposal;
- Risks related to spread of the virus among healthcare workers;
- Risks related to the spread of COVID-19 in local communities.

- Potential risk that vulnerable and disadvantaged social groups may have difficulties accessing COVID-19 support

The environmental and social impacts of the restructured Project are expected to be positive. Some health care services and inpatients could be affected during civil works, which could involve transferring of inpatients to other hospitals. In order to mitigate negative impacts, standardized procedures will be applied to: (a) inform both health service providers and patients about the planned civil works well in advance, and (b) transfer them to other hospitals through standardized procedures as outlined in the POM.
These risks are anticipated in advance of project implementation and addressed by local regulations and direct mitigation activities in the design, planning and construction supervision process as well as during the operation of the facilities.

1.4 Project implementation

The project will be managed centrally by a Project Management Unit (PMU) of the Ministry of Health (MoH) under the special coordination of the Minister of Health. The PMU is headed by a Project Director and employs 10 other staff:

- Procurement officers (x3)
- Monitoring & Evaluation (M&E) experts (x2), out of which one environmental monitoring expert
- Financial experts
- Accountant
- Office manager
- Car driver

The PMU is subordinated to the Minister of Health. The PMU will have specific responsibilities, related to the management of the counterpart funds of the loan. The Project will be coordinated by a State Secretary and Technical Working Groups will be established by ministerial order to ensure technical support to the project.

Establishment of Environmental Expertise within the Project Management Unit

The Safeguards specialist togheter with the Monitoring & Evaluation Specialists assisted by the technical support staff would be responsible for the coordination and supervision of measures imposed by Environment Protection Agencies through the issued administrative acts and monitoring programs on the environmental impact activity.

They will work in close cooperation with Local Environment Protection Agencies and they will ensure: a) the coordination of environmental training for staff, designers and local contractors; b) the dissemination of existing environmental management guidelines and develop guidelines in relation to issues not covered by the existing regulations, in line with EU standards for implementation, monitoring and evaluation of mitigation measures; c) that contracts for the construction and supply of equipment include reference to appropriate guidelines and standards; and d) that periodic site visits are conducted in order to inspect and approve plans and monitor compliance.

1.5 Preparation and purpose of the ESMF

The aim of this ESMF is to describe in a generic way the overall management system which has been put in place and will govern all activities falling under the rehabilitation of the emergency departments, anesthestesia and Intensive Care units, operating rooms, specialized ambulatories, and rural primary care facilities falling under the restructured Health Sector Reform - Improving Health System Quality and Efficiency Project. The purpose of this ESMF is to set out the environmental standards and procedures which are to be followed, where relevant, and to be applied in a transparent and consistent manner, at each of the individual units to be rehabilitated during the course of the project. Its design is meant to facilitate the early identification of environmental and social risks, as well as the undertaking of appropriate remedial actions for all remaining subprojects financed by this project.

The initial Framework EMP was first drafted by the central PMU staff following consultation with other institutions and Ministries. It has undergone public consultation and it was sent for review to the NCNAC (National Commission for Nuclear Activities Control) and to the Ministry of Environment and Climate Changes (actual Ministry of Environment, Waters anf Forests). The document was revised through the incorporation of the suggested modifications and comments received from the MECC and the final version was approved by the MECC. The actual updated ESMF has been prepared by the PMU in June 2020 to take into account COVID-19 related environmental and social risks and will be finalized after the disclosure and consultation period.

2 Romanian, EU and World Bank Environmental and Social Assessment Policies, Rules and Procedures, including Occupational Health and Safety

2.1 World Bank Safeguards Policies

The World Bank has established its social and environmental safeguard policies in order to prevent and mitigate potential adverse impacts associated with the Bank's lending operations to people and their environment. Taking into account the nature of the proposed sub-projects, of ten Operational Policies eight (OP-BP 4.04 - Natural Habitats; 4.09 - Pest Management; 4.10 - Indigenous People, 7.50 - International Waterways, 4.37 - Safety of Dams 4.12 - Involuntary Resettlement; OP-BP 4.36 - Forests and 7.60 Disputed Areas OP-BP) are not triggered.

OP 4.01: Environmental Assessment - is triggered for all sub-projects. This policy is triggered if a project is likely to have potential (adverse) environmental risks and impacts in its area of influence, which is the case with our sub-projects. OP 4.01 covers impacts on the natural environment (air, water and land); human health and safety; physical cultural resources; transboundary and global environment concerns.

When OP 4.01 is triggered, the Bank classifies the project as category A, B, C, or FI according to the nature and magnitude of potential environmental impacts. For category B projects, the scope of the EA may vary and it is narrower than category A. Activities of all subprojects fall under the category B, for which an ESMP should be prepared.

Depending on the project and the nature of impacts, a range of instruments can be used: Environmental Impact Assessment (EIA), environmental audit, Environmental and Social Management Framework (ESMF) and Environmental and Social management plan (ESMP).

The Borrower is responsible for carrying out the EIA and preparing ESMF and ESMPs.

For Environmental Category B subprojects the Borrower consults project-affected groups and local non-governmental organizations (NGOs) about the project's environmental and social aspects and takes their views into account. The Borrower initiates such consultations as early as possible.

The Borrower provides relevant information in a timely manner prior to consultation and in a form and language accessible to the groups being consulted.

The Borrower makes the ESMF available in the country in the local language and at a public place accessible to project-affected groups and local NGOs prior to appraisal.

The World Bank Group's Environmental Health and Safety (EHS) Guidelines. The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). The EHS Guidelines contain the performance levels and measures that are normally acceptable to the World Bank Group, and that are generally considered to be achievable in new facilities at reasonable costs by existing technology. The World Bank Group requires borrowers to apply the relevant levels or measures of the EHS Guidelines. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects will be required to achieve whichever is more stringent. In the case of this Project, the General EHS Guidelines apply. The implementing agency will pay particular attention to the following General EHS Guidelines:

a. EHS 1.5 – Hazardous Materials Management;
b. EHS 2.5 – Biological Hazards;
c. EHS 2.7 – Personal Protective Equipment (PPE);
d. EHS 2.8 – Special Hazard Environments;
e. EHS 3.5 – Transportation of Hazardous Materials;
f. EHS 3.6 – Disease Prevention;
g. WBG Environmental, Health, and Safety Guidelines for Health Care Facilities.

2.2 Overview of EU legislation

A number of EU Directives and Regulations are of relevance to the implementation of the ESMF. These are listed in the box below:

Relevant European Environmental Directives

- Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment
- Directive 2008/98/EC on waste
- Directive 2000/60/EC establishing a framework for the Community action in the field of

water policy, as subsequently amended

- Directive 1999/31/EC on the landfill of waste, modified by Regulation (EC) 1882/2003
- Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control) replacing Directive 2000/76/EC on the incineration of waste
- Directive 96/59/EC on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT) amended by Regulation (EC) 596/2009
- Directive 94/62/EC on packaging and packaging waste, as amended
- Directive 2012/19/EU on waste electrical and electronic equipment (WEEE) replacing Directive 2002/96/EC
- Directive 98/83/EC on the quality of water intended for human consumption
- Directive 2006/11/EC on pollution caused by certain dangerous substances discharged into the aquatic environment of the community
- Directive 91/271/EEC concerning urban-waste water treatment, as amended by Directive 98/15/EC
- Regulation (EC) No 1005/2009 on substances that deplete the ozone layer
- Directive 2004/42/EC on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC
- Directive 2009/148/EC on the protection of workers from the risks related to exposure to asbestos at work; and Directive 87/217/EEC on the prevention and reduction of environmental pollution by asbestos, as amended
- Directive 96/29/Euratom laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionising radiation
- Directive 97/43/Euratom on health protection of individuals against the dangers of ionising radiation in relation to medical exposure
- Directive 2010/31/EU on the energy performance of buildings
- Directive 92/42/EEC on efficiency requirements for new hot-water boilers fired with liquid or gaseous fuels, as amended
- Regulation (EU) No 305/2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC
- Directive 2001/95/EC on general product safety, as amended
- Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment

These directives are summarized below and grouped into six environmental sectors.

2.2.1 Environmental Impact Assessment

Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment [1] requires that all projects which are likely to have significant effects on the environment by virtue, *inter alia*, of their nature, size or location must be made subject to an environmental impact assessment (EIA) before development consent is granted. Annex I to the Directive lists those projects for which an EIA will always be required. In comparison, Annex II lists projects which may require an EIA. In determining whether an Annex II project will require an EIA, the criteria set out in Annex III must be taken into account by the competent authority when making this screening decision.

[1] Directive 2011/92/EU replaces Directive 85/337/EEC (amended by Directive 97/11/EC and Directive 2003/35/EC).

Where an EIA is required, it shall identify, describe and assess the direct and indirect effects of a project on the population, flora and fauna; soil, water, air, climate and the landscape; material assets and cultural heritage. It will also assess the interactions between these factors.

Project developers must submit to the competent authority a notification pursuant to Annex no. 1 to MO no. 135/2010, to include all the relevant information for the project concerned (not all projects will be subject to the full environmental impact assessment). For projects requiring an EIM, the notification will include:

- Description of the project;
- Outline of the main alternatives studied by the developer and an indication of the main reasons for this choice, taking into account the environmental effects;
- Description of the environmental aspects likely to be significantly affected by the proposed project, including, in particular, the population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors;
- Description of the likely significant effects of the proposed project on the environment;
- Description by the developer of the forecasting methods used to assess the effects on the environment;
- Description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
- Non-technical summary of the information provided as above;
- Indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information.

The Directive requires that the public and environmental authorities are given an opportunity to comment on the environmental statement before a decision is made. The competent authority must take any such comments into account before making its decision whether to grant or refuse the development consent. The environmental statement, the decision including reasons and conditions, and a description, where necessary, of the main measures to avoid, reduce and, if possible, offset the major adverse effects must be made available to the public.

2.2.2 Waste

The EU framework directive on waste, namely ***Directive 2008/98/EC***, which sets the basic requirements, replaces the Directives 75/442/EEC on waste and 91/689/EEC on hazardous waste. It establishes a waste hierarchy that shall apply as a priority order in waste prevention and management legislation and policy, namely:
(a) prevention;
(b) preparing for re-use;
(c) recycling;
(d) other recovery, e.g. energy recovery; and
(e) disposal.
The most important requirement of the Directive is that waste is capitalized or disposed of without endangering people's health or the environment. There is an absolute prohibition against dumping or uncontrolled disposal of waste. Member States must put in place an integrated and adequate network of disposal installations, and must dispose of waste at the nearest such installation. To this end, competent authorities must draw up and made public

waste management plans. Establishments which carry out capitalization and/or recovery operations must obtain a permit from the competent authority. Such establishments must keep appropriate records, and will be subject to periodic inspection by the competent authorities. Waste holders must have waste handled by authorized waste collectors or by a firm that carries out capitalize or disposal operations.

The mixing of hazardous waste with non-hazardous waste or with other categories of hazardous waste is prohibited. Where hazardous waste is already mixed with other wastes, substances or materials, separation must be effected where technically and economically feasible. Establishments or undertakings that produce, collect, treat, capitalize, dispose of or transport hazardous waste must keep appropriate records. Hazardous waste must be properly packaged and labeled in the course of its collection, transport and temporary storage. Additionally, plans for management of hazardous waste must be drawn up and made public.

The EU also has legislation on *specific waste streams*, three of which are relevant to the Health Sector Reform - Improving Health System Quality and Efficiency Project.

Directive 96/59/EC, amended by Regulation (EC) No 596/2009,* regulates the *controlled disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT), the decontamination or disposal of equipment containing PCB/PCT and/or the disposal of used PCB/PCT in order to eliminate them completely. Necessary measures must be taken to ensure that, as soon as possible, used PCB/PCT are disposed of, and that PCB/PCT and equipment containing PCB/PCT are decontaminated or disposed of. Inventories must be compiled of equipment with PCB/PCT volumes of more than 5 dm^3.
All undertakings that are engaged in the decontamination and/or the disposal of PCBs and/or equipment containing PCBs must obtain a waste management license/permit. All used PCBs and equipment containing PCBs which are subject to the above inventories must be transferred as soon as possible to licensed undertakings, and at the same time taking all necessary precautions to avoid the risk of fire. The topping up of transformers with PCB-containing oils and the separation of PCBs from other substances for the purpose of reusing the PCBs is prohibited. The Directive sets out the conditions under which transformers containing more than 0.05% by weight of PCB are to be decontaminated.

Directive 94/62/EC*, as amended, *on packaging and packaging waste lays down measures primarily aimed at preventing the production of packaging waste, and the additional fundamental principles of increasing the re-use, recycling and recovery of such waste. These measures include minimum standards for packaging materials and targets for the recycling and capitalization of packaging waste. Member States have to set up systems for the return and/or collection of used packaging and/or packaging waste, and the reuse or recovery of the packaging/packaging waste collected, so that specified targets will be met.

***Directive 2002/96/EC*, as amended, *on waste electrical and electronic equipment* (WEEE)** applies to all electrical and electronic equipment listed in Annex IA of the Directive, including, *inter alia*, large household appliances, small household appliances, IT and telecommunications equipment, medical devices, and monitoring and control instruments. The Directive requires that appropriate measures are taken to minimize the disposal of WEEE as unsorted municipal waste and to achieve a high level of separate collection of WEEE. All collected WEEE must be transported to authorized treatment facilities; and the

collection and transport should be carried out in such a way as to optimize reuse and recycling of components or whole appliances capable of being reused or recycled. Producers, or third parties acting on their behalf, must set up systems for the treatment of WEEE using best available treatment, recovery and recycling techniques. Hospitals, Emergency departmens, ICUs and operating theaters are likely to have, from time to time, WEEE for disposal, and must ensure their collection and treatment where such collection and treatment services are available. The Directive 2002/96/EC is repealed by Directive 2012/19/EU, with effect from 15.02.2014.

The last possibility under the waste hierarchy is that waste is safely disposed of. The EU regulates the two main methods of *waste disposal*, namely, landfill and incineration.

Directive 1999/31/EC on the landfill of waste sets out stringent operational and technical requirements on waste and landfills, so as to prevent or reduce the negative effects on the environment. Landfills must be categorized into one of three classes: for hazardous waste, for non-hazardous waste and for inert material. Only waste (other than inert waste) that has been subject to treatment may be landfilled. Only hazardous waste that fulfils the relevant waste acceptance criteria set out in Annex II may be accepted by a hazardous waste landfill. A non-hazardous waste landfill may be used for municipal waste, non-hazardous waste of any other origin that meets the relevant waste acceptance criteria set out in Annex II, and for stable non-reactive hazardous waste, but exclusively on the basis of a laboratory test report confirming the non-hazardous nature of the waste, with the exception of municipal waste from this requirement. Inert waste landfills may only be used for inert waste.

Certain types of waste may not be landfilled, these include:

- Liquid waste
- Waste which, in the conditions of the landfill, is explosive, corrosive, oxidizing, highly flammable or flammable
- Hospital and other clinical wastes arising from medical or veterinary establishments, which are infectious or which are non-identified or new chemical substances from research and developing or teaching activities
- Tires, subject to certain exceptions
- Any other types of waste not fulfilling the waste acceptance criteria provided under Decision 2003/33/EC.

The landfill must hold a landfill permit which includes conditions on the operation of the landfill, including post-closure monitoring requirements. Waste acceptance procedures are established, as well as control and monitoring procedures.

Directive 2000/76/EC on incineration of waste also sets rigorous operational conditions and technical requirements for waste incineration and co-incineration plants.
All incineration and co-incineration plants must be authorized by the relevant environmental protection authority. The Directive establishes emission limit values (ELVs) for emissions to air and discharges to water. Infectious medical waste must be placed straight in the furnace without first being mixed with other categories of waste and without direct handling.
Directive 2000/76/EC is repealed by Directive 2010/75/EU, with effect from 7.01.2014.

2.2.3 Water

Directive 98/83/EC on the quality of water intended for human consumption (i.e. drinking water) aims to protect human health from the adverse effects resulting from any contamination of water intended for human consumption, by ensuring the water is clean and wholesome.

As a general rule, the Directive requires that drinking water meets specific chemical and microbiological standards. The quality of the drinking water must be monitored on a regular basis. If the drinking water constitutes a potential danger to the population, then its distribution must be prohibited or its use restricted. In such cases the consumers must be informed and given necessary advice. The potential deficiencies in the drinking water distribution system could cause non-compliance with the requirements of the Directive. Member States bear the responsibility for the quality of drinking water supplied to the population (including to hospitals), regardless of the reasons that might cause non-compliance with the quality requirements.

Directive 91/271/EEC, as amended by Directive 98/15/EC on urban waste water treatment **(UWWT),** concerns the collection, treatment and disposal of urban waste water and the treatment and disposal of biodegradable waste water from certain industrial sectors (mainly the agro-food industry). Its aim is to protect the environment from damage due to discharges of such waste waters.

Waste water treatment plants must be designed, constructed, operated and maintained so as to ensure sufficient performance under all normal climatic conditions prevalent at their locations. The points of discharge of the treated waste water must be chosen, as far as possible, so as to minimize the effects on the receiving water. The Directive sets out a timetable by which different sized agglomerations must comply with the treatment requirements set out in the Directive.

The discharge of all treated municipal waste water and the discharge of industrial waste water in sewers and treatment plants must be subject to prior rules and/or specific authorization. Treated waste water may be recirculated whenever appropriate, if such measures prove technically and environmentally feasible.

2.2.4 Air

Directive 1999/13/EC**, as amended by Directive 2004/42/CE, regulates *emissions of volatile organic compounds (VOCs)*** from certain paints and varnishes and vehicle refinishing products. The Directive applies to the products set out in Annex I. These products can only be marketed in the Community if they have a VOC content not exceeding the limit values set out in Annex II of the Directive. Products falling within the scope of the Directive and which are shown to have been produced before the dates laid down in Annex II and do not meet the limit values, may be placed on the market for a period of one year following the date on which the requirement applying to that product comes into force.

The scope of Regulation (EC) No. 1005/2009 is to lay down rules on the production, import, export, placing on the market, use, recovery, recycling, reclamation and destruction of substances that deplete the ozone layer (ODS, listed in Annex I), on the reporting of information related to those substances and on the import, export, placing on the market and use of products and equipment containing or relying on such substances. The Regulation provides that ODS contained in refrigeration, air-conditioning and heat pump

equipment, equipment containing solvents or fire protection systems and fire extinguishers shall, during the maintenance or servicing of equipment or before the dismantling or disposal of equipment, be recovered for destruction, recycling or reclamation. Controlled substances and products containing such substances shall only be destroyed by approved technologies listed in Annex VII of the Regulation or, in the case of controlled substances not referred to in that Annex, by the most environmentally acceptable destruction technology not entailing excessive costs, provided that the use of those technologies complies with Community and national legislation on waste and that additional requirements under such legislation are met. The Regulation sets rules for temporary storage and destruction of ODS and prohibits the export of equipment containing ODS.

Directive 2009/148/EC has as its aim the ***protection of workers against risks to their health, including the prevention of such risks, arising or likely to arise from exposure to asbestos at work***. In the case of any activity likely to involve a risk of exposure to dust arising from asbestos or materials containing asbestos, this risk must be assessed in such a way as to determine the nature and degree of the workers' exposure to dust arising from asbestos or materials containing asbestos. There are some exceptions (worker exposure is sporadic and of low intensity where the work involves short, non-continuous maintenance activities in which only non-friable materials are handled removal without deterioration of non-degraded materials in which the asbestos fibers are firmly linked in a matrix; encapsulation or sealing of asbestos-containing materials which are in good condition; and air monitoring and control, and the collection of samples to ascertain whether a specific material contains asbestos), and in such situations, a personnel warning system must be in place.
The Directive lays down a maximum airborne concentration of asbestos to which the workers may be exposed. The exposure of workers to dust arising from asbestos or materials containing asbestos at the place of work must be reduced to a minimum and in any case below the limit value laid down. Any waste containing asbestos must be placed in suitable sealed packing with labels indicating that it contains asbestos; such waste shall then be dealt with in accordance with the Directive on hazardous waste.

Directive 87/217/EEC, as subsequently amended, lays down measures for prevention and reduction of environmental pollution by asbestos. The demolition of buildings, structures and installations containing asbestos and the removal therefrom of asbestos or materials containing asbestos involving the release of asbestos fibres or dust, must be done applying all the necessary measures to ensure that no significant asbestos environmental pollution is produced. Additionally measures must be taken in order to ensure that:

- in the course of the transport and deposition of waste containing asbestos fibres or dust, no such fibres or dust are released into the air and no liquids which may contain asbestos fibres are spilled;
- where waste containing asbestos fibres or dust is landfilled at sites licensed for the purpose, such waste is so treated, packaged or covered, with account being taken of local conditions, that the release of asbestos particles into the environment is prevented.

2.2.5 Protection against radiation

Directive 96/29/Euratom has provisions concerning basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation.

This Directive shall apply to all practices which involve a risk from ionizing radiation emanating from an artificial source or from a natural radiation source in cases where natural radionuclides are or have been processed in view of their radioactive, fissile or fertile properties. All these practices have to be reported, excepting certain cases specified in the directive.
Prior authorization is necessary for certain specific practices, which involve a risk from ionizing radiation emanation including: the deliberate administration of radioactive substances to persons, and the exposure of persons for medical treatment and the use of accelerators except electron microscopes.
The disposal, recycling or reuse of radioactive substances or materials containing radioactive substances arising from any practice subject to the requirement of reporting or authorization is subject to prior authorization, excepting when they comply with clearance levels established by national competent authorities.

Directive 97/43/Euratom provides general principles regarding health protection of individuals against the dangers of ionizing radiation in relation to medical exposure, following medical diagnosis or treatment. Medical exposure shall be justified in advance. All doses due to medical exposure for radiological purposes shall be kept as low as reasonably achievable consistent with obtaining the required diagnostic information. Written protocols for every type of standard radiological practice shall be established for each equipment. Practitioners must have adequate theoretical and practical training. Measures must be taken with a view to avoiding unnecessary proliferation of radiological equipment. All radiological equipment in use is kept under strict surveillance regarding radiation protection and an up-to-date inventory of radiological equipment for each radiological installation must be available to the competent authorities. All necessary measures must be taken in order to reduce the probability and the magnitude of accidental or unintended doses of patients from radiological practices.

2.2.6 Energy Efficiency and Product Safety

The scope of Directive 2010/31/EU, being a recast of Directive 2002/91/EC **is to** ***promote the improvement of the energy performance of buildings*****.** Member States must set minimum energy performance requirements for buildings, based on the methodology set out in the Directive. New buildings must meet these minimum standards. When existing buildings undergo major renovation, the energy performance of the building or the renovated part thereof must be upgraded in order to meet these minimum standards in so far as this is technically, functionally and economically feasible.
Energy performance certificates should be made available when buildings are constructed, sold or rented out. The Directive also lays down requirements for the regular inspection of boilers and central air-conditioning systems in buildings.

Directive 2010/31/EU is a follow-up measure to ***Directive 89/106/EEC, as amended, on construction products and to Directive 92/42/EEC, as amended, on efficiency requirements for new hot-water boilers*****.** Construction products may only be placed on the market if they are fit for their intended use. In this regard they must have such characteristics that the works in which they are to be incorporated can satisfy the essential requirements with regard to: mechanical resistance and stability; safety in the event of fire; hygiene, health and the environment; safety in use; protection against noise; and energy economy and heat

retention. Directive 92/42/EEC establishes the essential requirements to be met by new hot-water boilers fired with liquid or gaseous fuels.

Directive 2001/95/EC on general product safety applies where there are no specific provisions with the same objective in rules of Community law governing the safety of the products concerned. The Directive imposes a general safety requirement on any product placed on the market for consumers, or likely to be used by consumers. A product is deemed safe once it conforms to any specific Community legislation. In the absence of such Community legislation, the product must comply with specific national legislation or with voluntary national standards which transpose the European standards. In the absence thereof, the Directive sets out mechanisms by which the safety compliance of the product may be determined, including compliance with codes of good practice.

Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment**,** has a similar scope to Directive 2012/19/EU on WEEE, in that it applies to all EEE set out in Annex I of that Directive. Member States shall ensure that EEE placed on the market, including cables and spare parts for its repair, its reuse, updating of its functionalities or upgrading of its capacity, does not contain the substances listed in Annex II of the Directive: lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE). This applies to medical devices and monitoring and control instruments which are placed on the market from 22 July 2014. The Annexes III and IV to the Directive contains certain exceptions to this obligation.

2.2.7 Occupational Health and Safety

Occupational health and safety hazards may occur during construction, maintenance, and operation of new facilities and equipment, and must be carefully managed.

The Contractor will develop a Method Statement before starting construction works on site, and this document will be approved by the Employer.
Many workers will be exposed to occupational health and safety hazards, primarily including, but not limited to:

- Lack of awareness on occupational health and safety requirements such as the use of personal protective equipment (PPE) and safe workplace practices;
- Electrical works;
- Exposure to chemicals (as paints, solvents, lubricants, and fuels);
- Traffic accidents;
- Excavations hazards;
- Lifting of heavy structures;
- Exposure to construction airborne agents (dust, silica and asbestos);
- Welding hazards (fumes, burns and radiation).

In particular, prevention and control measures must ensure that only trained and certified workers access the facilities or any area that could present occupational health and safety hazards, with the necessary safety devices and respect for minimum setback distances.

- Considering the current situation with COVID-19 in the country, in addition to the measures for safety and protection at work, the OH&S plan also should include

measures for prevention of COVID -19. Detailed description of the measures and recommendations from the World Bank/WHO and Romania's health authorities are presented in **Annex 9**. The COVID-19 prevention measures contains recommendations from the World Bank / WHO, as well as recommendations from the Romania Health authorities in the form of a Guide that the Contractor of the construction works needs to implement. The Contractor is required to follow/update and implement the measures that are currently in force and adopted by the Government as binding at national level. Official site for information related to COVID 19 on national level is Government of Romania's official COVID-19 page: https://stirioficiale.ro/informatii

2.3 Correlation of EU and Romanian legislation

The following table lists the Romanian legislation which transposes the relevant European environmental Directives.

EU Legislation	Transposing Romanian legislation
Environmental Impact Assessment	
Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment *(replaces the Directive 85/337/EEC on EIA)*	GD 445/2009 modified and completed by GD 17/2012 MO 135/2010 MO 19/2010
Waste	
Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives *(replaces the Directives 75/442/EEC on waste, 91/689/EEC on hazardous waste, and 75/439/EEC on the disposal of waste oils)*	L 211/2011 GD 856/2002 MO 757/2004 modified by MO 1230/2005 GD 128/2002, modified and completed by GD 268/2005 and GD 427/2010 GD 445/2009 modified and completed by GD 17/2012 MO 135/2010 MO 863/2002 GD 210/2007
Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, modified by Regulation (EC) No 1882/2003 of the European Parliament and of the Council of 29 September 2003	GD 349/2005, modified by GD 210/2007 and GD 1292/2010 MO 775/2006 completed by MO 27/2007 MO 95/2005 GD 445/2009 modified and completed by GD 17/2012 MO 135/2010 MO 818/2003 modified and completed by MO 1158/2005
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) *(replaces the Directive 2000/76/EC on incineration of waste, which is in effect until 7 January 2014]*	Law no. 278/2013 on industrial emissions
Council Directive 96/59/EC of 16 September	GD 173/2000, modified by GD 291/2005, GD

EU Legislation	Transposing Romanian legislation
1996 on the disposal of polychlorinated biphenyls and polychlorinated terphenyls (PCB/PCT), amended by Regulation (EC) No 596/2009 of the European Parliament and of the Council of 18 June 2009	210/2007 and GD 975/2007 L 211/2011 Law no. 278/2013 on industrial emissions
European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste, as subsequently amended	GD 621/2005 modified and completed by GD 1872/2006 and GD 247/2011 L 211/2011 GD 1470/2004 modified by GD 358/2007 MO MEC 128/2004 modified by MO MEC 918/2009 MO MMP/MECMA/MAI 2742/3190/305/2011
Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE) *(replaces the Directive 2002/96/EC on WEEE, as subsequently amended, in effect until 15.02.2014)*	Directive 2002/96/EC and its subsequent amendments through Directives 2003/108/EC and 2008/34/EC was transposed through: GD 1037/2010 GEO 196/2005 approved by L 105/2006, modified by L 292/2007, GEO 37/2008, GEO 15/2010, L 167/2010, GEO 115/2010, and GEO 71/2011 Transposition deadline for Directive 2012/19/EU: 14.02.2014
Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC	GD 1132/2008
Water	
Directive 2000/60/EC establishing a framework for the Community action in the field of water policy, as subsequently amended	L 107/1996 as amended by GD 948/1999, L 404/2003, L 310/2004, L 112/2006, GEO 130/2007, GEO 3/2010 as adopted by L 146/2010, GEO 64/2011 and GEO 71/2011 GEO 12/2007 as adopted by L 161/2007
Council Directive 98/83/EC of 3 November 1998 on the quality of water intended for human consumption, as subsequently amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council of 29 September 2003	L 458/2002, modified by L 311/2004, GO 11/2010 approved by L 124/2010, GO 1/2011 approved by 182/2011, with correction 458/2012
Council Directive 91/271/EEC of 21 May 1991 concerning urban waste-water treatment, as amended by Directive 98/15/EC and Regulation (EC) No 1882/2003	GD 188/2002 modified by GD 352/2005 GD 210/2007 MO 799/2012, MO 662/2006 MO MMGA/MAPDR 344/708/2004
Air	
Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer *(replaces the Regulation (EC) No 2037/2000 on substances that deplete the ozone layer)*	Ordinance no. 9 of 26 January 2011 establishing measures for the implementation of Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer and repealing Government Ordinance no. 89/1999 on the trade regime of and restrictions to the use of halogenated hydrocarbons that deplete the ozone

EU Legislation	Transposing Romanian legislation
	layer
Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC	**GD no. 735/2006**
Directive 2009/148/EC of the European Parliament and of the Council of 30 November 2009 on the protection of workers from the risks related to exposure to asbestos at work *(replaces Directive 83/477/EEC)* and Council Directive 87/217/EEC of 19 March 1987 on the prevention and reduction of environmental pollution by asbestos, as subsequently amended by Directive 91/692/EEC and by Regulation (EC) 807/2003	GD 124/2003, modified by GD 734/2006 and GD 210/2007 MO-MEWM 108/2005
Protection against radiation	
Council Directive 96/29/Euratom of 13 May 1996 laying down basic safety standards for the protection of the health of workers and the general public against the dangers arising from ionizing radiation	O–NCNAC 14/24.01.2000 MO-MOH 944/28.12.2001 O-NCNAC 94/14.04.2004 O-NCNAC 293/30.08.2004 MO-MOH 381/05.04.2004 O-944/28.12.2001 O-NCNAC 202/15.10.2002 O-NCNAC 180/05.09.2002 O-NCNAC 292/30.08.2004 O-NCNAC 366/22.09.2001 O-933/25.11.2002 O-NCNAC 155/02.10.2003 O-NCNAC 289/27.08.2004 O-NCNAC 173/16.10.2003 O-NCNAC 291/30.08.2004 O-NCNAC 62/31.03.2004 O-NCNAC 144/05.05.2004 O-NCNAC 294/30.08.2004 O-NCNAC 360/20.10.2004 O-NCNAC 361/20.10.2004 O-NCNAC 207/24.11.2003 O-NCNAC 171/31.05.2004 O-NCNAC 127/27.05.2002 O-NCNAC 192/26.09.2002
Council Directive 97/43/Euratom of 30 June 1997 on health protection of individuals against the dangers of ionizing radiation in relation to medical exposure, and repealing Directive 84/466/Euratom	MO-MOH 1200/24.09.2004 MO-MOH381/05.04.2004 O–MOH-NCNAC 285/79/2002, modified by O–MOH-NCNAC 1806/321/2006 MO-MOH431/16.04.2004 MO-MOH1065/21.11.2003 MO-MOH1186/21.09.2004 MO-MOH 1334/19.10.2004

EU Legislation	Transposing Romanian legislation
	O–NCNAC 94/14.04.2004 O–NCNAC 173/16.10.2003
Energy Efficiency & Product Safety	
Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings *(replaces the Directive 2002/91/EC on energy performance of buildings, repealed with effect from 1 February 2012)*	Law 372/2005 regarding energy performance is presently under revision in the Romanian Parliament to include all the Directive 201/31 requirements
Council Directive 92/42/EEC of 21 May 1992 on efficiency requirements for new hot-water boilers fired with liquid or gaseous fuels, modified by Directive 2005/32/EC	GD 574/2005 GD 962/2007 GD 1043/2007 GD 55/2011
Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC *(replaces the Directive 89/106/EEC on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products, repealed with effect from 1 July 2013)*	Directive 89/106/EEC was transposed through: GD 622/2004, modified and completed by GD 796/2005, GD 1708/2005, GD 1031/2010 and GD 167/2012 MO MDRAP 1817/2013 MO MTCT MAI 1822/394/2004 MO MTCT MAI 133/1234/2006 MO MTBT 2190/2004
Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety, amended by Regulation (EC) 765/2008 and Regulation (EC) 596/2009	L 245/2004, republished in 2008
Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC *(replaces the Directive 89/106/EEC on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products, repealed with effect from 1 July 2013)*	Directive 89/106/EEC was transposed through: GD 622/2004, modified and completed by GD 796/2005, GD 1708/2005, GD 1031/2010 and GD 167/2012 MO MDRAP 1817/2013 MO MTCT MAI 1822/394/2004 MO MTCT MAI 133/1234/2006 MO MTBT 2190/2004
Noise	
Directive 2002/49/EC of the European Parliament and of the Council of 25 June 2002 relating to the assessment and management of environmental noise, as amended	GD 321/2005, modified by GD 1260/2012

Note: if not specified otherwise, “MO” in the above table refers to Ministerial Order

2.4 Other relevant Romanian legislation

In addition to the Romanian legislation which transposes the EU legislation listed above, a number of other pieces of Romanian legislation may be of relevance to the implementation of this project. These are summarized below.

GEO 195/2005 approved by Law no. 265/2006 on environment protection, as subsequently amended and supplemented

Its objective is to regulate in matters of environmental protection, an objective of major public interest, on the basisof the strategic principles and elements leading to sustainable social development, creating a unified framework meant to lay down the principles governing the entire environmental protection activity and designing regulatory guidelines for economic activities.

2.4.1 Law no. 50/1991 concerning the authorization of the execution of construction works

Law no. 50/1991 has been modified by Law no. 453/2001, Law no. 401/2003, Law no. 199/2004, and Law no.119/2005. It was re-published with all existing modifications on 13th of October 2004. The main requirements of the Law are listed below:

- it stipulates that the execution of construction works is allowed only on the basis of a construction permit
- the construction permit is issued at the request of the building's owner
- the construction permit is a document of the local authority, based on which are implemented all the measures requested by law regarding the position, the design, the execution and the functioning of the building in case
- the law stipulates also the works for which a construction permit is required: namely; construction, reconstruction, consolidation, modification and expansion for existing buildings, change of building destination, or repairs.
- approvals and licences as required by the urban planning certificate, together with the opinion of the competent environmental protection authority or, as the case may be, the latter's administrative act shall be annexed to the construction permit and become an integral part thereof.

2.4.2 Law no. 10/1995 regarding quality in constructions

Law no. 10/1995 was modified by Law no 587/2002. The main requirements of the Law are:

- all the processes and materials used in constructions are verified under established quality standards, in order to be safe for the human health
- construction quality is the sum total of a building's performance while in operation for the purpose of meeting the requirements of its users and of the community throughout the duration of the building's life cycle
- the law institutes the quality assurance system in construction works in order to secure the construction and operation of buildings of suitable quality for the protection of human life, people's property, society as well as the environment
- quality assurance system in construction is implemented in different ways, depending on the category of importance, the regulations and the procedures specific for each building

- classification of buildings by categories of importance is made according to their complexity, destination, safety risk as well as according to economic considerations.

All the above mentioned obligations fall to the parties involved in the design, the execution and the utilization of buildings, as well as in the further use thereof, in keeping with their specific responsibilities. Such parties include: investors, researchers, designers, design evaluators, manufacturers and providers of construction products, constructors, owners, users, technical experts in charge of construction, other technical experts as well aspublic authorities and professional associations in the field.

2.4.3 Order of Minister of Health no. 1030/2009 regarding the approval of the procedures for sanitary regulation for projects for placement, development, building and functioning of objectives which run activities with risk for population health

This Order defines the sanitary approval and the sanitary authorization, which must be obtained from the authority in charge. The Ministerial Order makes a distinction between the "**sanitary approval**" which is the process of sanitary analysis and investigation, a condition that must be met, both from a technical and from a legal point of view, before facilities of interest to the public can be commissioned and operate, a process that checks their compliance with the hygiene and public health rules and the "**sanitary permit**" which is a legal and technical document issued in written form by the authority in charge.

The necessary documentation required for requesting the sanitary permit includes: the request, the general plan of the position (location, access to the transport network, access to energy network, utilities and land characteristics), the internal configuration plan (functional circuits, their structure, the access to drinkable water network, the waste water collection and disposal system, the solid waste management system, the system for temporary storage and treatment/disposal of any hazardous waste) and proof of payment of the necessary taxes. If required by law, the Environment Impact Assessment will be requested at this stage by the health authority in charge.

2.4.4 Order of Minister of Health no. 1226/2012 concerning the approval of the technical norms for the medical waste management

The main requirements of this Order are:

- technical standards of managing waste resulting from medical activitiesregulate the manner in which medical waste shall be collected separately by category, packaged, temporarily stored, transported, treated and disposed of, with special attention being given to hazardous waste , in order to prevent environment pollution and health damage .
- the technical norms are compulsory **for all the sanitary units,** irrespective of their form of organization, where medical activities are conducted that may result in the generation of medical waste
- the collection, storage and elimination of waste is under the entire responsibility of the medical units from which they are produced
- health units shall design and implement plans, management strategies and medical procedures that shall prevent dangerous medical waste production or reduce as much as possible the amounts of such waste
- healthunits make and implement their own plan for medical waste management, according to their home rules and codes of procedure, based on the regulations in force.

- in each sanitary unit, the activities related to medical waste management are considered professional duties and are stipulated in the job description of each employee
- Medical waste producers have the following obligations:
  a. to reduce as much as possible the quantity of medical waste, starting from the production phase using all available means;
  b. to promote re- using and re-cycling for the medical waste, where is possible
  c. to separate the dangerous waste for the non-dangerous waste

2.4.5 Order of Minister of Health no. 713/2004 regarding the approval of sanitary authorization Norms for the hospitals

This Order is very important from the organizational point of view. In particular:

- it defines the functioning authorization for the hospitals and the necessary standards to be fulfilled in order to obtain this authorization
- annex 1 defines the procedural norms for the sanitary authorization of hospital operation
- annex 2 stipulates the norms of general functional organization of the hospital
- annex 3 stipulates norms concerning the functional structure of the hospital departments and services, including the emergency service, ambulatory sector, operating sector, intensive care sector, roentgen diagonstic service.
- annex 4 stipulates the general Norms of hygiene.

2.4.6 Order of Minister of Health no. 1279 of 14 December, 2012 establishing the Criteria for assessment, functioning conditions and monitoring for equipment for treating by thermal decontamination of medical waste

- sets out the minimum criteria for technical documentation of equipment for thermal decontamination at low temperatures of hazardous medical waste
- reiterates and elaborates on maximum waste reductionrequirements
- specifies the three categories of medical waste that may be sterilized as: infectious waste, stinging-cutting waste, and chemical and pharmaceutical wastes according to specific codes
- specifies this thermal sterilization of medical waste is the only accepted procedure for such waste and was permitted **until the end of 2008 only**, when, following the commissioning of incineration facilities, all hazardous waste, including sterilized waste, will be incinerated, in accordance with the implementation plan of the EU Waste Incineration Directive.

2.4.7 Law no. 111/1996 on safety, regulation, authorization and control of nuclear activities, as subsequently amended and supplemented

The scope of this law is the regulation, authorization and control of nuclear activities performed exclusively for peaceful purposes, in order to comply with the requirements of nuclear security, protection of professionally exposed personnel, of patients, of the environment, of population and of property, with minimum risks in conformity with the regulations and observing the obligations resulting from the agreements and conventions where Romania is party.

The law stipulates that the national competent authority in the nuclear field, which exerts the attributions of regulation, authorization and control provided by this law is

the National Commission for Nuclear Activities Control (NCNAC), a public institution of public interest, with legal personality, led by a President coordinated by the Prime Minister.

This law represents the basis for all subsequent legislation and regulations in the field of nuclear activities, including protection against radiation. The most relevant of these regulations for the Health Sector Reform - Improving Health System Quality and Efficiency Project are:

- RSN-11: Radiologic Security Norms in diagnostic radiology and interventional radiology practices, approved by NCNAC Order No. 173/2003, and
- RSN-12: Radiologic Security Norms in radiotherapy practice, approved by NCNAC Order No. 94/2004.

2.4.8 Law no. 176/2000 on medical devices, republished in the Official Gazette of Romania no. 79 of 24 January 2005, as subsequently amended and supplemented

This law establishes the legal and institutional framework for medical devices, as well as for the control of the marketing, distribution and provision of services in the field of medical devices.

2.5 Guidelines Governing COVID-19 Activities

The WHO is maintaining a website specific to the COVID-19 pandemic with up-to-date country and technical guidance[2]. As the situation remains fluid it is critical that those managing both the national response as well as specific health care facilities and programs keep abreast of guidance provided by the WHO and other international best practice. The following WHO guidelines related to COVID-19 outbreak are used in guidelines made by National Institute of Public Health, National Center for controll of infectious diseases, which is the designated authority in elaborating guidelines and official information about Covid19 and in internal orders by the Ministry of Health of Romania.

- WHO / 2019-nCoV / Surveillance Guidance / 2020.3 Global Surveillance for human infection with novel coronavirus (2019-nCoV) Interim guidance v3 31 January 2020, https://www.who.int/publications-detail/global-surveillance-for-human-infectionwith-novel-coronavirus-(2019-ncov)
- Novel Coronavirus (2019-nCoV) technical guidance: Early investigations https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technicalguidance
- Home care for patients with suspected novel coronavirus (nCoV) infection presenting with mild symptoms and management of contacts Interim guidance 20 January 2020: https://www.who.int/publications-detail/home-care-for-patients-with-suspectednovel-coronavirus-(ncov)-infection-presenting-with-mild-symptoms-andmanagement-of-contacts
- Clinical management of severe acute respiratory infection when novel coronavirus (2019-nCoV) infection is suspected Interim guidance 28 January 2020:

[2] https://www.who.int/emergencies/diseases/novel-coronavirus-2019

https://www.who.int/publicationsdetail/clinical-management-of-severe-acute-respiratory-infection-when-novelcoronavirus-(ncov)-infection-is-suspected

- Novel Coronavirus (2019-nCoV) v2 Operational Support & Logistics Disease Commodity Packages: https://www.who.int/docs/default-source/coronaviruse/dcp--ncov.pdf?sfvrsn=f5fe6234_6&download=true

2.6 Baseline Data

The PMU will support the subprojects preparation including the developing of site-specific ESMPs with subproject specific baseline data that would include the following:

- Location of the subproject (geographical location specifying names of towns/villages, community, etc.);
- Description of physical environment (climate), topography (geology, soils and hydrology);
- Biological environment nearby (ecosystems, protected areas);
- Socio-economic background.

Medical waste disposal arrangements. COVID-19 medical waste is treated as any other infectious/viral medical waste such as HIV, tuberculosis, measles, etc. Romanian legislation covers issues of medical waste collection, storage, transportation and disposal through various normative acts. Relevant medical staff regularly undergoes training on these matters. Additionally, information posters will be provided for all location where such waste might be generated (laboratories, admittance, etc.). All participating health facilities have an official agreement/contract with certified medical waste disposal companies. The hospitals do not oversee medical waste disposal beyond their control limits. The PMU will screen medical waste management and disposal practices for each subproject to determine if they are in keeping with the World Bank Group's EHS Guidelines and current WHO Guidelines for COVID-19. The screening will be conducted based on the screening form found in **Annex 4**.

3 Potential Environmental and Social Impacts of Project Activities

3.1 Introduction

The project carries investment components in support to construction and refurbishment of, and provision of medical equipment and supplies to, medical facilities and therefore triggers OP/BP 4.01 Environmental Assessment. None of the project supported activities are expected to have significant, long term, or irreversible impacts on the natural environment, therefore the project is classified as environmental Category B.

Section 4 identifies and assesses the potential environmental and social issues arising from the implementation and operation of the Health Sector Reform - Improving Health System Quality and Efficiency Project. The major COVID-19 related environmental and social risks are related to: i) medical waste management and disposal; ii) the spread of the virus among healthcare workers; and iii) the spread of the virus in local communities.

Potential Environmental Impacts.

The potential environmental impacts of the restructured Project are not likely be significant, long-term, or irreversible on Romania's environment, forests, or other natural resources.

The immediate impact of the proposed investment activities on the environment would be limited and can be divided into construction impacts and operational impacts. Most of the physical works will be undertaken to rehabilitate the existing health care facilities. In most cases, the works will be interior renovations; in a few cases, they may include additions (new structures) to existing buildings within the hospital grounds. For the operational phase, the discharges from the medical facilities and disposal of medical waste could generate potential negative impacts if not managed properly. Disposal of obsolete radiation treatment equipment represents a special issue, and will be specifically addressed in the ESMF, and further on in the site-specific ESMPs.

Component 4 on Strengthening of Public Health Emergency Response to COVID-19 will finance acquisition of medical and laboratory equipment and consumables to expand detection and treatment of COVID-19. Measures will be taken to ensure that relevant staff are informed and trained to ensure that the equipment and consumables are handled, sanitized and maintained as per national safety protocols for COVID-19.

The potential adverse environmental impacts of project implementation will be limited and temporary, and are mainly related to construction works which may include:

- increased pollution due to demolition and construction waste;
- increased noise and dust level during demolition works and construction activities
- generation of dust, noise, and vibration due to the movement of construction vehicles and machinery;
- associated risks due to improper disposal of construction waste, asbestos and asbestos-containing materials, or minor operational or accidental spills of fuel and lubricants from the construction machinery;
- increase in traffic during construction which may impact community;
- impact on workers and community health and safety during construction activities;
- improper reinstatement of construction sites upon completion of works;
- unsafe practices during operation of the building.
- Inappropriate disposal of the demolition debris

The risks listed above are anticipated in advance of project implementation and direct mitigation activities will be designed, implemented, monitored and evaluated during pre-construction, construction and operation in a way consistent with national legislation, WB OPs and international good practice.

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.

Potential Social Impacts. Implementation of sub-projects will have various social implications. In general, successful implementation of this Project will have social benefits to the people, but there could be some negative impacts, real or perceived.

Potential Social Benefits. Improved access to medical services.

Potential Negative Social Impacts of Reconstruction activities.

- During construction, some in-patients may need to be transferred to other hospitals. In addition to the inconvenience, such transfers now entail the risk of spreading COVID-19 to patients and hospital personnel, both during the transfer and at the new premises/hospitals.

- Relevant staff would need to have the training to ensure that equipment and testing kits are handled, sanitized and maintained as per national safety protocols for COVID-19.

- There is a potential risk that vulnerable and disadvantaged social groups may have difficulties accessing COVID-19 support.

The project's environmental and social impacts have been divided into those that are relevant for the planning and design stage, construction phase (demolition and re-building/renovation) and those that are relevant for the operational phase.

3.2 Planning & Design Phase

The PMU will screen each subproject for potential environmental and social risks per World Bank Group EHS Guidelines, WHO COVID-19 Guidelines, and the screening form provided in **Annex 4**.

a. frequently arising environmental problems at the sites (soil erosion, water supply contamination, land slides, etc.);
b. potential environmental impact, if any, due to the project (disposal of waste from construction, construction noise and dust, radiation protection, etc.);
c. potential requirements, if any, for temporary relocation of services for patients and location of patients and clinical staff during the construction activities.
d. any cultural assets that might be found in the place of construction,
e. potential foot and vehicle traffic disruption and associated public safety risks
f. determination of any needed design changes in the facility or its operation such as infection control, medical waste disposal, etc.;
g. Identification of the scope of works expected;
h. Determination that utilities (power, water, heat, etc.) are adequate for planned works;
i. Identification of how such works might interfere with normal operation of the existing facilities or those in the vicinity;
j. Determination if works are eligible for financing - for example, activities excluded from financing under the project include those requiring the acquisition of land or works conducted areas where patients are being treated where asbestos insulation or pipe lagging was used in original construction;
k. Preparation of a site-specific ESMP based on the ESMP template found in **Annex 5**.

Medical waste management and disposal. The PMU will screen medical waste management and disposal practices to determine if they are in keeping with the World Bank Group's EHS Guidelines and current WHO Guidelines for COVID-19. The screening will be conducted based on the screening form found in **Annex 4** and include:

a. Identification of current methods of medical waste management and disposal at the HCF;

b. Identification of any on-site facilities for disposal of medical waste including incinerators, pits for burning medical waste, pits for burial of medical waste, etc.;
c. Identification of any off-site disposal of medical waste, including how material is gathered and stored, routes taken to the disposal facility, and disposal procedures;
d. Review of protocols (including transportation of medical wastes) and capacity for dealing with medical waste (including at the level of waste management facilities) specifically related to infectious diseases like COVID-19;
e. Review of training procedures for healthcare workers and other relevant employees for medical waste management and disposal;
f. Preparation of an ICWMP, based on the sample contained in **Annex 6**

Protecting healthcare workers and infection control. The PMU will conduct a review of protocol's for protecting healthcare workers and patients from infections based on current WHO Guidelines for COVID-19 and the Infection and Prevention Protocol contained in **Annex 4**. The review will include:

1) Determination if training given to healthcare workers and other employees is adequate;
2) Determination if healthcare staff are trained on how to deal with the remains of those who might die from COVID-19, including those conducting autopsies;
3) Determination if adequate stores of PPE are available on-site; and
4) Identification of supply lines for required PPE.

The legislation in the environmental field must be observed both in the construction and in operational phase. Because of their special impact during the operational phase, the radiation protection issues are treated separately.

3.3 Construction phase

The environmental issues, including the environmental impact mitigation measures, will be supervised permanently by the MoH and the health facilities' staff undergoing 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 environmental impact which might be localized or mitigated during the implementation stage is expected to be minor. In addition, there are environmental regulations in force in Romania, 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 site-specific ESMPs or Environmental Management Plan checklists (ECA Region Checklist EMP for Small Scale Construction) included in **Annex 5** should be made available to contractors engaged in civil works under the project, and should be made an integral part of the civil works contracts.

The environmental impact and the environmental issues that may arise during the construction phase can be further divided into those occurring during demolition and those

occurring during the actual building/renovation phase. These different aspects are now considered below.

3.3.1 Demolition phase

Conditions for environmental placement and monitoring will be imposed as a result of carrying out the activity and site arrangements

Environmental impact/issue	**Mitigating measures**	**Institutional responsibility**
Possible asbestos waste materials	Identify waste material containing asbestos Establish codes for the sorted waste, according to Decision *2000/532/EC* 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	Contractors
Inert demolition waste	Safely sort materials Establish codes for the sorted waste, according to Decision 2000/532/EC establishing a list of wastes Re-use/recycle waste, where possible Remove from site by licensed waste operator Dispose of waste to licensed inert landfill, according to the requirements of Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills	Contractors
Other non-contaminated demolition waste	Safely sort materials Establish codes for the sorted waste, according to Decision 2000/532/EC establishing a list of wastes Re-use/recycle where possible Remove from site by licensed waste operator Dispose of waste in appropriate licensed landfills, according to the requirements of Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills	Contractors
Contaminated demolition waste	Identify such waste Establish codes for the sorted waste, according to Decision 2000/532/EC establishing a list of wastes Safely separate or keep separate from other wastes Safe disposal either in licensed incinerator, or in a licensed landfill, after adequate treatment, according to the requirements of Decision 2003/33/EC establishing criteria and procedures for the acceptance of waste at landfills	Contractors
Obsolete electrical and electronic equipment	Identify any such equipment that may contain CFCs Separate and safe storage of CFC-containing equipment Safe removal/disposal of CFCs in accordance with waste management plan, to an operator licensed for waste collection or treatment	Contractors

Environmental impact/issue	Mitigating measures	Institutional responsibility
	All other equipment: Separate collection Safe disposal / removal of remaining equipment and parts, according to the waste management plan, to an operator licensed for waste collection and treatment	Contractors
Equipment containing PCB/PCTs	Identify such equipment Safe removal from site by licensed waste operator Safe decontamination and disposal of equipment by licensed waste operator	Contractors
Dust	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 Keep construction site as isolated as possible from any functioning part of the hospital Control and daily cleaning of construction site	Contractors
Noise	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
Water pollution	Protection of domestic waste water network Checking the existence of a pretreatment/treatment station of water collected from sectors likely to spill dangerous substances or substances with dangerous bacterial levels Special attention to be paid to drainage systems to avoid damage or uncontrolled dumping of demolition materials and to prevent groundwater contamination Proper control, collection and disposal of waste water to a treatment station according to the conditions set forth in the connection agreement and subscription agreement with public sewer service operator. Collection of any oils for proper treatment and disposal	Contractors
Aesthetic and landscape aspects	Maintain site in good working condition Ensure good security of site	Contractors
Health and safety	Ensure workers are properly equipped and trained Ensure good security of site	Contractors

Existing building elements (walls, foundations, ground cement slabs etc.) will be carefully demolished and the debris will be sorted and removed as directed by the ESMP (to be determined during the preparation phase of the project). All valuable materials (doors, windows, sanitary fixtures, etc) will be carefully dismantled and transported to the storage area assigned for the purpose. Where feasible, valuable materials will be recycled within the project or sold, only if their assessment/checking exclude any chemical or bacteriological contamination.

Dust from transportation and handling of construction works will be minimized by water and other means such as enclosure of construction sites. To reduce noise, construction will

be restricted during certain hours. All debris, construction and wood waste will be stored within the work site. Wood waste will be stored separately and prepared for recycling/ recovery or disposal (Attention! Painted or impregnated wood should only be incinerated, not burnt). Open burning and illegal dumping will not be permitted. Proper sites for earth/clay and sand disposal will be determined and prior approval from the relevant authority for disposal will be obtained (Attention! excavated soil, especially soil from medical units dealing with infectious diseases – TBC, AIDS, etc. – must also be examined and treated before being stored). Stock piling of construction debris on site will be avoided and waste will be disposed of on a regular basis, according to the Code, at the appropriate authorized landfill. Debris chutes will be provided to transfer debris from higher floors to the ground.

All wastes shall be managed by licensed waste operators and recovered or disposed of in an environmentally friendly manner. All wastes shall be disposed at appropriate licensed landfill sites or incinerators.

3.3.2 Buildng/renovation phase

Environmental impact/issue	**Mitigating measures**	**Institutional responsibility**
Waste	Appropriate management of domestic and streams waste (packaging waste, DEEE, waste batteries and accumulators, waste PCB/PCT, waste oils, waste tyres), as well as hazardous waste, including medical one waste, in case the unit under renovation is still in operation	Contractors
Air	Purchase of least toxic materials, including paints, varnishes and adhesives, etc.	Contractors
Water	Selection of least toxic materials, including for piping of drinking water Prevention of groundwater pollution by untreated waste water	Contractors
Dust	Protection of site proximity area by board or special material enclosures against dust Protection of soil surfaces Dust control by regular water sprinkling or other means Keep construction site as isolated as possible from any operational part of the hospital Checking and daily cleaning of construction site	Contractors
Noise	Minimise noise likely to affect the health of the people in the vicinity of the area affected by the construction works by: - restricting the working hours of the construction site - restricting the time schedule of deliveries and use of heavy equipment	Contractors
Water pollution	Protection of domestic waste water network Checking the existence of a pretreatment/treatment station of water collected from sectors likely to spill dangerous substances or substances with dangerous bacterial levels Control, collection and disposal of waste water to a treatment station according to the conditions set forth in the connection agreement and subscription agreement with public sewer service operator. Special attention to be paid to drainage systems to avoid damage or uncontrolled dumping of construction materials, as	Contractors

Environmental impact/issue	Mitigating measures	Institutional responsibility
	well as prevention of groundwater pollution Collection of any oils for proper treatment and disposal	
Aesthetic and landscape	Maintain site in good working condition Ensure good security of site	Contractors
Health and safety	Ensure workers are properly equipped and trained Ensure good security of site	Contractors
Ionizing radiation	Careful selection of location for ionizing radiation (radiology and radiotherapy) equipment, and appropriate shielding of equipment.	Contractors
Energy efficiency and sustainability	Appropriate methods of building insulation to be used Exposed plumbing and pipes to be appropriately insulated Consideration is to be given to the use of solar panels Consideration to be given to use of other high-efficiency systems for water and space heating Consideration to be given to locally produced and other sustainable products for construction purposes	Contractors

Issues related to new constructions:

The sites for new constructions were identified during the project implementation, and all these are located on public land, within the existing developed urban areas, and within the exisiting hospitals territories. The land is government-owned and new land is not to be acquired from private owners, nor is resettlement envisaged in order to have access to the land for construction. MOH has documented legal title to all existing health care facilities (buildings), as well as the sites allocated for new construction. There are no illegal occupants on the sites in question.

Cultural assets

No cultural or historical assets will be affected by the new constructions.
Romania has a well-developed cultural heritage protection system, with responsibility for monitoring and enforcement incumbent on by the Ministry of Culture and National Heritage (MCNH). The legal framework for cultural preservation is outlined in the Law for Preservation of Historical Heritage No. 422/2001, as further amended by Law 468/2003.

During the phase of technical design and obtaining of the environment permit, it will be reviewed if any of the existing health care facilities (buildings) are certified as “cultural or historical heritage”. With respect to the buildings with such status, the procedures outlined in the Law on Historical Heritage will be followed, including for obtaining permit from MCNCP and involving design supervisor engineers who have specific qualifications in the field of historical buildings, certified by MCNH.

If any cultural assets are found during construction (excavation) works (“chance finds”), the measures outlined in the Law 422/2001 as further amended will be undertaken, including instituting a protection zone in compliance with the Law 422/2001, reporting to the local offices of MCNCP and obtaining a special permit for the execution of works in connection with the found cultural assets.

3.3.3 Special requirements for buildings housing radiology or radiotherapy equipment

These requirements are described in **Annex 2** of this ESMF.

3.4 Operational phase

Medical waste management and disposal. Medical and chemical wastes (including water, reagents, infected materials, etc.) from facilities that are supported through the project can have a substantial impact on the environment and human health. Wastes that may be generated from medical facilities and labs could include liquid contaminated waste, chemicals, and other hazardous materials, and other waste from labs and quarantine and isolation centers including sharp objects, used in diagnosis and treatment. Each recipient medical facility or will follow the requirements of this ESMF, national legislation, WHO COVID-19 guidance documents, and other best international practices. The PMU will ensure the following:

a. Medical waste is handled according to OMS 1226/2012 and it covers all aspects of medical waste collection, storage, transportation and disposal;
b. Each facility is operated in accordance with the ICWMP prepared based on the template attached in the ESMF and WHO COVID-19 Guidelines;
c. Waste segregation, packaging, collection, storage disposal, and transport is conducted in compliance with the ICWMP and WHO COVID-19 Guidelines;
d. Onsite waste management and disposal will be reviewed regularly and training on protocols contained in the ICWMP conducted on a weekly basis;
e. The PMU will audit any off-site waste disposal (including transportation of medical wastes) required on a monthly basis and institute any remedial measures required to ensure compliance; and
f. Waste generation, minimization, reuse and recycling are practiced where practical in the COVID-19 context.
g. All relevant staff regularly undergoes refresher on infectious medical waste utilization. Additionally, information posters will be provided for all location where such waste might be generated (laboratories, admittance, etc.)

Measures shall be put into place to ensure the separate collection of the different categories of waste. In particular, staff will be trained and informed on the mechanisms for safe collection of hazardous wastes, and clinical wastes – both infectious and non-infectious. All wastes shall be managed by licensed waste operators and recovered or disposed of in an environmentally friendly manner. All wastes shall be disposed at appropriate licensed landfill sites or incinerators. Pending collection of hazardous and clinical wastes, they shall be temporarily stored in appropriate, safe and secure areas marked with appropriate warning labels.

Ionizing radiation equipment (radiology, radiotherapy) shall be located in suitable locations and appropriately shielded to avoid unnecessary exposures to staff, patients and visitors. Staff shall be trained for the safe use of such equipment.

Environmental impact/issue	Mitigating measures	Institutional responsibility
Waste management	Appropriate separate collection of: • municipal- waste type wastes • hazardous wastes • non-infectious clinical waste • infectious clinical waste • low-intensity radiated waste • radioactive waste	
	Proper and safe storage of these different wastes pending collection.	
	Collection and disposal of wastes in accordance with hospital and local waste management plans	
	Disposal of wastes by licensed undertakings	
Noise	Adequate consideration for car parking and location of such car parks	
	Adequate consideration to noise issues when considering location etc. for emergency helicopter landing sites	
Ionizing radiation	Safe use of ionizing radiation (radiology and radiotherapy) equipment. Appropriate training to staff	
Water	Collection of waste water, their pretreatment and treatment according to legal provisions	

Measures shall be put into place to ensure the separate collection of the different categories of waste. In particular, staff will be trained and informed on the mechanisms for safe collection of hazardous wastes, and clinical wastes – both infectious and non-infectious. All wastes shall be managed by licensed waste operators and recovered or disposed of in an environmentally friendly manner. All wastes shall be disposed at appropriate licensed landfill sites or incinerators. Pending collection of hazardous and clinical wastes, they shall be temporarily stored in appropriate, safe and secure areas marked with appropriate warning labels.

Ionizing radiation equipment (radiology, radiotherapy) shall be located in suitable locations and appropriately shielded to avoid unnecessary exposures to staff, patients and visitors. Staff shall be trained for the safe use of such equipment.

Protecting healthcare workers. The PMU will ensure the following:

a. Regular delivery and proper storage of goods, including samples, pharmaceuticals, disinfectant, reagents, other hazardous materials, PPEs, etc.;
b. Ensure protocols for regular disinfection of facilities and equipment are in place and followed;
c. Ensure handwashing and other sanitary stations are always supplied with clean water, soap, and disinfectant;
d. Ensure equipment such as autoclaves are in working order; and
e. Provide regular testing to healthcare workers routinely in contact with COVID-19 patients.

Community Health and Safety. Communication activities supported by the project will ensure widespread awareness of the government's pandemic response strategy and the

role of communities, individuals and businesses in implementing specific community health and safety measures, including social distancing, personal/worker hygiene practices, self-isolation and mandatory quarantine.

4 Environmental & Social Management Framework

4.1 Environmental and Social Management Framework Overview

The purpose of the project Environmental and Social Management Framework is to assist the PMU staff and sub-project implementing agencies in determining the potential environmental and social impacts of subprojects, in preparing environmental and social management plans (ESMPs) that will summarize necessary mitigation measures to minimize or prevent them, in disclosing and organizing public consultations on these ESMPs and later in environmental monitoring and reporting. ESMP shall be included in tender documentation for reconstruction/refurbishing works and then implemented by contractors.

4.2 Procedures to Address Environment and Social Issues

MOH is responsible for the overall implementation of the project through the established PMU. The PMU will have day to day responsibility for project management and support, including ensuring that project implementation is compliant with the World Bank's Safeguard Policies; the World Bank Group's EHS Guidelines; WHO COVID-19 Guidelines; and this ESMF. The PMU will be adequately staffed to oversee the project's work nationally and ensure that each subproject complies with all project procedures and receive professional implementation and project management support, including for procurement. Implementation of this ESMF will include the following activities.

4.2.1 Environmental and Social Screening – All subprojects to be supported under this project will be subject to environmental and social screening, which will be conducted by the PMU using the form found in **Annex 4** in order to exclude certain risky activities, identify potential environmental and social issues, and classify the environmental and social risks. Copies of each of these screening forms will be kept at the PMU. The PMU's quarterly report to the World Bank will include copies of each screening undertaken during the subject quarter.

a. **Environment and Social Instruments** – The PMU will prepare and implement the necessary environmental and social instruments for each of the activities financed under the project. The scope of this Project requires following two types of environmental and social instruments:
   i. ESMPs – after the screening, ESMPs, based on the sample found in **Annex 5**, will be prepared for any small-scale works to be conducted. Once approved (see below), the ESMP will be included as an integral part of any works or supervision contract for the activity.
   ii. ICWMPs – An ICWMP will be prepared and implemented for each project, based on the template found in **Annex 6.**

b. **Review and Approval** – the individual instruments will be prepared by the PMU and the World Bank will conduct a post-review of each instrument when it is received via the PMU's Quarterly Report and provide comments when necessary.

In order to address safeguard issues, ESMPs will be developed for each subproject. These ESMPs will provide guidance on potential site-specific impacts and mitigation measures to be undertaken for activities through the design to implementation phase, to the monitoring and evaluation of results. ESMP shall also provide a monitoring plan format that includes monitoring indicators, timing, monitoring methods, and institutional responsibilities.

4.2.2 Implementation. This section of the ESMF discusses the procedures that are in place and which must be followed by both the developer and the authorities so as to obtain all necessary permits and agreements for the proposed works on the rehabilitation of the health care units to be carried out. The PMU will provide implementation support and supervision. To obtain the construction permit, the beneficiary is required to obtain an administrative act from the environmental protection authority. Many projects may enter the framing stage.

Likewise, the developer will be required to obtain a construction permit and an administrative act from the environmental protection authority before any works may be carried out. The procedures for obtaining such permits are also detailed.

The operation of the new units may require new or amended operating permits, such as water permits, waste permits etc. The procedures for obtaining these operating permits are described in section 4.3 below. The environmental permit must also be obtained or the existing one must be reviesed, if there were significant changes to the initial data brought by the project.

The relevant Romanian legislation[3] identifies categories of projects in accordance to the three regulations: GEO 195/2005 approved by Law no. 265/2006 on environmental protection, as amended and supplemented, GD 445/2009 and MO 135/2010 approving the methodology for the application of the environmental impact assessment for public and private projects.

Construction phase

A. Environmental Impact Assessment (EIA)

To be carried out according to the GD 445/2009 and MO 135/2010 approving the methodology for the application of the environmental impact assessment for public and private projects.

B. Construction permits

For all new developments which will involve modifications or works that are not purely internal, the following requirements must be followed:

[3] GEO 195/2005 approved by Law no. 265/2006 on environmental protection, as amended and supplemented, GD 445/2009 and MO 135/2010.

Stage 1
First, the developer must apply to the mayor's office for an **urbanization permit**. This process is governed under Law 50/1991 modified and completed by Law 453/2001 on the authorization of execution of construction works & measures concerning houses. The urbanization permit is an official act, by which the authorities inform the applicant concerning the property of the building/land, the technical and economical issues. Property of the building/land refers to the ownership, the public utilities bondages, etc. The **economical** issues refer to the actual use of the building and of allowed or non-allowed uses of the building, according to the law. **Technical** issues refer to the built-up surface as a percent from total surface of the land, the maximum and minimum dimensions of the house lot, the height and the existing utilities. From this paper are established the necessary urbanism criterion and the necessary legal approvals in order to obtain the construction permit. After the urbanization permit has been obtained, a **construction approval** must be obtained – also from the Mayor - before the works start. So, the urbanization permit is the first phase of the process and the construction permit is the final phase.

Stage 2
The developer sees to obtaining the **relevant approvals (mentioned by the urbanization permit)** such as:

- telecommunication utilities
- the natural gas network suppliers
- electricity suppliers
- the Fire Commandment
- the water permit
- the environmental permit

All these approvals are included in a unique consent, issued by a Technical Commission of the mayoralty.

Stage 3
The construction approval commits the developer to carrying out the works in agreement with the plan, and to not changing the plans. It also fixes a deadline by which the works must be complete. This construction approval process is also governed by Law 50/1991. The documents which must be submitted by the developer in order to obtain a construction approval are listed in Article 7 of Law no 50/1991. After the construction approval is granted the works may commence.

C. Environmental permit

The issuing of an environmental permit is governed by GEO 195/2005 approved by Law no. 265/2006 on environmental protection, as amended and supplemented, and MO 1798/2007.

The developer must apply for the environmental permit from the local LEPA office. The application for the environmental permit must contain information on the owner of the development project and a general description of the works to be carried out.
The environmental permit is obtained for the activities that will take place in hospitals after reconstruction on the basis of MO 1798/2007.

D.Radiologic security authorization

The authorization is issued by the National Commission for Nuclear Activities Control (NCNAC) if the requirements for building, endowment with equipment and specialized personnel and the adequate activity organization are fulfilled according to the specified regulations, in accordance with Romanian legislation.

Operational phase

A.Operating permits

All of the permits which the developer was required to obtain so as to be granted the urbanization permit will need to be kept up-to-date and any re-application made before the relevant permit expires.

All conditions upon which the permit was granted must be complied with.

B. Waste Issues

It is assumed that the majority of emergency departments, intensive care units, operating rooms, burn units, which are under the scope of the Health Sector Reform - Improving Health System Quality and Efficiency Project, will form part of a larger hospital. This means that the hospital will already have a plan for how to handle its waste, and the waste streams generated by the unit will quite simply be handled in accordance with this existing plan (MO no. 1126/2012).

However, if the unit under the scope of the project is a self-contained unit, not attached to a larger hospital, before the unit starts to operate, a plan on the management of all waste produced must be put in place.

Whether the waste plan already exists in the hospital or has been newly created for the renovated unit, in order to comply with EU environmental law, certain standards on waste management must be followed at all of the rehabilitated units.

Firstly, there are general standards applying to all waste as described in section 2.1.2 above (Waste Framework Directive and Hazardous Waste Directive). There are also standards pertaining to specific sorts of waste such as asbestos, PCBs/PCTs, packaging waste and waste electronic and electrical equipment, batteries and accumulators.

Finally, there are the extremely important standards on regulating how waste can be safely disposed of, particularly on the landfill of waste and on waste incineration. Generally speaking, waste from the units must be disposed of either in an incinerator or a landfill that is compliant with the Incineration of Waste Directive or Landfill Directive respectively.

An important category of waste generated by the units will be that of medical waste. There are two very important EU requirements concerning medical waste that must be followed, namely:

- Hospital and other clinical waste which is infectious may not be landfilled;
- Infectious clinical waste must not mixed with other categories of waste and must not be handled directly, it must be placed straight into the incinerating furnace.

In addition to the EU law requirements on medical waste, there are Romanian standards, in Ministerial Order no 1226/2012. These must also be followed at each of the renovated units. A summary of MO 1226/2012 is presented at section 2.4 and guidelines on how to handle medical waste are given in **Annex 1**, section 13.

C. Water Issues

There are two key issues regarding water which must be dealt with during the operation of the units.

Firstly, the drinking water which is provided to the operating units, intensive care units, ambulatory care units and emergency care units (or to the larger hospital to which these units are attached) must meet the quality requirements laid down in the Water for human consumption Directive (see section 2.1.3) and in the Romanian transposing legislation.

Secondly, all discharges of used water from the hospital must be collected and treated in accordance with the Urban Waste Water Treatment Directive (see section 2.1.3) and in the Romanian transposing legislation. Romanian legislation on the collection, treatment and discharge of waste waters is found in GD 188/2002, amended and supplemented by GD 352/2005. There is a specific mention in the Romanian legislation that discharges of waste water from sanitary establishments (e.g. hospitals) shall be subjected to prior treatment if it does not comply with the requirements of microbiological standards before it is discharged into the public sewage system.

4.3 ESMP

In order to address safeguard issues, implementing agencies will develop ESMP for each subproject. These ESMP will provide guidance on potential site-specific impacts and mitigation measures to be undertaken for activities through the design to implementation phase, to the monitoring and evaluation of results. ESMP shall also provide a monitoring plan format that includes monitoring indicators, timing, monitoring methods, and institutional responsibilities.

The ESMP for every subproject will consist of 4 parts:

Part 1: description of subproject (for use by screener/approver)
Part 2: identifies issues and associated mitigation measures (becomes part of construction contract
Part 3: monitoring/supervision plan to verify effective mitigation (for use by construction site supervisor and PMU)
Part 4: Capacity Development and Training
Part 5: Implementation Schedule and Cost Estimates
Part 6: Integration of ESMP with subroject

4.4 Reporting on Environmental and Social Incidents

In order to fully comply with the WB Safeguard Policies, all subprojects, implemented under the Project, will have an ESMP included and will be listed on the project progress report, template provided in **Annex 8.** The up-to-date project activity plan will be submitted to the World Bank ES specialists once every three months.

Despite significant efforts to manage environmental and social risks associated with project activities, incidents may always occur. An incident in this context is an accident or negative event resulting from failure on the part of the implementing party to comply with national legislation and bank safeguard requirements, or conditions that occur because of unexpected or unforeseen events during project implementation. Examples of incidents include: fatalities, serious accidents and injuries; social impacts from labor influx; sexual exploitation and abuse (sea) or other forms of gender-based violence (GBV); major environmental contamination; COVID-19 outbreak among workforce; loss of biodiversity or critical habitat; loss of physical cultural resources; and loss of access to community resources.

This environment and social incidents response toolkit (ESIRT) (**Annex 7**) is intended to assist implementing parties to address incidents that occur during implementation of the project and to advise implementing parties on their response to such incidents. ESIRT does not replace regular project supervision and reporting but has been prepared to help implementing parties respond when they learn of incidents during supervision, or at any other time.

ESIRT is comprised of the following six steps under the incident management and reporting process:

A. Step 1 initial communication
B. Step 2 classification
C. Step 3 investigation
D. Step 4 response
E. Step 5 follow up

The Implementing Agencies and MOH/PIU roles and responsibilities in incident response are outlined in each of the steps. This ESIRT also contains a section on responses and remedial actions, where examples of possible responses by implementing parties to incidents are provided.
ESIRT detailed breakdown of steps is provided in **Annex 7.**

5 Institutional Responsibilities

This section describes how this ESMF and subsequent site-specific ESMPs and/or Checklists EMPs will be enforced – by the PMU and also by State environmental officials.

PMU

The PMU will disseminate this ESMF to all contractors when they are appointed, as well as to the site supervisors. The PMU will ensure that all contracts with builders, designers,

decorators and others involved in implementation of the renovation/rehabilitation aspects of the project will include requirements to respect this ESMF and the legal provision concerning the environment.

In addition, the PMU will engage technical specialists who will ensure that all contractual obligations, including conformity with this EESMF, are being fulfilled. The technical specialist will act as the representative of the beneficiary and will report to the beneficiary and to the investor, through the PMU.

This technical specialist and the PMU will, so far as within their responsibilities, co-ordinate their activities with the environmental authorities.

The PMU will ensure that the designers and developers of the individual projects will work closely with the relevant agencies to ensure compliance with all relevant legislation, procedures and requirements. The main agencies are the LEPAs, the Environment Guard and the County Public Health Directorates, and their roles and responsibilities are summarized below.

Finally, the PMU will submit an overall report of project implementation to the Bank every quarter the project is active. These reports will include statistics on national project implementation; a summary of grievances received and their resolution, and copies of screenings and individual subproject instruments prepared during the subject quarter. The template of the progress report is attached in **Annex 8.**

Local Environmental Protection Agencies (LEPAs)

In accordance with the Framework Regulation on the Organization of the Local Environmental Protection Agencies, adopted on the basis of the Governmental Decision 1000/2012 on the Reorganization of the National Environmental Protection Agency, the LEPAs have responsibilities in the fields of authorization and monitoring of the activities with environmental impact, such as:

- issues agreements /authorizations for the activities with significant impact on the environment, based on the current legal provisions;
- authorizes the projects and activities with environmental impact at local level;
- monitors at local level the enforcement of the EIA legislation; and
- monitors the implementation of the County Waste Management Plans.

The National Environmental Guard

The main responsibilities of the Environmental Guard are:

- controls the activities with environmental impact and enforces the sanctions provided in the environmental legislation;
- controls if the environmental legislation and the measures established by the compliance programs, as well as the legal procedures, are properly enforced;
- controls the activities with major/significant impact on the environment, in order to prevent and eliminate the pollution risks;
- where there is a breach of a law or regulation, enforces sanctions (administrative or fines) or collaborates with the judicial authorities (environmental crimes).

County Public Health Directorates

The County Public Health Directorates, among others, are in charge of the sanitary inspections of local level and with the sanitary authorization for the hospitals. In particular, they are responsible for supervision of the collection of medical and contaminated waste.

6 Grievance redress mechanism

There are two options for Project stakeholders and citizens to submit feedback and complaints, *i) the Project Grievance Redress Mechanism (GRM)* and *ii) the World Bank Grievance Redress Service (GRS)*. Law no. 544/2001 governs the public's access to information. The public's right to petition is guaranteed by the Romanian Constitution, and regulated by Government Ordinance no. 27/2002, that is approved by Law no. 233/2002 and other regulations in the field.

A. PROJECT GRIEVANCE REDRESS MECHANISM

OBJECTIVES & SCOPE

Objectives. The GRM is intended to serve as a mechanism to:

- Allow for the identification and impartial, timely and effective resolution of issues affecting the project.
- Strengthen accountability to beneficiaries, including project affected people and surrounding communities, and provide channels for project stakeholders and citizens at all levels to provide feedback and raise concerns.

Having an effective GRM in place will also serve the objectives of: reducing conflicts and risks such as external interference, corruption, social exclusion or mismanagement; improving the quality of project activities and results; and serving as an important feedback and learning mechanism for project management regarding the strengths and weaknesses of project procedures and implementation processes.

Scope

Who can provide feedback & communicate grievances? The GRM will be accessible to a broad range of Project stakeholders who are likely to be affected directly or indirectly by the project. These will include beneficiaries, community members, project implementers/contractors, civil society, media—all of who will be encouraged to refer their feedback, including grievances to the GRM.

What types of feedback/grievance will this GRM address? The GRM can be used to submit complaints, feedback, queries, suggestions or compliments related to the overall management and implementation of the project, as as well as respective sub projects and

site-specific activities.

PRINCIPLES, STANDARDS & STRUCTURE

Principles. The GRM's functions will be based on the principles of transparency, accessibility, inclusiveness, fairness and impartiality and responsiveness.
Standards. The GRM will establish clearly defined timelines for acknowledgment, update and final feedback to the complainant. To enhance accountability, these timelines will be disseminated widely to Project stakeholders. The timeframe for acknowledging receipt of a feedback will not exceed 10 working days from the time that it was originally received; all grievances will be resolved within 30 working days of receipt.
Uptake Channels: The GRM will also provide the option for beneficiaries, Project affected persons and other stakeholders to provide anonymous feedback. Thus, to address a request or complaint to GIRP or its subordinated units, citizens rely on either a direct address to the institution, fax, e-mail or an online form to be completed (request or complaint) on the institution's website. In either case, these types of requests or complaints are recorded and treated under the Law no. 544/2001 regarding the free access to public information and Law 233/2002 regarding the right to submit petitions.
For the purpose of the current project, GIRP will also analyze and consider the option to implement additional project specific measures that would include the following components:
• A printed form available at GIRP and its territorial units that could be filled in and submitted to the local public relations office or GIRP's public relations office;
• Site/Building level Grievance Box for the public to submit their grievances and proposals.
• A dedicated page on the GIRP's website with information on the project and a complaint/suggestion form;
• A monitoring system that categorizes all project related petitions at local and central level;

Structure. The structure of the feedback system/GRM will be comprised of two levels, from the level of the *county* through the central PMU level.

County Level.To ensure that the GRM is accessible to people at the *county* level, they will have the option to report their complaint/feedback to the supervision engineer who will also serve as the feedback focal point (FFP) at the local (town, commune) level. If the issue cannot be resolved at the *county* level, then the county level FFP will immediately escalate it to a higher PIU level FFP.

Central/PIU Level. If there is a situation in which there is no response from the *county* level *FFP* or the district or if the response is not satisfactory then complainants and feedback providers have the option to contact the PIU level FFP to follow up on the issue.

Appeal Mechanism. If the complaint is still not resolved to the satisfaction of the complainant, then s/he can submit his/her complaint to the appropriate court of law.

GBV related Complaints

The Project GRM will primarily serve to refer complainants to GBV Services that have been mapped in advance and to record resolution of the complaint. It will enable **safe, confidential reporting on GBV incidence, and capture** only the following questions related to the incident:

- Nature of the complaint (what the complainant says in her/his own words);
- If (to the best of their knowledge) the perpetrator was associated with the project
- Additional demographic data such as age and sex (no other identifying characteristics)

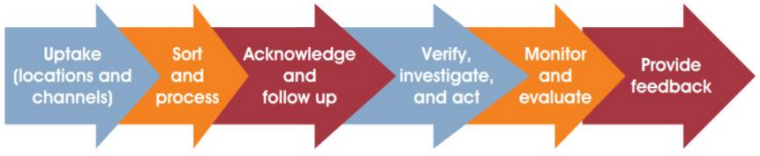
The information recorded in the GRM must be confidential—especially when related to the identity of the complainant. The GIRG's GRM operator will be also be familiarized with the advisable approach to collect reports on GBV cases in a confidential and ethical manner and treat survivors in a non-judgmental, supportive way.

GRM COMMUNICATION & PROCESS

Communication. Information about the GRM will be publicized as part of the consultations for the ESMP in the participating sites and communities. A standard flyer/brochure on the GRM will be designed and disemminated and this information will also be presented on the PIU- webpage.

*Process.*The overall process for the GRM will be comprised of 6 steps: (1) uptake (2) sorting and processing (3) acknowledgment and follow up (4) verification, investigation and action (5) monitoring and evaluation and (6) feedback (see figure 1).

Figure 1. Feedback & GRM Process



Source: Agarwal, Sanjay and Post, David. 2009. Feedback Matters: Designing Effective Grievance Redress Mechanisms for Bank-Financed Projects – Part I. SDV. World Bank.

B. WORLD BANK GRIEVANCE REDRESS SERVICE

The World Bank's Grievance Redress Service (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 Disclosure and Consultations

The original framework EMP was disclosed at the time of preparation of the original project – in February 2014.
The updated ESMF will be re-disclosed on the website of the Ministry of Health and on the World Bank website upon completion of public consultations.

This ESMF has been updated to address environmental and social risks related to COVID-19 activities, though the speed and urgency with which this project has been restructured in the context of COVID-19 has limited the project's ability to have full scale public consultation on this ESMF before this projectrestructuring is finalized.

The updated ESMF document has been disclosed on June 18, 2020 for transparency of funding fourth component. As there is no substantial modification against the original ESMF, there is no need of a supplementary public consultation.

Stakeholders consultations on ESMF will be done through project implementation in cases that substantial modifications will occur in the project structure and documents will be updated where needed.

Disclosure of relevant project information helps stakeholders including those who may be negatively affected by the project to understand the Project environmental and social risks, impacts, opportunities and mitigation measures. Target of the information disclosure and communication will be:

- to provide a schedule and information on activities that will be arranged to local communities, together with the mechanisms for gathering the feedback.
- to inform key stakeholders of environmental and social risks and impacts associated with project activities.
- to improve the knowledge about the Project's COVID-19 related activities as well as associated risks and risk mitigation measures,
- to ensure the best practices in terms of environmental protection and health and safety for workers and contractors,

- to make available to the public a grievance procedure, in order to collect the feedback and to undertake corrective actions in cases that may lead to unnecessary risks or a negative opinion about project implementation.

Care should be exercised to minimize COVID-19 infection risks in stakeholder engagement and consultation processes (such as minimum use of face-to face meeting and application of online tools).

Annex 1 Environmental Guidelines

1. Introduction

The Environmental Guidelines section details the specifics to be addressed in the ecological/biologic concept, design and planning of small-scale projects for the upgrading of the health infrastructure. The guidelines cover the approach of the construction and dismantling activities during the following phases: site preparation/organization, dismantling/construction, as well as during the operational phase. They discuss the protection measures required during the site operation phase, the management of waste – including medical waste –, as well as air quality protection, noise protection, rainwater quality protection, but also the monitoring of collected water that is discharged into the sewage system, and issues such as the selection of construction materials and construction methods with limited impact on the environment and energy saving methods under project supported activities. The guidelines are a basis for training, programming, research, discussions and workshops. However, in selecting suitable construction methods and materials for the clinics, great attention should be paid to locally available traditions, skills and resources in the project sites.

2. The site

The site specific assessment and review shall carefully assess the following issues:

● Dust and noise due to the demolition and construction;
● Dumping of construction wastes accidental spillage of machine oil, lubricants, etc;
● Risk from inadequate handling of medical waste or medical radiation hazards; and
● Potential requirements, if any, for temporary relocation of patient services, patients and clinical staff during the construction activities.

Dust from transportation and handling of construction works will be minimized by water and other means such as enclosure of construction sites. To reduce noise, construction will be restricted during certain hours. All debris, construction and wood waste will be stored within the work site. Wood waste will be stored separately and arranged to be recycled instead of disposing it. Open burning and illegal dumping will not be permitted. Proper sites for earth/clay and sand disposal will be determined and prior approval from relevant authority for disposal will be obtained. Stock piling of construction debris on site will be avoided and waste will be disposed of on a regular basis at the authorized government dumping ground. Debris chutes will be provided to transfer debris from higher floors to the ground.

The following remarks are intended to reflect the type of standards and guidelines to be incorporated in the construction and rehabilitation of hospital facilities:

3. Energy Efficiency, Insulation and Ventilation

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

Window location will 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 will be selected with maintenance and long term running costs in mind. Plumbing will be coordinated to minimize plumbing and also water service to toilets, kitchen and utility rooms. Water-saving faucets, ring mains and other devices also require consideration. All plumbing lines will preferably be copper, with waste lines in cast iron to avoid PVC outgassing. Exposed plumbing and pipe insulation should be of non-toxic material.

4. Filtration

Using electrostatic, activated charcoal, and high-efficiency filters can greatly improve the indoor air quality. Filters that remove particulates down to 0.3 microns are advisable for capture of microbial agents. Molecular absorbing filters can be used to remove toxic gases originating from internal and external sources. Self-actuating electrostatic filters are possible to clean, less expensive, and use no electricity. Electrical electrostatic filters should have an activated charcoal filter in order to subsequently remove ozone that can be generated by the particles on the filter. When sequential filtering for primary particles, HEPA (high efficiency particulate air filtration) is used, then the use of charcoal, potassium permanganate, or other molecular absorbers plus negative ionization at the delivery point of distribution are desirable. Smoking areas or rooms, if any, will be isolated by partitions and equipped with outside exhaust that creates a negative pressure in the space. Certain medical equipment, copy machines, as well as other reproduction equipment, will be adequately ventilated to remove their particulates and gases. Maintenance, including duct cleaning, filters cleaning and changes, and cleaning positive plate receivers and ionizing tips, will be routine and included in recurrent maintenance budgets.

5. Electrical Systems

Cablurile de intrare ar trebui montate sub pământ. Ar fi prudent ca sursa de alimentare principală şi panoul să fie montate la o distanţă semnificativă de posturile de lucru şi spaţiile de aşteptare, pentru evitarea câmpurilor electromagnetice. Legarea de protecţie la pământ, lângă orice instalaţie sanitară, reprezintă o măsură de precauţie. Selectarea corpurilor, lămpilor, dispozitivelor şi instalaţiilor de iluminat care sunt cele mai eficiente din punct de vedere energetic va reduce necesarul de energie, însă poate introduce câmpuri electromagnetice nedorite. Aveţi în vedere faptul că apropierea de corpurile de iluminat cu halogen, fluorescente şi a altor dispozitive de iluminat foarte eficiente din punct de vedere energetic folosite pentru mese, pardoseală şi birouri poate expune la câmpuri electromagnetice dăunătoare.

6. Cabinetry and Wood

Non-toxic finishes are available but expensive. Selecting the least toxic finishes is advised.

7. Finishes

Water-based interior non-toxic, no allergenic paint for drywall or plaster surfaces is preferable to latex or oil-based paints from a respiratory standpoint. Any enamel coating for doors or other surfaces that require a more durable finish is advised to be applied away from interior spaces and be fully aired for over a month before installation. Indoor space should not be occupied until odor and toxins of the paint or finish has been adequately aired.

8. Flooring

Tradition tile, marble, stone and terrazzo floors can be hard to stand and walk upon but have legendary durability. Non-toxic grouts and methods of installation will be used. Cleaning considerations should be included in the decision process.

9. Window Treatments

Vertical blinds provide light control, are easy to maintain, and require minimal stacking room. Horizontal blind can in combination with a white or light ceiling reflect daylight more deeply into a room. Exterior roller blinds, operable from the interior, are particularly effective in controlling solar thermal gain and interior heat loss, and give the benefit of security. Direct solar radiation can be attenuated by fabric mesh.

10. Exterior and Interior Colors

In climates with hot summers, reflective roofs provide a cooling advantage. When cold season occur, darker-colored exterior walls will benefit by low-angle winter solar gains but be less heated by the light angle of the summer sun. White or very light-colored ceilings and interior side walls allow for deeper reflective penetration of natural light. Doors between interior room spaces can act as reflectors. Gloss white lacquer or enamel doors in the path of incoming daylight can lighten adjoining spaces. Interior paints and finishes can affect patients and staff directly. Outdoor finishes with odorous and toxic emissions can also have an effect upon persons indoors through windows, doors and other openings.

11. Demolition work

Existing building elements (walls, foundations, ground cement slabs etc.) will be carefully demolished and the debris will be sorted and removed as directed by the EMP (to be determined during the preparation phase of the project). All valuable materials (doors, windows, sanitary fixtures, etc) will be carefully dismantled and transported to the storage area assigned for the purpose. Valuable materials will be recycled within the project or sold.

12. Selection of Construction Materials and Construction Methods

Environmentally sound goods and services will be selected. Priority will be given to products meeting standards for recognized international or national symbols. Traditionally well-tried materials and methods should be chosen before new and unknown techniques. Construction sites will be fenced off in order to prevent entry of public, and general safety measures would be imposed. Temporary inconveniences due to construction works will 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.

13. Handling of Medical and Non-medical Waste

The Ministerial Order no.1226 was approved on the December 3, 2012 and contains the technical norms regarding the management of the medical waste and also the methods for the data collection regarding the medical waste. Basically it is about the method for collection, wrapping, temporary storing, transportation and disposal of the medical waste. Special norms are in force for dangerous medical wastes to prevent the contamination of the environment and the people' health.

The segregation of waste is mandatory in all medical units (big, medium and small) and the monitoring procedures are already developed. The waste generated in clinics and hospitals is to be categorized as follows for management purposes:

1. non-dangerous waste (the waste assimilated to domestic waste)
2. dangerous waste

The dangerous waste is classified as follows:

- anatomo-patologic waste – this includes human tissue, human pieces resulted from autopsy laboratories, dead bodies, foetus and placenta;
- infectious waste – this includes all waste which contains or was in contact with blood or viruses (syringes, needles, scalpel blades, razor blades, gloves, lines)
- sharps – this includes hypodermic needles and syringes, scalpel blades, razor blades etc;
- chemical and pharmaceutical waste – this includes the expired vaccines, drugs, used substances resulted from laboratories, packaging from dangerous chemical substances, medicines, etc,
- radiation sources which are periodically changed

The non-dangerous waste is the waste assimilated to domestic waste. Domestic waste can be non-organic – plastics, metal cans, cardboard packaging etc – and organic. The only organic waste generated in the clinics will be food waste and garden refuse.

All dangerous waste generated in clinics shall be removed by specialist contractors for disposal as appropriate. It is necessary to provide a fully equipped, lockable area for temporary waste storage in the clinics, to ensure full control of the medical waste waiting for off site transportation. A universal biological hazard symbol will be posted on the door of the storage area.

Waste generated in the clinics and hospitals is segregated as follows:

- Dangerous waste (infectious waste, sharps, chemical and pharmaceutical waste) – Yellow bags;
- Sharps – Special puncture-resistant containers; and
- Non-dangerous waste – Black bags.

For the infectious waste and sharps it will be used a special design meaning “Biological danger”. For chemical and pharmaceutical waste it will be used a special design meaning “Toxic” or “Flammable”. The sharps will be collected in special puncture-resistant containers.

The techniques for treatment of infectious waste are steam sterilization, incineration, microwave or ultraviolet heating systems, ionizing radiation or chemical treatment. The choice of technique depends on which category of infectious waste to be treated. Infectious waste which has been treated, although it is no longer hazardous, will be removed only by incineration and may not be mixed with or disposed of as ordinary solid waste, because they can pose other hazards that are subject to national regulations.

Annex 2 Recommendations on Radiation Protection

1. In diagnostic radiology and interventional radiology

1.1 Authorization requirements

The authorization is obtained from the NCNAC if the requirements for building, endowing, staffing with specialized personnel and appropriate organization of the activity are fulfilled, in accordance with the regulatory acts specified in Annex 1 of RSN-11.
The practices of diagnostic and of interventional radiology which can not be authorized by registration, will be authorized by realization phases, as follows:
a) location;
b) building;
c) utilization;
d) modification.
If the practices are realized in existing buildings, the location and building phases can be merged.

1.2 Building requirements

The radiology laboratory will be composed of, where appropriate, at least:
1. RX room destinated to the radiology device.
2. Command room destinated to the command pannel, as applicable.
3. Developing room.
4. Undressing and waiting room for patients, as applicable.
5. Image interpretation room.
6. Medical consultation room.
7. Medical personnel room.
8. Archive of films and permanent recordings.
9. Cloakroom, toilets for personnel and toilets for patients, as applicable.

The surface of the RX room has to comply with the requirements of the manufacturer regarding the minimum area necessary for installation and assembling of the respective radiological device.
It is not justified the assembling of the radiological device in rooms that are smaller than those recommended by the manufacturer, nor the limitation of the technical capacity of the device because of insufficient area.

If the minimum allowed size for the RX room area is not specified in the RSA of the device, the minimum sizes of the RX rooms, without limiting the technical capacities of the device, must be:
a) The rooms destinated to the radiologic diagnostic devices with one post will have a surface of minimum 20 m² and a square or rectangular shape. The ratio between the two dimensions will be not less than 2/3.
b) For devices with two posts (radioscopy and radiography) in the same RX room, the area of the room will be not less than 36 m². Location in this room of furniture not strictly connected to the utilization of the device is prohibited.

c) In the case of devices with several posts or special devices, the space will be increased as appropriate, taking into account the necessity to ensure the protection of the medical staff, a patients and other persons.
d) The RX room destined to an intraoral dental radiology device, with a voltage of maximum 70 kV, will have an area of at least 10.5 m². In the case of location of two intraoral dental radiology devices in the same room, the area will be minimum 16 m², and the devices will work alternatively only.
e) The RX room destined to a panoramic dental radiology device, with a voltage of maximum 90 kV, will have an area of at least 16 m².
f) The RX room destined to a radiology device for mammography will have an area of at least 10.5 m².
g) The RX room destined to an osteodensitometry device de, with a voltage of maximum 80 kV, will have an area of at least 16 m².

As a rule, the location of the diagnostic radiologic device will be in the in center of the room.
The fluoroscopy radiologic device will be installed with the RX tube - image receptor axis parallel with the short axis of the RX room.
In the case of thefluoroscopy radiologic devices, the minimum distance between the focus of the RX tube and the closest lateral wall will be at least 150 cm.

The mobile radiography and radioscopy devices will be used as such.
The utilization of mobile radiologic devices as stationary devices is prohibited.
The button for exposure must be linked to the command pannel or to the radiologic device through a cordon of minimum 3 m, in order to allow the operator to move away sufficiently from the patient during the exposure.
The utilization of mobile radiologic devices without using adequate radioprotection equipment for professionally exposed persons and the population is prohibited.

The design of the RX room must be so that the useful RX fascicle can not be pointed to any suraface which is not adequately shielded.
The RX room must be designed to avoid the direct incidence of the RX fascicle on the acces doors.

The doors must fulfill the requirements of a protection shield against the scattered radiation and must be closed when the RX fascicle is emitted.

The RX room will be designed so that the dose output will not exceed:
a) 15 mSv/year at the workplace of the person profesionally exposed to X radiaton;
b) 1 mSv/year in the spaces where the population may have access.
The shiels, other than the RX room walls, wiil be designed so that the dose output will not exceed 20 µSv/h.

It is mandatory to display the “ionizing radiation danger symbol” on each access door to the RX room, according to the International Organization for Standardization (ISO) recommendation, ISO Publication No. 361. The symbol will be black colored, and the background yellow.

1.3. Radiology equipment requirements

In medical exposures will be used only radiologic devices which:
a) have a Medical Device Certificate, issued by the MoH, according to Law No. 176/2000, republished;
b) have a Radiologic Security Authorization, issued by NCNAC, according to Law No. 111/1996, with subsequent modifications and completions;
c) are periodically tested, at least once a year, in order to check their compliance with the nominal technical parameters.

1.4 Radiology personnel requirements

The holder of the authorization or registry certificate must nominate in writing all the specialists who perform radiology praxis, each having a recognized form of acreditation sufficient to ensure that all relevant activities for radioprotection and security are in accordance with the radioprotection program, with the conditions of the authorization and with the Romanian radioprotection regulations.
The appropriate number of personnel must be reanalized as the workload increases, or as new radiologic installations and new techniques are introduced to the radiology laboratory.

All personnel working with radiologic devices in the radiology practice must have the relevant qualifications and practical training in radioprotection.
The investment in radiologic devices must be accompanied by concomitant investment in training and authorization of the personnel involved in diagnostic radiology and interventional radiology practices.
The holder of the authorization or registry certificate must include in the support documents of the authorization application written proofs regarding the qualifications in radioprotection of practicing doctors, of the experts acreditated in radiologic protection, of the persons responsible with radiologic security, and of the medical physicists.

1.5 Manipulation requirements

The holder of the authorization or registry certificate must ensure that the appropriate maintenance and checking of the radiologic devices are realized so that the radiologic devices keep their nominal technical parameters during the whole lifetime of the devices according to the technical specifications of the manufacturer, for image quality, radioprotection and security.
The daily, weekly and monthly checkings of the radiologic device are performed according to manufacturer's instructions by the medical physicist, and if the device is not compliant the authorized service unit will be immediately called.
All the procedues used for the above mentioned checkings are part of the user's quality assurance program.
The checkings will have records that will be kept for control during at least 5 years.

All manipulation procedures (installation-assembling, verification, maintenance, service, repair, scrapping/dismantling, etc.) must be included in the qualitaty assurance program of the authorized unit for the manipulation activity.
The service reports which describe the findings regarding the technical condition, as well as the records related to interventions subsequent to these findings to bring the device back in nominal technical parameters, will be backed up as part of the quality assurance program.

During the manipulation operations (installation, assembling, checking, maintenance, service, repair) an expert in radioprotection or medical physics must participate from the beneficiary's side and ensure that the device is in security conditions.
After any repair and at any periodical checking, performed at intervals no longer than one year, the company authorized for the manipulation of the devise will issue a checking report of the compliance of the device with the nominal technical parameters.

1.6 Operational radioprotection

The holder of the authorization or registry certificate must ensure that all workers are endowed with individual protection equipment against X radiations according to the Norm for provision and utilization of the individual protection equipment against ionizing radiations RP 06/1997.

Only the individual protection equipment authorized according to the law will be used, for which a Radiologic Security Authorization was issued by NCNAC.
The individual protection equipment with lead, which can be apron, gloves, protection collar for the thyroid, protection goggles, etc. must comply with the manufacturer's technical specificationse and with the specific standards.
The necessary of individual equipment is established by the expert acredited in radiologic protection.

The protection gloves are useful to protect the hands when they are close to the fascicle, but they will be used with discernment because they can produce the opposite effect during the fluoroscopy with automated brightness control (ABC), when the hands enter the zone covered by the ABC sensor, because this will lead to higher exposure levels for patient and personnel.
The holder of the authorization or registry certificate must ensure that:
a) the workers receive an appropriate training regarding the utilization of the individual protection equipment;
b) will perform activities requiring wearing of individual protection equipment only the persons having the medical opinion that they can support without problems its supplementary weight;
c) all equipment is maintained in good condition and is periodically tested at appropriate intervals, as applicable.

In the fluoroscopy and interventional radiology rooms it is recommended to use additional protection devices:
a) protection shields suspended on the ceiling to protect the eyes and thyroid of the practicing doctor during the whole patient visualization period;
b) protection curtains with lead mounted on the patient table.

The geometry with the RX tube above the table is not recommended because it implies a radiation level much huigher where the operator stays, compared to the geometry with the RX tube below the table. However if the geometry with the RX tube above the table is used, protection curtains with lead attached to the patient table will be used, in order to reduce the scattered radiation received by the personnel.

All persons in the RX room for fluoroscopy, which don't stay behind a shielded control pannel, must wear a protection apron with lead.

The holder of the authorization or registry certificate must ensure appropriate protection equipment against radiations, for the patient and for the person who sustains the patient, as applicable.

1.7 Dismantling requirements

For the diagnostic radiology and interventional radiology practices it is not necessary the authorization for the dismantling phase or the authorization for the termination (partial or total) of activity, the dismounting of the radiologic device by a company authorized by NCNAC for manipulation being sufficient. The dismantling of the radiologic device may be done also according to the own procedures of the authorization holder, who will notify the NCNAC regarding this dismantling.

2. In radiotherapy

2.1 Authorization requirements

The authorization is obtained from the NCNAC if the requirements for building, endowing, staffing with specialized personnel and appropriate organization of the activity are fulfilled, in accordance with the regulatory acts specified in Annex 1 of RSN-12.
The radiotherapy practices are authorized by realization phases, as follows:
a) location;
b) building;
c) start up (only for telecobalt therapy devices and linear accelerators);
d) utilization;
e) modification;
f) possession;
g) dismantling
If the practices are realized in existing buildings, the location and building phases can be merged.

2.2 Building requirements

The radiotherapy laboratory for teletherapy and remote controlled brachitherapy devices will be composed of, where appropriate, at least:
a) Treatment room destinated to the radiotherapy device;
b) Command room destinated to the command pannel;
c) Simulator room;
d) Treatment planning room;
e) Source storage, if applicable;
f) Undressing and waiting room for patients;
g) Medical consultation room;
h) Medical personnel room;
i) Cloakroom, toilets for personnel and toilets for patients;
j) Other technical rooms necessary according to the complexity of the device.

In the design phase of the radiotherapy laboratory which uses radiotherapy devices (exposure rooms and the other rooms of the radiotherapy laboratory) the necessary measures for protection optimization and dose limitation must be ensured, with the view of fulfilling the radiologic security requirements.
The design of the laboratory must take into account the classificatin of areas, the type of activity and the radiotherapy devices intended to be used.
In the design of the radiotherapy laboratory security systems associated with the radiotherapy device and the exposure room will be provided, which will include emergency switches - „exposure stopped", warning systems and security interconditionings (blocking devices).
The radiotherapy laboratory will be mandatory provided with access control system, alarm system, warning system and fire warning system, climatisation system and adequate ventilation.

It is mandatory to display the "ionizing radiation danger symbol" on each access door to the treatament room, simulation room or in the sorce storage, according to the International Organization for Standardization (ISO) recommendation, ISO Publication No. 361. The symbol will be black colored, and the background yellow.

At the design of the radiotherapy laboratory dose constraints will be used no more than:
a) 10 mSv/year at the workplace of the person professionally exposed to radiation.
b) 20 µSv/week ion the areas where the population may have access.
(2) The shields, other than the treatment room walls, will be designed so that the dose output will not exceed 1 µSv/h.

The typical conservative assumptions used in shielding design are:
a) Patient atenuation is usually not taken into consideration.
b) Escape radiatrion is considered maximum possible.
c) Charge, utilization and ocupation factors are usually overestimated.
d) The personnel always stay in in the most exposed places of the adjacent rooms.

The area of the exposure room must comply with the requirements of the manufacturer regarding the minimum surface necessary for instalation and mountingi of the respective radiotherapy device.
The installation of radiotherapy device in rooms smaller than those recommanded by the manufacturer, as well as the limitation of the technical capacityr of the device because of insuficient areas, is not justified.

When the minimum allowed size of the trweatment room area is noit specified in the RSA of the respective radiotherapy device, the minimum area of the treatment room, without chicane, without limiting the technical capacity of the device, must be at least:
a) 16 m² for a teletherapy RX device (with external fascicle) for superficial and contact therapy;
b) 22 m² for a teletherapy RX device (with external fascicle) orthovoltage therapy with electric voltage up to 300 kV
c) 50 m² for a teletherapy gamma device (with external fascicle) with closed radioactive sources, for instance a telecobalt therapy device containing a cobalt – 60 source;
d) 50 m² for medical linear accelerators (linacs)

e) 30 m² for simulators and CT simulators for radiotherapy;
f) 16 m² for brachytherapy (curietherapy) devices with closed radioactive sources.

As a rule, the location of the radiotherapy device will be in the in center of the room.
For existing treatment rooms, where new radiotherapy devices are relocated, also smaller areas than those mentioned above are acceptable, by providing an appropriate justification, by which is demonstated that the protection of the professionally exposed personnel and of patients is ensured and that the device can be used in optimum conditions.

2.3 Radiotherapy equipment requirements

In medical exposures for therapeutic purposes, will be used only radioactive sources and radiotherapy devices which:
a) have Medical Device Certificate, issued by the MoH, according to Law No. 176/2000, republished or Medical Device Registration Certificate at the utilization site, issued by NAMMD, conform reglementarilor MS;
b) have Radiologic Security Authorization (RSA), issued by NCNAC, according to Law No. 111/1996, with subsequent modifications and completions;
c) are periodically tested, according to manufacturer's requirements and RSA conditions, in order to check their compliance with the nominal technical parameters.

According to Art. 59 of the Radiologic Security Norms – Authorization Procedures, the technical documentation for radiological security authorization of a radiotherapy device must demonstrate that the radiological security requirements in design and manufacturing of the device are fulfilled.
The radiological security requirements in design and manufacturing of radiotherapy devices are mentioned in Annex No. 6. of RSN-12.

2.4 Radiotherapy personnel requirements

The holder of the authorization or registry certificate must nominate in writing all the specialists who perform radiotherapy praxis, each having a recognized form of acreditation sufficient to ensure that all relevant activities for radioprotection and security are in accordance with the radioprotection program, with the conditions of the authorization and with the Romanian radioprotection regulations.
The appropriate number of personnel must be reanalized regularly as the workload increases, or as new techniques and new radiotherapy devices are introduced in the radiotherapy laboratory.

All personnel working with radiotherapy devices in the radiotherapy practice must have the qualifications and relevant practical training in radioprotection.
The investment in radiotherapy devices must be accompanied by concomitant investment in training and authorization of the personnel involved in radiotherapy praxis.
The holder of the authorization must include in the support documents of the authorization application written proofs regarding the qualifications in radioprotection of practicing doctors, of the experts acreditated in radiologic protection, of the responsibles with radiologic securitay, and of the medical physicists.

The holder of authorization must ensure that the personnel have knowledge of:

a) authorization requirements;
b) radiotherapy device utilization procedures;
c) own individual responsibilities;
d) the instructions that must be provided to patients and to the persons caring them;
e) radioprotection policies and procedures;
f) local quality management programs (QMP) and quality control (QC) procedures;
g) analysis of radiological incidents and accidents produced or that may be produced in the institution or elsewhere and the necessary corrective and preventive measures.

2.5 Manipulation requirements

The holder of the authorization must ensure that all manipulation operations: installation-assembling, repair, service, checking, maintenance, dismantling/scrapping, etc., of the radiotherapy devices are performed only by a NCNAC authorized unit, according to the law.
The holder of the authorization, by care of the responsible person with radiological security, must keep the technical book of the radiotherapy device during the whole lifetime of the device, until dismantling. The technical book will contain data regarding operations performed for installation- assembling, repair, maintenace, checking, service, and all the services performed until delivery of sources as radioactive waste and dismantling and scrapping of device.
The initial, periodic verification reports and those after each intervention on the respective device, for repair, change of parts, will be kept by the authorization holder, to be prezented at inspections.
The authorization holder must ensure that the appropriate preventive and corrective maintenace and the checking of radiotherapy devices are performed so that the devices maintain their conformity with manufacturer's radiological security specifications during the whole lifetime of the devices.
The daily, weekly, monthly checkings of the radiotherapy device are performed according to the manufacturer's instructions by the medical physicist, and if the device is not compliant the authorized service unit will be immediately called.
The quarterly, semestrial or yearly checkings of the radiotherapy device are performed performed according to the manufacturer's instructions by the authorized service unit together with the medical physicist.
All the procedures used for the above mentioned procedures are part of the user's QMP, which may inclide also other tests than those provided by the manufacturer.
The checkings will have records which will be kept for control at least 5 years.

2.6 Operational radioprotection

For the safe use of radiotherapy devices with external fascicle, procedures will be elaborated for area dosimetric surveilance, for interconditioningsr and blocking devices checking, for leakage tests and emergency procedures, for instance, when the source remains totally or partially blocked in exposure position.
In order to observe the above mentioned procedures, appropriate equipment must be available at the user, calibrated and serviceable, and having RSA, that includes:
a) radiation monitor, ionization chamber type, with scale starting from 1 µSv;

b) contaminometer with RSA, adequate endowments for leakage tests (if these tests are not performed by the unit authorized for manipulation)
c) personal digital dosimeters with warning, sensible in the energy range from 20 keV to 10 MeV, with RSA issued by NCNAC, for all the professionally exposed personnel who is involved in radiotherapy.

In a radiotherapy laboratory, the following are considered as controlled areas:
a) the room where a medical linear accelerator is installed and its command room;
b) the room where a teletherapy RX (with external fascicle) device is installed and mounted and its command room;
c) the room where a teletherapy gamma device (with external fascicle) with closed radioactive sources is installed and mounted and its command room;
d) the room where a radiotherapy simulator or a CT simulator is installed and its command room;
e) the room destined to a remote controlled brachytherapy (curietherapy) device and its command room;
f) the room where manual brachytherapy procedures are performed;
g) romms for manual brachytherapy patients;
h) radioactive ources storage room.
i) adjacent technical rooms where the functional components of the radiotherapy device are located.

Each room of the radiotherapy laboratory must be used according to its specific destination only.
The doors of treatment rooms must be normally closed during the therapeutic procedures.

The authorization holder must ensure that all workers are endowd with individual protection equipment against radiations, according to the Norm for provision and utilization of the individual protection equipment against ionizing radiations RP 06/1997.
Only the individual protection equipment authorized according to the law will be used, for which a Radiologic Security Authorization was issued by NCNAC.
The individual protection equipment with lead, which in the case of manual brachytherapy can be apron, gloves, protection goggles, etc. must comply with the manufacturer's technical specificationse and with the specific standards.
The necessary of individual equipment is established by the expert acredited in radiologic protection and is approved by NCNAC in the authorization and control process.
The protectin equipment that is utilized must be periodically checked according to the utilzation instructions and the conditions in their RSA.

2.7. Transportation of radioactive sources

The suppliers of teletherapy sources and of brachytherapy sources must ensure the transportation thereof under their responsibiliy if their are authorized for transportation, or through a transportation unit specially authorized according to the law.
The teletherapy sources and the brachytherapy sources enter effectively in beneficiary's patrimony only after finalization of charging of the radiotherapy device with sources or source change, as applies, and only after the performance of the acceptance tests.

Charging of sources in radiotherapy devices and the transportation of sources outside the hospital is performed only with a unit authorized according to Law No. 111/1996 with subsequent modifications and completions, to the Fundamental Norms for safe transport of radioactive materials and to the Norms for radioactive materias transport - authorization procedures.

2.8 Dismantling requirements

For the radiotherapy practice where RX-therapy devices are used it is not necessary the authorization for the dismantling phase or the authorization for the termination (partial or total) of activity, the dismounting of the radiologic device by a company authorized by NCNAC for manipulation being sufficient.
As an exception, in case of dismantling an RX- therapy device, the disassembly and dismantling thereof may be done according to the own procedures of the authorization holder, who will notify the NCNAC regarding this dismantling.

The sources that where not used or are out of use fall under the authoriztion regulations for possession or dismantling, as applies, or they will be returned to the manufacturer or will be delivered to a unit authorized according to the law to taking them over.
Regarding the returning or delivery of out of use sources, the authorization holder must provide the following information regarding the content of each package or container:
- The radionuclide, number and activity of the sources.
- A description of the source structure/construction.
- A copy of the approval certificate for radioactive material in special form, as applies.
- A description of the package.
- A copy of the approval certificate for A or B(U) type package, as applicable, or the declaration of conformity with the Fundamental Norms for radioactive materials safe transport.
- Details of any special arangement if necessary, including multilateral approvals, if necessary.
- A copy of transport documents (which vahe to be sent by fax or e-mail, before the unpacking of packages, if possible).
- Obtaining of dispatch authorizations, as applies, according to the Norms for radioactive materials transport - authorization procedures.

The authorization holder must notify the NCNAC regarding any transfer of radiotherapy sources or devices, or regarding the delivery as radioactive waste of the out of use sources.
The authorization holder is responsible for the sources until their delivery to another appropriate authorization holder or to an authorized radioactive waste storage.
The authorization holder must:
a) request from NCNAC the authorization for transfer or for dismantling of the radiotherapy device before starting any activity. The depleted uranium used as shielding material must be treated as radioactive waste and nuclear material in the same time being applicable the Norms for nuclear warranties control.
b) to ensure the necessary resources for the transfer of nuclear materials and dispose of the sources as radioactive waste, when the radiotherapy device is scrapped.

Annex 3 Checklist for Small Works for Building Repair and Remediation

ROMANIA
Ministry of Health

HEALTH SECTOR REFORM - IMPROVING HEALTH SYSTEM QUALITY AND EFFICIENCY PROJECT

Environmental and Social Management Plan / Checklist for Small Works for Building Repair and Remediation

General Guidelines for use of ESMP checklist:

For low-risk topologies, such as school and hospital rehabilitation activities, the ECA safeguards team developed an alternative to the current ESMP format, in order to provide an opportunity for a more streamlined approach to preparing ESMPs for minor rehabilitation or small-scale construction works in the health, education and public services sectors. The checklist-type format has been developed to provide an "example of good practices" and designed to be user friendly and compatible with the safeguard requirements.

The ESMP checklist-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 Plan (ESMP) or Environmental Management Framework (ESMF) to meet the World Bank Environmental Assessment requirements under OP 4.01. The checklist is meant to be applicable as guidelines for the small works contractors and to constitute an integral part of the bidding documents for contractors carrying out small civil works under Bank-financed projects.

The checklist has three sections:

Part 1 includes a descriptive part that sets out the project characteristics and specifies the institutional and legislative aspects, the technical project content, the potential need for a capacity building program and a description of the public consultation process. This section could be up to two pages long. Attachments with additional information can be provided when needed.

Part 2 is the screening form for potential environmental and social issues. This form is to be used by the Ministry of Health PMU to screen potential environmental and social risk levels of a proposed subproject. The screening will determine the relevance of Bank environmental and social safeguard policies and propose the instrument to be prepared for the sub project.

Part 3 represents the monitoring plan for activities during project construction and implementation. It retains the same format required for ESMPs proposed under normal Bank requirements for B Category projects. The purpose of this checklist is

that Annex 1 and Part 2 be included into the bidding documents for contractors and be priced during the bidding process and that their implementation be diligently supervised during works execution.

CONTENTS

A) General Project and Site Information

B) Safeguards Information

C) Mitigation Measures

Monitoring Plan

ESMP CHECKLIST FOR CONSTRUCTION AND REHABILITATION ACTIVITIES

PART A: GENERAL PROJECT AND SITE INFORMATION

INSTITUTIONAL & ADMINISTRATIVE				
Country	**ROMANIA**			
Project title				
Scope of project and activity	Small construction works for buildings rehabilitation within the Health Sector Reform - Improving Health System Quality and Efficiency Project			
Institutional arrangements (Name and contacts)	WB (Project Team Leader)	Project Management	Local Counterpart and/or Recipient	
Implementation arrangements (Name and contacts)	Safeguard Supervision	Local Counterpart Supervision	Local Inspectorate Supervision	Contactor
SITE DESCRIPTION				
Name of site				
Describe site location			Attachment 1: Site Map [ ]Y [ ] N	
Who owns the land?				
Description of geographic, physical, biological, geological, hydrographic and socio-economic context				
Locations and distance for material sourcing, especially aggregates, water, stones?				
LEGISLATION				
Identify national & local legislation & permits that apply to project activity				
PUBLIC CONSULTATION				
Identify when / where the public consultation process took place				
INSTITUTIONAL CAPACITY BUILDING				
Will there be any capacity building?	[ ] N or [ ]Y if Yes, Attachment 2 includes the capacity building program			

PART B: SCREENING FORM FOR POTENTIAL SOCIAL & ENVIRONMENTAL ISSUES

Subproject Name	
Subproject Location	
Subproject Component	
Estimated Investment	
Start/Completion Date	

Questions	**Answer**		**Due diligence / Actions if "yes"**
	yes	no	
Does the subproject involve civil works that include new construction?			Activity excluded
Does the subproject involve civil works including upgrading or rehabilitation of existing medical facilities and/or associated waste management facilities?			ESMP, ICWMP
Does the subproject involve land acquisition and/or restrictions on land use?			Activity excluded
Does the subproject involve acquisition of assets to hold patients (including yet-to-confirm cases for medical observation or isolation purpose)?			Activity excluded
Is there sound regulatory framework, institutional capacity in place for infection control and healthcare waste management?			ESMP, ICWMP
Does the suproject follows national/WHO regulation on medical waste disposal?			ESMP, ICWMP
Does the subproject follow national guidelines and protocols for COVID-19 on issues of accessibility in non-discriminatory manner (equal access to the health facility irrespective of age, gender, pre-existing medical conditions etc.)			ESMP
Does the subproject involve recruitment of workforce including direct, contracted, primary supply, and/or community workers?			ESMP
Is the subproject located within or in the vicinity of any ecologically sensitive areas (e.g. nature reserve, Emerald Sites), or critical habitats?			Activity Excluded
Are there any vulnerable groups present in the subproject area and are likely to be affected by the proposed subproject negatively or positively?			ESMP
Is the site chosen for these activities free from encumbrances and is in possession of the government/community land?			ESMP
Is there any possibility that relocation, closure of business/commercial/livelihood activities of persons during civil works?			Activity Excluded
Is there any physical or economic displacement of persons due to civil works?			Activity Excluded
Will subproject cause loss of employments/jobs			Activity Excluded

Questions	**Answer**		**Due diligence / Actions if "yes"**
	yes	no	
Will the site/subproject include/involve/take place near any of the following: • *Open water sources (e.g. rivers, lakes)* • *Drainage system* • *Cutting of trees/forest/vegetation* • *Earth works (excavation, removal of topsoil, etc.)* • *Vicinity of any historical buildings or areas* • *Usage of hazardous materials* • *Site in a populated area*			ESMP

PART C: MITIGATION MEASURES

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
Without proper screening of proposed subprojects, subprojects with activities which cannot be financed under this Project may be selected which would impede on Project implementation	Screening of environmental and social risks	The PIU will screen each subproject for potential environmental and social risks per World Bank Group EHS Guidelines, WHO COVID-19 Guidelines, and the screening form provided in Part B. Screening will include: a) Determination of any needed design changes in the facility or its operation such as structural and equipment safety, infection control, medical waste disposal, etc.; b) Identification of the scope of works expected; c) Determination that utilities (power, water, heat, etc.) are adequate for planned works; d) Identification of how such works might interfere with normal operation of the subproject facility; e) Determination if works are eligible for financing - for example, activities excluded from financing under the project include those requiring the acquisition of land or works conducted in wards or areas where patients are being treated where asbestos insulation or pipe lagging was used in original construction.
General Conditions	Notification and Worker Safety	(a) The local construction and environment inspectorates and communities have been notified of upcoming activities (b) 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) (c) All legally required permits have been acquired for construction and/or rehabilitation (d) The Contractor formally agrees that all work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents and environment. (e) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots) (f) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.
General Conditions	Protection of healthcare workers	The PIU will conduct a review of the sub protocol's for protecting healthcare workers from infections disease based on current WHO Guidelines for COVID-19 and the Infection and Prevention Protocol.The review will include: (a) Determination if training given to healthcare workers and other HCF employees is adequate; (b) Determination if healthcare facility/proect staff are trained on how to deal with the remains of those who might die from COVID-19, including those conducting autopsies; © Determination if adequate stores of PPE are available on-site; and (d) Identification of supply lines for required PPE.
General Rehabilitation and /or Construction Activities	Air Quality	(a) During interior demolition debris-chutes shall be used above the first floor (b) Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust (c) During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site (d) The surrounding environment (side walks, roads) shall be kept free of debris to minimize dust (e) There will be no open burning of construction / waste material at the site (f) There will be no excessive idling of construction vehicles at sites
	Noise	(a) Construction noise will be limited to restricted times agreed to in the permit (b) During operations the engine covers of generators, air compressors and other powered mechanical equipment shall 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 and disposal pathways and 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. (e) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)
Individual wastewater treatment system	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 treated in order to meet the minimal quality criteria set out by national guidelines on effluent quality and wastewater treatment (c) Monitoring of new wastewater systems (before/after) will be carried out (d) Construction vehicles and machinery will be washed only in designated areas where runoff will not pollute natural surface water bodies.
Historic building(s)	Cultural Heritage	(a) If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notification shall be made and approvals/permits be obtained from local authorities and all construction activities planned and carried out in line with local and national legislation. (b) It shall be ensured that provisions are put in place so that artifacts or other possible "chance finds" encountered in excavation or construction are noted and registered, responsible officials contacted, and works activities delayed or modified to account for such finds.

ACTIVITY	**PARAMETER**	**MITIGATION MEASURES CHECKLIST**
Acquisition of land	Land Acquisition Plan/Framework	(a) If expropriation of land was not expected but is required, or if loss of access to income of legal or illegal users of land was not expected but may occur, that the Bank's Task Team Leader shall be immediately consulted. (b) The approved Land Acquisition Plan/Framework (if required by the project) will be implemented
Toxic Materials	Asbestos management	(a) If asbestos is located on the project site, it shall be marked clearly as hazardous material (b) When possible the asbestos will 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 (e) If asbestos material is be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately. Security measures will be taken against unauthorized removal from the site. (f) The removed asbestos will not be reused
	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 (b) The containers of hazardous substances shall be placed in an leak-proof container to prevent spillage and leaching (c) The wastes shall be transported by specially licensed carriers and disposed in a licensed facility. (d) Paints with toxic ingredients or solvents or lead-based paints will not be used
Affected forests, wetlands and/or protected areas	Protection	(a) All recognized natural habitats, wetlands and protected areas in the immediate vicinity of the activity will not be damaged or exploited, all staff will be strictly prohibited from hunting, foraging, logging or other damaging activities. (b) A survey and an inventory shall be made of large trees in the vicinity of the construction activity, large trees shall be marked and cordoned off with fencing, their root system protected, and any damage to the trees avoided (c) Adjacent wetlands and streams shall be protected from construction site run-off with appropriate erosion and sediment control feature to include by not limited to hay bales and silt fences (d) There will be no unlicensed borrow pits, quarries or waste dumps in adjacent areas, especially not in protected areas.
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; and

		▪ Appropriate temporary storage facilities for medical waste are in place; and ▪ If the activity includes facility-based treatment, appropriate disposal options are in place and operational
Health and Safety of communities will be impacted by proximity to construction activities, change traffic pattern, etc.	Direct or indirect hazards to surrounding communities	OHS protocols following the World Bank Group Environmental Health and Safety Guidelines are established to ensure community safety during the works. a) The local construction and environment inspectorates and communities are notified for the project activities. b) All work is carried out in a safe and disciplined manner designed to minimize impacts on workers and citizens in the vicinity c) Clear warning signs are displayed for the public and public transport about all potentially hazardous works. d) A traffic control system and staff training are organized, especially for providing access to the facility and nearby intensive traffic. e) Safe walkways and passages for pedestrians in places of public transport traffic and construction vehicles are provided. f) Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement g) Active traffic management by trained and visible staff at the site, if required for safe and convenient passage for the public. h) Ensuring safe and continuous access to office facilities, shops and residences during renovation activities, if the buildings stay open for the public. a. a.

Annex 4 Screening Form for potential social and environmental issues

Subproject Name	
Subproject Location	
Subproject Component	
Estimated Investment	
Start/Completion Date	

Questions	**Answer**		**Due diligence / Actions if "yes"**
	yes	no	
Does the subproject involve civil works that include new construction?			Activity excluded
Does the subproject involve civil works including upgrading or rehabilitation of existing medical facilities and/or associated waste management facilities?			ESMP, ICWMP
Does the subproject involve land acquisition and/or restrictions on land use?			Activity excluded
Does the subproject involve acquisition of assets to hold patients (including yet-to-confirm cases for medical observation or isolation purpose)?			Activity excluded
Is there sound regulatory framework, institutional capacity in place for infection control and healthcare waste management?			ESMP, ICWMP
Does the suproject follows national/WHO regulation on medical waste disposal?			ESMP, ICWMP
Does the subproject follow national guidelines and protocols for COVID-19 on issues of accessibility in non-discriminatory manner (equal access to the health facility irrespective of age, gender, pre-existing medical conditions etc.)			ESMP
Does the subproject involve recruitment of workforce including direct, contracted, primary supply, and/or community workers?			ESMP
Is the subproject located within or in the vicinity of any ecologically sensitive areas (e.g. nature reserve, Emerald Sites), or critical habitats?			Activity Excluded
Are there any vulnerable groups present in the subproject area and are likely to be affected by the proposed subproject negatively or positively?			ESMP
Is the site chosen for these activities free from encumbrances and is in possession of the government/community land?			ESMP
Is there any possibility that relocation, closure of business/commercial/livelihood activities of persons during civil works?			Activity Excluded

Questions	**Answer**		**Due diligence / Actions if "yes"**
	yes	no	
Is there any physical or economic displacement of persons due to civil works?			Activity Excluded
Will subproject cause loss of employments/jobs			Activity Excluded
Will the site/subproject include/involve/take place near any of the following: • *Open water sources (e.g. rivers, lakes)* • *Drainage system* • *Cutting of trees/forest/vegetation* • *Earth works (excavation, removal of topsoil, etc.)* • *Vicinity of any historical buildings or areas* • *Usage of hazardous materials* • *Site in a populated area*			ESMP

Annex 5 Environmental and Social Management Plan

General Remarks. Environmental and Social Management Plan (ESMP) for subprojects should outline the mitigation, monitoring and administrative measures to be taken during project implementation to avoid or eliminate negative environmental impacts. For projects of intermediate environmental risk (moderate risk projects), ESMP may also be an effective way of summarizing the activities needed to achieve effective mitigation of negative environmental impacts (description of Environmental and Social Management Plan is provided below).

The ESMP represents a model for development of a site-specific ESMP. The model divides the project cycle into three phases: construction, operation and decommissioning. For each phase, the preparation team identifies any significant environmental impacts that are anticipated based on the analysis done in the context of preparing an environmental assessment.

For each impact, mitigation measures are to be identified and listed. Estimates are made of the cost of mitigation actions broken down by estimates for installation (investment cost) and operation (recurrent cost). The ESMP format also provides forthe identification of institutional responsibilities for operation of mitigation devices and methods.

To keep track of the requirements, responsibilities and costs for monitoring the implementation of environmental mitigation identified in the analysis of ESMP, a monitoring plan may be useful. A **Monitoring Plan format** is provided below. Like the ESMP the project cycle is broken down into three phases (construction, operation and decommissioning). The format also includes a row for baseline information that is critical to achieving 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 costs associated with monitoring (both investment and recurrent) and the institutional responsibilities.

When a monitoring plan is developed and put in place in the context of project implementation, the PMU will request reports at appropriate intervals and include the findings in its periodic reporting to the World Bank and make the findings available to Bank staff during supervision missions.

Description of the of the Environmental and Social Management Plan

The Environmental and Social Management Plan (ESMP) identifies feasible and cost-effective measures that may reduce potentially significant adverse environmental impacts to acceptable levels. The plan includes compensatory measures if mitigation measures are not feasible, cost effective, or enough. Specifically, the ESMP (a) identifies and summarizes all anticipated significant adverse environmental impacts (including those involving indigenous

people or involuntary resettlement); (b) describes--with technical details--each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g. continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; (c) estimates any potential environmental impacts of these measures; and (d) provides linkage with any other mitigation plans (e.g., for involuntary resettlement, indigenous peoples, or cultural property) required for the project.

Monitoring

Environmental monitoring during project implementation provides information about key environmental aspects of the project, particularly the environmental impacts of the project and the effectiveness of mitigation measures. Such information enables the borrower and the Bank to evaluate the success of mitigation as part of project supervision and allows corrective action to be taken when needed. Therefore, the ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the ESIA report and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides(a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

Integration of ESMP with Project

The borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the ESMP will be executed effectively. Consequently, the Bank expects the plan to be specific in its description of the individual mitigation and monitoring measures and its assignment of institutional responsibilities, and it must be integrated into the project's overall planning, design, budget, and implementation. Such integration is achieved by establishing the ESMP within the project so that the plan will receive funding and supervision along with the other components.

Environmental & Social Management Plan

Type of activity	Expected input	Mitigation measure	Type (Methodology) Monitoring	Responsibility		
				Responsible agency	Time	Agency carring out monitoring
1	2	3	4	5	6	7
Construction Phase						
Site clean – up works	Dust and noise Contamination of water and soil	Fence off the construction site Confine noise and vibration generating activities to the daytime. Notify neighbours or local community if work is going to	On –site inspection during the course of the whole construction	Contractor	Permanent monitoring for the whole	MoH PMU Supervisor Design company Local governme

		occur outside of those hours. Water usage should be monitored. Ensure the existance of the connection agreement and subscription agreement for waste waters drainage/treatment. Accumulate waste waters in septic tanks and their pretreatment according to the conditions set forth by the legislation regarding the treatment of waste waters. Once filled up, discharge into the operating sewerage network existing at all the sites according to the legislation in force. Minimize waste generation of waste. Avoid waste disposal in the areas at the immediate vicinity of surface water. Ensure appropriate resources for waste collection/temporary storage and authorized transportation of waste.	process		period of construction After completion of clean-up.	nt
Ground work	Generation of dust Damage to the existing engineering systems Damage to the existing vegetation Damage to topsoil in affected areas around the buildings. Damage to cultural/ historical monume	Water the site minimum twice daily Vehicle transporting bulk should be covered Cover the exiting vegetation with protective box-like grates. Removal of faded plants and re-planting. Remove and store top layer of soil, in case of uncontaminated soil, in designed places, cover to prevent water flushing and after finishing replace it. If the soil is contaminated then it will be transported towards a firm authorized for treatment/disposal of uncontaminated soil. Limit all works to the designated work sites. In case of chance find of historical/cultural artifacts in the course of earth works, immediately suspend activity on the site and resume works	On-site inspection during the course of the whole construction process.	Contractor	Permanent monitoring for the whole period of construction, After completion of recovery works.	MoH PMU Supervisor Design company Local government

	nts. Disposal of excavated waste at uncontrolled dumping sites	only upon receiving written permission from the client. Waste depending on its classification as hazardous, non hazardous or inert is disposed of strictly only in the conditions and sites assigned by local government.				
Demolition	Dust Generation of the construction waste/debris Damage to internal engineering systems	Dampen down dry areas; cover trucks transporting debris while traveling public highways; blacktop temporary roads to minimize dust. Carefully demolish existing elements of buildings; pile up debris in the designated storage areas and remove periodically to avoid accumulation of vast amounts of waste.	Visual observation. Control for the whole period of demolition works.	Contractor	The whole period of works	MoH PMU Supervisor Local government Design company
Disposal of construction waste	Disposal of waste at uncontrolled dumping sites leading to soil and groundwater contamination	Minimize volumes of generated waste. Crashing the disposed concrete blocks for reuse as gravel substitute is suggested in case these concrete are classified as non hazardous. Descend the construction waste in closed containers and transport in covered body trucks The demolition/construction waste is disposed strictly in the area assigned by local government. Inert and non-hazardous waste may be disposed of in landfills or incineration.Hazardous waste shall be managed by authorized specialized operators , the waste transportation from the production place to the treatment /disposal place shall be made according to the legal provisions for hazardous (or non-hazardous) waste transport The disposal of waste into surface waters or in the sites at their immediate	Visual observation. Control for the whole period of demolition works	Contractor	The whole period of works	Local government
Building and	Accidental	Work out accidental discharge preventing measures. Ensure	Review of the design	Design company	Careful review	Supervisor Design

renovation works	spillage of fuel, machine-oil, lubricants, etc Use of toxic materials	construction machinery is well maintained with regular checkups of possible sources (places) of discharge. Coordinate deliveries to avoid peak traffic periods; agree site access/exit points with client /subcontractors /suppliers. Make sure equipment is turned off when not in use. Select environmentally sound goods and services (described in Attachment 2 "Guidelines on Ecological Planning") as much as possible. Exclude usage of asbestos containing construction materials. Avoid the use of PVC (Polyvinyl Chloride) in plumbing lines and waste lines. Exclude usage of asbestos containing construction materials. Avoid the use of PVC (Polyvinyl Chloride) in plumbing lines and waste lines. Use nontoxic material for the exposed plumbing and pipe insulation. Use lead-free solder for water pipes. Locate incoming cables underground.	documents to avoid environmentally non-friendly construction materials. Control during all period of the building and renovation works	Contractor	of the design documents upon design completion. Monitoring for the whole period of works	company
OPERATION PHASE						
Hospital in operation	In adequate handling of waste water containing hazardous substances, toxic gases and inadequate handling of medical	Assign clear responsibility for waste management to members of management team. Developed a waste management plan for the project assisted hospitals, with the emphasis on minimization of waste production at source and hazardous / non-hazardous waste -segregation, source reduction, treatment and proper disposal according to the legal provisions in force. Train hospital staff, including health care professionals, who produce waste.	Waste management responsible person (senior nurse or epidemiologist) carries out daily monitoring of the healthcare waste management system. Periodic evaluation and review of the waste management program	Hospital administration	Daily Periodic	District MOH Municipality Government Hospital administration

	waste during hospital operation. Collection and codisposal non-disinfected medical wastes with household waste at uncontrolled dumping sites leading to soil and groundwater contamination and risk of spread of diseases.	Envision of temporary storage areas for waste disposal in hospital designs for full control of medical waste waiting for off- site transportation. Burn infected medical wastes in incinerators in compliance with specifications (in case if incinerators are planning to install). Treat infectious waste prior to disposal. Dispose of household type waste only in landfill areas assigned by the local governments. Ensure that adequate resources are allocated for health care waste management, including plastic bags, waste collection bins, sharp containers , trolleys				

Environmental & Social 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**	site access traffic management availability of waste disposal facilities	at the site at the site in site vicinity	check if design and project planning foresee diligent procedures	before launch of construction	safety of general public, timely detection of waste disposal bottlenecks	marginal, within budget	Contractor, Engineer
During activity **implementation (construction)**	hazardous waste inventory (asbestos) construction material quality control (eg. paints / solvents)	on site Contractor's store / building yard	visual / analytical if in doubt visual / research in toxic materials databases	before start of rehabilitation works before approval to use materials	public and workplace health and safety	marginal, within budget; (prepare special account for analyses at PMU?)	Contractor, Engineer
During activity **operation**	dust generation noise emissions wastewater volumes & quality waste types and volumes	on site and in immediate neighborhood, close to potential impacted residents	visual consultation of locals visual, analytical if suspicious count of waste transports off site	daily daily daily / continuous every batch	avoidance of public nuisance avoidance of negative impacts on ground/ surface waters ensuring proper waste management and disposal	marginal, within budget	Contractor, Engineer

Annex 6. Infection Control and Waste Management Plan (ICWMP) Template

1. Introduction

1.1 Describe the project context and components;

1.2 Describe the targeted subproject

- Type: E.g. general hospital, clinics, inpatient/outpatient facility, medical laboratory;
- Special type of subproject in response to COVID-19: E.g. existing assets may be acquired to hold yet-to-confirm cases for medical observation or isolation;
- Functions and requirement for the level infection control, e.g. biosafety levels;
- Location and associated facilities, including access, water supply, power supply;
- Capacity: beds

1.3 Describe the design requirements of the subproject, which may include specifications for general design and safety, separation of wards, heating, ventilation and air conditioning (HVAC), autoclave, and waste management facilities.

2. Infection Control and Waste Management

2.1 Overview of infection control and waste management in the HCF

- Type, source and volume of healthcare waste (HCW) generated, including solid, liquid and air emissions (if significant);
- Classify and quantify the HCW (infectious waste, pathological waste, sharps, liquid and non-hazardous) following WGB EHS Guidelines;
- Given the infectious nature of the novel coronavirus, some wastes that are traditionally classified as non-hazardous may be considered hazardous. It's likely the volume of waste will increase considerably given the number of admitted patients during COVID-19 outbreak. Special attention should be given to the identification, classification and quantification of the healthcare wastes.
- Describe the healthcare waste management system in the subproject, including material delivery, waste generation, handling, disinfection and sterilization, collection, storage, transport, and disposal and treatment works;
- Provide a flow chart of waste streams in the subproject if available;
- Describe applicable performance levels and/or standards;
- Describe institutional arrangement, roles and responsibilities in the subproject for infection control and waste management.

2.2 Management Measures

- Waste minimization, reuse and recycling: subproject should consider practices and procedures to minimize waste generation, without sacrificing patient hygiene and safety consideration.
- Delivery and storage of specimen, samples, reagents, pharmaceuticals and medical supplies: Subproject should adopt practice and procedures to

minimize risks associated with delivering, receiving and storage of the hazardous medical goods.

- Waste segregation, packaging, color coding and labeling: Subproject should strictly conduct waste segregation at the point of generation. Internationally adopted method for packaging, color coding and labeling the wastes should be followed.
- Onsite collection and transport: Subproject should adopt practices and procedures to timely remove properly packaged and labelled wastes using designated trolleys/carts and routes. Disinfection of pertaining tools and spaces should be routinely conducted. Hygiene and safety of involved supporting medical workers such as cleaners should be ensured.
- Waste storage: Subprpojects should have multiple waste storage areas designed for different types of wastes. Their functions and sizes are determined at design stage. Proper maintenance and disinfection of the storage areas should be carried out. Existing reports suggest that during the COVID-19 outbreak, infectious wastes should be removed from the suproject's storage area for disposal within 24 hours.
- Onsite waste treatment and disposal (e.g. an incinerator): Many subprojects have their own waste incineration facilities installed onsite. Due diligence of an existing incinerator should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended.
- Transportation and disposal at offsite waste management facilities: Not all subprojects have adequate or well-performed incinerator onsite. Not all healthcare wastes are suitable for incineration. An onsite incinerator produces residuals after incineration. Hence offsite waste disposal facilities provided by local government or private sector are probably needed. These offsite waste management facilities may include incinerators, hazardous wastes landfill. In the same vein, due diligence of such external waste management facilities should be conducted to examine its technical adequacy, process capacity, performance record, and operator's capacity. In case any gaps are discovered, corrective measures should be recommended and agreed with the government or the private sector operators.

3. Emergency Preparedness and Response

Emergency incidents occurred in a subproject may include spillage, occupational exposure to infectious materials or radiation, accidental releases of infectious or hazardous substances to the environment, medical equipment failure, failure of solid waste and wastewater treatment facilities, and fire. These emergency events are likely to seriously affect medical workers, community, the subproject's operation and the environment. Thus, an Emergency Response Plan (ERP) that is commensurate with the risk levels is recommended to be developed.

4. Institutional Arrangements and Capacity Building

A clearly defined institutional arrangement, roles and responsibilities should be included. A training plan with recurring training programs should be developed. The following aspects are recommended:

- Define roles and responsibilities along each link of the chain along the cradle-to-crave infection control and waste management process;
- Ensure adequate and qualified staff are in place, including those in charge of infection control and biosafety and waste management facility operation.
- Stress the chief of the facility/subproject takes overall responsibility for infection control and waste management;
- Establish an information management system to track and record the waste streams in the subproject facility; and
- Capacity building and training should involve medical workers, waste management workers and cleaners. Third-party waste management service providers should be provided with relevant training as well.

5. Monitoring and Reporting

Many healthcare facilities (HCFs) in developing countries face the challenge of inadequate monitoring and records of healthcare waste streams. HCFs/subprojects should establish an information management system to track and record the waste streams from the point of generation, segregation, packaging, temporary storage, transport carts/vehicles, to treatment facilities. HCF is encouraged to develop an IT based information management system should their technical and financial capacity allow.

As discussed above, the HCF chief takes overall responsibility, leads an intra-departmental team and regularly reviews issues and performance of the infection control and waste management practices in the HCF. Internal reporting and filing system should be in place. Externally, reporting should be conducted per government and World Bank requirements.

Annex 7. ESIRT reporting requirements

1. Incident Management and Reporting Process

A. Step 1 – Initial Communication

In case of the accident on any of the project sites, the Contractors will inform the PMU and/or the Bank Team; inform appropriate authorities in compliance with local regulations; secure the safety of workers, public, and provide immediate care.

As soon as any member of the Contractor's or PMU team member becomes aware of an alleged or actual incident, the team member will notify the PMU and/or the Bank Team. This initial communication will be sent regardless of the severity of the incident. The most crucial element of this communication is speed. When an incident is reported, the following questions are a guide to the type of information to be gathered quickly:

- What was the incident? What happened? To what or to whom?
- Where and when did the incident occur?
- What is the information source? How did you find out about the incident?
- Are the basic facts of the incident clear and uncontested, or are there conflicting versions?
- What were the conditions or circumstances under which the incident occurred?
- Is the incident still ongoing or is it contained?
- Is loss of life or severe harm involved?
- How serious was the incident? How is it being addressed? How are the MOH/PMU responding?
- What, if any, additional follow up action is required, and what are the associated timelines?
- Are any Bank staff involved in the incident?

The requirement to report will be defined in the Project's ESCP. As required by the contracts, the Contractor will report incidents to the PIU – the MOH/PIU to ensure that reporting obligations on compliance with ESHS requirements are incorporated into works and other relevant contracts. MOH/PIU and Implementing Agencies will monitor the reports for incidents.

B. Step 2 – Classification (done by the Bank Team)

Based on information received, the Bank Team will classify the incident based on several factors, including the nature and scope of the incident, as well as the urgency in which a response may be required. There are three levels of classification: Indicative, Serious and Severe. Overview of different levels is provided in the box below.

Incident Classification Guide:

Indicative
• Relatively minor and small-scale localized incident that negatively impacts small geographical areas or small number of people • Does not result in significant or irreparable harm • Failure to implement agreed E&S measures with limited immediate impacts
Serious
• An incident that caused or may potentially cause significant harm to the environment, workers, communities, or natural or cultural resources • Failure to implement E&S measures with significant impacts or repeated non-compliance with E&S policies incidents • Failure to remedy indicative non-compliance that may potentially cause significant impacts • Is complex and/or costly to reverse • May result in some level of lasting damage or injury • Requires an urgent response • Could pose a significant reputational risk for the Bank
Severe
• Any fatality • Incidents that cased or may cause or may cause great harm to the environment, workers, communities, or natural or cultural resources • Failure to remedy serious non-compliance that may potentially cause severe impacts complex and/or costly to reverse • May result in high levels of lasting damage or injury • Requires an urgent and immediate response • Poses a significant reputational risk to the Bank

C. Step 3 – Investigation – What happened?

MOH/PIU will:

- Promptly provide information requested by the Bank and facilitates incident site visits.
- Undertake or cause the Contractor to undertake a Root Cause Analysis (RCA) to understand and document the root cause(s) of the incident. The RCA will be based on existing country processes. The extent of the investigation (RCA) carried out by the MOH/PIU and Implementing Agencies' Contractor will be proportionate to the severity of the incident. The MOH/PIU and Implementing Agencies or Contractor will be responsible for funding the preparation of the RCA.

- An RCA will be completed as soon as possible, ideally within 10 days of the incident. The findings of the RCA will be used by the Contractor and MOH/PIU and Implementing Agencies to develop measures to be included in a Standards Corrective Action Plan (SCAP) as a complement to existing project safeguards instruments.
- Share the RCA with the Bank and provide complete information about the incident; facilitate additional site visit(s) if needed.

MOH/PMU and Implementing Agencies will ensure that incidents are investigated to determine what happened and why, so that processes and measures can be put in place to avoid reoccurrences and so that appropriate remedies are applied. The Bank Team may support the MOH/PMU and Implementing Agencies in ensuring an appropriate RCA is conducted by the Contractor or the MOH/PIU and Implementing Agencies.

D. Step 4 – Response

MOH/PMU and Implementing Agencies will design the SCAP and discuss with the Bank, including actions, responsibilities and timelines for implementation, and MOH/PIU and monitoring program.

For *Indicative* incidents, documentation of the incident and the MOH/PMU and Implementing Agencies/Contractor response may be the only action required. For serious and severe incidents, where an RCA or other investigation is conducted by the MOH/PMU and Implementing Agencies/Contractor, the Bank and the MOH/PMU will agree on a set of measures as appropriate to address the root causes to help prevent any recurrence of the incident. The measures determined as appropriate by the Task Team will be captured in a Standards Corrective Action Plan (SCAP).

Box 2 – Example of a MOH/PIU and Implementing Agencies's Action Plan Following a Project Related Fatality

1) Monthly site meetings attended by PIU and covering safeguards updates

2) The supervision consultant monthly progress report will provide details on ESMP implementation status as well as accidents and grievances

3) PIU will send to the Bank monthly progress reports within 1 week of receipt from the supervision consultants

4) Accidents and grievance log books are placed in all construction sites

5) Any severe injury (requiring off-site medical care) or fatality incident shall be reported to the Bank within 48 hours with basic information and a detailed incident report including the following will be submitted as soon as possible, ideally within 10 working days:

a) root cause analysis and

b) corrective action plan on:

i) immediate mitigation measures in case of continuing danger (e.g. fencing, signboard, guards)

ii) compensation to the affected family based on a clear rationale

iii) risk assessment and correct application of ESHS management procedures, and

iv) medium- and long-term mitigation measures including enhancement of safety measures, audits, and additional training.

c) Progress monitoring and reporting

The SCAP will specify the actions, responsibilities, and timelines to be implemented by MOH/PMU and Implementing Agencies. MOH/PMU will be responsible for implementation of the SCAP. The SCAP may include, for example, MOH/PMU actions such as the design or upgrading and implementation of Environmental, Social, Health and Safety management systems, processes and training to support consistent safe performance, compensation for injuries or a fatality, pollution prevention and control remedies to be implemented over a few weeks or a multi-year period, according to the specific project circumstances. The SCAP might include requirements for community consultation, compensation payments relating to a resettlement program, or remediation of farmland damaged by contractors. The SCAP also may include or request Bank actions such as provision of technical assistance by the Bank, and/or loan restructuring, including additional financing, if necessary.

E. Step 5 – Follow up

MOH/PMU will implement SCAP; monitor progress; report on implementation to the Bank.
If the Bank considers that the SCAP measures will not be effective, or where MOH/PMU and Implementing Agencies has shown itself unwilling or unable to put corrective measures in place, the Bank may consider a decision to fully or partially suspend disbursements until such actions are in place, or, in some circumstances, may consider cancelling all or part of the project following the suspension.

2. Responses and Remedies

Illustrative examples of responses and remedies available for different types of incidents prior to and during project implementation are set out in this section for guidance of task teams and management.

Health and Safety Examples. Examples of **potential responses** by the Bank and MOH/PIU and Implementing Agencies to worker occupational health and safety incidents of varying severity are presented in Table 2.

Table 2 Potential Responses to Health & Safety Incidents of Different Severity

Health & Safety Issues	Potential MOH/PIU and Implementing Agencies actions
Severe Any fatality, permanent disability,	• Improve barriers, alarms, signage, training, work processes and procedures • Address gaps in competence, expertise, numbers of project OHS

Health & Safety Issues	Potential MOH/PIU and Implementing Agencies actions
or outbreak of life-threatening project-related communicable disease	team and/or project management team • Ensure that Health and Safety risk assessment has been conducted and appropriate management plans are put in place, implemented and enforced
Serious Major (non-fatal) accident or near-miss	• Review relevant sections of health and safety risk assessment for adequacy • Improve barriers, signage, training, working methods • Enforce use of personal protective equipment • Complement PMU with adequate competencies and expertise with OHS specialist
Serious Repeated observations of dangerous behavior or clear violations of safety protocols	• Improve use of grievance redress mechanism • Review relevant sections of health and safety risk assessment for adequacy • Implement (revised) OHS management plan, including training
Indicative Repeated failure to respond to notification to remedy safeguards issues (e.g., safety kit incomplete or not present)	• Remedy the outstanding issues • Repeat awareness training and messaging • Improve work process or procedure

E&S Examples

Examples of **potential responses** by the Bank and the MOH/PMU to Environmental and Social incidents of varying severity are presented in Table 3.

Table 3 Potential Responses to Environmental and Social Incidents of Different Severity

Environmental/Social	Potential MOH/PIU and Implementing Agencies actions
Severe (Social) Forced resettlement without due process or compensation	• Identify evicted people and provide compensation and support for identification of new housing/other facilities as relevant, in line with Bank safeguards requirements, including appropriate consultation • Clear instructions to project implementer(s) with respect to resettlement process, including sanctions for non-compliance

Environmental/Social	Potential MOH/PIU and Implementing Agencies actions
	with MOH/PMU as well as Bank requirements; • Implement all measures identified in SCAP
Severe (Environmental) Poaching or trafficking in endangered species	• Engage with law enforcement to halt the poaching • Anti-poaching training for project workers and community members to make clear incentives and penalties • Include sanctions for inappropriate worker behavior, including poaching, in Contractors' contracts • Develop an alternative livelihoods program for communities around protected areas
Serious (Social) GRM not functioning	• Review GRM and address issues (upgrade, improve access, publicize GRM in community/ies, better organize response process) • Train PMU staff on GRM management and monitoring • Assign responsibility to qualified PMU staff
Indicative (Environmental) Hydrocarbon or chemical spills with low to medium environmental impact	• Improve work process or procedures as necessary • Train project staff on spills and associated procedures • Increase on-site monitoring if necessary • Review contract language for appropriate sanctions language

Annex 8. Project Activity Report Template

Name of the subproject/ brief description of activity	Status of preparation of design documentation In progress/ Completed/	Status of ESMP/ /public consultations	Grievances received during reporting period, subject of grievances, resolution status (pending / in process / resolved)	Current status of works (timeline for design work and start/completion of construction works, outstanding issues)	Site visits or other actions by government agencies (ecological, labor safety, fire safety etc.) (dates, findings, corrective action requests issued, follow-up actions)	Site visits during reporting period (dates, findings, corrective action requests issued, follow-up actions)	Next site visit planned (dates, specific issues to be checked)

Annex 9. COVID 19 Consideration in Construction / Civil Works projects

I. CHALLENGES WITH CONSTRUCTION/CIVIL WORKS.

Projects involving construction/civil works frequently involve a large work force, together with suppliers and supporting functions and services. The work force may comprise workers from international, national, regional, and local labor markets. They may need to live in on-site accommodation, lodge within communities close to work sites or return to their homes after work. There may be different contractors permanently present on site, carrying out different activities, each with their own dedicated workers. Supply chains may involve international, regional and national suppliers facilitating the regular flow of goods and services to the project (including supplies essential to the projectsuch as fuel, food, and water). As such there will also be regular flow of parties entering and exiting the site; support services, such as catering, cleaning services, equipment, material and supply deliveries, and specialist sub-contractors, brought in to deliver specific elements of the works.

Given the complexity and the concentrated number of workers, the potential for the spread of infectious disease in projects involving construction is extremely serious, as are the implications of such a spread. Projects may experience large numbers of the work force becoming ill, which will strain the project's health facilities, have implications for local emergency and health services and may jeopardize the progress of the construction work and the schedule of the project. Such impacts will be exacerbated where a work force is large and/or the project is in remote or under-serviced areas. In such circumstances, relationships with the community can be strained or difficult and conflict can arise, particularly if people feel they are being exposed to disease by the project or are having to compete for scarce resources. The project must also exercise appropriate precautions against introducing the infection to local communities.

II. DOES THE CONSTRUCTION CONTRACT COVER THIS SITUATION?
Given the unprecedented nature of the COVID-19 pandemic, it is unlikely that the existing construction/civil works contracts will cover all the things that a prudent contractor will need to do. Nevertheless, the first place for a Borrower to start is with the contract, determining what a contractor's existing obligations are, and how these relate to the current situation.

The obligations on health and safety will depend on what kind of contract exists (between the Borrower and the main contractor; between the main contractors and the sub-contractors). It will differ if the Borrower used the World Bank's standard procurement documents (SPDs) or used national bidding documents. If a FIDIC document has been used, there will be general provisions relating to health and safety. For example, the standard FIDIC, Conditions of Contract for Construction (Second Edition 2017) states (in the General Conditions, clause 6.7) that the Contractor will be required:
• to take all necessary precautions to maintain the health and safety of the Contractor's Personnel
• to appoint a health and safety officer at site, who will have the authority to issue directives for the purpose of maintaining the health and safety of all personnel authorized to enter and or work on the site and to take protective measures to prevent accidents
• to ensure, in collaboration with local health authorities, that medical staff, first aid facilities, sick bay, ambulance services and any other medical services specified are available at all times at the site and at any accommodation

• to ensure suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

In addition, the Bank's Particular Conditions include a number of relevant requirements on the Contractor, including:
• to provide health and safety training for Contractor's Personnel (which include project workers and all personnel that the Contractor uses on site, including staff and other employees of the Contractor and Subcontractors and any other personnel assisting the Contractor in carrying out project activities)
• to put in place workplace processes for Contractor's Personnel to report work situations that are not safe or healthy
• gives Contractor's Personnel the right to report work situations which they believe are not safe or healthy, and to remove themselves from a work situation which they have a reasonable justification to believe presents an imminent and serious danger to their life or health (with no reprisal for reporting or removing themselves)
• requires measures to be in place to avoid or minimize the spread of diseases including measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent contract-related labor
• to provide an easily accessible grievance mechanism to raise workplace concerns.

III. WHAT PLANNING SHOULD THE BORROWER BE DOING?
PIUs should confirm that projects (i) are taking adequate precautions to prevent or minimize an outbreak of COVID-19, and (ii) have identified what to do in the event of an outbreak. Suggestions on how to do this are set out below:
• The PIU, either directly or through the Supervising Engineer, should request details in writing from the main Contractor of the measures being taken to address the risks. As stated in Section 3, the construction contract should include health and safety requirements, and these can be used as the basis for identification of, and requirements to implement, COVID-19 specific measures. The measures may be presented as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures. The measures may be reflected in revisions to the project's health and safety manual. This request should be made in writing (following any relevant procedure set out in the contract between the Borrower and the contractor).
• In making the request, it may be helpful for the PIU to specify the areas that should be covered. This should include the items set out in the section below and take into account guidance provided by national authorities, WHO and other organizations.
• The PIU should require the Contractor to convene regular meetings with the project health and safety specialists and medical staff (and where appropriate the local health authorities), and to take their advice in designing and implementing the agreed measures.
• Where possible, a senior person should be identified as a focal point to deal with COVID-19 issues. This can be a work supervisor or a health and safety specialist. This person can be responsible for coordinating preparation of the site and making sure that the measures taken are communicated to the workers, those entering the site and the local community. It is also advisable to designate at least one back-up person, in case the focal point becomes ill; that person should be aware of the arrangements that are in place.
• On sites where there are a number of contractors and therefore (in effect) different work forces, the request should emphasize the importance of coordination and communication between the different parties. Where necessary, the PIU should request the main contractor to put in place a protocol for regular meetings of the different contractors, requiring each to appoint a designated staff member (with back up) to attend such meetings. If meetings cannot be held in person, they should be conducted using whatever IT is available. The effectiveness of mitigation measures will depend on the weakest implementation, and therefore it is important that all contractors and sub-contractors understand the risks and the procedure to be followed.
• The PIU, either directly or through the Supervising Engineer, may provide support to projects in identifying appropriate mitigation measures, particularly where these will involve

interface with local services, in particular health and emergency services. In many cases, the PIU can play a valuable role in connecting project representatives with local Government agencies, and helping coordinate a strategic response, which takesinto account the availability of resources. To be most effective, projects should consult and coordinate with relevant Government agencies and other projects in the vicinity.
• Workers should be encouraged to use the existing project grievance mechanism to report concerns relating to COVID-19, preparations being made by the project to address COVID-19 related issues, how procedures are being implemented, and concerns about the health of their co-workers and other staff.

IV. WHAT SHOULD THE CONTRACTOR COVER?
The Contractor should identify measures to address the COVID-19 situation. What will be possible will depend on the context of the project: the location, existing project resources, availability of supplies, capacity of local emergency/health services, the extent to which the virus already exist in the area. A systematic approach to planning, recognizing the challenges associated with rapidly changing circumstances, will help the project put in place the best measures possible to address the situation. As discussed above, measures to address COVID-19 may be presented in different ways (as a contingency plan, as an extension of the existing project emergency and preparedness plan or as standalone procedures). PIUs and contractors should refer to guidance issued by relevant authorities, both national and international (e.g. WHO), which is regularly updated.

Addressing COVID-19 at a project site goes beyond occupational health and safety, and is a broader project issue which will require the involvement of different members of a project management team. In many cases, the most effective approach will be to establish procedures to address the issues, and then to ensure that these procedures are implemented systematically. Where appropriate given the project context, a designated team should be established to address COVID-19 issues, including PIU representatives, the Supervising Engineer, management (e.g. the project manager) of the contractor and sub-contractors, security, and medical and OHS professionals. Procedures should be clear and straightforward, improved as necessary, and supervised and monitored by the COVID-19 focal point(s). Procedures should be documented, distributed to all contractors, and discussed at regular meetings to facilitate adaptive management. The issues set out below include a number that represent expected good workplace management but are especially pertinent in preparing the project response to COVID-19.

(a) ASSESSING WORKFORCE CHARACTERISTICS Many construction sites will have a mix of workers e.g. workers from the local communities; workers from a different part of the country; workers from another country. Workers will be employed under different terms and conditions and be accommodated in different ways. Assessing these different aspects of the workforce will help in identifying appropriate mitigation measures:
• The Contractor should prepare a detailed profile of the project work force, key work activities, schedule for carrying out such activities, different durations of contract and rotations (e.g. 4 weeks on, 4 weeks off).
• This should include a breakdown of workers who reside at home (i.e. workers from the community), workers who lodge within the local community and workers in on-site accommodation. Where possible, it should also identify workers that may be more at risk from COVID-19, those with underlying health issues or who may be otherwise at risk.
• Consideration should be given to ways in which to minimize movement in and out of site. This could include lengthening the term of existing contracts, to avoid workers returning home to affected areas, or returning to site from affected areas.
• Workers accommodated on site should be required to minimize contact with people near the site, and in certain cases be prohibited from leaving the site for the duration of their contract, so that contact with local communities is avoided.

• Consideration should be given to requiring workers lodging in the local community to move to site accommodation (subject to availability) where they would be subject to the same restrictions.
• Workers from local communities, who return home daily, weekly or monthly, will be more difficult to manage. They should be subject to health checks at entry to the site (as set out above) and at some point, circumstances may make it necessary to require them to either use accommodation on site or not to come to work.

(b) ENTRY/EXIT TO THE WORK SITE AND CHECKS ON COMMENCEMENT OF WORK
Entry/exit to the work site should be controlled and documented for both workers and other parties, including support staff and suppliers. Possible measures may include:
• Establishing a system for controlling entry/exit to the site, securing the boundaries of the site, and establishing designating entry/exit points (if they do not already exist). Entry/exit to the site should be documented.
• Training security staff on the (enhanced) system that has been put in place for securing the site and controlling entry and exit, the behaviors required of them in enforcing such system and any COVID - 19 specific considerations.
• Training staff who will be monitoring entry to the site, providing them with the resources they need to document entry of workers, conducting temperature checks and recording details of any worker that is denied entry.
• Confirming that workers are fit for work before they enter the site or start work. While procedures should already be in place for this, special attention should be paid to workers with underlying health issues or who may be otherwise at risk. Consideration should be given to demobilization of staff with underlying health issues.
• Checking and recording temperatures of workers and other people entering the site or requiring selfreporting prior to or on entering the site.
• Providing daily briefings to workers prior to commencing work, focusing on COVID-19 specific considerations including cough etiquette, hand hygiene and distancing measures, using demonstrations and participatory methods.
• During the daily briefings, reminding workers to self-monitor for possible symptoms (fever, cough) and to report to their supervisor or the COVID-19 focal point if they have symptoms or are feeling unwell.
• Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
• Preventing a sick worker from entering the site, referring them to local health facilities if necessary or requiring them to isolate at home for 14 days.

(c) GENERAL HYGIENE Requirements on general hygiene should be communicated and monitored, to include:
• Training workers and staff on site on the signs and symptoms of COVID-19, how it is spread, how to protect themselves (including regular handwashing and social distancing) and what to do if they or other people have symptoms (for further information see WHO COVID-19 advice for the public).
• Placing posters and signs around the site, with images and text in local languages.
• Ensuring handwashing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces. Where handwashing facilities do not exist or are not adequate, arrangements should be made to set them up. Alcohol based sanitizer (if available, 60-95% alcohol) can also be used.
• Review worker accommodations, and assess them in light of the requirements set out in IFC/EBRD guidance on Workers' Accommodation: processes and standards, which provides valuable guidance as to good practice for accommodation.
• Setting aside part of worker accommodation for precautionary self-quarantine as well as more formal isolation of staff who may be infected (see paragraph (f)).

(d) CLEANING AND WASTE DISPOSAL Conduct regular and thorough cleaning of all site facilities, including offices, accommodation, canteens, common spaces. Review cleaning protocols for key construction equipment (particularly if it is being operated by different workers). This should include:
• Providing cleaning staff with adequate cleaning equipment, materials and disinfectant.
• Review general cleaning systems, training cleaning staff on appropriate cleaning procedures and appropriate frequency in high use or high-risk areas.
• Where it is anticipated that cleaners will be required to clean areas that have been or are suspected to have been contaminated with COVID-19, providing them with appropriate PPE: gowns or aprons, gloves, eye protection (masks, goggles or face screens) and boots or closed work shoes. If appropriate PPE is not available, cleaners should be provided with best available alternatives.
• Training cleaners in proper hygiene (including handwashing) prior to, during and after conducting cleaning activities; how to safely use PPE (where required); in waste control (including for used PPE and cleaning materials).
• Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., national, WHO). If open burning and incineration of medical wastes is necessary, this should be for aslimited a duration as possible. Waste should be reduced and segregated, so that only the smallest amount of waste is incinerated (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19).

(e) ADJUSTING WORK PRACTICES Consider changes to work processes and timings to reduce or minimize contact between workers, recognizing that this is likely to impact the project schedule. Such measures could include:
• Decreasing the size of work teams.
• Limiting the number of workers on site at any one time.
• Changing to a 24-hour work rotation.
• Adapting or redesigning work processes for specific work activities and tasks to enable social distancing, and training workers on these processes.
• Continuing with the usual safety trainings, adding COVID-19 specific considerations. Training should include proper use of normal PPE. While as of the date of this note, general advice is that construction workers do not require COVID-19 specific PPE, this should be kept under review (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
• Reviewing work methods to reduce use of construction PPE, in case supplies become scarce or the PPE is needed for medical workers or cleaners. This could include, e.g. trying to reduce the need for dust masks by checking that water sprinkling systems are in good working order and are maintained or reducing the speed limit for haul trucks.
• Arranging (where possible) for work breaks to be taken in outdoor areas within the site.
• Consider changing canteen layouts and phasing meal times to allow for social distancing and phasing access to and/or temporarily restricting access to leisure facilities that may exist on site, including gyms.
• At some point, it may be necessary to review the overall project schedule, to assess the extent to which it needs to be adjusted (or work stopped completely) to reflect prudent work practices, potential exposure of both workers and the community and availability of supplies, taking into account Government advice and instructions.

(f) PROJECT MEDICAL SERVICES Consider whether existing project medical services are adequate, taking into account existing infrastructure (size of clinic/medical post, number of beds, isolation facilities), medical staff, equipment and supplies, procedures and training. Where these are not adequate, consider upgrading services where possible, including:
• Expanding medical infrastructure and preparing areas where patients can be isolated. Guidance on setting up isolation facilities is set out in WHO interim guidance on considerations for quarantine of individuals in the context of containment for COVID-19).

Isolation facilities should be located away from worker accommodation and ongoing work activities. Where possible, workers should be provided with a single well-ventilated room (open windows and door). Where this is not possible, isolation facilities should allow at least 1 meter between workers in the same room, separating workers with curtains, if possible. Sick workers should limit their movements, avoiding common areas and facilities and not be allowed visitors until they have been clear of symptoms for 14 days. If they need to use common areas and facilities (e.g. kitchens or canteens), they should only do so when unaffected workers are not present and the area/facilities should be cleaned prior to and after such use.
• Training medical staff, which should include current WHO advice on COVID-19 and recommendations on the specifics of COVID-19. Where COVID-19 infection is suspected, medical providers on site should follow WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected.
• Training medical staff in testing, if testing is available.
• Assessing the current stock of equipment, supplies and medicines on site, and obtaining additional stock, where required and possible. This could include medical PPE, such as gowns, aprons, medical masks, gloves, and eye protection. Refer to WHO guidance as to what is advised (for further information see WHO interim guidance on rational use of personal protective equipment (PPE) for COVID-19).
• If PPE items are unavailable due to world-wide shortages, medical staff on the project should agree on alternatives and try to procure them. Alternatives that may commonly be found on constructions sites include dust masks, construction gloves and eye goggles. While these items are not recommended, they should be used as a last resort if no medical PPE is available.
• Ventilators will not normally be available on work sites, and in any event, intubation should only be conducted by experienced medical staff. If a worker is extremely ill and unable to breathe properly on his or her own, they should be referred immediately to the local hospital (see (g) below).
• Review existing methods for dealing with medical waste, including systems for storage and disposal (for further information see WHO interim guidance on water, sanitation and waste management for COVID-19, and WHO guidance on safe management of wastes from health-care activities).

(g) LOCAL MEDICAL AND OTHER SERVICES Given the limited scope of project medical services, the project may need to refer sick workers to local medical services. Preparation for this includes:
• Obtaining information as to the resources and capacity of local medical services (e.g. number of beds, availability of trained staff and essential supplies).
• Conducting preliminary discussions with specific medical facilities, to agree what should be done in the event of ill workers needing to be referred.
• Considering ways in which the project may be able to support local medical services in preparing for members of the community becoming ill, recognizing that the elderly or those with pre-existing medical conditions require additional support to access appropriate treatment if they become ill.
• Clarifying the way in which an ill worker will be transported to the medical facility, and checking availability of such transportation.
• Establishing an agreed protocol for communications with local emergency/medical services. • Agreeing with the local medical services/specific medical facilities the scope of services to be provided, the procedure for in-take of patients and (where relevant) any costs or payments that may be involved.
• A procedure should also be prepared so that project management knows what to do in the unfortunate event that a worker ill with COVID-19 dies. While normal project procedures will continue to apply, COVID-19 may raise other issues because of the infectious nature of the disease. The project should liaise with the relevant local authorities to coordinate what should be done, including any reporting or other requirements under national law.

(h) INSTANCES OR SPREAD OF THE VIRUS WHO provides detailed advice on what should be done to treat a person who becomes sick or displays symptoms that could be associated with the COVID-19 virus (for further information see WHO interim guidance on infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected). The project should set out risk-based procedures to be followed, with differentiated approaches based on case severity (mild, moderate, severe, critical) and risk factors (such as age, hypertension, diabetes) (for further information see WHO interim guidance on operational considerations for case management of COVID-19 in health facility and community). These may include the following:

• If a worker has symptoms of COVID-19 (e.g. fever, dry cough, fatigue) the worker should be removed immediately from work activities and isolated on site.
• If testing is available on site, the worker should be tested on site. If a test is not available at site, the worker should be transported to the local health facilities to be tested (if testing is available).
• If the test is positive for COVID-19 or no testing is available, the worker should continue to be isolated. This will either be at the work site or at home. If at home, the worker should be transported to their home in transportation provided by the project.
• Extensive cleaning procedures with high-alcohol content disinfectant should be undertaken in the area where the worker was present, prior to any further work being undertaken in that area. Tools used by the worker should be cleaned using disinfectant and PPE disposed of.
• Co-workers (i.e. workers with whom the sick worker was in close contact) should be required to stop work, and be required to quarantine themselves for 14 days, even if they have no symptoms.
• Family and other close contacts of the worker should be required to quarantine themselves for 14 days, even if they have no symptoms.
• If a case of COVID-19 is confirmed in a worker on the site, visitors should be restricted from entering the site and worker groups should be isolated from each other as much as possible.
• If workers live at home and has a family member who has a confirmed or suspected case of COVID19, the worker should quarantine themselves and not be allowed on the project site for 14 days, even if they have no symptoms.
• Workers should continue to be paid throughout periods of illness, isolation or quarantine, or if they are required to stop work, in accordance with national law.
• Medical care (whether on site or in a local hospital or clinic) required by a worker should be paid for by the employer.

(i) CONTINUITY OF SUPPLIES AND PROJECT ACTIVITIES Where COVID-19 occurs, either in the project site or the community, access to the project site may be restricted, and movement of supplies may be affected.

• Identify back-up individuals, in case key people within the project management team (PIU, Supervising Engineer, Contractor, sub-contractors) become ill, and communicate who these are so that people are aware of the arrangements that have been put in place.
• Document procedures, so that people know what they are, and are not reliant on one person’s knowledge.
• Understand the supply chain for necessary supplies of energy, water, food, medical supplies and cleaning equipment, consider how it could be impacted, and what alternatives are available. Early pro-active review of international, regional and national supply chains, especially for those supplies that are critical for the project, is important (e.g. fuel, food, medical, cleaning and other essential supplies). Planning for a 1-2 month interruption of critical goods may be appropriate for projects in more remote areas.
• Place orders for/procure critical supplies. If not available, consider alternatives (where feasible).
• Consider existing security arrangements, and whether these will be adequate in the event of interruption to normal project operations.

• Consider at what point it may become necessary for the project to significantly reduce activities or to stop work completely, and what should be done to prepare for this, and to re-start work when it becomes possible or feasible.

(j) TRAINING AND COMMUNICATION WITH WORKERS Workers need to be provided with regular opportunities to understand their situation, and how they can best protect themselves, their families and the community. They should be made aware of the procedures that have been put in place by the project, and their own responsibilities in implementing them. • It is important to be aware that in communities close to the site and amongst workers without access to project management, social media is likely to be a major source of information. This raises the importance of regular information and engagement with workers (e.g. through training, town halls, tool boxes) that emphasizes what management is doing to deal with the risks of COVID-19. Allaying fear is an important aspect of work force peace of mind and business continuity. Workers should be given an opportunity to ask questions, express their concerns, and make suggestions.
• Training of workers should be conducted regularly, as discussed in the sections above, providing workers with a clear understanding of how they are expected to behave and carry out their work duties.
• Training should address issues of discrimination or prejudice if a worker becomes ill and provide an understanding of the trajectory of the virus, where workers return to work.
• Training should cover all issues that would normally be required on the work site, including use of safety procedures, use of construction PPE, occupational health and safety issues, and code of conduct, taking into account that work practices may have been adjusted.
• Communications should be clear, based on fact and designed to be easily understood by workers, for example by displaying posters on handwashing and social distancing, and what to do if a worker displays symptoms.

(k) COMMUNICATION AND CONTACT WITH THE COMMUNITY Relations with the community should be carefully managed, with a focus on measures that are being implemented to safeguard both workers and the community. The community may be concerned about the presence of non-local workers, or the risks posed to the community by local workers presence on the project site. The project should set out risk-based procedures to be followed , which may reflect WHO guidance (for further information see WHO Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response). The following good practice should be considered:
• Communications should be clear, regular, based on fact and designed to be easily understood by community members.
• Communications should utilize available means. In most cases, face-to-face meetings with the community or community representatives will not be possible. Other forms of communication should be used; posters, pamphlets, radio, text message, electronic meetings. The means used should take into account the ability of different members of the community to access them, to make sure that communication reaches these groups.
• The community should be made aware of procedures put in place at site to address issues related to COVID-19. This should include all measures being implemented to limit or prohibit contact between workers and the community. These need to be communicated clearly, as some measures will have financial implications for the community (e.g. if workers are paying for lodging or using local facilities). The community should be made aware of the procedure for entry/exit to the site, the training being given to workers and the procedure that will be followed by the project if a worker becomes sick.
• If project representatives, contractors or workers are interacting with the community, they should practice social distancing and follow other COVID-19 guidance issued by relevant authorities, both national and international (e.g. WHO).