



The Ministry of Health of the Republic of Serbia

Nemanjina 22-26, 11000 Belgrade

## SERBIA NONCOMMUNICABLE DISEASES PREVENTION AND CONTROL PROJECT

### ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) CHECKLIST

for

Procurement and Installation of Linear Accelerators (LINAC) for  
radiology centers



DRAFT DOCUMENT

BELGRADE, July 2025

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SERBIA NONCOMMUNICABLE DISEASES PREVENTION AND CONTROL PROJECT  
ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR PROCUREMENT AND INSTALATION OF LINEAR  
ACCELERATORS (LINAC) FOR RADIOLOGY CENTERS

List of Abbreviations

EHS	Environmental, Health and Safety
EHSG	World Bank Group Environmental, Health and Safety Guidelines
EIA	Environment Impact Assessment
ES	Environmental and Social
ESCP	Environment and Social Commitment Plan
ESF	Environmental and Social Framework
ESIRT	Environmental and Social Incident Response Toolkit
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Standard
EU	European Union
GHK	General Hospital in Kladovo
GRM	Grievance Redress Mechanism
HCF	Healthcare Facility
HCW	Healthcare Waste
HVAC	Heating, Ventilation and Air Conditioning
IAEA	International Atomic Energy Agency
IBRD	International Bank for Reconstruction and Development
IORS	The Institute for Oncology and Radiology of Serbia
IPCM	Institute for Protection of Cultural Monuments
LINAC	Linear Accelerator
LMP	Labor Management Procedure
MOH	The Ministry of Health of the Republic of Serbia
NCD	Noncommunicable Diseases
OHS	Occupational Health and Safety
OP	Operational Procedure
PCU	Project Coordination Unit
PPE	Personal Protective Equipment
RoS	Republic of Serbia
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SNDPCP	Serbia Noncommunicable Diseases Prevention and Control Project
SRBATOM	Serbian Radiation and Nuclear Safety and Security Directorate
UCC	University Clinical Center
UCCKG	University Clinical Centre Kragujevac
UCCN	University Clinical Centre Niš
WB	World Bank
WHO	World Health Organization

## **1. INTRODUCTION AND BACKGROUND**

### **1.1. Serbia Noncommunicable Diseases Prevention and Control Project**

The World Bank will be supporting the Ministry of Health of the Republic of Serbia in implementing the Serbia Noncommunicable Diseases Prevention and Control Project (SNDPCP). The objective of the project is to contribute to improving Serbian health system effectiveness in addressing Non Communicable Diseases (NCDs). The effectiveness of a health system is reflected in its ability to achieve desired outcomes in prevention, management, and treatment of NCDs.

The Project seeks to tackle the major risk factors of NCDs and improve prevention, early detection and effective management of chronic diseases. This will require interventions to: (i) improve competence and accountability of health care providers; (ii) increase access to and availability of health services; and (iii) strengthen quality of clinical services and public health measures to improve population's awareness. The Project procurement activities are related to procurement of medical and laboratory equipment, magnetic resonance imaging equipment, and Linear Accelerators (LINAC)<sup>1</sup> for radiology centers to replace the depreciated ones.

The Ministry of Health of the Republic of Serbia, through its Project Coordination Unit (PCU) will coordinate project activities, including day-to-day implementation, coordination, supervision, and overall management of project activities.

Project Coordination Unit (PCU) prepared draft Environmental and Social Management Framework (ESMF) for the Project in order to ensure application of the good environmental practice and project compliance with the requirements and environmental and social standards (ESS) of the World Bank.

Project's Component 2 (Increasing Availability of Services) supports upgrading health care infrastructure to improve availability of diagnostic and treatment services, with focus on expanding access to people living in rural areas. The component finances equipment, infrastructure improvements and mobile vehicles. Providing modern diagnostics within the project will be fully in line with the expanded reform program, including the optimization of the health network and the development of a long-term comprehensive national cancer strategy.

### **1.2. Sub-component 2.1: Strengthening the health institutions infrastructure**

The subcomponent finances procurement and installation of Linear Accelerators (LINAC) for radiology centers and magnetic resonance imaging equipment for secondary and tertiary health care facilities to replace the depreciated ones.

Among other activities, Serbia Noncommunicable Diseases Prevention and Control Project will ensure procurement and Installation of LINACs in following radiology centers:

- The Institute for Oncology and Radiology of Serbia – IORS,
- University Clinical Centre Kragujevac - UCCKG,
- University Clinical Centre Niš - UCCN and
- General Hospital in Kladovo - GHK

### **1.3. Project's Environmental and Social Considerations**

The Project activities were subject to the specific environmental and social screening, as required by Project's ESMF. The PCU screened project for potential environmental and social risks per

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<sup>1</sup> A medical linear accelerator (LINAC) is the device most commonly used for external beam radiation treatments for patients with cancer. It delivers high-energy x-rays or electrons to the region of the patient's tumor. These treatments can be designed in such a way that they destroy the cancer cells while sparing the surrounding normal tissue.

World Bank ESF and WB Environmental and Social Standards (ESSs), as well as the World Bank Group Environmental, Health and Safety Guidelines. The Project is also screened for its eligibility in terms of compliance with WB exclusion list.

Based on these standards, the environmental and social risk of the project is categorized as **Moderate** requiring an Environmental and Social Management Plan Checklist (**ESMP Checklist**) pursuant to Project's ESMF. According to the current Serbian legislation, particularly following Serbian Law on EIA (Official Gazette of RS, No 135/04, 36/09) – EIA is not required for this kind of projects.

Environmental risks are related to minor civil works for upgrade, repair, rehabilitation and refurbishment of specialized units in selected health care facilities as well as works to accommodate new equipment. LINACs installation works consist of minor rehabilitation works and replacement of the old LINACs with the new ones.

This ESMP Checklist is prepared as adequate ES instrument for small-scale works to be conducted at associated HCFs including rehabilitation needed for installation of procured medical equipment (LINACs) and refurbishment of specialized units in selected hospitals. This ESMP Checklist is prepared in accordance with WB ESS standards, following required form presented within the Annex 03 of the ESMF document (Draft Format for ESMP/ESMP Checklist for Construction and Rehabilitation Activities).

Once approved, the ESMP Checklist will be included as an integral part of any works or supervision contract for the activity.

### 1.3.1. Potential Environmental and Social risks and impacts

All works will be interior and implemented within the existing footprint of the target facility; thus, the environmental and social impacts are expected to be low in magnitude, reversible, predictable and temporary.

Expected impacts from these activities will be typical for small construction works, therefore predictable and readily mitigated and localized.

The related civil works will be undertaken within existing hospitals, and are not expected to have any significant negative environmental or social impact. The issues related to this type of activities include noise, dust, vibrations, and management of construction waste during civil engineering activities - which could be successfully managed and mitigated by application of good engineering practices. Specific issues that will also be taken care of relate to management of the site (as hospital must continue operating during the execution of works), and health and safety of population. In some cases, the presence of asbestos, lead, medical waste or possibly hazardous waste (if found during rehabilitation works), may require specific handling procedures, which are defined in this site-specific ESMP Checklist.

Linear accelerators for treatment of cancer do not contain any radioactive substances, but instead use electricity to generate either high-energy x-rays or accelerated electrons that can be precisely targeted on cancerous tissue. When not in operation, no harmful radiation is generated, although the treatment room itself requires shielding of the walls, doors, and ceiling to prevent escape of scattered radiation during the radiotherapy treatment. There are no sealed radioactive sources inside the LINAC. However, even though LINACs don't have radioactive material residual radiation might be present temporarily in components (induced radioactivity) after long operation. Therefore, potential exposure to residual radiation from LINAC components is recognized as project risk and adequate mitigation measures and waste management procedure are prescribed within this ESMP document.

Cobalt-60 and Cesium-137 units have been historically used in radiotherapy and medical diagnostics, especially before the rise of linear accelerators (LINACs). Old equipment for radiotherapy and medical diagnostics, like old Cobalt-60 or Cesium-137 units, used in Serbia

decades ago do contain radioactive material. They are considered high-risk radioactive sources and fall under IAEA Category 1 (most dangerous if uncontrolled). Improper handling or legacy units may pose security risks (e.g., dirty bomb potential). In Serbia, Cobalt-60 radiotherapy units were widely used until the 1990s and early 2000s. Many have since been replaced by linear accelerators (LINACs) due to safety, precision, and regulatory concerns, but some units persisted in use in smaller hospitals or were kept as backups. During dismantling and disposal of such units, there are risks connected to workers safety, namely there is a risk of injury during dismantling or exposure to toxic or radioactive materials. Also, there are potential risks for public safety during transport or storage if materials not secured. Finally, there are risks related to hazardous and e-waste in case of Improper disposal of lead, copper, PCB-containing parts, and capacitors.

### **Waste management**

The main considerations while dealing with waste management are outlined below:

The equipment is considered as product until the installation. The product will be packed by the manufacturer's standards. After unpacking, the equipment will be installed according to the manufacturer's instructions, which will be translated to the Serbian language by the competent authority. In this step, it is packaging waste that will be generated, not the hazardous waste, according to Directive 2008/98/EC and national law and by-law, and will be treated as secondary raw material or will be recycling.

The old equipment has to be declared as waste, in any of the following technical reasons: devices limitation, inability to repair, radiation construe as the risks to the environment and human health, etc. In these circumstances, it is necessary to choose the appropriate object or indoor facility where it is possible to temporary store these devices. Final disposal of all waste, including old LINACs is Contractor's obligation.

Old LINACs, to be replaced by new ones procured by the project, will be disposed of through certified environmentally sound practices, as shown in Figure 1.

During dismantling of old LINACs, even though LINACs don't have radioactive material, radiation shielding parts (like heavy metal collimators, lead panels) must still be handled as hazardous industrial waste. Dismantling must be done under radiation safety protocols, with a radiation survey conducted by a certified expert to confirm no induced radioactivity remains. According to the Law on Ionizing Radiation Protection and Nuclear Safety, even non-radioactive radiation-generating devices like LINACs fall under regulatory control during use and decommissioning. A radiation protection expert, licenced by Serbian Radiation and Nuclear Safety and Security Directorate (SRBATOM) must supervise decommissioning to confirm safety.

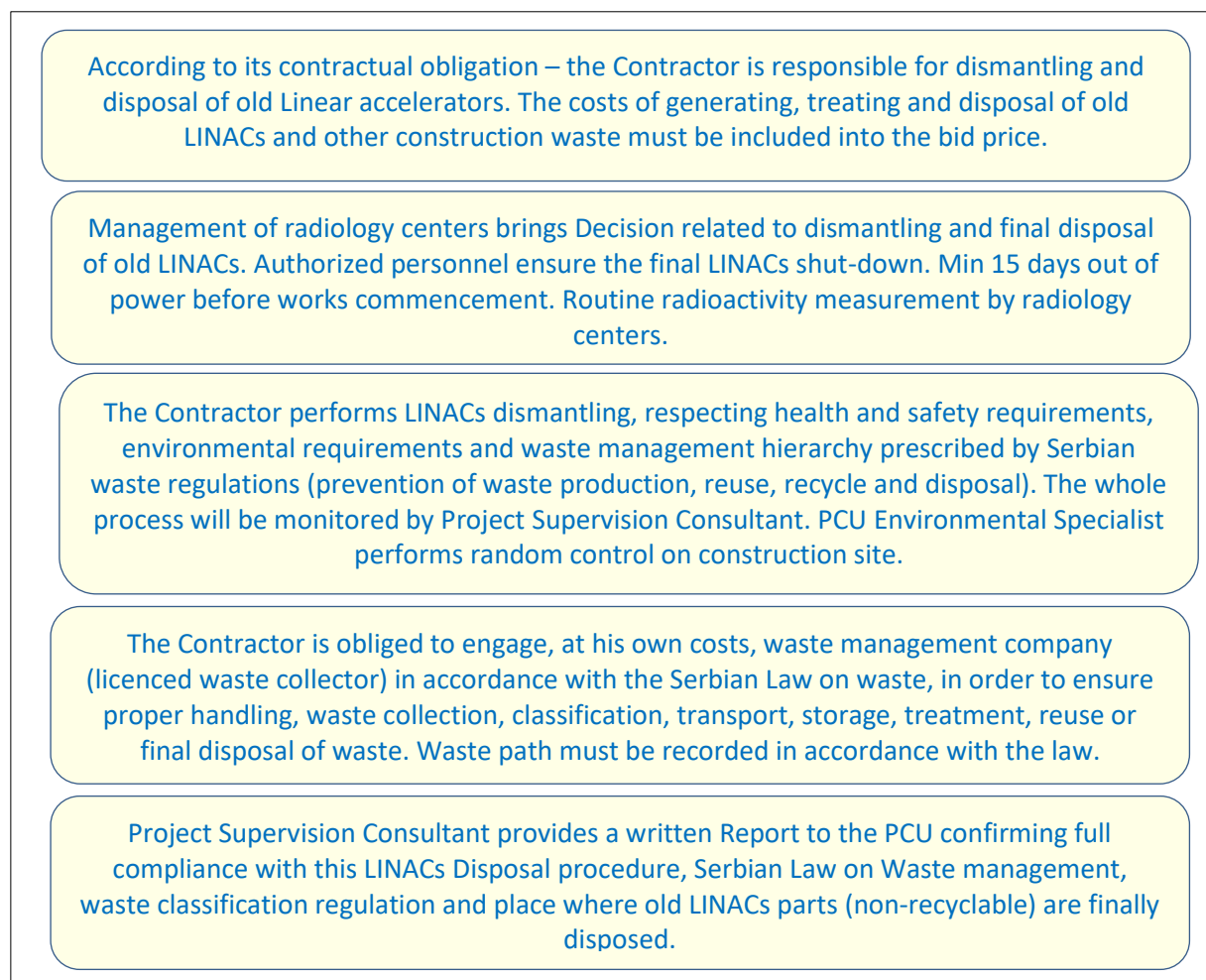
### **Safety considerations:**

Vault doors can weigh several thousand pounds each depending on size and thickness and heavy injuries or even fatalities can occurred if removed improperly. If a vault door needs to be removed, it will be done so by professionals who have had years of experience removing these specialty items.

### **Upgrade of existing facilities**

In accordance to national and international recommendations (International recommendation for linear accelerator) for protection against ionizing radiation, adequate design for rehabilitation/upgrade of the existing facilities is prepared for the project. In that sense, the project will use only the recommended materials for isolation of primary and secondary radiation sources, and will use other specific recommendations and procedures for the projects and specific standards for the objects, and will apply the relevant environmental and social

mitigation measures, as indicated in this ESMP Checklist and relevant Serbian legislation, and World Bank EHS Guideline.



.Figure 1: Disposal procedure for old Linear accelerators

### **The utilization**

At the time when the device is switched to normal operating mode, there will be possibility for a potential environment impact, which will be in accordance to national and international recommendations (International recommendation for linear accelerator) for protection against ionizing radiation. At this stage, there will also be a possibility for potential impact on human health (machine operators and users). The potential for negative impact will exist during operation of the accelerator equipment, in case that Serbian standard for ionizing radiation and nuclear safety is not adequately applied. The Project will, as a part of the design and permitting process, ensure for each piece of equipment that relevant standards are applied and design is certified by the Institute of Occupational Health of Serbia. Additionally, the Word bank EHS Guidelines and ILO Code of Practice “Radiation Protection of Workers (Ionizing Radiation)” will apply. As a rule, whenever the Serbian and World Bank standards and guidance documents differ on environment, health and safety, the more stringent ones will be applied.

## 2. ENVIRONMENTAL AND SOCIAL MANAGEMENT

### 2.1. PART 1: Institutional and Administrative

INSTITUTIONAL & ADMINISTRATIVE	
Country	<b>Republic of Serbia</b>
Project:	<b>Serbia Noncommunicable Diseases Prevention and Control Project</b>
Subcomponent 2.1	Procurement and Installation of Linear Accelerators (LINAC) for radiology centers in Serbia
Scope of project and activity	<p>The project envisages replacement of existing old LINACs in 4 HCFs in Serbia. Procurement and installation of new modern LINACs will contribute to improved diagnostics procedure in following HCFs:</p> <ol style="list-style-type: none"> <li>1. The Institute for Oncology and Radiology of Serbia- IORS,</li> <li>2. University Clinical Centre Kragujevac - UCCKG,</li> <li>3. University Clinical Centre Niš - UCCN and</li> <li>4. General Hospital in Kladovo - GHK</li> </ol> <p>Installation of new LINACs requires the minor rehabilitation / refurbishment works in existing units within the HCFs which will be done according to the project documentation.</p> <p>The rehabilitation / refurbishment / upgrade works will comprise demolition and refurbishment of the existing walls, floors and ceilings, insulations, present building services such as Heating, Ventilation, and Air Conditioning (HVAC) systems, plumbing, sewage, high and low voltage electrical installations etc.</p> <p>The project envisages the decommissioning and removal of old LINACs.</p> <p>At the same time, the Project will strive for environmentally sound implementation.</p> <p>Therefore, old LINACs, to be replaced by new ones procured by the project, will be disposed of through certified environmentally sound practices.</p> <p>The decommissioning of old LINACs will include: the final LINACs shut-down, including treatment<sup>2</sup> of operational waste (management of dismantled parts will be conducted in line with the national waste management policy).</p> <p>During ESMP Checklist preparation, PCU members visited all project sites and witnessed that waste and medical waste management procedures are established in all HCFs – selected hospitals.</p> <p>All institutions have signed contracts with authorized waste management companies, and waste procedures are in place in accordance with the Law on waste management, which is harmonized with EU directives in waste management.</p> <p>Finally, it is confirmed by authorized persons within the HCFs that old LINAC equipment will be disposed in environmentally sound manner and this activity will be monitored by PCU and Project Supervision Consultant during Project implementation.</p>

<sup>2</sup> Categorization of waste, waste treatment, transport and disposal



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INSTITUTIONAL & ADMINISTRATIVE				
	Photos of existing facilities within the radiology centers which are subject to refurbishment and adaption are given in Annex 04.			
Institutional arrangements (Name and contacts)	<b>Project Management:</b> Serbia Noncommunicable Diseases Prevention and Control Project Project Coordination Unit (PCU) Ministry of Health		<b>Local Counterparts and/or Recipients:</b> Names and contacts, their phone numbers and E-mail addresses of local counterparts in 4 HCFs are enclosed within the Annex 01 of this ESMP Checklist	
Implementation arrangements (Name and contacts)	Project Supervision TBD –Procurement Procedure not completed yet	Local Counterpart Supervision HCF's personnel appointed for EHS supervision (see Annex 02 for details)	Local Inspectorate Supervision	Contractor TBD

## 2.2. Site description and ownership

### 2.2.1. Institute of Oncology and Radiology of Serbia (IORS)

Describe site location	<p>The Institute of Oncology and Radiology of Serbia is a medical center located in Belgrade, Serbia.</p> <p>The Institute of Oncology and Radiology of Serbia deals with basic cancer research, clinical research, but also preventive and all diagnostic and therapeutic disciplines that help patients with malignant diseases. The Institute of Oncology and Radiology of Serbia is the largest institution of this type in Serbia</p> <p>The installation of a new LINAC is planned in the existing bunker.</p> <p>The institute's buildings are accessed from the Pasterova, and then by internal traffic to the subject area/site. Safe access is ensured to the construction site.</p> <p>There are no buildings on the site that are protected as cultural or natural heritage. The HCF in which the works are planned is not under any regime of cultural protection, and these works do not require the prior approval of the Institute of Protection of Cultural Monuments.</p>	Attachment 1: Site Map Y [X] N [ ] Site Map is attached in Annex 03 of this ESMP Checklist
Who owns the land?	The land plot under the Institute of Oncology and Radiology of Serbia is owned by the state – the Republic of Serbia. The tenancy holder is IORS. Proof of ownership is the copy of the real estate folio No. 3590, cadastral municipality of Savski Venac, issued by the Republic Geodetic Authority - Savski Venac Real Estate Cadastre.	
Geographic description	Belgrade is the capital and the largest city of Serbia. It is located at the confluence of the Sava and Danube rivers and the crossroads of the Pannonian Plain and the Balkan Peninsula. Nearly 1.7 million people live within the administrative limits of	

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	<p>the City of Belgrade, a quarter of the total population of Serbia.</p> <p>Being Serbia's capital city, Belgrade has special administrative status within Serbia. It is the seat of the central government, administrative bodies, and government ministries, as well as home of almost all of the largest Serbian companies, media, and scientific institutions. Belgrade is classified as a Beta-Global City.</p> <p>Belgrade lies 116.75 meters (383.0 ft.) above sea level Belgrade has a humid subtropical climate with four seasons and uniformly spread precipitation. Monthly averages range from 1.4 °C (34.5 °F) in January to 23.0 °C (73.4 °F) in July, with an annual mean of 12.5 °C (54.5 °F).</p>
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### 2.2.2. General Hospital in Kladovo

Describe site location	<p>Health Center Kladovo is a healthcare institution located in Kladovo, Serbia, providing medical services to the local community and surrounding areas. According to available data, the center has a capacity of 135 beds.</p> <p>The facility offers both primary and secondary healthcare services, encompassing general medical care, specialized treatments, and emergency services. In recent years, there have been initiatives aimed at reconstructing and improving the infrastructure of the health center to enhance patient care.</p> <p>The health center is staffed by a team of medical professionals, including doctors specializing in various fields.</p> <p>The existing unit / premise, scheduled for refurbishment and rehabilitation, is located within the area taken by the General Hospital.</p> <p>The installation of a new Linear Accelerator (hereinafter referred to as LINAC) is planned in the existing bunker.</p> <p>The HCF in which the works are planned is not under any regime of cultural or nature protection, and these works do not require the prior approval of the Institute for Protection of cultural monuments.</p>	<p>Attachment 1: Site Map Y [X] N [ ] Site Map is attached in Annex 03 of this ESMP Checklist</p>
Who owns the land?	The land plot under the General Hospital in Kladovo is owned by the state – the Republic of Serbia.	
Geographic description	<p>Kladovo is a town and municipality in eastern Serbia, situated on the right bank of the Danube River, near the border with Romania. It lies in the Bor District and serves as an important hub for tourism, trade, and energy production.</p> <p>Kladovo is positioned along the Danube, one of Europe's major rivers, which plays a crucial role in transportation and hydropower generation. Just upstream from Kladovo, the Danube flows through the spectacular Đerdap Gorge, one of Europe's largest river gorges. This area is part of Đerdap National Park, which is known for its rugged cliffs, dense forests, and archaeological sites. To the west of Kladovo, Miroč mountain range offers a mix of karst landscapes, caves, and hiking trails.</p> <p>Kladovo has a continental climate, with hot summers and cold winters. The Danube influences the local climate, sometimes causing fog and humidity fluctuations.</p> <p>The Danube River provides opportunities for water transport and tourism, including cruise ships traveling between Western and Eastern Europe.</p> <p>Cultural and Historical Significance: Trajan's Bridge, Diana Fortress and Viminacium &amp; Lepenski Vir (nearby).</p>	

### 2.2.3. University Clinical Center Kragujevac

Describe site location	<p>The University Clinical Centre of Kragujevac is a medical center located in Kragujevac, Serbia. It serves as the main medical center for both Kragujevac and Sumadija and Western Serbia.</p> <p>The Clinical Centre of Kragujevac was established on 3 March 2005. It is one of four medical centers in Serbia and serves more than 2 million people mostly from Sumadija and Western Serbia.</p> <p>The Clinical Centre of Kragujevac contains 37 organizational units, of which 15 are clinics, 7 centers and 15 service units. The complex also houses the University of Kragujevac Faculty Of Medicine.</p> <p>The installation of a new Linear Accelerator is planned in the existing bunker.</p> <p>The institute's buildings are accessed from the Zmaj Jovina street, and then by internal traffic to the subject area/site. Safe access is ensured to the construction site.</p> <p>There are no buildings on the site that are protected as cultural or natural heritage. The HCF in which the works are planned is not under any regime of cultural protection, and these works do not require the prior approval of the Institute for Protection of Cultural Monuments.</p>	Attachment 1: Site Map Y [X] N [ ] Site Map is attached in Annex 03 of this ESMP Checklist
Who owns the land?	The land plot under the University Clinical Centre in Kragujevac is owned by the state – the Republic of Serbia. The tenancy holder is Kragujevac CC. Proof of ownership is the copy of the real estate folio No. 43 KO Kragujevac 4, issued by the Republic Geodetic Authority – Kragujevac Real Estate Cadastre.	
Geographic description	<p>Kragujevac is the fourth largest city in Serbia and the administrative center of the Sumadija District. It is the historical center of the geographical region of Sumadija in central Serbia, and is situated on the banks of the Lepenica River.</p> <p>City of Kragujevac is the economic, cultural, educational, health and political center of Šumadija and Pomoravlje and the neighbouring regions. Located in the heart of Šumadija and Serbia, it lies 140 km south of the capital city of Belgrade. It covers an area of 836 square kilometres, with 57 settlements and 78 local communities.</p> <p>According to the 2011 census, the city proper has a population of 150,835, while its administrative area comprises a total of 179,417 inhabitants.</p> <p>Kragujevac has an oceanic climate, and with a July mean temperature of 21.9 °C (71.4 °F), falling only 0.1 °C short of a humid subtropical climate. Winds most often blow from southwest and northwest, while they often blow from southeast in January, February and March.</p>	

### 2.2.4. University Clinical Center Niš

Describe site location	<p>The University Clinical Centre Nis is a republic institution, established on November 14, 1990. It is the second largest health institution in Serbia, which provides services to the entire southeast and south of Serbia, with about 3 million inhabitants.</p> <p>The project site is located in the southeastern part of the Republic of Serbia, in the city of Niš urban area. The existing bunker, scheduled for reconstruction, is located in the Oncology Clinic building within the Niš Clinical Centre complex. The site where</p>	Attachment 1: Site Map Y [X] N [ ] Site Map is attached in Annex 03 of this ESMP
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	<p>the reconstruction of the existing bunker will take place is located on the cadastral plot 4273/1, with total area of 4ha 20a 41m<sup>2</sup>.</p> <p>The existing unit / premise, scheduled for refurbishment and rehabilitation, is located within the University Clinical Centre.</p> <p>Total gross area of the reconstructed bunker and adjacent premises is around 200m<sup>2</sup>.</p> <p>The institute's buildings are accessed from the Dr Zoran Đinđić Boulevard, and then by internal traffic to the subject area/site.</p> <p>Safe access is ensured to the construction site.</p> <p>There are no buildings on the site that are protected as cultural or natural heritage. The UCC Niš building in which the works are planned (UCC Niš) is not under any regime of cultural protection, and these works do not require the prior approval of the Institute of Cultural Protection.</p>	Checklist
Who owns the land?	<p>The land plot under the Niš CC is owned by the state – the Republic of Serbia and Niš CC is the tenancy holder. Proof of ownership is the copy of real estate folio No. 7799 KO Niš Čele Kula issued by the Republic Geodetic Authority – Niš Real Estate Cadastre.</p>	
Geographic description	<p>Niš is the third largest city in Serbia and the administrative center of the Nisava District. According to the 2011 census, the city proper has a population of 183,164, while its administrative area (City of Niš) has a population of 260,237 inhabitants.</p> <p>Niš is situated at the 43°19' latitude north and 21°54' longitude east, in the Nisava valley, near the spot where it joins the South Morava. Below Niska Banja and Niš, under the ground is a natural source of hot water, unique potential of clean and renewable geothermal energy at the surface of up to 65 square kilometres. The natural reservoir is at a depth of 500 to 800 meters, and the estimated capacity is about 400 million cubic meters of thermal mineral water.</p> <p>Niš has a humid subtropical climate, but with continental influences. Average annual temperature in the area of Niš is 11.9 °C.</p>	

### 2.3. Baseline conditions and Project works

#### 2.3.1. Institute of Oncology and Radiology of Serbia (IORS)

PCU representatives visited Project location on 07 Feb 2025. The findings are as follows:

The installation of a new Linear Accelerator (hereinafter referred to as LINAC) is planned in the existing bunker, which currently houses the old LINAC manufactured by Electa.

The old device is in operation but on a smaller scale due to the unadvanced techniques used in it.

The device needs to be decommissioned and removed from the site, and above all, the Institute needs to decommission the device.

The dimensions of the existing bunker are satisfactory, there is a labyrinth, and the protection against ionizing radiation is satisfactory.

The following construction and installation works need to be carried out:

- Complete dismantling of all linings inside the space - demolition.
- Dismantling of the existing technical room behind the LINAC Electa.
- Complete dismantling of all installations inside the space - demolition, except for the fire alarm installation.
- Dismantling of the existing electrical cabinet.

- Dismantling of the air conditioning unit responsible for the bunker space, which is located in the technical room on the roof of the building above the bunker in question.
- Dismantling of the cooling unit on the roof above the bunker.
- The entrance door to the bunker zone and the protective door to the bunker area are retained.
- Dismantling of the wet room - sink.
- Installation of new floor and wall coverings as well as a new ceiling.
- Installation of a new electrical cabinet (the cable voltages exist and the cross-section is sufficient for future needs).
- Formation of changing rooms in the bunker zone.
- Installation of new high and low current electrical installations.
- Installation of a new air conditioning chamber in the technical room on the bunker roof (there are penetrations as well as PP dampers).
- Humidity control is mandatory.
- Installation of a new energy-efficient heat pump with environmentally friendly refrigerant.
- Installation of new lighting.
- Installation of a new wet room with haberdashery.
- Formation of a technician's desk.

There is a project for execution, but not in electronic form.

Drawings of the bunker base will be formed for the needs of the tender.

The equipment can be brought in with special care – protection for the existing floor covering – ceramics of the access corridor.

The work must be carried out outside working hours (i.e. more precisely during the third shift, which will temporarily not take place in the work zone during the work) of the radiotherapy department, because the space being reconstructed is centrally located and communication between patients and employees must be achieved through that zone.

After each working day, it is necessary to return the space in front of the bunker to an acceptable condition for daily use (daily cleaning).

The fire-fighting entrance/exit at the junction between the new radiotherapy department and the Institute building will be used by workers during the work so as not to disrupt the functioning of the radiotherapy department in the third shift.

### 2.3.2. General Hospital in Kladovo

PCU representatives visited Project location on 31 Jan 2025. The findings are as follows:

The installation of a new Linear Accelerator (hereinafter referred to as LINAC) is planned in the existing bunker, which currently houses the old LINAC manufactured by Varian, type X600 with an energy of 6MeV.

The old device has been written off in terms of paperwork, it is necessary to decommission and remove it from the site.

The dimensions of the existing bunker are satisfactory, there is no classic labyrinth, the protection against ionizing radiation was satisfactory for the energies they have worked with so far.

It is necessary to check for protection for higher energy levels, but considering that the direction of the ionizing radiation beam is perpendicular to the axis of the control room and that there is no classic labyrinth, it will most likely be necessary to add an additional barrier.

The following construction installation works need to be carried out:

- Complete dismantling of all linings inside the space - demolition.
- Complete dismantling of all installations inside the space - demolition except for the fire alarm installation.
- Dismantling of the existing electrical cabinet.
- Dismantling the air conditioning unit responsible for the bunker area, which is located in the adjacent technical room.
- Dismantling the entrance door to the bunker area.
- Dismantling the entrance protective door to the bunker area.
- Demolition of the wet room area and technician rest room.
- Formation of a control room in the former sanitary area and technician rest room with the aim of moving away from the primary barrier against ionizing radiation.
- Installation of new floor and wall coverings as well as a new ceiling.
- Installation of a new electrical cabinet (if the voltage cable exists, it is necessary to check whether the cross-section is sufficient for the new device, if not, there is a new transformer station with sufficient electrical capacity 20m away from the bunker area).
- Formation of changing rooms in the bunker area.
- Installation of new high and low current electrical installations.
- Installation of a new air conditioning chamber on the newly formed foundation next to the building with the formation of a protective cage.
- Installation of a new energy-efficient heat pump with environmentally friendly refrigerant on the newly formed foundation next to the facility with the formation of a protective cage.
- Installation of new lighting.
- Installation of a new wet room with haberdashery in the former technical area.
- Formation of a counter for technicians.
- Renovation of the roof above the bunker - installation of a new Sika type roofing system or trapezoidal sheet metal.
- Replacement of chairs in the waiting room - two blocks of four chairs each.
- Delivery of furniture (cabinet for storing auxiliary equipment for immobilization, filing cabinets, etc.).

There is an as-built project.

Drawings of the bunker base will be formed for the needs of the tender.

Equipment can be brought in directly from the outside.

The work must be carried out throughout the day, the facility is isolated from the rest of the radiotherapy, and the work can be separated by simply closing the entrance door.

There is access to the work directly from the outside.

### 2.3.3. University Clinical Center Kragujevac

PCU representatives visited Project location on 28 Jan 2025. The findings are as follows:

The installation of a new Linear Accelerator (hereinafter referred to as LINAC) is planned in the existing bunker, which currently houses the old LINAC manufactured by Electa.

The old device has been written off in terms of paperwork, it needs to be decommissioned and removed from the site.

The dimensions of the existing bunker are satisfactory, there is a labyrinth, and the protection against ionizing radiation is satisfactory.

The following construction and installation works need to be carried out:

- Complete dismantling of all linings inside the space - demolition.
- Dismantling of the existing technical room behind the LINAC Electa.
- Complete dismantling of all installations inside the space - demolition except for the fire alarm installation.
- Dismantling of the existing electrical cabinet.
- Dismantling of the air conditioning unit responsible for the bunker space, which is located in the adjacent - technical room.
- Dismantling of the cooling unit on the roof above the bunker.
- Dismantling of the entrance door to the bunker zone.
- Dismantling of the entrance protective door to the bunker space.
- Dismantling of the wet room - sink.
- Installation of new floor and wall coverings as well as a new ceiling.
- Installation of a new electrical cabinet (the cable voltage exists and is of sufficient cross-section for future needs).
- Formation of changing rooms in the bunker area.
- Installation of new high and low current electrical installations.
- Installation of a new air conditioning chamber on the bunker roof (there are penetrations) with the installation of a galvanized steel substructure for carrying devices.
- Installation of a new energy-efficient heat pump with environmentally friendly coolant.
- Installation of new lighting.
- Installation of a new wet room with haberdashery.
- Formation of a technician's desk.
- Renovation of the roof above the bunker - installation of a new Sika type roofing system or trapezoidal sheet metal.
- Replacement of chairs in the waiting room - two blocks of four chairs each.

There is an as-built project.

Drawings of the bunker base will be created for the needs of the tender.

Bringing in equipment is possible with special care – protection for the existing floor covering – ceramics of the access corridor.

The work must be carried out outside of radiotherapy working hours because the space being reconstructed is centrally located and communication between patients and employees must be achieved through that zone.

After each working day, it is necessary to return the space in front of the bunker to an acceptable condition for daily use (daily cleaning).

#### 2.3.4. University Clinical Center Niš

PCU representatives visited Project location on 28 Jan 2025. The findings are as follows:

The installation of a new Linear Accelerator (hereinafter referred to as LINAC) is planned in one of the two existing bunkers that currently house the old LINAC manufactured by Electa.

The user has not yet decided which of the two existing LINACs will be decommissioned (Electa 1 or Electa 2).

In principle, the difference between the two options is that the work on adapting the space will be somewhat more serious for the two variants (Electa 1 or Electa 2) as follows:.

#### Electa 1.

The dimensions of the existing bunker are satisfactory, there is a labyrinth, and the protection against ionizing radiation is satisfactory.

The following construction and installation works are required:.

- Complete dismantling of all linings inside the space - demolition.
- Dismantling of the existing technical room behind the LINAC Electa.
- Complete dismantling of all installations inside the space - demolition except for the fire alarm installation.
- Dismantling of the existing electrical cabinet.
- Dismantling the air conditioning unit responsible for the bunker area, which is located in the adjacent technical room.
- Dismantling the cooling unit on the substructure of the bunker wall at the level of the exterior decoration.
- Dismantling the entrance door to the bunker area.
- Dismantling the entrance protective door to the bunker area.
- Dismantling the wet room - sink.
- Installing new floor and wall coverings as well as a new ceiling.
- Installing a new electrical cabinet (the voltage cable exists and is of sufficient cross-section for future needs).
- Creating changing rooms in front of the existing bunker areas.
- Installing new high and low voltage electrical installations.
- Installing a new wet room with haberdashery.
- Installing a new air conditioning chamber in the technical room next to the control room.
- Installing a new energy-efficient heat pump with environmentally friendly coolant in the same place.
- Installing new lighting.
- Creating a desk for technicians.
- Renovation of the roof above the bunker - installation of a new Sika type roof system or trapezoidal sheet metal.
- Installation of chairs in the waiting room - two blocks of four chairs each.

There is no as-built project, the space has been surveyed.

Drawings of the bunker base will be created for the needs of the tender.

Bringing in equipment is possible with special care - protection for the existing floor covering - PVC flooring.

The work can be carried out without any hindrance during the functioning of radiotherapy because the bunkers are positioned in such a way that the work can be isolated without affecting everyday work.

#### Electa 2.

The dimensions of the existing bunker are satisfactory except for the part of the control room which is small.

There is a labyrinth, protection against ionizing radiation is satisfactory.

The following construction and installation works need to be carried out:



- Complete dismantling of all linings inside the space - demolition.
- Dismantling of the existing technical room behind the LINAC Electa.
- Complete dismantling of all installations inside the space - demolition except for the fire alarm installation.
- Dismantling the existing electrical cabinet.
- Dismantling the air conditioning unit responsible for the bunker area, which is located in the adjacent technical room.
- Dismantling the cooling unit on the substructure of the bunker wall at the level of the exterior decoration.
- Dismantling the entrance door to the bunker area.
- Dismantling the entrance protective door to the bunker area.
- Expansion of the command room at the expense of the adjacent file room area.
- Installation of new floor and wall coverings as well as a new ceiling.
- Installation of a new electrical cabinet (the voltage cable exists and is of sufficient cross-section for future needs).
- Formation of changing rooms in front of the existing bunker areas.
- Installation of new high and low voltage electrical installations.
- Installation of a new wet room with haberdashery.
- Installation of a new air conditioning unit in the technical room next to the command room.
- Installation of a new energy-efficient heat pump with environmentally friendly coolant in the same place.
- Installation of new lighting.
- Creation of a counter for technicians.
- Renovation of the roof above the bunker - installation of a new Sika type roofing system or trapezoidal sheet metal.
- Installation of chairs in the waiting room - two blocks of four chairs each.

There is no as-built project, the space has been recorded.

Drawings of the bunker base will be created for the needs of the tender.

Bringing in equipment is possible with special care - protection for the existing floor covering - PVC flooring.

The work can be carried out without any hindrance during the functioning of radiotherapy because the bunkers are positioned in such a way that the work can be isolated without affecting everyday work.

## 2.4. Legislation

Identify national & local legislation & permits that apply to project activity	The project triggers the World Bank ESS1 Assessment and Management of Environmental and Social Risks and Impacts. According to WB ESF, this subproject is classified as a <b>Moderate risk Category</b> . Component 2, subcomponents 2.1 and 2.2 of the Project will support civil works and small-scale refurbishment and repurposing works, so some environmental and social impacts may occur within civil works on rehabilitation and refurbishment, but the project will not include works outside the already existing facilities. Impacts from these activities should be typical for civil works, e.g. noise emission, dust emission, wastewater, construction waste, and risks to workers (OHS issues), and as such,
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predictable and manageable. Relevant ES instrument is this ESMP Checklist. Public consultations on ESMP Checklist and project design are not required.

According to the Serbian legislation, **this subproject is not subject to the Environmental Impact Assessment (EIA)**. According to Article 3, Paragraphs 1 and 2 of the Law on Environmental Impact Assessment (Official Gazette of RS, No. 135/04, 36/09), the projects that are planned and implemented, changes in technology, reconstruction and extension of capacity that can have a significant impact on the environment are subject to the impact assessment. Assessment of the environmental impact is not required for the projects in which the scope of building or premises and the building's purpose do not change.

However, according to the Law on Radiation and Nuclear Safety and Security (Official Gazette of RS, No. 95/2018, 10/2019), in order to be able to put any source of ionizing radiation into operation there is an obligation to develop a project of measures for radiation safety and security, which has to be approved by the Directorate for Radiation and Nuclear Safety and Security of Serbia. According to this Law and accompanying by-laws, this Project of measures for radiation safety and security is an integral part of the technical documentation for facilities that use or will use sources of ionizing radiation, and contains a technical description of the facility, including environmental protection measures.

The Contractor has full responsibility for proper LINACS dismantling, waste classification and disposal. The procedure is described on Figure 1 of this ESMP Checklist. Removal, handling and disposal of any kind of hazardous waste, including medical waste shall be done by licenced waste collector, engaged by the Contractor at his own expense (this item shall be costed into the bid price) and in accordance with the Law on Waste Management ("Official Gazette of RS", No. 36/2009, 88/2010, 14/2016 i 95/2018), Rulebook on categories, testing and classification of waste ("Official Gazette of RS", no. 56/2010, 93/2019 and 39/2021), the Law on Radiation and Nuclear Safety and Security (Official Gazette of RS, No. 95/2018, 10/2019) and the Rulebook on Radioactive Waste Management (Official Gazette of RS, No. 60/10) because LINACs use x-rays, **and all x-rays produce ionizing radiation. Ionizing radiation has the potential to cause biological effects in living tissue.**

According to Art. 145 of the Law on Planning and Construction ("Official Gazette of RS", No. 72/09, 81/09 – cor., 64/10, 24/11, 121/12, 42/13, 50/13, 98/13, 132/14 and 145/14), for rehabilitation and refurbishment works planned within this project, no works execution decision or building permits are required. However, **all legally required permits will be acquired for refurbishment and/or rehabilitation works prior to the commencement of works.**

The removal, handling, and disposal of eventually present Asbestos Contained Materials (ACM) should be done in accordance with the Rulebook on the treatment of asbestos-containing waste "Official Gazette of RS" 75/2010.

According to Art. 53 of the Law on Planning and Construction, the **Investor is not obliged to obtain location conditions** in the case when performing works on investment maintenance of the facility and removal of obstacles for people with disabilities, works that do not change the appearance, does not increase the number of functional units and installation capacity, when adapting, repairing, building masonry fences, as well as in all other cases of works that do not connect to the utility infrastructure or change the capacity and functionality of existing connections to the infrastructure network, unless otherwise provided by this law or regulation governing location conditions.

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	The location of the Institute for Oncology and Radiology of Serbia is under specific regime of protection as “Pre-protected Cultural Complex”, and therefore previously obtained conditions issued by the Institute for Protection of Cultural Monuments of Belgrade will be strictly respected during works.
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## 2.5. Public Consultation

Identify when / where the public consultation process took place	<p>The Environmental and Social Management Framework (ESMF) was prepared in September 2023. ESMF defines the steps, processes and procedures for screening, as well as alternative analysis, assessment, monitoring and management of environment-related issues. As required by WB Environmental and Social Standard 10 (ESS10) – Stakeholder Engagement and Information disclosure, during preparation of Draft ES instruments (ESMF, ESCP, SEP and LMP) for the Serbia Noncommunicable Diseases Prevention and Control Project (NCD) the Borrower carried out public consultations with relevant stakeholders.</p> <p>Starting from 02 August 2023, Ministry of Health of the Republic of Serbia disclosed the Draft ESMF, ESCP, SEP and LMP on its web site and announced invitation for Public Consultations for the public, bodies and organizations interested in subject instruments prepared for Serbia Noncommunicable Diseases Prevention and Control Project. Public and other interested parties and organizations were invited to participate in process of public consultation on draft ESMF, ESCP, SEP and LMP instruments. Draft instruments and invitation to the Public Consultations were also available on the web site of the MOH.</p> <p>On 08 September 2023, at 2:PM (local time), public consultations and presentation of the Draft ESMF, ESCP, SEP and LMP were organized at the big conference hall reserved by the Project Coordination Unit, Pasterova 1, Belgrade. The meeting was attended by a diverse group of 26 stakeholders.</p> <p><b>There will be no separate public consultation for this site-specific ESMP Checklist.</b> The present ES instrument will be disclosed nation-wide through web page of the Ministry of Health and included in the bidding documents and the subsequent construction contract. Major ESMP Checklist requirements are already presented to HCF managers, during site visits, and HCFs appointed persons responsible for communication with PCU and implementation of ESMP Checklist requirements.</p>
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## 2.6. Institutional capacity building

Will there be any capacity building?	<input type="checkbox"/> N or <input type="checkbox"/> Y
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## 2.7. PART 2: Environmental and Social Screening and Mitigation measures

PART 2: ENVIRONMENTAL /SOCIAL SCREENING			
Will the site activity include/involve any of the following:	Activity	Status	Additional references
	A. Building rehabilitation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>B</b> below
	B. New construction	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section <b>B</b> below
	C. Individual wastewater treatment system	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section <b>C</b> below
	D. Historic building(s) and districts	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section <b>D</b> below
	E. Acquisition of land <sup>3</sup>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section <b>E</b> below
	F. Hazardous or toxic materials <sup>4</sup>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	See Section <b>F</b> below
	G. Impacts on forests and/or protected areas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section <b>G</b> below
	H. Handling / management of medical waste	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	See Section <b>H</b> below

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
A. General Conditions	Notification and Worker Safety	<ul style="list-style-type: none"> <li>(a) The local construction and environment inspectorates and communities have been notified of upcoming activities</li> <li>(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)</li> <li>(c) All legally required permits have been acquired for refurbishment and/or rehabilitation prior to the commencement of works.</li> <li>(d) All work will be carried out in a safe and disciplined manner designed to minimize impacts on neighboring residents, workers, patients and environment.</li> <li>(e) The work will be carried out only by workers trained for the specific tasks they perform.</li> <li>(f) Workers' PPE will comply with international good practice (always hardhats, as needed masks and safety glasses, harnesses and safety boots)</li> <li>(g) Appropriate signposting of the sites will inform workers of key rules and regulations to follow.</li> <li>(h) Training for personnel on the use of new LINACs held by authorized HCF personnel before putting new</li> </ul>

<sup>3</sup> Land acquisitions includes displacement of people, change of livelihood encroachment on private property. The land that is purchased/transferred and affects people who are living and/or squatters and/or operate a business (kiosks) on land that is being acquired.

<sup>4</sup> Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

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ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		LINAC equipment into operation
<b>B. General Rehabilitation and /or Refurbishment Activities</b>	Air Quality	(a) During interior demolition use debris-chutes above the first floor (b) Keep demolition debris in controlled area and spray with water mist to reduce debris dust (c) Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site (d) Keep surrounding environment (sidewalks, roads) 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 should be closed, and equipment placed as far away from residential areas as possible
	Water Quality	Does not apply
	Waste management	(a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and rehabilitation / refurbishment activities. Prior any demolition works, detail demolition plan has to be prepared by contractor and confirmed by supervision authority. (b) Prior to dismantling the Contractor shall engage licensed radiation protection expert to confirm no residual radiation and document radiation survey results. In case of residual radiation, during dismantling operations the Contractor shall ensure that work is performed by certified professionals using protective gear and following safe dismantling protocols. (c) Dismantling must be done under radiation safety protocols, with a radiation survey conducted by a certified expert to confirm no induced radioactivity remains. (d) For waste that contain residual radiation the Contractor shall classify and label waste and use sealed containers and approved packaging. (e) 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. (f) Construction waste will be collected and disposed properly by licensed collectors. The Contractor shall dispose e-waste via licensed facilities. Radioactive parts, if any, shall be managed by SRBATOM. (g) The records of waste disposal will be maintained as proof for proper management as designed. (h) Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)
	Occupational Health and Safety	a) Provide health and safety training to all participants and conduct regular conversations on health and safety during implementation b) Provide Personal Protective Equipment (PPE) for workers as necessary (gloves, dust masks, hard hats, boots, goggles) and enforce their use. Keep PPE in good condition and change them in case they are

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ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		<p>damaged. d) Prevent slips and falls and other injuries through good housekeeping practices in all worksites, provision of safe equipment and tools, and use of PPE.</p> <p>c) Provide H&amp;S training and conduct medical checks</p> <p>d) Follow measures for safe work at height (e.g. 2 meters above ground): do as much work as possible from the ground, allow only people with sufficient skills, knowledge and experience to perform the task, take precautions when working on or near fragile surfaces, clean up oil, grease, paint, and dirt immediately to prevent slipping, provide fall protection measures</p> <p>e) Ensure during demolition of existing walls to provide space for mounting of LINACs special PPE is used</p> <p>f) Keep worksite clean and free and allow sufficient working space on daily basis. g) Ensure structural openings are covered/protected adequately</p> <p>g) Prevent ergonomic illnesses from over-exertion by lifting and carrying of materials and equipment by stipulating weight limits, breaks and job rotations.</p> <p>h) Ensure zero tolerance for alcohol or narcotics</p> <p>i) Ensure a basic first-aid kit with bandages, antibiotic cream, etc.</p> <p>j) Ensure toilets and areas for daily rest and meals.</p>
	Integrity of Workplace Structures	Before demolition of existing walls ensure civil engineers have checked and approved the opening diameter, verified the building's stability, confirmed that load-bearing walls will not be removed, and ensured that the demolition plan is prepared and followed.
	Safe Access	<p>(a) Passageways for pedestrians and vehicles within and outside buildings should be segregated and provide for easy, safe, and appropriate access. The working area or construction site should be clearly marked, with strict prohibitions against patients or civilians entering the zone.</p> <p>(b) Hand, knee and foot railings should be installed on stairs, fixed ladders, platforms, permanent and interim floor openings, loading bays, ramps, etc.</p> <p>(c) Covers should, if feasible, be installed to protect against falling items • Measures to prevent unauthorized access to dangerous areas should be in place</p>
	Work site management	<p>(a) Clean up the worksite after end of the day and ensure general housekeeping to allow safe working space.</p> <p>(b) The fire-fighting entrance/exit at the junction between the new radiotherapy department and the IORS building shall remain clear all the time (e.g., do not use it for temporary storage, equipment disposal, or similar purposes).</p>
	Employment and Labour Rights	<p>(a) Adopt a Labor Management Procedures</p> <p>(b) Implement a fair and transparent employment process.</p> <p>(c) Provide activity workers with clear and understandable information regarding rights via contract documents in</p>

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ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		<p>a language they understand.</p> <p>(d) Ensure safe grievance mechanism for workers. A Grievance management Form is enclosed as Annex 06 of this ESMP Checklist</p> <p>(e) Ensure compliance with the national Labor Law.</p>
	Community health and Safety	<p>a) All relevant competent authorities will be notified of commencement of works</p> <p>b) Secure worksites with physical separation as appropriate or use notification when dismantling and carrying out old equipment.</p> <p>c) Cobalt-60 and Cesium-137 units (if any) must be carefully decommissioned under radiation safety regulations due to long half-lives (5.3 years for Co-60, 30 years for Cs-137). Also, in such cases all materials must be secured during transport or storage. Licensed transporters shall be used and secure route chosen.</p> <p>d) If works interact during patient visiting hours with publicly accessible spaces in the hospital provide and ensure safety for patients and health care workers.</p> <p>e) Inform relevant authorities immediately in case of damages on utilities</p> <p>f) Ensure traffic safety is implemented and delivery areas used for vehicles transporting construction material and LINACs</p> <p>g) Implement speed limit campaign for drivers to ensure vehicles are driven safely through the common areas within the health care facilities</p>
	Fire Prevention and Control	<p>1. Fire Prevention Measures</p> <p>a) Store paints, solvents, and gases in well-ventilated, fire-resistant areas.</p> <p>b) Ensure all temporary and permanent wiring is installed and inspected by a qualified electrician.</p> <p>c) Regularly remove debris, especially combustible materials like wood and packaging.</p> <p>d) Designate and enforce strict no-smoking zones.</p> <p>e) Use fire-rated barriers to separate work zones from operational hospital areas.</p> <p>2. Fire Detection and Control Measures</p> <p>f) Install temporary smoke and heat detectors in work areas.</p> <p>g) Keep existing fire suppression systems active where possible.</p> <p>h) Ensure fire extinguishers (water, CO<sub>2</sub>, foam, and dry powder) are available and accessible.</p> <p>i) Install illuminated fire exit signs and maintain backup lighting.</p> <p>j) Assign trained fire watch personnel for high-risk tasks like welding.</p> <p>3. Emergency Preparedness &amp; Response</p> <p>k) Maintain clear, accessible evacuation routes at all times.</p> <p>l) Train workers and hospital staff on fire hazards and emergency response.</p>

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ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		<p>m) Inform the local fire department about the refurbishment project and emergency procedures.</p> <p>n) Conduct regular fire drills for both construction workers and hospital staff.</p> <p>4. Protection of Patients &amp; Hospital Operations</p> <p>o) Use fire-resistant sheeting to prevent smoke and dust from spreading to patient areas.</p> <p>p) Ensure that hospital operations, particularly intensive care units, remain protected from fire hazards.</p> <p>q) If needed, move critical patients to safe zones before high-risk activities begin.</p>
	Incident reporting	<p>The World Bank has introduced the “Environmental and Social Incident Response Toolkit” (ESIRT) to outline procedures for reporting the negative environmental and social incidents.</p> <p>a) Record and report any hazards, any incidents or injuries and near misses</p> <p>b) In case of SEA/SH cases a meaningful timely report should come from the supervising Engineer and recorded into the Grievance Log as part of GRM established on a Project..</p> <p>c) As per WB standard procedure, the incident types to be reported using the environmental and social incident response process and . Incident Report Form are presented in Annex 05 of this ESMP Checklist.</p> <p>The Contractor will provide sufficient detail regarding the incident or accident, indicating immediate measures taken or that are planned to be taken to address it, and any information provided by any contractor and supervising entity, as appropriate.</p> <p>In case of incident described in Annex 05 the Project Supervision Consultant is obliged to assist the Contractor in preparation of Incident Report to be delivered to PCU within the 24h since incident is happened.</p>
	Stakeholder engagement	<p>(a) Ensure timely, inclusive and accessible information is provided to all relevant stakeholder related to construction works and its timeline, change management (mainly for staff working in the facility) and any other information of relevance.</p>
C. Individual wastewater treatment system	Water Quality	Does not apply
D. Historic building(s)	Cultural Heritage	<p>(a) If the building is a designated historic structure, very close to such a structure, or located in a designated historic district, notify and obtain approval/permits from local authorities and address all construction activities in line with local and national legislation</p> <p>(b) Ensure that provisions are put in place so that artefacts or other possible “chance finds” encountered in excavation or construction are noted, officials contacted, and works activities delayed or modified to account for such finds.</p>
E. Acquisition of land	Land Acquisition Plan/Framework	Does not apply



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ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
<b>F. Toxic Materials</b>	Asbestos management	(a) If asbestos is located on the project site, mark 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 containers and properly labeled (f) The removed asbestos will not be reused
	Toxic / hazardous waste management	(a) Temporary 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 should be placed in a leak-proof container to prevent spillage and leakage (c) The waste is 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
		(e) in case of dismantling old units radiation shielding parts (like heavy metal collimators, lead panels) must still be handled as hazardous industrial waste. Proper disposal of lead, copper, PCB-containing parts, and capacitors, in accordance with the applicable Law and regulation is mandatory.
<b>G. Affects forests and/or protected areas</b>	Protection	Does not apply
<b>H. Disposal of medical waste</b>	Infrastructure for medical waste management	Radiology centers have an established medical waste handling and disposal system and an appropriate infrastructure.

## 2.8. PART 3: Monitoring Plan

PART 3: 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?)
DECOMMISSIONING PHASE							
Before LINAC dismantling	Residual radiation levels	At the old equipment to be dismantled, disposed and replaced by new LINAC	Radiological survey by licensed entity	Before dismantling	Residual radiation might be present temporarily in components of old equipment (induced radioactivity) after long operation.	N/A	Radiation Protection Expert (SRBATOM)  Project Supervision Consultant (PSC)  Project Coordination Unit (PCU)
LINAC dismantling	<ul style="list-style-type: none"> <li>- Timely planning and informing the user about the exact time of the LINAC dismantling</li> <li>- Establishing a clear path for removal through the facility</li> <li>- Strict compliance with the rules of safety assessment and ensuring the usage of adequate personal protective equipment (PPE)</li> <li>- Securing specialized equipment for old LINACs removal</li> <li>- Ensuring proper final</li> </ul>	Construction site and HCF premises	<ul style="list-style-type: none"> <li>Inspection of documents</li> <li>Inspection of activities</li> </ul>	Before and during activities	<ul style="list-style-type: none"> <li>- To ensure technical order in the facility</li> <li>- To limit patient disturbance</li> <li>- To ensure workers health and safety</li> </ul>	No specific extra cost: responsibility of the works contractor	<ul style="list-style-type: none"> <li>Project Coordination Unit (PCU)</li> <li>Project Supervision Consultant (PSC)</li> <li>IORS</li> <li>UCCKG</li> <li>UCCN</li> <li>GHK</li> </ul>

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PART 3: 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?)
	disposal for this kind of waste (equipment)						
Cobalt-60 and Cesium-137 units dismantling (if any)					Old cobalt-60 or cesium-137 units do contain radioactive material.		
Waste handling and disposal	<ul style="list-style-type: none"> <li>- Ensure categorization of all types of waste produced during rehabilitation / refurbishment works</li> <li>- Arrangements in place with an entity that is specifically licensed for regular transportation and disposal of different types of waste in compliance with the waste management legislation</li> </ul>	Construction site and HCF premises	<ul style="list-style-type: none"> <li>Inspection of documents</li> <li>Inspection of activities</li> </ul>	Before and during activities	<ul style="list-style-type: none"> <li>- To prevent the mixing of waste of different categories</li> <li>- Minimize the quantities of hazardous waste</li> <li>- To prevent hazards that affect the health of workers and other people</li> </ul>	No specific extra cost: responsibility of the works contractor	PCU PSC
REHABILITATION / REFURBISHMENT PHASE							
Provision of construction materials	Procurement of construction material from licensed providers/suppliers	Provider's office or warehouse	Verification of documents <sup>5</sup>	During conclusion of supply contracts	Ensure reliability of construction materials and their safety for human health	No specific extra cost	PSC
Transportation of construction materials and construction waste	<ul style="list-style-type: none"> <li>- Technical condition of vehicles and machinery</li> <li>- Protection of truck cargo</li> </ul>	<ul style="list-style-type: none"> <li>- Construction site</li> <li>-Transportation routes for</li> </ul>	- Inspection of internal roads at the construction site	Unannounced inspection during and after working	<ul style="list-style-type: none"> <li>- Limit and reduce pollution of soil and air from emissions;</li> <li>- Limit and reduce</li> </ul>	No specific extra cost: responsibility of the works	PCU PSC

<sup>5</sup> The materials supplied shall have a certificate of compliance – a statement that the goods/material possess certain technological and other features required by the standards

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<b>Phase</b>	<b>What</b> (Is the parameter to be monitored?)	<b>Where</b> (Is the parameter to be monitored?)	<b>How</b> (Is the parameter to be monitored?)	<b>When</b> (Define the frequency / or continuous?)	<b>Why</b> (Is the parameter being monitored?)	<b>Cost</b> (if not included in project budget)	<b>Who</b> (Is responsible for monitoring?)
	with cover (tarpaulin)  - Respect of the established hours and routes of transportation	construction materials and construction wastes	- Inspection of roads adjacent to the construction site in the direction of movement route	hours	nuisance to local population from noise and vibration;  - Minimize traffic disruption	contractor	
Operation of construction equipment on site	- Adequate technical conditions of construction equipment (without excessive exhaust emissions)  - Respect of the established working hours	Construction site	Inspection of the construction site	During operation of equipment	Limit and reduce nuisance to patients and medical staff from noise and vibration	No specific extra cost: responsibility of the works contractor	PCU PSC
Generation of construction waste	- Temporary storage of construction waste in especially allocated areas;  - Timey disposal of construction waste to the formally designated allocations.	Construction site;  Waste disposal site – city landfill.	Inspection of activities	Periodically during construction	- Prevent pollution of soil, surface water and ground water;  - Avoid accidents at construction site due to scattered fragments of construction materials and debris;	No specific extra cost: responsibility of the works contractor	PCU PSC
Generation of asbestos contained in construction waste	- Removal of roof panels or other parts in demolition containing asbestos with minimal fragmentation in	Construction site;  Waste disposal	Inspection of documentation – agreement between user and	Periodically during demolition and upon its	- Prevention of hazards that affect the health of workers and other people which may enter	No specific extra cost: responsibility of the works	PCU PSC Environmental

**PART 3: MONITORING PLAN**

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	<p>order to avoid dust generation<sup>6</sup>;</p> <ul style="list-style-type: none"> <li>- Temporary storage of the panels at a predetermined location marked on the construction site and provide cover for that waste;</li> <li>- Transportation of the asbestos- containing construction waste to the place of disposal without reloading and in a covered truck;</li> <li>- Permanent storage of the hazardous waste at the site predetermined for that kind of waste;</li> <li>- Provision of construction workers with working clothes and personal protective equipment (PPE)<sup>7</sup></li> </ul>	site.	<p>licensed company for transportation of hazardous waste and company for final disposal of hazardous waste</p> <p>Inspection of activities</p>	completion	<p>to construction site;</p> <p>- Prevention of hazards that affect the health of waste disposal workers and other people who may enter the waste disposal site</p>	contractor	inspection
Production of communal – domestic waste	- Placement of waste collection containers at the construction site and construction base (if any)	Construction site	Visual observation	The entire period of construction	Prevention of soil and water pollution from municipal waste	No specific extra cost: responsibility of the works contractor	PCU

<sup>6</sup> Wetting or watering the roof panels during the removal of asbestos to avoid kicking-up dust

<sup>7</sup> Uniforms and protective gear (eyeglasses and respirators) for workers and personnel handling asbestos-containing waste

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Production of liquid wastes	- Arrangement and regular maintenance of mobile toilets (sanitary cabins) in compliance with sanitation norms at the construction site	Construction site	Visual observation	The entire period of construction	- Ensure and provide sanitary – hygienic protection	No specific extra cost: responsibility of the works contractor	PCU PSC
Occupational health and safety	- Provision of construction workers with working clothes and personal protective equipment (PPE); - Strict compliance with the rules of construction equipment operation and usage of PPE	Construction site	Inspection of activities	The entire period of construction	Reduce the likelihood of trauma and accidents to workers	No specific extra cost: responsibility of the works contractor	PCU PSC
HCF Construction site health and safety	Health facilities should ensure that adequate hand washing facilities with soap (liquid), water, and paper towels for hand drying (warm air driers may be an alternative), plus the closed waste bin for paper towels are available. If water and soap hand washing facilities are not possible, alcohol-based hand rubs may be provided. WHO hand hygiene protocols to be followed.	Hand hygiene stations	Visual observation	The entire period of construction	Increased risk of transmission of virus due to inadequate hand washing facilities.	No specific extra cost: responsibility of the works contractor	PCU PSC
Contaminated Waste	The healthcare waste		Visual		The collection,	No specific	PCU

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	<p>produced during the care of patients should be collected safely in designated containers and bags, labeled, treated, and then safely disposed of.</p> <p>disposal and treatment of kind of waste should be in accordance with national law and/or with WHO guidelines</p> <p>HCF shall use autoclaving or incineration as appropriate waste inactivation methods:</p>		observation		<p>processing, treatment, and disposal of health care wastes become a vector for the spread of the virus.</p> <p>Construction workers and HCF must be protected from any possibility for infection transmission – avoidance of contacts with contaminated waste is considered as a priority during rehabilitation / refurbishment works.</p>	extra cost: responsibility of the works contractor	PSC

**OPERATION PHASE**

Medical waste management	<ul style="list-style-type: none"> <li>- Separation of medical waste from other types of waste generated at HCF</li> <li>- Arrangements in place with an entity that has been specifically licensed for regular transportation and disposal of other types of waste in compliance with the national legislation</li> </ul>	HCF premises	<ul style="list-style-type: none"> <li>- Inspection of HCF</li> <li>- Checking presence and validity of waste removal and disposal agreement with the licensed entity</li> </ul>	- The entire period of operation	<ul style="list-style-type: none"> <li>- Maintenance of good sanitary conditions at HCF</li> <li>- Prevention of soil, surface and ground water pollution</li> </ul>	To be include in HCF operation and maintenance budget	<p>HCF administration</p> <p>Relevant state inspection (environmental inspection)</p>
Community health	- control of all people	HCF premises	- Inspection of	- The entire	- Prevention of soil,	To be include in	HCF

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and Safety	having access to the equipment and its immediate environment  - appointment of chief executive or the general manager delegate the day-to-day responsibility for MR safety		HCF	period of operation	surface and ground water pollution	HCF operation and maintenance budget	administration
Communal/household waste management	- Presence of an adequate type and number of containers and bins  - Arrangements in place with an entity licensed/authorized for collection, transportation and disposal of communal/household waste	HCF premises	- Inspection of HCF premises  - Checking presence and validity of waste removal and disposal agreement with licensed/ authorized entity	The entire period of operation	- Maintenance of good sanitary conditions at HCF  - Prevention of soil, surface and ground water pollution	To be include in HCF operation and maintenance budget	HCF administration
Emergency preparedness	- Presence of fire alarm and fire localization system, and emergency back-up system for power supply	HCF premises	Periodic check-ups	The entire period of operation	- Reduce risk to the staff and patients of HCF  - Avoid disruption in the provision of utility services to the HCF	None	HCF administration
LINAC Security Guidance for Service Personnel	Written guidance designed to educate and remind those handling LINAC equipment about essential considerations, applicable	HCF premises	Before putting in use	The entire period of operation	- to ensure safe and effective use of LINAC for both users and patients.	-	HCF administration



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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?)
	legislation, safety risks, and best practices, drawing on current standards and expert insights.						

## 2.9. **Grievance Redress Mechanism**

A Sub-project Grievance Mechanism in line with the SEP will be implemented to ensure that all complaints from local communities are dealt with appropriately, with corrective actions being implemented, and the complainant being informed of the outcome. It will be applied to all complaints from affected parties. A grievance form is attached in Annex 06 and hard copies will be made available at community centers and at the Construction Site.

The Contractor will be required to develop and implement specific Labor Grievance Mechanisms for its workforce (contracted workers) including sub-contractors, prior to the start of works. The Contractor will ensure that all engaged or employed workers are aware of the labor grievance mechanism by providing information on the methods for raising grievances (including anonymously) in the HR induction. The Contractor will ensure the grievance mechanism is accessible by putting forms and posters about the labor grievances at locations at the main work sites and in suitable locations in the site offices or sites used during daily breaks. In addition the Contractor is required to conduct a communications campaign (e.g. through toolbox talk and posters) to make workers aware of the mechanism.

The workers grievance mechanism will include, at minimum:

- Procedures to receive grievances such as comment/complaint form, email address, a telephone hotline, focal point department;
- Stipulated timeframes to respond to grievances and to address cases.
- Register to record and track the timely resolution of grievances.
- Responsible department to receive, record, address and track resolution of grievances.

And will be based on the following principles:

- The process will be transparent and allow workers to express their concerns and file grievances.
- There will be no discrimination and retaliation against those who express grievances, and any grievances will be treated confidentially.
- Anonymous grievances will be treated equally as other grievances, whose origin is known.
- Management will treat grievances seriously and take timely and appropriate action in response.
- Any worker including subcontracting workers can express concerns, complaints, and grievances at any time, without fear of retribution and retaliation.
- All grievances will be treated in a fair and respectful manner.
- Anonymous grievances will be treated equally as other grievances whose origin is known.
- When a grievance is received, the Contractor will ensure to confirm its receipt within 3 business days. At this time, the complaint will also be provided information about response times, next steps and a contact within the team.
- All grievances will be documented to the grievance mechanism, including those received by supervisors, project managers, or any management staff.
- Grievance mechanism will have a dedicated procedure to address complaints related to workplace harassment and sexual harassment. The sexual harassment grievance mechanism shall be operated by the trained staff and complaints will be recorded and kept in a data protected data base,

The Project workers' grievance mechanism will not prevent workers from using any other administrative or judicial mechanisms provided by the national laws.

A Grievance management Form is enclosed as Annex 06 of this ESMP Checklist.

### **3. ANNEXES**

## ANNEX 01: PROJECT SCREENING

All of the activities to be financed under the Project are subject to the project specific environmental and social screening, following the procedures laid out in ESMF document. The ESMF provides guidelines for screening projects for ES risks by the Project Coordination Unit (PCU). The screening aims at identifying ES risks to potential impacts at the project's levels so adequate avoidance, minimization or offset measures as the case may be are applied.

As per Project's ESMF requirements, the PCU is obliged to screen each HCF for potential environmental and social risks per World Bank Group EHS Guidelines. The screening process should:

- Screen the eligibility of the activities
- Identify potential environmental and social risks and impacts of the proposed project activity
- Determine the project category; and
- Determine the level of environment and social assessment and management required to address the potential risks and impacts.

### PROJECT ELIGIBILITY - EXCLUSION LIST OF PROJECT / ACTIVITIES

Activities that are listed in the World Bank Group IFC Exclusion List are not eligible for support under the project. Therefore, PCU screened project activities for its eligibility and results are presented in following table:

Project Name	<b>Procurement and installation of Linear Accelerators(LINAC) for radiology centers</b>
Project Locations	<ul style="list-style-type: none"> <li>- The Institute for Oncology and Radiology of Serbia – IORS,</li> <li>- University Clinical Centre Kragujevac - UCCKG,</li> <li>- University Clinical Centre Niš - UCCN and</li> <li>- General Hospital in Kladovo - GHK</li> </ul>
Project Proponent	Ministry of Health of the Republic of Serbia

Activity	Answer	
	Yes	No
Production or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements, or subject to international bans, such as pharmaceuticals, pesticides/herbicides, ozone depleting substances, PCB's, wildlife or products regulated under CITES.		✓
Production or trade in weapons and munitions. <sup>1</sup>		✓
Production or trade in alcoholic beverages (excluding beer and wine). <sup>1</sup>		✓

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Activity	Answer	
	Yes	No
Production or trade in tobacco. <sup>1</sup>		✓
Gambling, casinos and equivalent enterprises. <sup>1</sup>		✓
Production or trade in radioactive materials. This does not apply to the purchase of medical equipment, quality control (measurement) equipment and any equipment where IFC considers the radioactive source to be trivial and/or adequately shielded.		✓
Production or trade in unbounded asbestos fibers. This does not apply to purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.		✓
Drift net fishing in the marine environment using nets in excess of 2.5 km. in length.		✓
Production or activities involving harmful or exploitative forms of forced labor <sup>2</sup> /harmful child labor. <sup>3</sup>		✓
Commercial logging operations for use in primary tropical moist forest.		✓
Production or trade in wood or other forestry products other than from sustainably managed forests		✓
Production, trade, storage, or transport of significant volumes of hazardous chemicals, or commercial scale usage of hazardous chemicals. Hazardous chemicals include gasoline, kerosene, and other petroleum products.		✓
Production or activities that impinge on the lands owned, or claimed under adjudication, by Indigenous Peoples, without full documented consent of such peoples.		✓
Affecting lands or rights of minorities		✓
Significant adverse social impacts and may give rise to significant social conflict		✓
Involve any resettlement (temporary or permanent) or land acquisition/use restriction or adverse impacts on cultural heritage		✓

### Footnotes

<sup>1</sup> This does not apply to project sponsors who are not substantially involved in these activities. "Not substantially involved" means that the activity concerned is ancillary to a project sponsor's primary operations.

<sup>2</sup> Forced labor means all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

<sup>3</sup> Harmful child labor means the employment of children that is economically exploitive, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health, or physical, mental, spiritual, moral, or social development.

## CERTIFICATION

### Project Proponent:

The Project Proponent, in signing this form proves that the project activity will not involve land acquisition, any form of construction, or will promote any activities on the World Bank Group IFC exclusion list. In addition, the Applicant is aware of the EIA requirements as per the Serbian Law and certifies that there are no Full Environmental Impact Assessment reports required.

### Environmental and Social Experts engaged by the Project:

I hereby certify that I have thoroughly examined all the potential adverse effects of this sub project. To the best of our knowledge, the sub project avoid /avoids all adverse environmental and social impacts.

## SCREENING OF PROJECT'S ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

The PCU screened subject project for potential environmental and social risks per World Bank Group EHS Guidelines and results are presented in following table:

Project Name	<b>Procurement and installation of Linear Accelerators(LINAC) for radiology centers</b>
Project Locations	<ul style="list-style-type: none"> <li>- The Institute for Oncology and Radiology of Serbia – IORS,</li> <li>- University Clinical Centre Kragujevac - UCCKG,</li> <li>- University Clinical Centre Niš - UCCN and</li> <li>- General Hospital in Kladovo - GHK</li> </ul>
Project Proponent	Ministry of Health of the Republic of Serbia

Questions	Answer	
	Yes	No
Does the project involve civil works including small refurbishment, expansion, upgrading or rehabilitation of healthcare facilities and/or waste management facilities?	✓	
Does the project involve land acquisition and/or restrictions on land use?		✓
Does the project involve relocation of encroachers or squatters?		✓
Does the project involve acquisition of assets for quarantine, isolation or medical treatment purposes?		✓
Is the project associated with any external waste management facilities <sup>8</sup> such as a sanitary landfill, incinerator, or wastewater treatment plant for healthcare waste disposal?		✓

<sup>8</sup> All hospitals have signed contracts with authorized waste management companies, and waste procedures are in place in accordance with the Law on waste management, which is harmonized with EU directives in waste management

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Questions	Answer	
	Yes	No
Is there a sound regulatory framework and institutional capacity in place for healthcare facility waste management?	✓	
Does the project have an adequate system in place (capacity, processes and management) to address waste?	✓	
Does the project involve recruitment of workers including direct, contracted, primary supply, and/or community workers?	✓	
Does the project have appropriate OHS procedures in place, and an adequate supply of PPE (where necessary)?	✓	
Does the project have a GRM in place, to which all workers have access, designed to respond quickly and effectively?	✓	
Does the project involve use of security or military personnel during refurbishment works and/or operation of healthcare facilities and related activities?		✓
Is the project located within or in the vicinity of any ecologically sensitive areas?		✓
Are there any indigenous groups present in the project area and are they likely to be affected by the proposed project negatively or positively?		✓
Is the project located within or in the vicinity of any known cultural heritage sites?		✓
Does the project area present considerable and Sexual Exploitation and Abuse (SEA) / Sexual Harassment (SH) risk?		✓

## CONCLUSIONS<sup>9</sup>:

### a. Proposed Environmental and Social Risk Category. Provide Justifications:

The assessment concluded that potential adverse risks and impacts on human population and the environment are likely to be moderate to negligible. Therefore, the project

#### **Procurement and installation of Linear Accelerators in radiology centers**

The Project has been classified as MODERATE RISK subproject according to WB ESF Risk Classification.

#### **Justification:**

- The project will include only minor rehabilitation works (upgrade, repair, rehabilitation and refurbishment) of adequate units in selected hospitals. Old LINACs will be dismantled and disposed on depository site in accordance with the procedures prescribed within the Serbian regulations and this ESMP Checklist. Waste handling, collection, classification, transport and disposal will be done by licenced entity (waste collector)

<sup>9</sup> This form is used by the Project Coordination Unit (PCU) to screen for the potential environmental and social risks and impacts of a proposed project. It helps the PCU in identifying the relevant Environmental and Social Standards

engaged by the Contractor. Other environmental and/or social impacts are expected to be of low significance, easy for handling and all necessary mitigation measures are already prescribed within this ESMP Checklist.

- No land acquisition required
- The risks associated with labor are negligible as the sub-project will require labor of a very few number of supply workers, engaged under a one off activity to deliver Linear Accelerators to the selected hospitals. However, the Supplier shall honor the LMP applicable to the Project and ensure OHS standards are observed by providing appropriate forms of personal protective equipment (PPE). The Supplier will provide a statement confirming conformity to all national laws and applicable regulations concerning employment, labor and employee relations, and labor and working conditions, including the Human and Occupational Resource Management Procedure (HORMP - LMP) will be followed during Project implementation.
- All selected hospitals have a sound regulatory framework and institutional capacity in place for healthcare waste management.
- There is no risk associated with the project in relation to Sexual exploitation, Abuse (SEA) and Sexual Harassment

**b. Proposed ES Management Plans/ Instruments:**

Project activities (procurement and installation of Linear Accelerators) are screened as **MODERATE RISK** and respecting the nature of project they will require **Environmental and Social Management Plan Checklist** as appropriate ES instrument.

PCU will monitor project implementation and documented reports will be delivered to the WB.



## **ANNEX 02: LIST OF CONTACTS – COUNTERPARTS IN HCFs**

### **1. The Institute for Oncology and Radiology of Serbia – IORS**

dr Dragana Jovićević, +381 11 2067269, [djovicevic@ncrc.ac.rs](mailto:djovicevic@ncrc.ac.rs)

ORS cabinet, [kabinet@ncrc.ac.rs](mailto:kabinet@ncrc.ac.rs)

dr. Aleksandar Tomašević, [aleksandar.tomasevic@ncrc.ac.rs](mailto:aleksandar.tomasevic@ncrc.ac.rs)

Suzana Stojanović, [stojanovics@ncrc.ac.rs](mailto:stojanovics@ncrc.ac.rs)

### **2. University Clinical Center in Kragujevac**

Marko Radovic

[tehnicka@ukckg.rs](mailto:tehnicka@ukckg.rs)

[radijaciona.onkologija@ukck.rs](mailto:radijaciona.onkologija@ukck.rs)

### **3. University Clinical Center in Niš**

prof. dr Dragan Stojanov, +381 63 109 41 07, [drstojanov@gmail.com](mailto:drstojanov@gmail.com)

Nevenka Milic, +381 64 594343, [tesklinicki@gmail.com](mailto:tesklinicki@gmail.com)

Suzana Đorđević, +381 64 5943657, [kcnissrb@gmail.com](mailto:kcnissrb@gmail.com)

### **4. General Hospital in Kladovo**

dr Dalibor Tolic, [tdacha@yahoo.com](mailto:tdacha@yahoo.com)

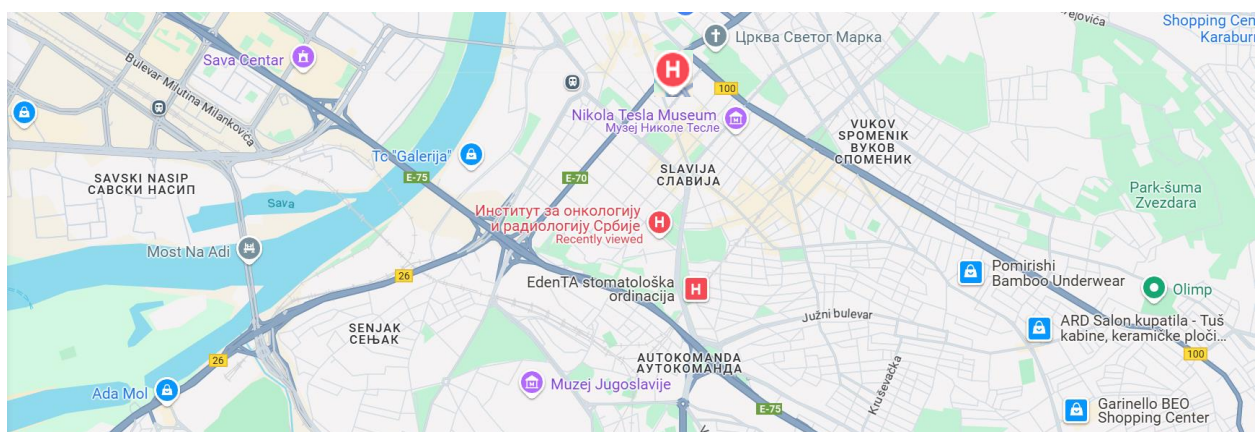
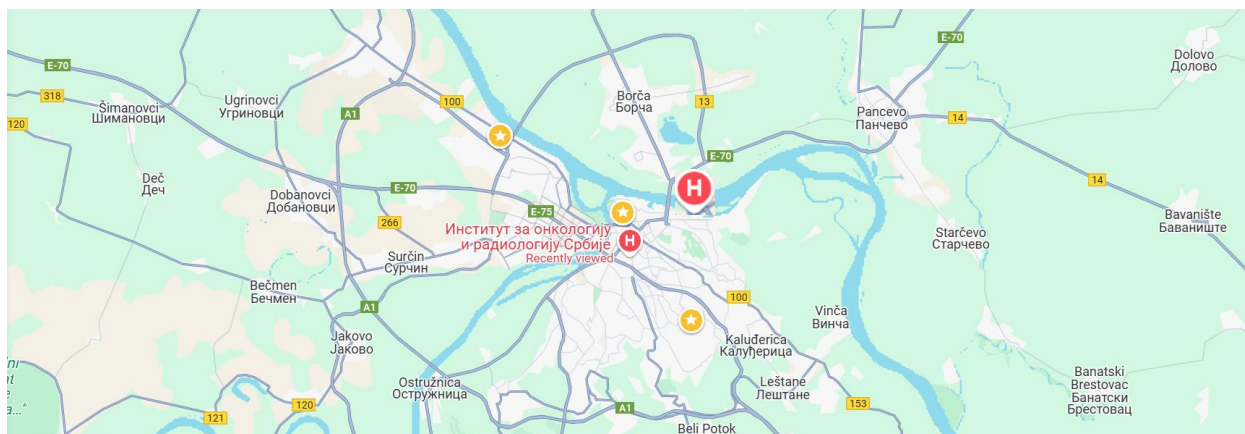
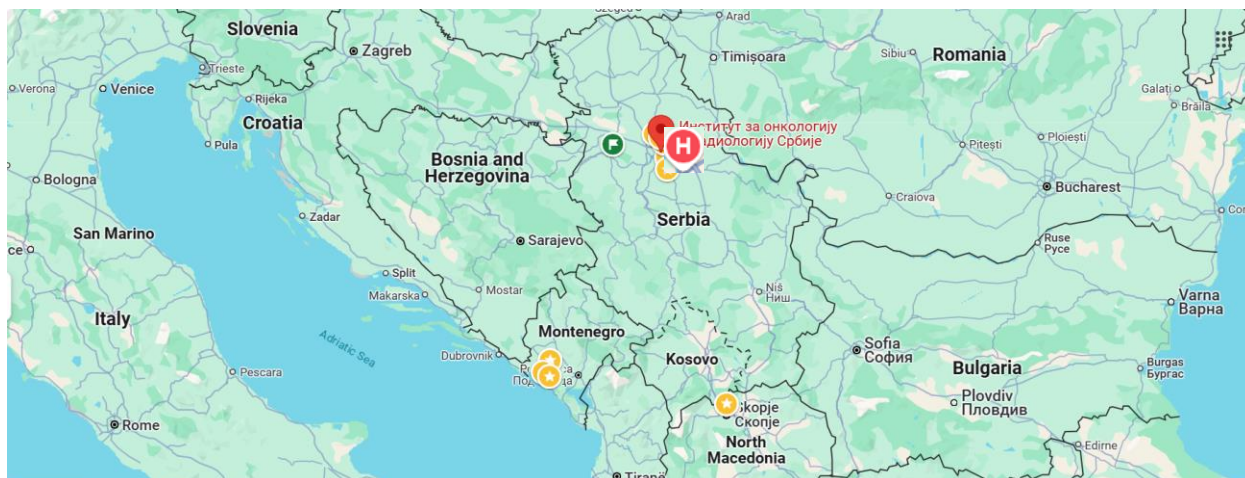
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ACCELERATORS (LINAC) FOR RADIOLOGY CENTERS

## ANNEX 03: SITE MAPS

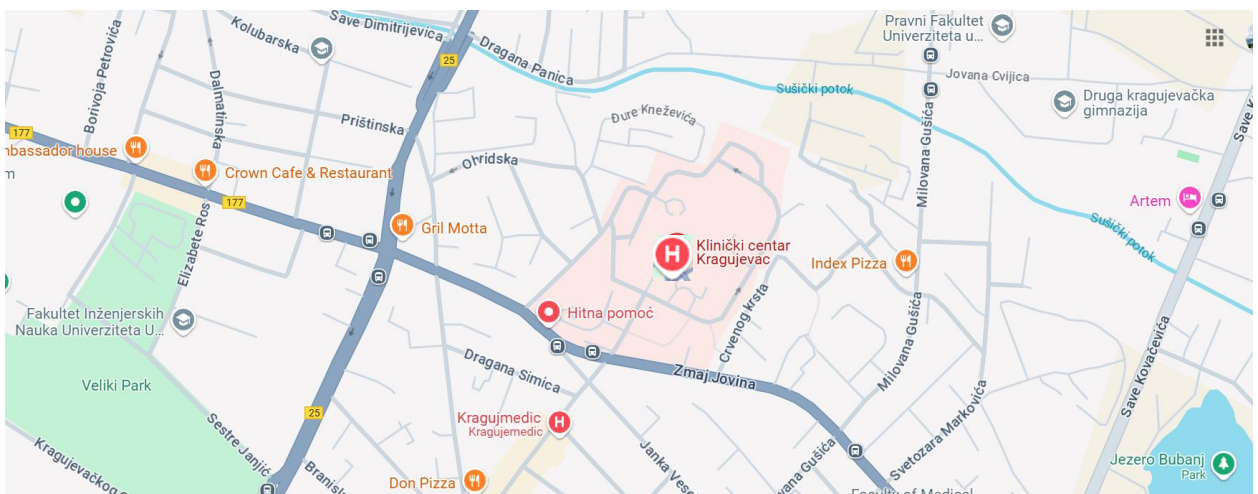
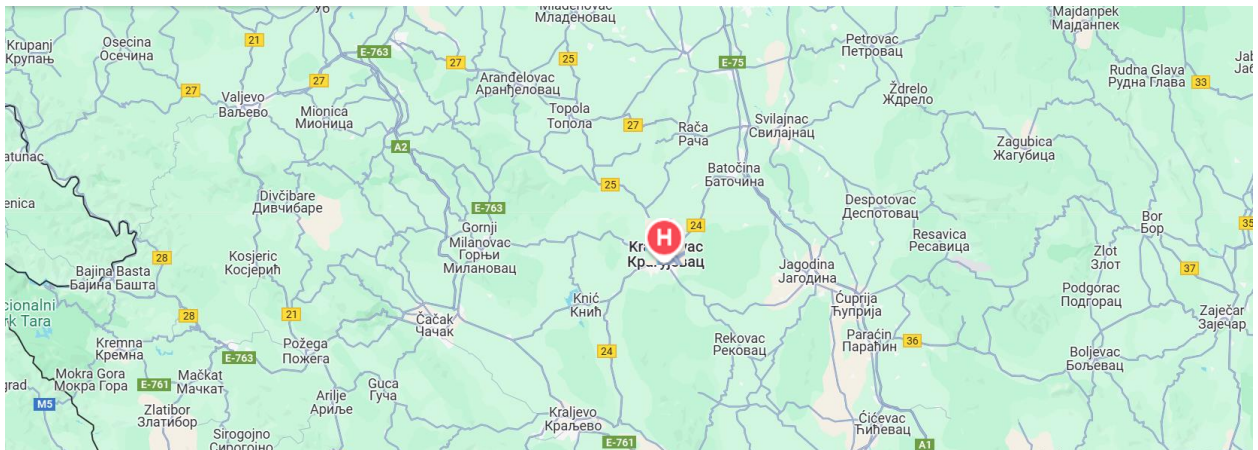
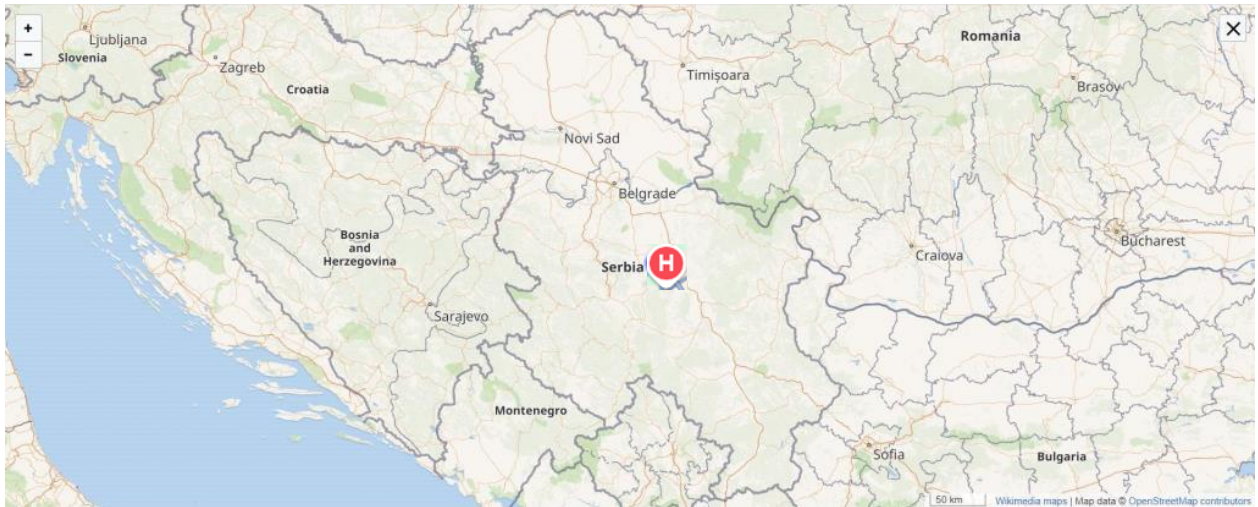
### 1. The Institute for Oncology and Radiology of Serbia – IORS





SERBIA NONCOMMUNICABLE DISEASES PREVENTION AND CONTROL PROJECT  
ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR PROCUREMENT AND INSTALATION OF LINEAR  
ACCELERATORS (LINAC) FOR RADIOLOGY CENTERS

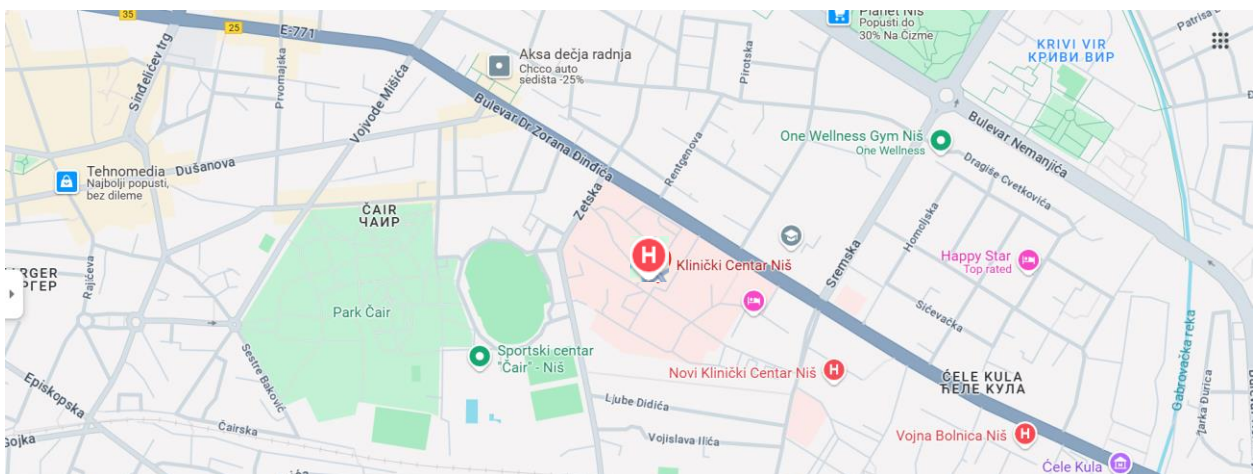
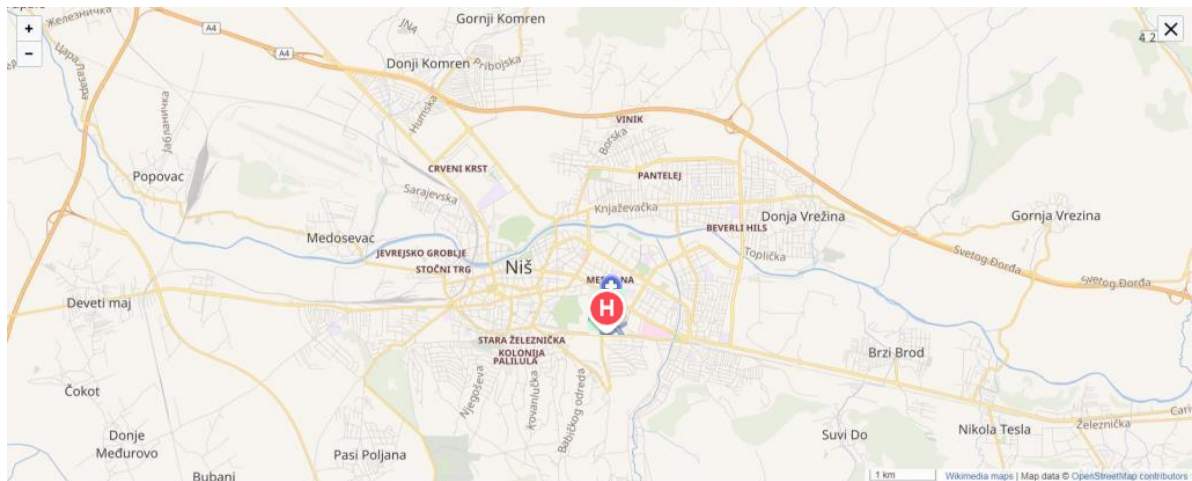
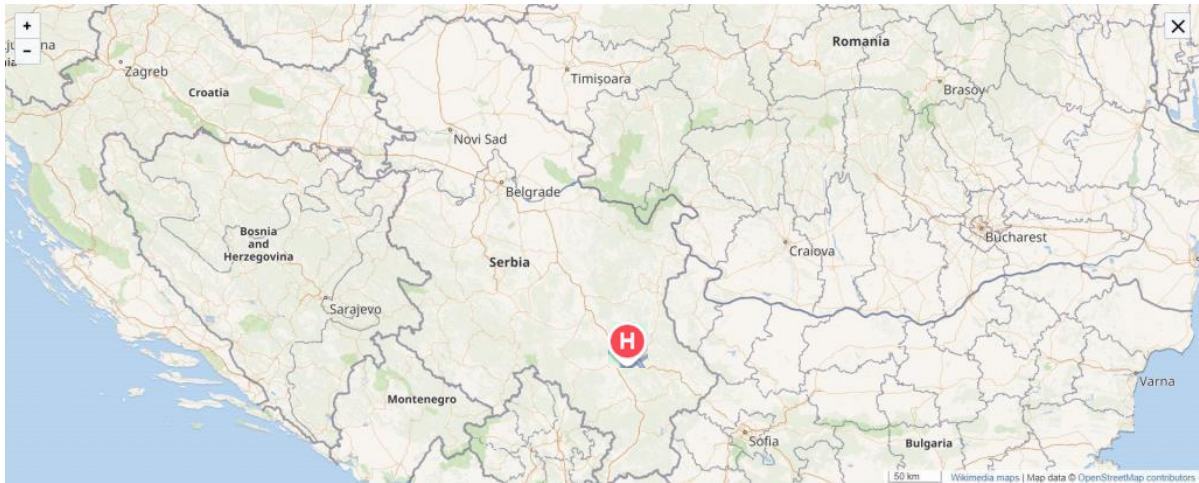
## 2. University Clinical Center in Kragujevac





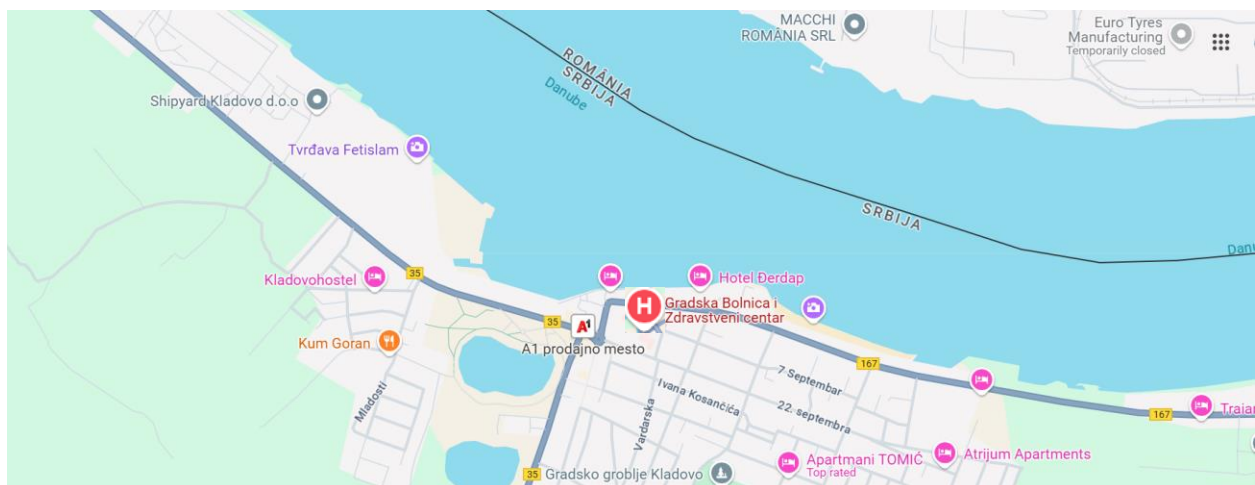
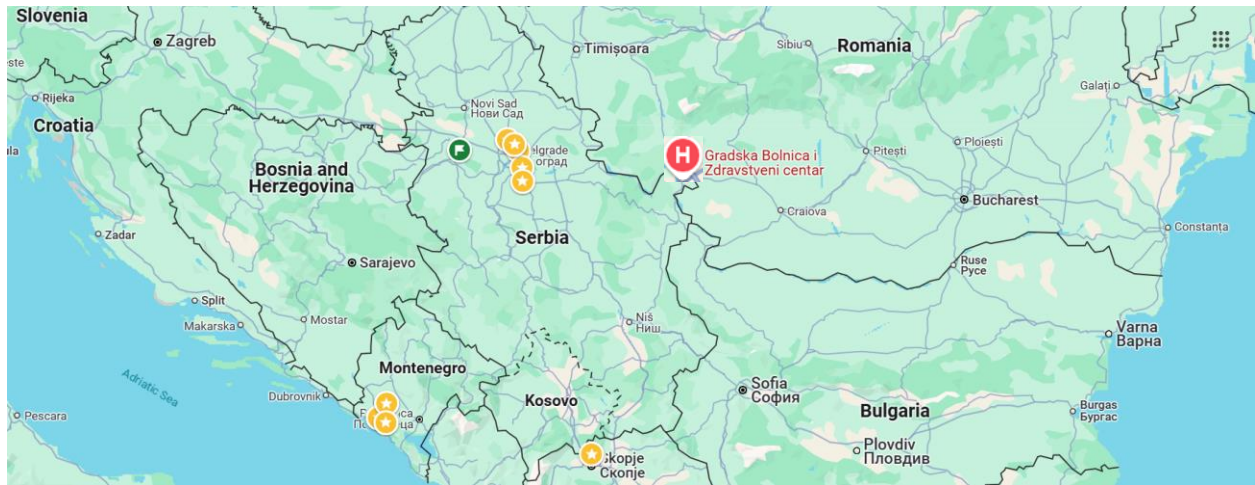
SERBIA NONCOMMUNICABLE DISEASES PREVENTION AND CONTROL PROJECT  
ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR PROCUREMENT AND INSTALATION OF LINEAR  
ACCELERATORS (LINAC) FOR RADIOLOGY CENTERS

### 3. University Clinical Center in Niš



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ACCELERATORS (LINAC) FOR RADIOLOGY CENTERS

4. General Hospital in Kladovo





## **ANNEX 04: PHOTO DOCUMENTS – CURENT LINAC UNITS WITHIN THE SUBJECT HCFs**

### **1. The Institute for Oncology and Radiology of Serbia – IORS**



SERBIA NONCOMMUNICABLE DISEASES PREVENTION AND CONTROL PROJECT  
ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR PROCUREMENT AND INSTALATION OF LINEAR  
ACCELERATORS (LINAC) FOR RADIOLOGY CENTERS

2. University Clinical Center in Kragujevac



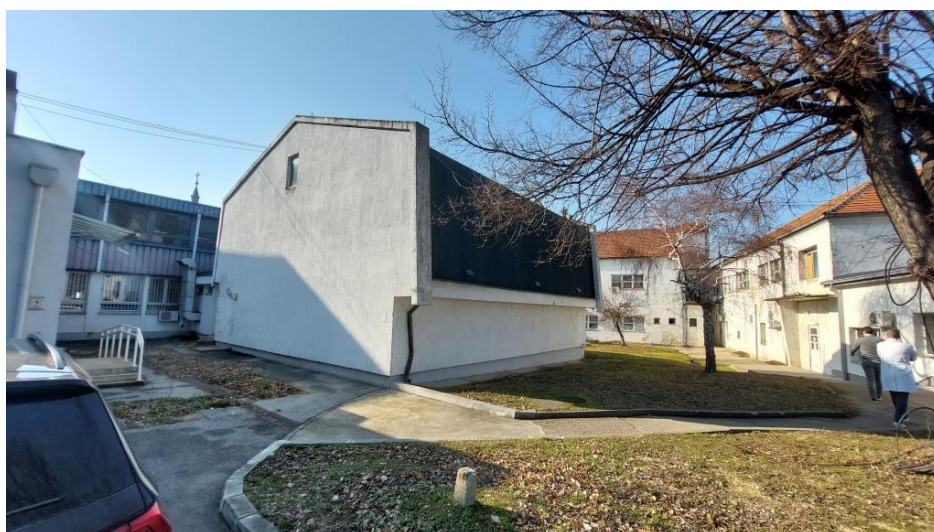


3. University Clinical Center in Niš





4. General Hospital in Kladovo



## ANNEX 05: INCIDENT REPORT FORM

### Part B: To be completed within 24 hours

<b>B1: Incident Details</b>			
<b>Date of Incident:</b>	<b>Time:</b>	<b>Date Reported to PCU:</b>	<b>Date Reported to WB:</b>
<b>Reported to PCU by:</b>	<b>Reported to WB by:</b>	<b>Notification Type:</b>	
<b>Full Name of Main Contractor:</b>		<b>Full Name of Subcontractor:</b>	

<b>B2: Type of incident (please check all that apply)<sup>1</sup></b>
Fatality <input type="checkbox"/> Lost Time Injury <input type="checkbox"/> Displacement Without Due Process <input type="checkbox"/> Child Labor <input type="checkbox"/> Acts of Violence/Protest <input type="checkbox"/> Disease Outbreaks <input type="checkbox"/> Forced Labor <input type="checkbox"/> Unexpected Impacts on heritage resources <input type="checkbox"/> Unexpected impacts on biodiversity resources <input type="checkbox"/> Environmental pollution incident <input type="checkbox"/> Dam failure <input type="checkbox"/> Other <input type="checkbox"/>

<sup>1</sup>See Annex 1 of this Report Form for definitions

<b>B3: Description/Narrative of Incident</b>
<i>For example:</i> I. What is the incident? II. What were the conditions or circumstances under which the incident occurred (if known)? III. Are the basic facts of the incident clear and uncontested, or are there conflicting versions? What are those versions? IV. Is the incident still ongoing or is it contained? V. Have any relevant authorities been informed?

<b>B4: Actions taken to contain the incident</b>			
<b>Short Description of Action</b>	<b>Responsible Party</b>	<b>Expected Date</b>	<b>Status</b>
<b>For incidents involving a contractor:</b> <b>Have the works been suspended (for example, under Contract GCC7.6 or GCC8.9 of Works)?</b> Yes <input type="checkbox"/> ; No <input type="checkbox"/> ; <b>Name of Contractor:</b> <b>Please attach a copy of the instruction suspending the works.</b>			

<b>B5: What support has been provided to affected people</b>

## Incident Types

The following are incident types to be reported using the environmental and social incident response process:

**Fatality:** Death of a person(s) that occurs within one year of an accident/incident, including from occupational disease/illness (e.g., from exposure to chemicals/toxins).

**Lost Time Injury:** Injury or occupational disease/illness (e.g., from exposure to chemicals/toxins) that results in a worker requiring 3 or more days off work, or an injury or release of substance (e.g., chemicals/toxins) that results in a member of the community needing medical treatment.

**Acts of Violence/Protest:** Any intentional use of physical force, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, deprivation to workers or project beneficiaries, or negatively affects the safe operation of a project worksite.

**Disease Outbreaks:** The occurrence of a disease in excess of normal expectancy of number of cases. Disease may be communicable or may be the result of unknown etiology.

**Displacement Without Due Process:** The permanent or temporary displacement against the will of individuals, families, and/or communities from the homes and/or land which they occupy without the provision of, and access to, appropriate forms of legal and other protection and/or in a manner that does not comply with an approved resettlement action plan.

**Child Labor:** An incident of child labor occurs: (i) when a child under the age of 14 (or a higher age for employment specified by national law) is employed or engaged in connection with a project, and/or (ii) when a child over the minimum age specified in (i) and under the age of 18 is employed or engaged in connection with a project in a manner that is likely to be hazardous or interfere with the child's education or be harmful to the child's health or physical, mental, spiritual, moral or social development.

**Forced Labor:** An incident of forced labor occurs when any work or service not voluntarily performed is exacted from an individual under threat of force or penalty in connection with a project, including any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. This also includes incidents when trafficked persons are employed in connection with a project.

**Unexpected Impacts on heritage resources:** An impact that occurs to a legally protected and/or internationally recognized area of cultural heritage or archaeological value, including world heritage sites or nationally protected areas not foreseen or predicted as part of project design or the environmental or social assessment.

**Unexpected impacts on biodiversity resources:** An impact that occurs to a legally protected and/or internationally recognized area of high biodiversity value, to a Critical Habitat, or to a Critically Endangered or Endangered species (as listed in IUCN Red List of threatened species or equivalent national approaches) that was not foreseen or predicted as part of the project design or the environmental and social assessment. This includes poaching or trafficking of Critically Endangered or Endangered species.

**Environmental pollution incident:** Exceedances of emission standards to land, water, or air (e.g., from chemicals/toxins) that have persisted for more than 24 hrs or have resulted in harm to the environment.

**Dam failure:** A sudden, rapid, and uncontrolled release of impounded water or material through overtopping or breakthrough of dam structures.

**Other:** Any other incident or accident that may have a significant adverse effect on the environment, the affected communities, the public, or the workers, irrespective of whether harm had occurred on that occasion. Any repeated non-compliance or recurrent minor incidents which suggest systematic failures that the task team deems needing the attention of Bank management.

## ANNEX 06: GRIEVANCE MANAGEMENT FORM

Reference No: \_\_\_\_\_

Full Name \_\_\_\_\_

*Note: you can remain anonymous if you prefer, or request not to disclose your identity to the third parties without your consent. In case of anonymous grievances, the decision will be disclosed at the Projects website <https://www.zdravlje.gov.rs/tekst/426174/zalbeni-mehanizam-pknbrs-.php>*

First name \_\_\_\_\_

Last name \_\_\_\_\_

☐ I wish to raise my grievance anonymously

☐ I request not to disclose my identity without my consent Contact Information Please mark how you wish to be contacted (mail, telephone, e-mail).

☐ By Post: Please provide mailing address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

☐ By Telephone: \_\_\_\_\_

☐ By E-mail \_\_\_\_\_

☐ I will follow up on the resolution at the website as I want to remain anonymous

Preferred Language for communication ☐ Serbian ☐ Other (*indicate*)

Description of Incident or Grievance (*What happened? Where did it happen? Who did it happen to? What is the result of the problem? Date of Incident/ Grievance*)

☐ One-time incident/grievance (date \_\_\_\_\_)

☐ Happened more than once (how many times? \_\_\_\_\_)

☐ On-going (currently experiencing problem) What would you like to see happen to resolve the problem?

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Please return this form to: The Ministry of Health of the Republic of Serbia, PCU