

Public Disclosure Authorized

Indonesia Health Systems

Strengthening Project

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

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PREPARED BY

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Abbreviations and Acronyms

ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
AMDAL	Environmental Impact Analysis (<i>Analisis Mengenai Dampak Lingkungan</i>)
APBD	Regional Revenue and Expenditure Budget (<i>Anggaran Pendapatan dan Belanja Daerah</i>)
APBN	State Budget (<i>Anggaran Pendapatan dan Belanja Negara</i>)
ASPAK	Application of Facilities, Infrastructure, and Medical Devices (<i>Aplikasi Sarana, Prasarana, dan Alat Kesehatan</i>)
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CPMU	Central Project Management Unit
CPU	Central Procurement Unit
DAK Fisik	Specific Purpose Grants for the Health Sector (<i>Dana Alokasi Khusus Fisik Bidang Kesehatan</i>)
ESCOPE	Environmental and Social Code of Practice
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standards
FGRM	Feedback and Grievance Redress Mechanism
GIIP	Good International Industry Practices
GoI	Government of Indonesia
HSS	Indonesia Health System Strengthening Project
IBRD	International Bank for Reconstruction and Development
ICT	Information and Communications Technology
ILO	International Labour Organization
InPULS	Indonesia – Public Laboratory System Strengthening
IPF	Investment Project Financing
IsDB	Islamic Development Bank
Kesmas	Directorate General of Public Health (<i>Kesehatan Masyarakat</i>)
KJSU	Cancer, heart, stroke and uro-nephrology disease (<i>Kanker, jantung, stroke and uronefrologi</i>)
Labkesmas	Community health laboratory (<i>Laboratorium kesehatan masyarakat</i>)
MDB	Multilateral Development Bank
MDTF	Multi-Donor Trust Fund
MoEF	Ministry of Environment and Forestry
MoH	Ministry of Health
PAP	Project Affected Persons
PDO	Project Development Objective
PHLN	Foreign Loans and/or Grants (<i>Pinjaman dan/atau Hibah Luar Negeri</i>)
PMU	Project Management Unit
Posyandu	Integrated Service Posts (<i>Pos Pelayanan Terpadu</i>)
Puskesmas	Community health clinics (<i>Pusat Kesehatan Masyarakat</i>)
Pustu	Puskesmas Helper (<i>Puskesmas Pembantu</i>)

Rifaskes	Health Facility Research (<i>Riset Fasilitas Kesehatan</i>)
RPJMN	National Medium Term Development Plan (<i>Rencana Pembangunan Jangka Menengah</i>)
SC	Steering Committee
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SIHREN	Strengthening Indonesia's Healthcare Referral Network
SNG	Subnational Government
SOPHI	Strengthening of Primary Healthcare in Indonesia
SPPL	Statement of Environmental Management and Monitoring (<i>Surat Pernyataan Kesanggupan Pengelolaan dan Pemantauan Lingkungan Hidup</i>)
TA	Technical Assistance
UKL	Environmental Management Effort (<i>Upaya Pengelolaan Lingkungan Hidup</i>)
UPL	Environmental Monitoring Effort (<i>Upaya Pemantauan Lingkungan Hidup</i>)
WBG	World Bank Group
Yankes	Directorate General of Health Services (<i>Pelayanan Kesehatan</i>)

Executive Summary

In recent years, the healthcare sector in Indonesia has faced significant challenges due to the COVID-19 pandemic, particularly concerning healthcare capacity, equipment availability, and coverage. In response, the Indonesia Health System Strengthening Project was proposed. The project aims to strengthen health facilities' service readiness and improve access to quality public health services across Indonesia, by focusing on improving the provision of medical equipment for primary healthcare facilities (posyandu, puskesmas, pustu), referral hospitals, and public health laboratories. The project is expected to make significant contributions to Indonesia's Health System Transformation Agenda and aligns with the RPJMN for 2020-2024. The project will be implemented in partnership with the World Bank Group (WBG), Asian Infrastructure Investment Bank (AIIB), Asian Development Bank (ADB), and Islamic Development Bank (IsDB).

The project comprises three main components and one project support component: (i) SOPHI component focusing on primary care facilities; (ii) SIHREN component aimed at referral hospitals; (iii) InPULS component addressing public health laboratories; and (iv) project management supporting capacity building activities, monitoring and evaluation, as well as technical assistance, as necessary. The project emphasizes energy efficiency, climate change adaptations and mitigations, and telemedicine innovations to enhance service delivery.

The Environmental and Social Management Framework is designated to guide the preparation of waste management readiness criteria of the Project, explore various avenues for continuous training, capacity building, and maintenance, and provides good international practices in the Environmental and Social Code of Practices (ESCOP) for civil works supported by the government, by outlining principles, procedures, and institutional arrangements to identify, assess, and mitigate potential adverse impacts while referring to the World Bank's Environmental and Social Framework (ESF) and the Indonesian regulatory framework. It serves as an operational tool during project implementation to avoid, minimize, reduce, or mitigate the environmental and social impacts and risks and enhance potential development outcomes under the project.

This ESMF provides a guideline on the environmental and social management process, namely: (a) defining eligibility of activities through the environmental and social exclusion list; (b) integration of E&S aspects into the project design including, but not limited through readiness criteria; (c) integration of E&S aspects through into the procurement process; (d) monitoring and reporting of environmental and social aspects; (e) stakeholder engagement and information disclosure; and (f) institutional arrangements on who will be responsible and/or involved in each management process.

The E&S risks of the project are categorized as moderate due to the temporary and reversible nature of potential impacts. The project is expected to bring substantial advancements to the national healthcare sector, enhancing access to medical services and laboratories in lower-income regions. While positive outcomes are anticipated, minor environmental risks might arise from the pressure on the healthcare sector related to the procurement of equipment from the four Multilateral Development Banks (MDBs) and the capacity of the health sector to effectively manage occupational health issues, waste management, chemicals, hazardous substances, and related aspects. Social risks may involve health and safety risks to primary supply workers during the distribution, installations, and maintenance of the equipment, and to project beneficiaries (e.g. HRH, patient) due to potential operation failure of the new medical equipment.

Chapter 1: Introduction

1.1 Project Background

The COVID-19 pandemic exposed and exacerbated significant shortcomings and spatial and socioeconomic inequities in Indonesia’s public health system, which need to be urgently and comprehensively addressed. Shortcomings emerged both in terms of the capacity of primary and referral-level care to provide high-quality and equitable health services to all Indonesians, especially when confronted with public health shocks and peak demand, as well as in the coverage and surveillance capacity of its public laboratory system to detect, monitor, and report on known and newly emerging public health threats. The severe lack, unequal distribution, and poor maintenance of essential biomedical equipment and the limited capacity of health workers to operate such equipment are major contributors to this constrained capacity of Indonesia’s public health system to meet the growing and changing health service delivery needs of the country, with rural and remote communities particularly badly affected, and gender gaps deepening.

Given these pressing equipment needs of Indonesian public health facilities, the proposed Project seeks to contribute to the provision of equipment to all levels of public health facilities across Indonesia to ensure the filling of critical service delivery gaps, aligned with both the Indonesian Health System Transformation Agenda and the RPJMN for 2020-2024. The MoH envisages three components for this work: (i) a primary care component seeking to close equipment gaps at the three levels of primary care facilities in Indonesia: Posyandu, Pustu, and Puskesmas, including the Tier-1 public health laboratories in the Puskesmas. This component is proposed to be included in the national medium-term and annual planning documents (“Blue and Green Books”) as the ‘Strengthening of Primary Healthcare in Indonesia’ or SOPHI component; (ii) a referral network component seeking to close equipment gaps at the three levels of hospital care in Indonesia: Madya, Utama, and Paripurna-level hospitals. This component is proposed to be included in the Blue and Green Books as the ‘Strengthening Indonesia’s Healthcare Referral Network’ or SIHREN component; and (iii) a public health laboratory component seeking to close equipment gaps at the Tiers 2, 3, 4, and 5 laboratory facilities in Indonesia. This component is proposed to be included in the Blue and Green Books as the ‘Indonesia – Public Laboratory System Strengthening’ or InPULS component.

MoH engaged the consulting firm McKinsey to perform a detailed and comprehensive gap assessment in 2022, relying on 2019 Health Facility Research (*Riset Fasilitas Kesehatan or Rifaskes*) data, building upon the original analysis supported by the World Bank in 2019-20. These cover facility-level data in all 514 district/city health offices in Indonesia including 532 hospitals, 9,821 Puskesmas, 419 pharmacies, 411 doctor practices, 402 midwife practices, 403 independent laboratories and 417 clinics¹, to identify the existing equipment gaps at the facility level. These data have subsequently been regularly updated with data from the facility-level reporting Application of Facilities, Infrastructure, and Medical Devices (*Aplikasi Sarana, Prasarana, dan Alat Kesehatan* or

¹ Ministry of Health of the Republic of Indonesia (MoH). (2019a). *Riset Fasilitas Kesehatan (RIFASKES) Tahun 2019*. Available at: <https://labmandat.litbang.kemkes.go.id/riset-badan-litbangkes/menu-riskesnas/menu-rifaskes/432-rifas-2019>

ASPAK²), with the latest iteration stemming from October 2022, and a 2023 update currently ongoing. The gap assessment demonstrated that the total public health system facility equipment needs amount to a total of Indonesian Rupiah (IDR) 57.811 trillion, equivalent to US\$3.85 billion (using the US\$ to IDR exchange rate of US\$1: IDR15,000). Of this, the primary care facility needs amount to a total of IDR24.423 trillion (US\$1.59 billion), the hospital care facility needs are a total of IDR27.649 trillion (US\$1.8 billion), and the laboratory facility needs in total are IDR8.844 trillion (US\$590 million). This total will be sourced from foreign/external lending, building on investments for the 2022-2023 period from other sources, including the State Budget (*Anggaran Pendapatan dan Belanja Negara*, or APBN), the Special Physical Allocation Fund for the Health Sector (*Dana Alokasi Khusus Fisik Bidang Kesehatan* or *DAK Fisik*) and other Foreign Loan and Grant Sources (*Pinjaman dan/atau Hibah Luar Negeri* or PHLN).

MoH has opted for a partnership of four Multilateral Development Banks (MDBs) to deliver on this project, with the World Bank as coordinator. The partnership of MDBs, comprising the World Bank Group (WBG), Asian Infrastructure Investment Bank (AIIB), Asian Development Bank (ADB), and Islamic Development Bank (IsDB), will support the Government to deliver on this transformative operation. MoH and the MDBs have agreed on (i) a joint co-financing between WBG, AIIB, and ADB for the SOPHI component, (ii) a joint co-financing between WBG and ADB for the InPULS component, and (iii) a joint co-financing between WBG and AIIB, as well as parallel co-financing from IsDB, for the SIHREN component. The procurement of radiotherapy machines will be solely financed by IsDB as continuation of their Oncology project.

A fourfold set of readiness criteria is proposed to ensure that the health facilities are adequately prepared to receive and sustainably operate and maintain the new medical devices provided by the Project:

- (a) *Prior availability of equipment in the facility.* This criterion ensures that the results of the gap assessment of health facilities are verified, to confirm the equipment needs of each public health and laboratory facility.
- (b) *Human resource capacity.* This criterion ensures that the health facility has the necessary personnel who are trained and skilled to operate and maintain the medical devices and deliver services.
- (c) *Infrastructure and utility access.* This criterion ensures that the health facility has the infrastructure in place to accommodate the equipment and operate it sustainably, and has access to reliable utilities (electricity, water, and internet) to support its operation.
- (d) *Adherence to local and national regulations on medical waste.* This criterion ensures that the health facility is compliant with local and national regulations on the safe management and disposal of medical waste.

Gol, through MoH, has committed to fulfilling the human resource, infrastructure, utility availability, and waste management requirements, to be funded from APBN and PHLN. The rollout of equipment to facilities is staggered based on the verified meeting of these readiness criteria by each facility.

The World Bank has been tasked to lead the coordination among the contributing MDBs and has spent considerable efforts leading this coordination which will continue throughout project preparation and implementation. Given Gol's request for a coordinated approach and effective

² Ministry of Health of the Republic of Indonesia (MoH). (2023b). *Aplikasi Sarana, Prasarana, dan Alat Kesehatan*. Available at: <https://aspak.kemkes.go.id/aplikasi/>

communication among the MDBs, the MDBs have committed to align on core MDB processes and corporate requirements, including initial meetings already concluded for the following areas: procurement, financial management, environmental and social framework (ESF), climate change, gender, and citizen engagement. The MDBs harmonization efforts are ongoing, especially on procurement and financial management including disbursement arrangements. This harmonization is particularly important in light of the considerable demand on MoH capacity for this project, which will also require strategic and coordinated technical assistance from MDBs throughout project preparation and implementation. For the joint co-financing, the MDBs (WB, ADB, AIIB) have agreed to use World Bank procurement policy and regulations through a framework agreement in case of AIIB and through alternative procurement arrangements (APAs) in case of ADB. Despite the parallel financing arrangements, IsDB has committed to seek harmonization with the co-financing arrangements where possible and is actively involved in the MDB coordination efforts.

1.1.1 MDBs Coordination on Environmental and Social Safeguards

The Co-financiers recognize the importance of environmental and social safeguards compliance requirements under the Project. The coordination differs according to the nature of MDB partnership. The World Bank and AIIB joint co-financing arrangement is governed by the AIIB-IBRD/IDA Co-financing Framework Agreement, co-signed on May 15, 2021, which stipulates the agreement between both parties on preparation arrangements including general information sharing, missions, and negotiations, as well as for implementation including environmental and social framework. AIIB thereby adopts and aligns itself fully with the World Bank's rules and regulations. Such comprehensive framework agreement is not in place with ADB. The harmonization between World Bank and ADB is governed by the ADB-IBRD/IDA Procurement Framework Agreement, which forms the basis of a dedicated, tailored Project Implementation Agreement (PIA) for the HSS Project between both MDBs currently under development. While this bilateral agreement commits the ADB to align with the World Bank procurement regulations, the PIA also details the intention of alignment between ADB and World Bank in terms of environmental and social framework.

1.2 Project Components

Component 1

Procurement, installation, operation, and maintenance of equipment to primary care facilities across Indonesia, "SOPHI" component (IBRD financing estimated as US\$710 million). This component seeks to contribute to the procurement of energy-efficient and, where possible and applicable, telemedicine-enabled equipment for *all Posyandu, Pustu, and Puskesmas*, as well as Tier 1 public health laboratories across Indonesia. The types and numbers of equipment, as well as the facility location where these pieces of equipment will be delivered will be based on the updated gap assessment from MoH, supported by the World Bank and co-financing partners, during project preparation, starting from the 2022 ASPAK data. While procurement will be centralized, packaged, and completed by the end of 2024, the rollout of the delivery of this equipment will be staggered based on the readiness of each facility to receive this equipment. This is aligned with the observations from the sectoral context that many facilities, especially those in remote, rural areas,

lack the human resource capacity and utilities (stable internet and electricity connection) to connect and sustainably and correctly operate and maintain the delivered equipment. The staggered rollout will be based on a set of facility readiness criteria for which data are collected and reporting by the 514 district health offices for the primary care facilities in their administrative area. A fourfold set of criteria will be used: prior availability of equipment in the facility, human resource capacity, utility access, and adequate waste management mechanism and capacity. A focus on maternal and child health equipment in this component ensures the closing of gender gaps.

Component 2

Procurement, installation, operation, and maintenance of equipment to referral hospital facilities across Indonesia, “SIHREN” component (IBRD financing estimated at US\$478 million). This component seeks to contribute to the procurement of energy-efficient and, where possible and applicable, telemedicine-enabled equipment for all Madya, Utama, and Paripurna hospitals across Indonesia. In addition, the component will support the procurement of information and communication technologies (ICT) to enable a more efficient record keeping and reporting of Cancer-Heart-Stroke-Uronephrology (KJSU) related services. The types and numbers of equipment, as well as the facility location where these pieces of equipment will be delivered will be based on the updated gap assessment from MoH, supported by the World Bank and co-financing partners, during project preparation, starting from the 2019 Rifaskes data. While challenges in terms of human resources and facility readiness are projected to be smaller at the referral level, facility readiness criteria will nonetheless apply, and a staggered rollout will be undertaken. Site and resource preparation required prior to receiving the medical equipment will be funded by the Specific Purpose Grants (DAK) and Public Service Agency Fund (BLU). A focus on specialized KJSU equipment in this component ensures the closing of gender gaps. Coordination with the IsDB’s financing will be sought under the parallel financing arrangements.

Component 3

Procurement, installation, operation, and maintenance of equipment to tier 2, 3, 4, and 5 public health laboratory facilities across Indonesia, “InPULS” component (IBRD financing estimated at US\$295 million). This component seeks to contribute to the procurement of energy-efficient and, where possible and applicable, telemedicine-enabled equipment for all tier 2, 3, 4, and 5 public health laboratories across Indonesia. The types and numbers of equipment, as well as the facility location where these pieces of equipment will be delivered will be based on the updated gap assessment from MoH, supported by the World Bank and co-financing partners, during project preparation, starting from the public health laboratory system (*laboratorium kesehatan masyarakat* or *Labkesmas*) data. Facility readiness criteria will also apply, and a staggered rollout approach used for the laboratory component.

To meet the facility readiness criteria, Gol, through MoH, has committed to fulfilling the human resource, infrastructure and utility availability requirements, to be funded from APBN and PHLN. The World Bank team will verify these criteria prior to approving the distribution to facilities of the equipment, and establish a verification protocol to that end during project preparation.

Component 4

Project Management, Administration, Digitization and Training across the SOPHI, SIHREN, and InPULS components. This component covers activities related to the project management of SOPHI, InPULS, and SIHREN, including the operation of the Central Project Management Unit (CPMU), Central Procurement Unit (CPU), and component Project Management Units (PMUs), as well as the IT support teams. This component also provides funds for Project monitoring and evaluation, advisory services, research, in particular related to telemedicine and AI-enabled equipment, the development of integrated data systems for facility readiness assessments and inventories, as well as essential Human Resources for Health (HRH) training .

1.3 Project Institutional Arrangement

In MoH, CPMU is proposed to be established under the leadership of the Secretary General of MoH to oversee three PMUs for the three Project Components. The PMU for SIHREN will be led by Directorate General of Health Services (*Pelayanan Kesehatan* or *Yankes*), while the PMU for SOPHI and InPULS will be led by at Directorate General of Public Health (*Kesehatan Masyarakat* or *Kesmas*). The CPMU will therefore integrate the relevant Directorates-General within MoH to ensure steady progress to achieve the PDO, while the PMUs will ensure close collaboration and coordination among other units to collectively attain a shared vision for the Government’s Health Transformation Agenda. Critical contract management capacity will be housed at each of the PMUs allowing close monitoring of vendor contracts and resolution of any issues for smooth implementation of the agreed procurement activities. Directly under the CPMU, a new CPU will be formed allowing to efficiently deal with the upcoming large procurement activities under each of three components. The necessary TA, especially around medical equipment procurement to be provided by the contributing MDBs, will be tapped at CPU to jointly support its efforts without fragmentation and duplication.

Given the high-profile and high-volume nature of the Project, the project implementation is proposed to be guided by a multi-sectoral Steering Committee (SC) to be established, headed by the Minister of Health. Other SC members will include representatives of the Minister of Finance, Minister of National Development Planning (Bappenas), and MoH management. The SC will provide overall strategic guidance, discuss progress, and solve challenges the project faces in any key area during implementation, meeting at least once every six months.

Indonesia’s decentralized context poses challenges for project implementation, mainly due to varied capacity of subnational governments (SNGs) in public sector management. Within the health sector, MoH already has developed mechanisms to monitor the implementation of central transfers for infrastructure and equipment and supplies, including *DAK Fisik*. Under this Project, the centrally procured medical equipment will be transferred to SNGs in the form of in-kind asset transfers. Although MoH has experience in managing asset transfers for its vertical health facilities, the larger scale of this Project will require a more systematic approach. Firstly, the responsibility for delivery and installation of the equipment will lie with the suppliers, and will be incorporated as conditions of the procurement contract. This will demand strong management and monitoring capacity of the CPMU, with monitoring mechanisms to be set up at subnational levels too. An extension of the existing *DAK Fisik* system could prove valuable. Data for *DAK Fisik* is currently collected manually and digitally, and the size and scale of the HSS Project is a major driver for its

comprehensive digitization across all levels of the public healthcare system. In addition, the Project will include indicators in its results framework to monitor SNG commitments, among others, the availability of co-funding (*dana pendamping* or 'companion funds'), and also to ensure the functionality of the equipment during the project implementation, as per the central Government's regulations on asset transfers. This will be particularly important to ensure continued maintenance following the project period, where equipment maintenance responsibility is handed over to SNGs. The overall improved public health facility readiness will be routinely monitored using ASPAK.

The readiness criteria are key to determine the distribution of equipment to facilities to ensure smooth project implementation. The main source of information for these criteria is projected to be derived from ASPAK, especially for equipment and basic amenities. The ASPAK should encompass the integration of equipment variables related to medical equipment performance, as well as ensuring interoperability with other data sources, specifically those concerning Health Human Resource Information System (Sistem Informasi Sumber Daya Manusia Kesehatan, or SisDMK), National Laboratory Information System (Sistem Informasi Laboratorium Nasional, or SILNAS), and Medical Waste Management Information (System Sistem Informasi Kelola Limbah, or SIKELIM). Challenges arise as these systems operate separately. For the Project preparation, MoH relied on ad hoc data collection mechanism using Google Form surveys to close information gaps needed to finalize the lists of equipment and to assess the readiness of public health care facilities. The established data Mapping Working Group consists of representatives from MoH and MDBs is working towards the building of the integrated data system, to be operational prior to project effectiveness. The data systems to be developed needs to include all relevant units within MoH, including Asset Management, Health Facilities, Digital Transformation Office and Center for Data and Health Technology teams. The Mapping Working Group will also discuss data validation mechanisms, which include desk and field review by the District/City Health Offices (Dinkes) as well as the relevant Inspectorate, as the facilities will propose their equipment needs and self-assess if they meet the readiness criteria, which will then be verified in person by the district health office and spot checks by the relevant Inspectorate.

1.4 The Environmental and Social Management Framework (ESMF)

This Environmental and Social Management Framework (ESMF) is intended to be used as a guide for streamlining environmental and social considerations into the planning, design, implementation, and monitoring of the Indonesia Health System Strengthening Project (or hereinafter HSS). It outlines the principles, relevant policies, procedures, and institutional arrangements to assess, plan, and implement the required measures to ensure that the HSS activities do not cause, and/or can minimize and mitigate adverse potential environmental and social risks and impacts.

The ESMF acknowledges that it is necessary to identify potential environmental and social risks and impacts early to enable the proper design of project activities along with risk and impact mitigation measures. Hence, relevant measures and operational guidelines presented in the document seek to ensure adequate planning, including through participatory consultations and stakeholder engagement to identify risks during project implementation and build consensus with potentially affected stakeholders.

This ESMF was developed as part of the requirements for the project appraisal. The ESMF is a living document and will be updated on an as-needed basis if the project's scope changes substantially and/or if there are emerging risks not fully and/or partially assessed during the development of this ESMF. In such cases, an updated ESMF shall be re-submitted to the World Bank to receive no objection.

1.4.1 ESMF Scope

This ESMF will refer to the ESF and its applicable Environmental and Social Standards (ESSs), as well as Indonesian legal requirements for environmental and social risk management. It will serve as an operational tool during project implementation to avoid, minimize, reduce, or mitigate the environmental and social impacts and risks and enhance potential development outcomes under the project.

This ESMF applies to all components and activities funded by the HSS project, which primarily supports the procurement, installation, operation, and maintenance of equipment at primary care, referral hospital, and public health laboratory facilities throughout Indonesia. The government will be responsible for meeting the project's readiness criteria, thus the project will not fund any civil works requiring room refurbishment and upgrading to accommodate newly procured large medical equipment in relation to Component 2, as well as the construction of new local clinics and laboratories in relation to Component 1 and 3.

The ESCOP (in Annex 1) is a guiding document that may be referenced for good industry practices applies to activities undertaken by the government including renovations at hospitals where special adjustments are needed to fit the equipment, and upgrades and construction of new laboratory, while it will not apply to local clinics where to which only tools are being delivered.

1.4.2 ESMF Objectives

The objectives of this ESMF are as follows:

1. Identify and assess the potential environmental and social risks and impacts of proposed activities.
2. Establish clear environmental and social standards, procedures, and principles to guide the preparation and implementation of project activities. This includes amongst others: application of Good International Industry Practices (GIIP), information disclosure requirements, Feedback and Grievance Redress Mechanism (FGRM), and capacity building to relevant institutions and implementing agencies and stakeholders.
3. Provide guidance/tools for the facility readiness criteria on the aspect of the availability/adequacy of the waste management mechanism at the facilities and ensure their consistency with ESS, and provides good international practices in the ESCOP for civil works supported by the government.
4. Provide guidance to validate the land availability for construction of new *labkesmas* and auxiliary local clinic (*puskesmas pembantu*) under InPULS that are not funded by the project.
5. Specify appropriate roles and responsibilities for risk management of implementing agencies and/or stakeholders and outline the necessary oversight and reporting procedures for environmental and social management implementation and monitoring.

6. Provide guidance on training and capacity-building measures needed to implement the project and relevant provisions of the ESMF.
7. Guide budget and resource planning for the implementation of the ESMF and other requisite measures to strengthen the project's development objectives.

1.4.3 ESMF Outline

The ESMF is prepared by the Indonesian Ministry of Health (MoH) and consists of six chapters and a series of annexes:

- **Chapter 1: Introduction** provides general information of the project and provides the overview of this ESMF, including the objectives, outline, and limitations.
- **Chapter 2: Legal, Policy, and Regulatory Framework** outlines the policies, legislation, and regulatory framework relevant to this project and assesses gaps between the Government of Indonesia (GoI)'s legal framework and the World Bank's ESSs.
- **Chapter 3: Environmental and Social Risk Assessment and Mitigation Plan** details potential risks and impacts relevant to HSS activities and suggested mitigation measures.
- **Chapter 4: Environmental and Social Management Process** outlines the required steps in the environmental and social management process, including screening, integration of ES measures into project activities, implementation, monitoring, and reporting. This chapter will provide separate guidance on the ES management for the project's main components.
- **Chapter 5: ESMF Stakeholder Engagement, Information Disclosure, and Grievance Redress Mechanism** provides the guideline for stakeholder engagement, feedback and grievance redress mechanism (FGRM), and information disclosure which will be tailored based on the stakeholders' characteristics and needs.
- **Chapter 6: ESMF Implementation Arrangements** outlines the institutional arrangements for overall environmental and social management, including capacity building measures, and budgetary and resource planning;
- **Annexes** provide relevant instruments to guide the environmental and social management and mitigation measures during the implementation of HSS.

1.4.4 Limitations

The ESMF provides a framework that outlines the principles, policies, procedures, and institutional arrangements for managing environmental and social risks and impacts. However, due to its general nature, it may not fully address the specific context and unique challenges of every activity or location since it's developed during early project planning stages without detailed information on all activities and types of medical equipment to be procured and location of facilities that will receive project benefits. Nevertheless, the identified environmental and social impacts are well-estimated and believed to encompass the most critical risks. Drawing upon this, it provides strategies and recommendations to efficiently minimize and mitigate potential risks and impacts. Furthermore, due to the time constraints during the preparation of the ESMF, the most recent data available to be referenced is from the year 2020. It's important to note that as more recent data and project details become available in the future, the ESMF can be updated accordingly to ensure that the information and mitigation strategies it provides remain current and effective.

Chapter 2: Legal, Policy, and Regulatory Framework

2.1 World Bank’s Environmental and Social Framework (ESF)

The ESF sets out the project’s commitment to sustainable development through implementation of a set of Environmental and Social Standards (ESSs). The ESSs set out the requirements for the project implementing agencies relating to the identification and assessment of environmental and social risks and impacts associated with the project activities. Table 1 presents applicable ESSs for HSS. Specific provisions have been included in this ESMF to address relevant provisions in the following ESSs that are not and/or partially addressed under the government’s laws and regulations.

Table 1. World Bank Environmental and Social Standards (ESSs) applicable to HSS

Standard	Concerning	Highlights
ESS1	Assessment and Management of Environmental and Social Risks and Impacts	ESS 1 sets out the requirements for the Government relating to identification, assessing, managing and monitoring of the environmental and social risks and impacts associated with each stage of a project supported by the World Bank in order to achieve environmental and social outcomes consistent with the ESSs.
ESS2	Labor and Working Conditions	ESS 2 recognizes the importance of safe and healthy working conditions and provisions as encapsulated in the project’s labor management procedures. Labor risks may include Occupational and Health and Safety (OHS) issues at low level of the primary supply workers in distribution, installation, operation and maintenance of the new medical equipment. Risks are related to chemical exposure, noise, electrical safety, and infection control, among other. Each healthcare facility will need to prioritize OHS measures, including training, risk assessments, and adherence to regulations and guidelines. Due to risk proportionality, the project will not prepare a separate labor management procedure for the project. Elements of the labor management procedure and worker grievance mechanisms are included in the ESCOP (Annex 1). ESS2 also recognizes the importance of having a grievance mechanism for medical staff and all workers involved in the project.
ESS3	Resource Efficiency and Pollution Prevention and Management	ESS3 recognizes the generation of pollution to air, water, and land, and the consumption of finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels. This ESS requires technically and financially feasible measures to improving the

Standard	Concerning	Highlights
		efficiency of energy use, and water and raw materials consumption, minimize the generation of hazardous and non-hazardous waste, as well as to address pollution prevention and management throughout the project life cycle consistent with GIIP.
ESS4	Community Health and Safety	ESS 4 addresses the health, safety, and security risk and impacts on project-affected communities. This is mainly concerning medical waste management at public health facilities located in remote areas or with limited access to medical waste treatment/disposal facilities. While the national regulations are already in place to manage medical waste, in remote areas such requirements are however not completely implementable. Facility readiness which includes established waste management systems will be part of the readiness criteria. The corresponding responsibility of the Government to avoid or minimize such risks and impacts, with particular attention to people who, because of their particular circumstances, may be vulnerable. ESS4 also recognizes the importance of having a grievance mechanism accessible to the community.
ESS5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not relevant to the project
ESS6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not relevant to the project
ESS7	Indigenous Peoples	ESS 7 applies where different social and cultural groups identified in accordance with the standard requirements exist within the project site. ESS 7 applies regardless of whether these groups are positively or negatively affected and regardless of the significance of any impacts from the project. The standards ensure an inclusive engagement and participation to enable access to project benefits. Implementation of this standard contributes that the project activities is conducted in a way that does not threaten their cultural identity and well-being.

Standard	Concerning	Highlights
ESS8	Cultural Heritage	Not relevant to the project
ESS9	Financial Intermediaries	Not relevant to the project
ESS10	Stakeholder Engagement and Information Disclosure in the preparation of ESMF for this project	ESS 10 recognizes the importance of open and transparent engagement between the Government and project stakeholders, including Project Affected Persons (PAPs), as an essential element of good international practice. Effective stakeholder engagement can improve the environmental and social sustainability of projects, enhance project acceptance, and make a significant contribution to successful project design and implementation. ESS 10 requires stakeholder engagement throughout the project life-cycle, and preparation and implementation of a Stakeholder Engagement Plan (SEP).

2.2 Country System on Environment and Social Management

This section describes policies and regulations applicable in Indonesia at the time of ESMF preparation, highlighting those that serve as guidelines for managing environmental and social impacts relevant to activities supported under HSS. Relevant Gol policies categorized per the World Bank's ESSs are listed in Table 2.

Table 2. The Government of Indonesia's regulations on E&S management relevant to HSS

Aspect (ESS)	Regulations	Regarding
ESS1: Assessment and management of environmental and social risks and impacts	Law No. 32 of 2009	Environmental Protection and Management
	Government Regulation No. 22 of 2021	Environmental Management and Protection
	Regulation of the Minister of Environment and Forestry No. 4 of 2021	Types of Business Plans and/or Activities that Require Environmental Impact Analysis, Environmental Management Program and Environmental Monitoring Program, and Statement of Environmental Management and Monitoring
ESS2: Labor and working conditions	Government Regulations No. 29/2008	Permitting for The Use of Ionizing Radiation and Nuclear Material
	Law No. 6 of 2023	Job Creation Law (stipulation of GR in Lieu of Law No. 2/2022 on Job Creation in becoming Law)
	Law No. 13 of 2003	Manpower

	Law No. 1 of 1970	Occupational Health and Safety (OHS) management
	Ministry of Manpower Regulation No. 5 of 2018	OHS standards for workers and work environments
	Nuclear Energy Regulatory Agency Regulation No. 4/2020	Radiation Safety on The Use of X-Ray Machine in Diagnostic and Interventional Radiology
	MOH regulation No. 66/2016	Hospital's occupational health and safety
	MOH regulation No. 27/2017	Guidelines for Infection Prevention and Control in Healthcare Facilities
	MOH regulation No. 43/2013	Proper management of the clinical laboratory
	MOH regulation No. 11/2022	Occupational Disease Health Services
	MOH regulation No. 52/2018	Occupational Health and Safety in Health Facilities
	MOH regulation No. 48/2016	Occupational Health and Safety in Office Settings
	MOH regulation No. 70/2016	Standards and Requirements for Occupational Health and Safety in Industrial Work Environment
	MOH regulation No. 4/2014	Good Distribution Mechanism of Medical Equipment
ESS3: Resource efficiency and pollution prevention and management	Law No. 17 of 2019	Water Resources, includes water resources utilization, protection, and conservation
	Law No. 18/2008	Solid Waste Management, includes the guideline to undertake solid, domestic, non-B3 waste handling and management
	Government Regulation No. 22 of 2021	Environmental Management and Protection, includes the water quality protection and management, air quality protection and management, coastal protection and management, and hazardous waste management
	MOH regulation No. 7/2019	Provision on environmental health in hospitals
	MOH Regulations 18/2020	Regional-Based Healthcare Facility Management of Medical Waste
	MOE Regulation No. 5/2014	Wastewater Effluent Standard
	Ministry of Environment and Forestry (MOEF) Regulation No. P.56/menlhk/setjen/kum.1/4/2015 of 2015	Procedures and Technical Requirement of Hazardous Waste Management from Health Care Facilities
	MOEF Regulation No. 6/2021	Procedures and Requirements for Hazardous and Toxic Waste Management
	MOF Regulation No. 83/2016	Procedure for the Destruction and Disposal of State Assets
ESS4: Community health and safety	Law No. 17/2023	Health
	Government Regulation No. 58/2015	Radioactive Substances' Transportation
	MOH Decree no 1204/Menkes/SK/X/2004	Provision on Environmental Health of Hospital
	MOH regulation No. 7/2019	Clinical Radiology Services

	MOH Regulation No. 1191/MENKES/PER/VIII/2010	Distribution of Medical Equipment
	MOH Regulation No. 4/2014	Good Practice on Healthcare Distribution
ESS5: Land acquisition, restrictions on land use and involuntary resettlement	Not relevant to HSS	
ESS6: Biodiversity conservation and sustainable management of living natural resources	Not relevant to HSS	
ESS7: Indigenous People	Regulation of the Minister of Home Affairs No. 52 of 2014	Guidelines for Recognition and Protection of Indigenous Peoples
	Regulation of the Minister of Agrarian Affairs and Spatial Planning/Head of National Land Agency No. 9 of 2015	Procedures to Establish Communal Right on Indigenous Peoples' Land in Certain Area
ESS8: Cultural heritage	Not relevant to HSS	
ESS9: Financial intermediaries	Not relevant to HSS	
ESS10: Stakeholder engagement and information disclosure	Law No. 14 of 2008	Public Information Disclosure
	<i>Community participation and grievance redress mechanism</i>	
	Law No. 8 of 2016	Inclusion of People with Disabilities
	Regulation of the Ministry of Environment and Forestry No. 17/2012	Guidelines for Public Participation in Environmental Impact Assessment and the Environmental Permit Process
	Presidential Instruction No. 9 of 2000	Gender Mainstreaming in National Development, emphasizes women's participation in development process

2.3 Gap Analysis of National Policies and the World Bank's ESSs

This report section presents a comprehensive Gap Analysis of National Policies and the World Bank's Environmental and Social Safeguards (ESSs). The analysis aims to identify disparities between existing national policies, regulations, and decrees and the World Bank's ESF, highlighting potential areas for improvement to ensure effective ES management.

The laws and regulations concerning environmental and social impact assessment of the proposed activities in Indonesia generally align with the World Bank's ESF. The national regulations adequately cover the management of hazardous and non-hazardous materials and wastes, water quality effluent discharge, airshed management, and emission standards. The analysis reveals no major gaps in the management of medical waste, as provisions on permitting, waste identification, reduction, segregation, storage, transport, disposal and occupational health and safety for waste managers, handlers, transporters, and waste processors are comparable to Good International Industry Practices (GIIP) and are well-harmonized.

Relevant to this project, the regulatory framework on some social aspects needs to be enhanced. In particular, these are: (1) provision of stakeholder engagement and (2) grievance mechanism to receive and address complaints and/or feedback (e.g., regarding labor safety, patient safety and complaints, and/or community safety) throughout the project life cycle. Other enhancements are required to strengthen the E&S management of the works conducted by project’s primary supply workers, relevant to this project, such as requirement of OHS procedure and adequate provision of terms and conditions (including prevention to harassment and/or exploitation) to protect the primary supply workers.

Table 3. Gap Analysis

ESS Topics	Identified Gaps	Measures to Mitigate
<p>ESS 1 – Assessment and Management of Environmental and Social Risks and Impacts</p> <p>Generally, relevant laws and regulations on the environmental and social risks and impacts assessment in Indonesia are aligned with ESS1. Identified minor gaps can be addressed directly in the project level planning and implementation.</p>		
Environmental and social assessment	<p>Direct, indirect, and cumulative impacts are assessed in the national regulatory framework. The assessment includes inter-related and interaction of hypothetically significant impacts. There is no explicit requirement to include a mitigation hierarchy in the environmental and social management plan.</p> <p>Indonesia has ratified CEDAW, and there is the Presidential Regulation on Gender Mainstreaming, which provides general guideline on no-violence and no-discrimination against women, and inclusion of women in development. Yet, it is lacking reference to forms of violence and exclusions and no clear guideline on enforcement.</p>	<p>The project will adhere to ESS1 through the identification of environmental and social risks outlined in this ESMF and the streamlining of environmental and social aspect into facility readiness criteria to address some potential negative impacts. No civil works are envisaged under the main component, as defined in the ESMF scope of application, eliminating the need to develop environmental and social assessment documents as per national regulations. Relevant measures addressing social risks are included as part of the ESMF, including the SEP, prevention of Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH), and capacity building activities. Further, awareness raising on gender and SEA/SH along with relevant Codes of Conduct were developed for potential bidders and shall be required prior to procurement.</p>
Project area of influence	Lack of analysis about project area of influence, induced impacts and site selection analysis.	The ESCOP (Annex 1) provides good industry practices for civil works that will be funded by the Government’s budget through DAK Fisik.
Environmental and social monitoring	Insufficient follow up, analysis, use of environmental monitoring data for evaluation and continuous improvement due to the variable implementation	The ESMF will cover requirements of environmental and social monitoring as per outlined under ESS1. Component 4 under this project will provide additional technical capacity support for environmental and

ESS Topics	Identified Gaps	Measures to Mitigate
	capacities, particularly in the handling and documentation of site-level grievances and in the management of wastes, especially hazardous medical wastes.	social management to implementing agencies.
Capacity development and training	Budget allocation for capacity development and training for environmental and social management implementation is often insufficient.	For the overall environmental and social management, budget for institutional strengthening and capacity building is included under the Component 4.
<p>ESS 2 – Labor and Working Conditions</p> <p>Indonesia has ratified all core conventions of ILO labor and working conditions. Although no major gaps are identified between Indonesian laws and regulations with the requirements of the ESS 2, enhancements are needed in the regulations and in the implementation of regulations for labor inspection, occupational health and safety, grievance mechanism, gender equity and mainstreaming in the workplace, protection against workplace harassment, and fair treatment of vulnerable workers, particularly those with disabilities and migrant workers.</p>		
Grievance Mechanism	Labor grievances may be managed through a labor union or through a mechanism described in each worker’s contract. Such mechanisms often don’t allow anonymity and are likely to be inaccessible to the contractor, subcontractor workers, part-time workers, and other vulnerable workers.	The project will provide a grievance channel, accessible to all, to file complaints or feedback to any labor-related violation occurring under the project. Moreover, the project will require vendors (primary suppliers) to provide a grievance mechanism for their workers.
OHS issue	The current legal framework already addresses much of ESS2 requirements on occupational health and safety. Enhancement is conducted to include safety aspect of the primary supply workers in distribution, installation, operation, and maintenance of the new medical equipment and to address the risk on Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH).	The project will require primary suppliers to introduce procedures and mitigation measures to address safety issues on distribution, installation, operation, and maintenance of the new medical equipment and include them in the bidding document. Suppliers may be switched if safety requirements are not met within a reasonable timeframe. To address SEA/SH, bid requirements will mandate potential bidders to present existing behavioral standards, which must include guidelines against misconduct, harassment, and criminal activities or to sign a project specific code of conduct (CoC) to address SEA/SH issues.

ESS Topics	Identified Gaps	Measures to Mitigate
Avoiding the use of child labor and forced labor	There is no gap. Law No. 13/2003 concerning Manpower as amended with Law No. 11/2020 concerning Omnibus Law and Law No. 21/2007 about The Eradication of Human Trafficking have regulated about the prohibition on the use of child labor and forced labor.	ESCOP incorporates prohibition to use child labor and SEA/SH code of conduct included prohibiting to hiring children as workers.
<p>ESS 3 – Resource Efficiency and Pollution Prevention and Management</p> <p>In general, the Government’s environmental laws and regulations on pollution prevention and management cover management of hazardous and non-hazardous wastes, water quality effluent discharge, airshed management and emission standards. Enhancements in the sourcing, usage of raw materials, and efficient consumption of resources can be done for the project.</p>		
Resource efficiency	National regulations promote the reduction of resource consumption whenever possible, however specific methods and standards are not explicitly addressed	The project will implement technically and financially feasible measures for improving efficient consumption of energy, water and raw materials, as well as other resources, wherever possible. The project is committed to including energy efficiency as a bid-evaluation-criteria in the selection of equipment.
Management of medical waste	No major gaps. Methods of containment, transportation, temporary storage, and disposal of hazardous and non-hazardous waste in healthcare facilities are covered by the national regulatory framework.	As access to facilities to manage, transport, and dispose of hazardous materials in remote locations can be a challenge, the availability of adequate medical waste management plans, facilities, and procedures will be assessed as part of the facility readiness criteria for equipment rollout. As needed, related capacity development can be supported.
Management of Asbestos Containing Wastes/Materials	Note: Annex III of Government Regulation No. 22/2021 regarding Environmental Management and Protection acknowledges wastes containing asbestos materials as hazardous wastes. Regulation does not specifically address how asbestos is to be handled/disposed.	The project will not be financing any civil works, as defined in the ESMF scope of application. The ESCOPs provides guideline on handling asbestos containing waste materials.
<p>ESS 4 – Community Health and Safety</p> <p>Potential risks and impacts as well as the mitigation measures to the community health and safety are assessed. No major gaps are identified in the relevant laws and regulations.</p>		
Transport and distribution	Requirements for packaging and	The project will require primary supplier

ESS Topics	Identified Gaps	Measures to Mitigate
of hazardous material	labeling of materials for transportation were explicitly covered, including for medical equipment and radioactive substances. Lack of analysis on vehicle standards and occupational safety aspects.	(equipment vendor) to comply with OHS guidelines on transporting medical equipment and hazardous materials as provided in this ESMF (Section 4.1.2.2). This requirement will be incorporated into bidding documents, procurement guidelines, and vendor contracts.
Community safety	For incremental risks of the community's potential exposure to operational accidents, project impacts or natural hazards that may be exacerbated by the project, including extreme weather events – these has been addressed in several sectoral regulations in the legal framework	The project will require the vendors (Primary suppliers) in the contract to provide training on safe equipment operation, to prevent any misuse and impact to community safety, in particular the patient/equipment users' safety. The project requires a grievance redress mechanism to be made available to the local population.
ESS 5 – Land Acquisition, Restrictions on Land Use and Involuntary Resettlement. Not relevant for HSS		
ESS 6 – Biodiversity Conservation and Sustainable Management of Living Natural Resources. Not relevant for HSS		
ESS7 – Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities.		
Assessment and Consultation; Avoidance of adverse impacts; Mitigation and development benefits; Meaningful consultation tailored to indigenous peoples/ Sub-Saharan African historically underserved traditional local communities	<i>Masyarakat Adat</i> may potentially face difficulties to participate and obtain benefit from the project.	The project is not expected to create adverse impacts on Indigenous Peoples. Circumstances whereby FPIC is required are not envisaged under the project. The project has prepared a Stakeholder Engagement Plan (SEP) that includes measure to engage with IPs.
ESS 8 – Cultural Heritage. Not relevant for HSS		
ESS9 – Financial Intermediaries. Not relevant for HSS		
ESS 10 – Stakeholder Engagement and Information Disclosure. In general, relevant Government of Indonesia laws and regulations have covered the requirements of the ESS 10.		
Engagement with stakeholders; Information disclosure; Grievance Mechanism	Regulatory enhancement is required in respect of engagement with PAPs throughout the project lifecycle on potential issues, engagement and providing information and holding consultation with PAPs as	Project has developed a SEP that will guide the implementation of stakeholder engagement, information disclosure and grievance mechanism throughout the project cycle.

ESS Topics	Identified Gaps	Measures to Mitigate
	<p>to mitigation where there are significant changes which result in additional risks and impacts. Regulatory enhancement also required in obtaining grievance and/or feedback on the performance of the project and the implementation of mitigation measures.</p>	

Chapter 3: Environmental and Social Risk Assessment and Mitigation

3.1 Environmental and Social Risks, Impacts, and Mitigation Plan

This section details the potential environmental and social risks and impacts, including the direct and indirect impacts of the three project components that might occur through the HSS implementation and operation of the new equipment along with their proposed mitigation measures and specific references to appropriate guidelines and tools in the ESMF. According to the World Bank ESF, the environmental and social risks were categorized as moderate considering the temporary and reversible nature of the potential impacts. Overall, the project is anticipated to yield positive outcomes, contributing to significant advancements in the national healthcare sector and improving the access to quality health care services and laboratories in lower income areas. However, some minor environmental risks may arise from the pressure on the healthcare sector related to the procurement of equipment from the four Multilateral Development Banks (MDBs) and the capacity of the health sector to effectively manage occupational health issues, waste management, chemicals, hazardous substances, and related aspects. Social risks may involve health and safety risks to primary supply workers during the distribution, installations, and maintenance of the equipment, and to project beneficiaries (e.g. HRH, patient) due to potential operation failure of the new medical equipment.

Component 1, 2, and 3 of the Project, known as 'SOPHI', 'SIHREN', and 'InPULS' respectively, will focus on supporting the procurement and distribution of medical equipment to healthcare facilities and laboratories with sufficient resources and capacity for proper maintenance and operation of the equipment. The project will not be supporting procurement of large infrastructures for infectious and hazardous waste handling, such as development of new incinerators, wastewater treatment plants, or other waste management technology that could pose significant risks to the environment. Thus, risks are considered to be moderate but temporary and easily mitigated, as well as neither significant nor irreversible. Anticipated downstream environmental impacts include an increase in greenhouse gas emission from the use of electricity to power the equipment, increase in medical waste and general waste due to the expanded healthcare capacity for medical procedures, as well as health and safety concerns for workers operating and maintaining the equipment. These impacts are further explored in Table 4.

To effectively mitigate these potential risks, the project will implement facility readiness criteria that will ensure that the receiving healthcare facilities and/or laboratories possess the necessary land certificate and infrastructure, such as sufficient electricity, adequate room space, proper medical waste and wastewater management mechanism (for Bio-Safety Level 2), and a reliable network connection, to accommodate the devices. These facilities will be required to have facility-specific medical waste management plans, as well as adequate health and safety procedures for facility operations that are acceptable to Bank standards. Furthermore, the project aims to improve climate resilience of Indonesia's health sector by procuring energy efficient medical equipment as well as leveraging innovations in digital health and telemedicine, wherever possible. The Energy Star efficiency standards and the International Electrotechnical Commission (IEC) energy efficiency

standards for medical equipment will therefore be applied and included in the equipment specifications and procurement procedures. These strategies are integrated into the project's climate co-benefit scheme. By implementing all the above listed measures, the project aims to minimize environmental impacts and promote safe and responsible equipment usage.

Overall, there is no adverse social impact regarding the activity. Since the distribution, installation and maintenance of medical equipment will be conducted nationwide, the health and safety issue on the primary supply workers is envisaged. Risk on Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) is considered low as project activity will include procurement, operation, and maintenance of equipment activities that will be conducted in public and open spaces, thus will not engage female workers in close proximity to male workers with limited supervisions and will not involve significant labor influx. Project will require in contract with the primary supply, requirement to provide measures of prevention and/or mitigation to their workers regarding health and safety protection and in the provision of labor terms and conditions, in particular prevention of harrasment and/or exploitation in workplace relevant to requirement of ESS2. Social inclusion issue is not envisaged, as the project goal is to strengthen access to health service especially to underserved areas. The project design will use readiness criteria to determine which health facilities will receive the medical equipment. This readiness criteria has consider remote areas with underserved medical facility. Issue on health and safety of the project beneficiaries is negligible as the project design has ensure that the Human Resource (HR) of the health facilities have received proper training. The suppliers' contract will include the responsibility in training health facility staff in maintenance and operations of new equipment.

The activities under Component 4 will provide implementation support to the project, including regular monitoring and evaluation that may carry risks of potential exposure to hazardous materials in laboratories and healthcare facilities, particularly for workers who are deployed for site visits. While these activities may carry some risks of potential exposure to hazardous materials in laboratories and healthcare facilities, they are considered minor and easily mitigated. The project will ensure that each facility receiving project support will have established laboratory health and safety procedures to promote a safe working environmental for workers and visitors.

Table 4. Matrix E&S Risk Assessment and Mitigation Plan

Typology of activities	Potential risks	Mitigation Measures	Unit
Component 1, 2, and 3			
Procurement of medical equipment	<ul style="list-style-type: none"> Lack of environmental consideration that could lead to downstream impacts such as improper medical waste management, increase in greenhouse gas emission, and occupational health and safety risks during equipment distribution and operation Risk of SEA/SH 	<ul style="list-style-type: none"> Integrate environmental considerations into the bidding document Adequacy of medical waste management capacity shall be verified prior to equipment distribution Include awareness on facility OHS procedures at healthcare facilities as per the national regulation as part of the human resource readiness criteria Include worker's code of conduct that prohibits misconduct related to SEA/SH as part of the bidding document and contract. Code of Conduct SEA/SH prevention will be 	Component 1 (SIHREN): Directorate General of Health Services Component 2 (SOPHI): Directorate General of Public Health Component 3 (InPULS):

Typology of activities	Potential risks	Mitigation Measures	Unit
		prepared in the POM.	<p>Directorate General of Public Health</p> <p>With support from the Directorate of Environmental Health, as the project's E&S focal point</p>
Operation of medical equipment	<ul style="list-style-type: none"> • Generation of infectious/medical and hazardous waste. • Poor working conditions and labor safety risks and hazards, specifically for personnels responsible for operating and maintaining medical instruments. • Workers and community health and safety risks such as exposure to general infections, blood-borne pathogens, airborne, foodborne, vector-borne and waterborne infections due to improper housekeeping and waste management practice. • Risk of fire emergency and electrical-related accident if such equipment is poorly designed and/or maintained. • Increase of electricity consumption and genset operations that leads to the generation of greenhouse gas emissions. • Emission of hazardous substances from medical equipment operations • E-waste generation from the replacement of ICT hardware or medical devices. 	<ul style="list-style-type: none"> • Ensuring proper implementation of medical waste management during equipment operation as outlined in this ESMF. This will be continuously monitored and included in the project's progress reports. • Capacity building on proper medical waste management as outlined in this ESMF and relevant national regulations conducted by E&S consultant appointed for the project • Training on proper and safe device operations, maintenance, and management of waste derived from the use of the equipment for healthcare workers, provided by the primary supplier. This requirement will be part of the bidding document and vendor's contract • Ensure healthcare workers are aware and trained on OHS good practices and emergency responses at healthcare facilities as per national regulations • Inclusion of energy saving equipment as part of equipment selection and procurement guidelines • Implement proper electronic waste management as outlined in this ESMF and relevant national regulations • Ensure the laboratory adhere the respective bio-safety level standards i.e. have a designated area to handle infectious waste which is also equipped with an autoclave, wastewater handling system, negative pressure system, etc. • Workers or researchers in laboratories must be trained in their field 	<p>Component 1 (SIHREN): Directorate General of Health Services</p> <p>Component 2 (SOPHI): Directorate General of Public Health</p> <p>Component 3 (InPULS): Directorate General of Public Health</p> <p>With support from the Directorate of Environmental Health, as the project's E&S focal point</p>
Transportation of medical equipment	<ul style="list-style-type: none"> • Lack of proper handling of medical equipment, leading to health and safety risks to primary supplier workers and 	<ul style="list-style-type: none"> • Ensure primary supply workers are trained for safe handling and transportation of medical equipment and/or hazardous waste 	<p>Component 1 (SIHREN): Directorate General of Health Services</p>

Typology of activities	Potential risks	Mitigation Measures	Unit
	the community	<ul style="list-style-type: none"> • Requiring proper certifications for medical equipment distribution in bidding documents and vendor contracts • Ensuring the transporting vehicle is in good conditions, complying with national standards and pass emission tests. This requirement shall be incorporated into bidding documents and vendor contracts. 	<p>Component 2 (SOPHI): Directorate General of Public Health</p> <p>Component 3 (InPULS): Directorate General of Public Health</p> <p>With support from the Directorate of Environmental Health, as the project's E&S focal point</p>
Component 4			
Day-to-day project operational support, project monitoring, evaluation, and/or site visit to health facilities	<ul style="list-style-type: none"> • Labor health and safety risk due to exposure to hazardous waste, chemical substances, or other hazardous substances from medical equipment, particularly for workers deployed to the site 	<ul style="list-style-type: none"> • Implementation of laboratory/healthcare facility health and safety procedure for working personnels and/or visitors 	<p>CPMU, PMU</p> <p>With support from the Directorate of Environmental Health, as the project's E&S focal point</p>

3.2 Institutional Capacity Assessment

The MoH has prior experience in implementing Bank financed projects. MoH is currently implementing five World Bank-funded projects in the health sector through Program for Result (PforR) mechanism: (i) Indonesia – Supporting Primary Health Care Reform (I-SPHERE), aiming to strengthen the performance, quality, and spending of Indonesia’s primary health care nationally with additional focus on mostly rural Eastern Indonesia; (ii) Investing in Nutrition in Early Years (INEY), aiming to increase the utilization of priority health- and nutrition-specific interventions at the primary care level in Posyandu, Pustu, and Puskesmas, with particular attention to 1,000-day households and in priority districts with high stunting rates; (iii) COVID-19 Strategic Preparedness and Response Program, an emergency operation aiming to prevent, detect, and respond to the threat posed by COVID-19, and to strengthen national systems for public health preparedness; (iv) Jaminan Kesehatan Nasional (JKN, Indonesian national health insurance system) Reforms and Results Program, aiming to strengthen the quality and efficiency of JKN, and (v) Strengthening National Tuberculosis Response. While MOH demonstrates strong internal Bank-funded project management

capabilities, there is a need for capacity improvement, particularly in managing IPF projects and relevant environmental and social safeguard instruments. Throughout project implementation, the World Bank will be providing support for capacity building for effective implementation of the ESMF, along with technical support in various specialized areas as required.

In terms of institutional capacity in managing hazardous waste, the country has a strong regulatory framework that provides guidelines on good hazardous waste management that aligns with the GIIP. The Government Regulation No. 22/2021 classifies medical waste, which includes clinical waste with infectious properties, expired pharmaceutical products or chemicals, medical and laboratory equipment contaminated with infectious waste, and wastewater treatment sludge from hospitals, among other things, as hazardous waste. This regulation stipulates that general hazardous waste should be handled in accordance with the provisions outlined in GR 22/2021 itself, with further specific guidelines provided in MoEF's Regulation No. 6 of 2021 on the Procedures and Requirements for Managing Hazardous Waste (referred to as 'MoEF Reg. 6/2021') and the Ministry of Environment and Forestry's Regulation No. 56 of 2015 on the Procedures and Technical Requirement of Hazardous Waste Management from Health Care Facilities. As of 2020, the MoEF has implemented an online reporting system known as 'SIRAJA' for the management of both hazardous and non-hazardous waste. This system enables the direct recording of manifest reports from hazardous waste producers, transporters, and treatment facilities or companies or via barcoded manual manifest for later input into the online reporting system. This system is established under the MoEF's Regulation No. P.4./MENLHK/SETJEN/KUM.1/1/2020 on Hazardous Waste Transportation.

MoH also has the capacity to monitor the adequacy of medical waste management in health care facilities throughout the nation through their online platform known as 'SIKELIM'³. The assessment includes segregation, storage, transport, and treatment of hazardous waste. According to the information available on the website, as of June 2023, there are a total of 13,647 healthcare facilities, including both hospitals and *puskesmas*, operating across the country. Among these, 5,833 facilities, which represents approximately 43 percent, have adopted a hazardous waste management system that aligns with the standards outlined in MoEF Reg No.56/2015. However, it was unclear if other facilities such as *pustu*, *posyandu*, and public health laboratories are included in the analysis. Most of the gap exist within remote areas, as access to hazardous waste facilities and budget for medical waste management are still limited. Other challenges include discontinuation of incinerator permits in healthcare facilities due to factors such as damage, lack of permits, and incompliance with emissions requirements, budget restraints, excessive generation of medical waste in some healthcare facilities. The website did not provide information on the quantity of hazardous waste generated and treated.

Lesson learned from the COVID-19 Strategic Preparedness and Response Program shows some local Health Agencies have the initiatives to provide licensed temporary storage facilities for medical waste from local community health centers (*Puskesmas*) and laboratories and will maintain working contract with licensed transporter and treatment facilities. For health facilities located far from any medical waste treatment facilities, when the amount of medical waste generated has not met the

³ SIKELIM can be accessed through sikelimkemkes.id

minimum amount for transport, the medical facilities will request an extension of temporary storage of medical waste with the local Environmental Agency.

Based on MoEF data, as of June 2020, there were 16 licensed medical hazardous waste treatment companies in Indonesia, with 12 of them located on Java Island, 1 in Riau Province, 2 in East Kalimantan Province, and 1 in South Sulawesi Province.⁴ Additionally, there were 116 healthcare facilities that had obtained operational permits for the use of incinerators and autoclave. Until 2024, the government is planning to add 10 more medical waste facilities with a combined target capacity of 26,880 tons per year. Uneven distribution of licensed hazardous waste transporters, with 97 out of 140 licensed transporters located in Java, should be considered as well as an aspect that needs to be improved. Using the 'proximity principles' the government is trying to establish one medical waste treatment facility per province so the cost and the risks from transportation of medical waste will be reduced.

The MOH has a relatively robust health facility accreditation system that includes Environmental, Health, and Safety (EHS) provisions. Following a comprehensive review by the MOH with support of international partners including the World Bank, the 2015 accreditation framework was significantly enhanced with the issuance and roll-out of the 2022/2023 accreditation framework. The new framework consists of several new regulations and decrees, including: MOH Regulation No. 34/2022 on Accreditation of Public Health Centers, Clinics, Health Laboratories, Blood Transfusion Units, Independent-Place-of-Practice for Doctors, and Independent Place-of-Practice for Dentists; MOH Decree HK.01.07/MENKES/1983/2022 on Accreditation Standards for Clinics; MOH Decree HK.01.07/MENKES/2011/2022 on Health Laboratory Accreditation Standard; Director General of Health Services Decree HK.02.02/I/3991/2022 on Technical Guidelines for Accreditation Surveys for Community Health Centers, Clinics, Health Laboratories, Blood Transfusion Units, Independent Place-of-Practice for Doctors, and Independent Place-of-Practice for Dentists; MOH Decree HK.01.07/Menkes/165/2023 on Accreditation Standards for Public Health Centers; and Decree of Director General of Public Health Services HK.02.02/D/632/2023 on Accreditation Survey Instruments for Health Laboratories.

The revised framework newly covers various types of medical facilities (including *puskesmas*, clinics, and *labkesmas*; blood transfusion units; and private doctors' and dentists' clinics) and addresses the previously identified gaps and weaknesses. Given the ongoing cycle of accreditation, re-accreditation, and the different accreditation levels, accreditation is expected to continuously support or improve service readiness, quality of primary care services, and EHS performance at healthcare facilities including improving risk management efforts, infection prevention and control efforts, and minimize risks for patients, families, communities, staff, and the environment. The MOH monitors and periodically re-confirms the capacities and performance of the licensed accreditation agencies in accordance with the process and timelines defined in the 2022/2023 accreditation framework. All parties involved in medical/hazardous waste management business (storage, transport, treatment, and disposal) will require special permits. The procedure to obtain such permit will follow Government Regulation No. 22/2021.

⁴ MOH's Environmental Health Activity Performance Report 2021
(<https://kesmas.kemkes.go.id/assets/uploads/contents/others/KESLING.pdf>)

Although the national framework offers comprehensive guidelines for the management of medical waste, practical implementation faces challenges due to inadequate capacity and infrastructure, leading to improper treatment of waste in some facilities. The project will anticipate these risks by verifying the adequacy of capacity and waste management system in healthcare facilities and laboratories before equipment rollout as part of the facility readiness criteria. Furthermore, the project will provide capacity-building support and technical assistance, wherever possible to raise awareness about effective healthcare waste management practices. This includes strategies for waste reduction, appropriate treatment methods, or other technical topics that is deemed necessary.

Chapter 4: Environmental and Social Management Process

4.1 Environmental and Social Management for Project Main Components

4.1.1 Environmental and Social Exclusion List

The following activity or activities will be deemed ineligible for direct funding under the HSS project if they:

1. Are not aligned with the policies, initiatives, and or objectives of the HSS project;
2. Will cause significant, sensitive, complex, irreversible and unprecedented potential adverse environmental and social impacts requiring a full or partial environmental assessment to manage and mitigate such impacts;
3. Involve any procurement activities beyond the scope of the HSS project;
4. Involve any civil works, as defined in the ESMF scope of application.

This screening process is expected to ensure ineligible activities or investments will not be processed and activities with significant, complex, irreversible and/or unprecedented adverse environmental or social impacts are excluded from the project. The exclusion list will be included in the Project Operations Manual (POM). The POM sets out the arrangements agreed by the borrower for the implementation of the project. The POM includes relevant details of E&S management for each phase of the project. E&S focal point appointed and E&S consultants under each PMUs will perform eligibility screening for the proposed activities under their respective components prior to inclusion of activities in the annual work plan.

4.1.2 Integration to Project Design

The ESMF aims to improve project outcomes through reinforcing environmental sustainability aspects wherever possible. The project will seek to integrate environmental and social management to the project design and activities to the extent possible. This approach aims to promote environmental sustainability and ensure that social considerations are effectively addressed throughout the project's implementation. Understanding the nature of the project, integration of social and environmental management can be adopted to all components.

4.1.2.1 Integration To Procurement

Environmental and social (E&S) management is applicable to all procurements conducted under HSS. Prior to their submission for World Bank's review, draft procurement documents including bidding documents and primary supplier contracts developed by the CPU will need to be reviewed by the E&S focal point appointed in MoH and E&S consultants hired for this project to ensure that necessary environmental and social aspects are well incorporated. If corrective measures are required, the World Bank will inform the PMUs and revision should be done and accepted prior to contracting the primary supplier. The procurement documents shall include, but not limited to:

- Equipment maintenance plan, guaranteeing technical support from primary suppliers for maintenance, calibrations, and repairs as necessary

- Requirement for medical equipment provider to install the equipment, assist in functionality testing, and facilitate requisite training for healthcare operators and maintenance engineers. Training may include but not limited to equipment operations, maintenance, calibration (in case of discontinued reagents), emergency responses, health and safety protocols for device use, and the management of any equipment-specific waste
- Requirement for supplier to support provisions for equipment end-of-life scenarios, such as take-back programs, recycling, or reprocessing of used equipment
- Worker's code of conduct, including general prohibitions against misconduct, harassments and criminal actions related to SEA/SH (Annex 4)
- Requirement for supplier to provide relevant permits/certification for medical equipment distribution as per the working regulations and adhering to MoH Regulation No. 14/2021 on good practices for distribution of medical equipment (*Cara Distribusi Alat Kesehatan yang Baik*) when carrying out distribution activities
- Requirements for supplier to provide occupational health and safety plans/procedure, which consist of potential work-related risks that may occur during equipment transportation, installation, operations, plans/procedures to correctly manage equipment-related wastes, maintenance and possible mitigation strategies

4.1.2.2 *Integration Into Facility Readiness Criteria*

To effectively address the project's key E&S risks, the management of waste and OHS are linked to the facility readiness criteria. The distribution of procured equipment will be based on a set of facility readiness criteria that comprises of: i) Equipment needs of each public health and laboratory facility; ii) Human resource capacity to ensure adequate number of trained and skilled personnel for the operation and maintenance of medical equipment; iii) Infrastructure and utility access, to ensure infrastructure is in place to accommodate and operate the equipment, and has access to reliable utilities to support its operation; and iv) Adherence to national and local regulations concerning the safe management and disposal of medical waste. This is to ensure that the health facilities are adequately prepared to receive the new medical devices and able to operate and maintain them safely and sustainably. These criteria can be further derived into the following:

- Availability of trained staff for device maintenance, operation, and adequate occupational health and safety measures related to healthcare worker and patients and community health and safety
- Availability of designated secure, accessible, dry, ventilated, and adequate space for installation of equipment
- Appropriateness of access for device installation, such as the proper size of doors, elevators and staircases
- Availability of network connectivity, cabling and communication equipment, and sufficient power supply
- Appropriateness of medical waste management system

As part of the readiness criteria (ii), the government will be responsible for hiring staff and providing general OHS training and/or awareness in accordance with the national laws, regulations, and policies on OHS in healthcare facilities (refer to Table 2 - ESS2: Labor and working conditions in Section 2.2 of this ESMF). The summary of the OHS procedures is provided in Annex 2. While the national regulation on OHS standards in healthcare facilities also encompasses management of

hazardous and toxic materials and waste and management of domestic waste, the readiness criteria (iv) set forth further emphasis on waste management at the facilities. The facility is required to meet the national laws, regulations, and policies on waste management in healthcare facilities (refer to Table 2 – ESS3: Resource efficiency and pollution prevention and management in Section 2.2 of this ESMF). The summary of waste management practices is provided in Annex 3. The World Bank team, along with the Mapping Working Group will verify these criteria prior to approving the distribution to facilities of the equipment. Verification mechanism will be set up with the relevant Inspectorates.

In meeting the facility readiness criteria, the GoI, through MoH, is committed to fulfill these prerequisites through projects funded under the APBN, DAK, BLU, and PHLN. For upgrades and constructions in hospitals and laboratories (under component 2 and 3), ESMF included a guideline in the ESCOP to facilitate good practices in construction.

4.1.3 Land Due Diligence Protocol (The New Construction of Laboratory - *Labkesmas* and *Puskesmas Pembantu – Pustu*)

For the civil works that are funded by the Physical Special Allocation Funds (DAK Fisik), MDBs advised MoH to only consider providing equipment under the Project to those facilities where land ownership has already been confirmed and validated. This is inline with the DAK's technical guideline, according to Presidential Regulation No. 15/2023, that the requirements of healthcare facilities or laboratories construction funded by the Government's budget through DAK Fisik are (1) to have a land certificate or other recognized land ownership evidence designated for healthcare facilities or laboratories; as well as (2) land ready to be built (clean and clear). Land ownership is a particularly important prerequisite here, especially relevant for *Pustu* and *Labkesmas* to be established as part of ongoing Government plans. While the responsibility of ensuring land ownership lies with the subnational Governments, the oversight over this process within MoH lies with Yankes. MoH considers providing equipment under the Project to those facilities where land ownership has already been confirmed and validated, as this is a critical aspect of their likely readiness.

The following recommendation provided related to the proposed sites will be deemed clean and clear status, if the land:

- is confirmed owned by Government (either Local Government or MoH), proven by evidence or documentation of land legality status, i.e. land certificates and/or other forms of recognized land claim/ownership evidence designated for healthcare facilities or laboratories referring to technical guideline of the Physical Special Allocation Funds (*DAK Fisik*);
- is not located in a disputed area or under dispute and has no overlapping claims, which allows for social and/or tenure conflicts to occur;
- will not involve relocation of houses, businesses or permanent building, physical or economic displacement to the affected community, the loss of main livelihood, and access restrictions to land;
- have no other parties who use the land other than the legitimate landowners (government), such as sharecroppers, cultivators, occupants without permits, housing, etc.; or in the event of other users, showing that impact on other users will be minor and not causing any physical displacement, economic displacement, loss of main livelihood, and access restriction to land;

- is ready to be built.

MoH will request local government who submit or access to DAK's budget to provide in addition to meet the requirement of DAK regarding land ownership, also include pictures from locations to assist MoH in determining clean and clear criteria. The ES specialists of each PMU will ensure the land due diligence is conducted.

4.2 Monitoring and Reporting

Day-to-day management and oversight of E&S aspects will fall under the responsibility of the CPMU and each PMU, with support from the E&S focal point and E&S consultants. There is no agreed common approach on E&S management between all involved MDBs. The implementation of E&S management at the central and subnational level shall be monitored regularly and its progress will be incorporated into the project's progress reports submitted to the World Bank and circulated among other MDBs. MoH through its ES specialists and focal point(s) will provide a monitoring report of the overall environmental and social performance to ensure adherence to the national Environmental and Social regulations and the application of relevant ESSs. For significant accident, CPMU shall inform the Bank and AIIB promptly. Further details of environmental and social indicators to be monitored, including the expected frequency and intensity, is presented in ESCP.

Healthcare facilities will submit proposals to the district health office on the facility's medical equipment needs. The facilities will also self-assess if they meet the readiness criteria, which will be verified in person by the district health office. The Inspectorate assisted by the E&S focal point and E&S consultants will conduct spot checks on the facility. The E&S focal point and consultants will assist the PMU to monitor the civil works where MoH may exercise control and influence over to ensure compliance with the MoH's accreditation and regulations for healthcare facilities. The ESCOP (in Annex 1) as a guiding document, may be referenced for good industry practices for small-scale civil works and construction of facilities supported by the government. The capacity building for ESMF implementation, monitoring, reporting, and ESCOP dissemination shall be planned early in the project's effectiveness, after the E&S focal person and consultants have been appointed.

Chapter 5: Stakeholder Engagement, Information Disclosure, and Grievance Redress Mechanism

5.1 Stakeholder Engagement

Project will conduct stakeholder engagement, such as public information disclosure and consultation throughout the entire project cycle, to obtain feedbacks and/or concerns from the Project's stakeholders regarding the project activities or any other activities that are related to the project. In the stakeholder engagement program, the environmental and social documents including this ESMF, SEP and ESCP will be disclosed and consulted to stakeholders, relevant to the project risks that may potentially impacting the respective stakeholders.

Project stakeholders and their roles, including PAPs, the disadvantaged/vulnerable individuals/groups, and the other interested parties in each of the project components have been identified in the SEP document. The SEP document also provides information of the Project's plan for the topic of engagement (including topic from ESMF), strategy and activities of engagement, engagement timeline as well as the Person/Party in Charge (PIC) from the project that will be in charged for engaging each of the identified stakeholders.

5.2 Information Disclosure

The implementation of this ESMF document is a commitment for the Borrower under the Project's ESCP. As part of the project preparation, the project has conducted public consultations for the overall project design, proposed activities, and the environmental and social management documents on October 6th, 2023. All safeguard documents, including SEP, ESCP, and this ESMF has been disclosed in both Bahasa Indonesia and English on the MoH website (<https://link.kemkes.go.id/multi/Links/lists/konsultasipublikHSS>) prior to public consultation. This link has been opened for 7 days after the disclosure to obtained input from the public on the project and on the proposed management measures for the project's environmental and social risks.

The public consultation was conducted online, attended by 180 participants from central government agencies (BAPETEN, BAPPENAS), local health agencies, local health facilities and laboratories, association of profession, NGOs/CSOs, vendors as well as international agencies and MDBs. The consultation socialized and discussed the background of the project, project component and timeline, environmental and social risks of the projects and the proposed mitigation measures, project channel for grievance and feedback, project environmental and social commitment plan, etc. Brief summary from this public consultation and photograph documentation is available in Annex 5.

Following the inputs from the public consultation and the disclosed documents, the ESMF and SEP documents are updated and re-disclosed on the MoH website to reflect stakeholders' views and concerns, with the consultation minutes and documentation provided as attachments of the documents.

5.3 Feedback and Grievance Mechanism

The process of receiving stakeholders' suggestion, feedback and also grievance is expected to be conducted throughout the project implementation. At the early stage of the project, the existing MoH mechanism to receive feedback and grievance will be utilized, such as 'Halo Kemkes' that can

be contacted via phone number (hotline number: 1500-567), text message (SMS 081281562620 or Fax (021) 5223002, 52921669), or through email (kontak@kemkes.go.id) and through 'LAPOR' channel in website (<https://www.lapor.go.id/>) that will be managed by the Communication and Public Service Bureau of MOH at the national level, and through the respected healthcare facilities (i.e., hospitals, community health centers and community laboratories) for the local level.

Information regarding the feedback and grievance mechanism channels and the procedures of the resolution has been publicly advertised through public consultation, and will be posted at the notification board that will be provided at the health facilities. More details for the feedback and grievance mechanism, including the flowcharts of the provided mechanism are described in the SEP document.

Chapter 6: ESMF Implementation Arrangements

6.1 Institutional Arrangements

The environmental and social management under HSS will follow the project’s institutional arrangements, where the overseeing of overall implementation of the environmental and social management will be the responsibility of the CPMU, the Secretary General of the Ministry of Health. This includes submission of semi-annual report to the Bank and AIIB. Day-to-day implementation of project activities, their corresponding risk management and monitoring will be the responsibility of the PMUs for each component, Directorate General of Health Services (*Pelayanan Kesehatan* or *Yankes*) for SIHREN, and Directorate General of Public Health (*Kesehatan Masyarakat* or *Kesmas*) for SOPHI and InPULS. A dedicated project team, consisting of personnel with expertise in environmental and social risk management of the project will be hired to be responsible for the coordination of dissemination and implementation of the ES instruments and overall environmental and social management oversight during project implementation and to support PMU on the day-to-day management of the project. MoH will recruit at least one E&S specialist in each PMU and one senior E&S specialist in CPMU. MoH will also appoint ES Focal Point(s) within MoH staffs to work with the hired ES specialists as part of capacity building efforts.

Table 5. Roles and Responsibilities in ESMF implementation under HSS

Unit	Unit responsibilities	E&S focal point/E&S consultants responsibilities
Central Project Management Unit (CPMU) – Secretary General, Ministry of Health	<ul style="list-style-type: none"> - Project level monitoring and evaluation - Coordination, supervision, and technical guidance/support to the CPU/PMUs - Coordination and consolidation of project implementation progress reports - Overall oversight of E&S management, including the operationalization of the ESMF - Review and approval of project manuals - Provide overall E&S oversight in the procurement of medical goods and assessment of facility readiness prior to its distribution - Review the recap of grievances and to compile for reporting to the World Bank and AIIB (as part of the project implementation progress report) 	<ul style="list-style-type: none"> - Formulate the overall operationalization of ESMF through the POM - Assist CPMU to monitor E&S compliance and assessment of readiness criteria - Provide inputs for evaluation of ESMF implementation - Formulate training and capacity building, including ESMF training and other relevant topics - Train stakeholders on ESMF and other relevant topics as necessary - Recommend any midterm time-bound corrective measure to E&S management implementation, as necessary - To conduct project level analytics for grievances captured and FGRM implementation
Central Procurement Unit (CPU) – Ministry	<ul style="list-style-type: none"> - Prepare the Project Procurement Strategy for Development (PPSD) and Procurement 	<ul style="list-style-type: none"> - Formulate the operationalization of ESMF

Unit	Unit responsibilities	E&S focal point/E&S consultants responsibilities
of Health	Plan (PP) - Coordinate with the Directorate of Environmental Health, MOH as the project's E&S focal point, PMUs, and E&S consultants to ensure appropriate E&S aspects are incorporated into the procurement documents	through the POM, specifically in integrating ES management in the procurement process - Assist CPU in incorporating E&S aspects into procurement documents - Provide inputs for evaluation of ESMF implementation - Formulate training and capacity building, including ESMF training and other relevant topics as necessary
Project Management Unit: – Directorate General of Health Services, MOH (SIHREN component) – Directorate General of Public Health, MOH (SOPHI and InPULS components)	– Monitor procurement activities for components under their respective responsibilities, including reporting on activity implementation to the CPMU – Monitoring, evaluation and reporting of E&S management for components under their respective responsibilities – Ensure relevant E&S aspects are included in the procurement documents under their respective responsibilities	– Formulate the operationalization of ESMF through the POM, ensuring all relevant ES measures are incorporated into respective components – Assist PMUs to monitor E&S compliance – Assist PMUs in incorporating E&S aspects into procurement documents – Provide inputs for evaluation of ESMF implementation – Formulate training and capacity building, including ESMF training and other relevant topics as necessary – To conduct project-level analytics for grievances captured and FGRM implementation

6.2 Capacity Building

Capacity development represents a crucial part of environmental and social management. It is required to ensure that the project design activities and additional mitigation can be implemented, with the scope, efforts, resource, and budget allocation commensurate with the project risk categorization. Capacity development is developed based on an assessment and plan with key ESMF-related subjects being included as part of wider training packages. The capacity building for ESMF implementation, monitoring, reporting, and ESCOP dissemination shall be planned early in the project's effectiveness, after the E&S focal person and consultants have been appointed.

Several capacity development activities -such as workshops, trainings, and inductions- will be conducted to increase awareness, knowledge, and skillsets on particular E&S area. Capacity building themes may include, but not limited to:

- **ESMF Training**
Basic training on ESMF is mandatory for CPMU, CPU, and PMUs. The training materials consist of knowledge on project concept, design, and description, as well as management process of ESMF. Relevant provisions for environmental and social management as guided by the ESMF will also be provided based on needs, roles and responsibilities.
- **Technical Training**
Technical trainings including workshops and trainings on various thematic topics. Training will be given continuously throughout project implementation. The CPMU and ES specialist/consultants will be responsible to evaluate training necessities. The training materials for each theme will depend on participants’ needs, which can be revisited during project implementation. The ESMF also provides technical guidelines based on good practices that may be referred to in the development of the training materials (see Chapter 4 and Annex 2 for healthcare waste management). The themes for specialized training and E&S standard-related activities under HSS, include but not limited to:
 - Waste management at healthcare facilities
 - Occupational health and safety
 - GBV/SEA prevention and response
 - FGRM operationalization
 - ESCOP
 - Laboratory health and safety awareness for workers and visitors

6.3 Financing

The financing sources for the overall ESMF implementation are located in the Component 4 of the project, while some specific budget expenditures will be financed as part of project activities under other components (e.g., training prior to the operation of medical instruments). The amount of financing needs for the implementation will be estimated during project implementation and included in the project’s annual work plans. Table 6 shows possible expenditures that may be relevant to the implementation of the ESMF.

Table 6. Budget Plans for E&S Management

Expenditure	Approximate Costs (IDR)	Budget Source
Capacity building and training program for team/staff	TBD	Comp. 4 on program management and project implementation support
Annual monitoring and oversight of environmental and social aspects	TBD	Comp. 4 on program management and project implementation support

ANNEXES

Annex 1: Environmental and Social Code of Practice

This ESCOP will serve as a guideline providing good industry practices for small-scale civil works as well as new construction of facilities, with reference to the World Bank's Environmental and Social Framework (ESF), ESHS, Good International Industry Practice (GIIP), and the Indonesian regulatory framework. Small scale civil works may include room refurbishments and upgrading to accommodate for newly procured medical equipment, while construction activities may involve the development of new laboratories and local clinics. Construction activities are envisaged to be of small to medium scale that will not cause detrimental nor irreversible impacts to the environment and social aspects. The ESCOP consists of two sections:

1. Construction of new local clinics and laboratories
2. Small-scale rehabilitations

Under MOEF Regulation No. 4/2021 on Types of Business Plans and/or Activities that Require Environmental Impact Analysis (AMDAL), Environmental Management Program and Environmental Monitoring Program (UKL-UPL), and Statement of Environmental Management and Monitoring (SPPL), small-scale civil works and new construction will be subjected to the preparation of the relevant environmental documents to be submitted to the respective environmental agency to obtain environmental permit prior to commencement of physical works.

1. Construction of new local clinics and laboratories

The following descriptions are the codes of practice for avoidance, minimization and/or mitigation that may be adopted during construction.

General Good Working Practices

- Always implement good housekeeping policy especially for the material and equipment storage. Clean work area and keep the materials in the appropriate storage at the end of each working day. Regularly clean the excessive waste debris and liquid spills.
- Walkways, evacuation routes and emergency exits should be established and kept clear of obstructions. All tags/signage for safety hazard are appropriately placed.
- Equipment (i.e. electrical, machines) is properly covered/secured while not being used.
- Sharp edges are covered/secured at all times, and to add safety lines as appropriate.
- Develop and socialize lines of communication for reporting of any unsafe condition, unsafe behavior, near miss, incident, accident and emergency situation.
- Develop and socialize grievance mechanism, accessible to all workers, for individual report of grievance or feedback.
- Limit the hours of operation for civil work, especially mobile sources operating through community areas.

- Work SOPs are provided, socialized and/or trained to related workers. SOP includes prevention, minimization and/or mitigation measures for HSE risks to environment and people.
- PPE to be provided to all construction workers, appropriate to the risks of the working activity and working area.
- Provide adequate interventions to protect immunocompromised patients in advance. Examples of interventions are moving patients to other parts of the healthcare facilities, sealing windows permanently, putting up impermeable plastic barriers, damp mopping of floors and horizontal surfaces, putting up HEPA filters on incoming air and so on.
- Construction materials (i.e., stone, sand, timber) will only be sourced from sources that are legal and/or approved by the relevant community if utilizing local resources.

Environmental Management

Dust

- Prevent, minimize and monitor dust levels from relevant work activities (i.e. mobilization, loading/unloading and stockpiles of materials).
- Provide appropriate measures to comply with the limit, i.e. periodical water spray, material cover, or keeping in closed containers.

Noise and vibration

- Prevent, minimize and monitor noise and vibration level from utilization of equipment and work activities.
- Provide appropriate measures to comply with the limit, i.e. use of equipment with low noise level, equipment calibration, provide limit/schedule for the hours of high-noise/vibration equipment usage, and noise barrier.
- Any work that must be carried out after hours shall be notified to the community at least one week in advance.

General waste management

- Implement waste segregation practice, in accordance with the composition, source, types of wastes produced, generation rates, and according to GoI regulatory requirements. Hazardous wastes must be segregated from non-hazardous wastes, and also segregation of reused and recycled material from general waste shall be done.
- Establish and enforce daily site clean-up procedures, including maintenance of adequate storage, recycling and disposal facilities for litter, solid waste, soil and construction debris.
- Provide appropriate temporary storage, following the characteristic of the generated waste.
- Hazardous wastes shall be separated and stored in dedicated temporary storage facility that is equipped with sufficient protection to prevent environmental pollution (i.e. leak-proof bund wall or containment) and provided with appropriate symbols and labels.

- All solid waste that cannot be recycled shall be transported by an approved or certified third-party waste handler, disposed of offsite at an approved/licensed disposal site.
- Waste oil and other hazardous wastes (including contaminated soil and oil spills) shall be stored under cover and separated from other wastes. They shall be removed by a licensed transporter to a licensed disposal facility.
- Only allow waste collection and disposal by authorized third parties (respective to the characteristic of waste).
- Provide portable toilets for construction workers separated from workers and patients.
- Conduct periodic inspections of waste management practices, record the waste storage activities (i.e. storing timeline, volume, types) and the manifest from authorized transporter/collector and disposal/treatment facility.
- Prevent wastewater from entering and polluting the environment, especially to natural water body that is used as community water source.
- Once the job is completed, all construction-generated debris should be removed from the site and disposed of at a designated landfill site.
- Temporary collection and disposal of hazardous waste shall follow GoI requirements.

Hazardous Material

- Prevent or minimize the utilization of hazardous material through elimination or substitution with non-hazardous material.
- Provide appropriate containment and storage facility for the hazardous material, by considering the precautions and safe handling stated in the Material Safety Data Sheet (MSDS) of each material (i.e., compatibility, chemical characteristics, emergency and first aid procedures, required PPE, etc.).
- Maintain records for each of the hazardous materials purchased, stored and utilized volumes. Records on its expiration dates, storage locations and authorized users/activities.
- The hazardous material record is to be considered in the hazardous material procurement plan, to reduce inefficient usage or expired hazardous material from becoming hazardous waste.
- Conduct periodic inspection to check the materials and storage facility condition, i.e., adequate provisions of symbol and label, availability of MSDS, accurate records of stored volume, condition of containments, etc.
- Implement procedure of hazardous material transportation that is in compliance with applicable national laws and international requirements.

Asbestos Protocol (when found during project implementation)

- When applicable, upon finding suspected asbestos containing materials, no physical work on the structures will be done until suspected asbestos has been sampled, the results known, and asbestos removed. The site containing suspected asbestos shall be clearly marked;
- In specific cases where it is suspected that asbestos containing materials exist, an Asbestos Specialist will be engaged by the contractor to confirm the presence of asbestos in the buildings or building debris subject to funding under this project;
- The Asbestos Specialist will hold a ‘Certificate of Competency’ or a similar certification indicating training and experience in the handling and disposal of asbestos-containing materials;
- The Asbestos Specialist will visit a sample of the buildings that will be funded under this project and prepare an identification guide and sample handling process along with an estimated inventory of the waste types and volumes that will need to be managed under the Asbestos management plan;
- The asbestos sample will be sent to accredited laboratories for asbestos testing;
- The Asbestos Specialist will train project personnel and workers in the sampling of suspected asbestos handling materials and organize testing;
- An Asbestos Management Plan⁵ shall be developed by the Asbestos Specialist based on the asbestos site assessment, and reviewed by the World Bank, prior to implementation. This shall include:
 - Identification of locations where the asbestos containing material (ACM) is present, and its condition (e.g. whether it is in friable form with the potential to release fibers);
 - Procedures for monitoring its condition prior to disposal;
 - A list of all trained personnel, including an Asbestos Removal Supervisor, who will work on the project (providing certification or training records);
 - A list of personal protective equipment required. All PPE and equipment used in the removal of asbestos is to be treated the same as asbestos containing materials;
 - A list of equipment required for containing and disposing the materials;
 - Training plans for workers who can potentially come into contact with the material to avoid damage and prevent exposure;
 - Awareness raising methods for community members who may be (or have been) at risk;

⁵ Refer to the World Bank Group 2009 Guidance Note on Asbestos Management (<https://siteresources.worldbank.org/EXTPOPS/Resources/AsbestosGuidanceNoteFinal.pdf>) for resources on asbestos standards and regulations

- Approved safe-work methods for undertaking building deconstruction, wrapping of contaminated materials and preparation for disposal;
- Disposal of materials at licensed landfill and/or transported by licensed party
- Debris removal should include the external areas of the building surroundings that have been contaminated by asbestos containing debris;
- Preparation of a map showing the location of the disposal of asbestos materials from the project sites to the landfill.
- The site of the disposal of asbestos-containing materials shall be clearly marked at the site, and in a national register of hazardous sites or similar register of land interests;
- All activities under HSS requiring the removal of asbestos or asbestos-containing materials will have asbestos materials safely removed in advance of any reconstruction works commencing and managed based on the asbestos management plan.

Labour Management

Workforce Management

- Contractors (categorized as contracted workers referring to WB ESS2) are obliged to manage and ensure the terms and working conditions of their and subcontractors' workers (contracted workers). The community members may be recruited by the contractors and in such case, the contracted workers' working terms and conditions will be applied.
- All contractors will be required to develop and implement documented workforce management procedures, which will include procedures for establishing and maintaining a safe work environment in compliance with ESS2 criteria. All contractors will be required to ensure workers will use basic safety equipment, receive basic safety training and other precautions. Risk associated with Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) or GBV, as well as child labor is in construction activities considered to be low as construction activities are only carried out on a small to medium scale and mostly involve local workers.
- No forced labor and no harmful child labor to be recruited as worker. Project to set minimum age criteria following the national regulation and the international requirement. To anticipate child labor for construction activities, the following guidance should be followed:
 - A child under minimum age (under the age of 14) will not be employed or engaged.
 - A child between 15 and under the age of 18 may be employed or engaged under the following conditions: the works do not in manner that is likely to be hazardous (jeopardize the health, safety, or morals of children) and interfere with child's education or be harmful to child's health or physical, mental, spiritual, moral, or social development;

- Works considered hazardous for children include work: i) with exposure to physical, psychological or sexual abuse; ii) underground, underwater, working at heights or in confined spaces; iii) with dangerous machinery, equipment or tools, or involving handling or transport of heavy loads; iv) in unhealthy environments exposing children to hazardous substances, agent, or processes, or temperature, noise or vibration damaging to health; or v) under difficult conditions such as work for long hours, during the night or in confinement on the premises of the employer.
 - The contractor will be required to verify and list the age of all workers. Workers will be required to provide official documentation, such as a birth certificate, national identity card, or school records (if relevant).
 - If a child under the minimum age is found to be working for the project, actions will be taken to immediately terminate the employment or engagement of the child in a responsible manner, considering the best interests of the child.
- Promote fair treatment, non-discrimination, and equal opportunity in selection of their workers.
 - Provide specific measures, as appropriate, to vulnerable workers such as women and persons with disabilities.
 - When workers accommodation is required (if any non-local workers are hired), it must be ensured to provide sufficient space for resting and privacy, adequate supply of clean water, electricity, and ventilation that are free of charge for the project workers.
 - Contractors will be required to establish a worker grievance redress mechanism. Workers may file complaints through a formal channel provided by their employers (as required in the bidding documents) or informally through their worker representatives, OHS officers in charge or contractor management, and it is expected to handle the complaint. However, if the complaint cannot be resolved at the contractor management level, it may be escalated to the district/province level (according to the work location). The workers' grievance redress mechanism will be socialized to the contracted workers as part of the induction and will be refreshed at least every once every six months as relevant. All received grievances will be investigated and resolved in a timely and transparent manner.
 - The project will conduct regular field inspection to monitor and assess the performance and compliance of the contractors against the labor laws and regulations. The inspection will cover issues include but not limited to child labor, workers' health and safety, working hours, compensation and benefits, etc. Findings from the field inspection will be followed up with appropriate mitigation measures to be implemented by the contractors within an agreed timeline. Contractors may receive penalties e.g. warning letter, temporary contract termination, permanent contract termination and black-list, if they fail to address the findings.

Occupational Health and Safety

- Identify health and safety hazard from working sequence, working area and working condition and provide the control measures prior to the implementation of working activity.
- Conduct safety briefing / toolbox meeting prior to daily work activity.
- Ensure that the workers are capable or having sufficient skill to perform the work. For example, certified operator for heavy equipment, certified expert for electrical installation, if applicable.
- Conduct HSE orientation, periodic HSE awareness and SOP training to all workers, relevant to hazards of their working activities.
- Provide sufficient protection to equipment and electrical installation (i.e. machine guarding, safety arrestor, insulation, grounding).
- Implement stop work policy for any unsafe condition, action or behavior that may potentially lead to incident/accident.
- No employee should be exposed to a noise level greater than 85 dB(A) for a duration of more than 8 hours per day without hearing protection
- The use of hearing protection should be enforced actively when the equivalent sound level over 8 hours reaches 85 dB(A), the peak sound levels reach 140 dB(C), or the average maximum sound level reaches 110dB(A)
- Protection against vibration should be controlled through choice of equipment, installation of vibration dampening pads or devices, and limiting the duration of exposure
- Entry into all confined spaces should be restricted and subject to permitted supervision by properly trained persons
- Store combustible materials in a secure and well-ventilated storeroom
- Provide resources for daily HSE inspection, first aider, appropriate to the number of worker and level of risk.

Infection/Disease Prevention

- Provide and regularly maintain a proper sanitation facility for the civil work worker, separated from the healthcare workers', patients' and visitors' facilities (i.e., toilet, cleaning/washing facility, waste bin, clean water supply facilities).
- Provide and socialize infection and disease control policies and procedures to all workers.
- Socialize and implement grievance mechanisms, accessible to all workers.
- Report any unsafe condition, unsafe behavior, near-miss, incident and accident, following the defined communication/reporting lines.

Emergency Response

- Identify potential emergency situation (i.e., fire, earthquake, riot), potential affected parties, and prepare an emergency preparedness and response plan (ERP).

- Establish the emergency response team, emergency call tree, emergency evacuation route, and coordinate with relevant government authorities.
- Display the evacuation map and the emergency contact channel at easily visible locations.
- Conduct periodic socialization, training and drill of the ERP, participated by relevant affected parties.

SEA/SH Prevention

- Request for Code of Conduct on the prevention SEA/SH and GBV within the bidding document to the Contractor during the procurement stage.
- Implement Code of Conduct for prevention of SEA/SH and GBV during implementation stage, applicable to all workers.
- Especially for female workers, the Project will ensure that work implementation will occur in public spaces and in groups or not conducted alone.
- Project to implement additional measures (i.e., sanction) to prevent any negative interactions between the incoming workers with the community (i.e., harassment, safety hazards, security, communicable diseases, etc.).
- Confidential grievance mechanism is provided, if community prefers to raise on SEA/SH and GBV related issues in a secretive manner. Additional measures shall be implemented by the Project to prevent any negative impact to the reporter of this SEA/SH and GBV related grievance.

2. Small-scale rehabilitations

Small scale civil works may include room refurbishments and upgrading, improvement of access for medical equipment, as well as utility works to accommodate for newly procured devices. The following descriptions are the codes of practice for avoidance, minimization and/or mitigation that may be adopted during rehabilitation works.

General Good Working Practices

- Always implement good housekeeping policy especially for the material and equipment storage. Clean work area and keep the materials in the appropriate storage at the end of each working day. Regularly clean the excessive waste debris and liquid spills.
- Walkways, evacuation routes and emergency exits should be established and kept clear of obstructions. All tags/signage for safety hazard are appropriately placed.
- Equipment (i.e. electrical, machines) is properly covered/secured while not being used.
- Sharp edges are covered/secured at all times, and to add safety lines as appropriate.
- Develop and socialize lines of communication for reporting of any unsafe condition, unsafe behavior, near miss, incident, accident and emergency situation.

- Develop and socialize grievance mechanism, accessible to all workers, for individual report of grievance or feedback.
- Limit the hours of operation for civil work, especially mobile sources operating through community areas.
- Work SOPs are provided, socialized and/or trained to related workers. SOP includes prevention, minimization and/or mitigation measures for HSE risks to environment and people.
- PPE to be provided to all construction workers, appropriate to the risks of the working activity and working area.
- Provide adequate interventions to protect immunocompromised patients in advance. Examples of interventions are moving patients to other parts of the healthcare facilities, sealing windows permanently, putting up impermeable plastic barriers, damp mopping of floors and horizontal surfaces, putting up HEPA filters on incoming air and so on.
- Construction materials (i.e., stone, sand, timber) will only be sourced from sources that are legal and/or approved by the relevant community if utilizing local resources.

Environmental Management

Dust

- Prevent, minimize and monitor dust level from relevant work activities (i.e. mobilization, loading/unloading and stockpiles of materials).
- Provide appropriate measures to comply with the limit, i.e. periodical water spray, material cover, or keeping in closed container.

Noise and vibration

- Prevent, minimize and monitor noise and vibration level from utilization of equipment and work activities.
- Provide appropriate measures to comply with the limit, i.e. use of equipment with low noise level, equipment calibration, provide limit/schedule for the hours of high-noise/vibration equipment usage, and noise barrier.

Wastes

- Implement waste segregation practice, in accordance with the characteristic of wastes (domestic, construction waste, hazardous waste, if any).
- Provide appropriate temporary storage, following the characteristic of the generated waste.
- Hazardous wastes shall be separated and stored in dedicated temporary storage facility that is equipped with sufficient protection to prevent environmental pollution (i.e. leak-proof bund wall or containment) and provided with appropriate symbols and labels.
- Only allows waste collection and disposal by authorized third parties (respective to the characteristic of waste).

- Provide portable toilets for construction workers separated from CHCs and HPs workers and patients.
- Conduct periodic inspection to waste management practice, record the waste storage activities (i.e. storing timeline, volume, types) and the manifest from authorized transporter/collector and disposal/treatment facility.
- Prevent wastewater from entering and polluting the environment, especially to natural water that is used as community water source.

Hazardous Material

- Prevent or minimize the utilization of hazardous material through elimination or substitution with non-hazardous material.
- Provide appropriate containment and storage facility for the hazardous material, by considering the precautions and safe handling stated in the MSDS of each material (i.e., compatibility, chemical characteristics, emergency and first aid procedures, required PPE, etc.).
- Maintain records for each of the hazardous materials purchased, stored and utilized volumes. Records on its expiration dates, storage locations and authorized users/activities.
- The hazardous material record is to be considered in the hazardous material procurement plan, to reduce inefficient usage or expired hazardous material from becoming hazardous waste.
- Conduct periodic inspection to check the materials and storage facility condition, i.e., adequate provisions of symbol and label, availability of MSDS, accurate records of stored volume, condition of containments, etc.
- Implement procedure of hazardous material transportation that is in compliance with applicable national laws and international requirements.

Asbestos Protocol (when found during project implementation)

- When applicable, upon finding suspected asbestos containing materials, no physical work on the structures will be done until suspected asbestos has been sampled, the results known, and asbestos removed. The site containing suspected asbestos shall be clearly marked;
- In specific cases where it is suspected that asbestos containing materials exist, an Asbestos Specialist will be engaged by the contractor to confirm the presence of asbestos in the buildings or building debris subject to funding under this project;
- The Asbestos Specialist will hold a 'Certificate of Competency' or a similar certification indicating training and experience in the handling and disposal of asbestos-containing materials;
- The Asbestos Specialist will visit a sample of the buildings that will be funded under this project and prepare an identification guide and sample handling process along with an estimated inventory of the waste types and volumes that will need to be managed under the Asbestos management plan;

- The asbestos sample will be sent to accredited laboratories for asbestos testing;
- The Asbestos Specialist will train project personnel and workers in the sampling of suspected asbestos handling materials and organize testing;
- An Asbestos Management Plan shall be developed by the Asbestos Specialist based on the asbestos site assessment, and reviewed by the World Bank, prior to implementation. This shall include:
 - Identification of locations where the asbestos containing material (ACM) is present, and its condition (e.g. whether it is in friable form with the potential to release fibers);
 - Procedures for monitoring its condition prior to disposal;
 - A list of all trained personnel, including an Asbestos Removal Supervisor, who will work on the project (providing certification or training records);
 - A list of personal protective equipment required. All PPE and equipment used in the removal of asbestos is to be treated the same as asbestos containing materials;
 - A list of equipment required for containing and disposing the materials;
 - Training plans for workers who can potentially come into contact with the material to avoid damage and prevent exposure;
 - Awareness raising methods for community members who may be (or have been) at risk;
 - Approved safe-work methods for undertaking building deconstruction, wrapping of contaminated materials and preparation for disposal;
 - Disposal of materials at licensed landfill and/or transported by licensed party
 - Debris removal should include the external areas of the building surroundings that have been contaminated by asbestos containing debris;
 - Preparation of a map showing the location of the disposal of asbestos materials from the project sites to the landfill.
- The site of the disposal of asbestos containing materials shall be clearly marked at the site, and in a national register of hazardous sites or similar register of land interests;
- All sub-projects under HSS requiring the removal of asbestos or asbestos containing materials will have asbestos materials safely removed in advance of any reconstruction works commencing and managed based on the asbestos management plan.

Labour Management

Workforce Management

- As the majority of contract workers are locals with unskilled and untrained, however, the risk remains that some accidents may occur leading to injury. All contractors will be required to develop and implement documented workforce management procedures,

which will include procedures for establishing and maintaining a safe work environment in compliance with ESS2 criteria

- No forced labor and no harmful child labor to be recruited as worker. Project to set minimum age criteria following the national regulation and the international requirement.
- To anticipate child labor for construction activities, the following guidance should be followed:
 - A child under minimum age (under the age of 14) will not be employed or engaged.
 - A child between 15 and under the age of 18 may be employed or engaged under the following conditions: the works do not in manner that is likely to be hazardous (jeopardize the health, safety, or morals of children) and interfere with child's education or be harmful to child's health or physical, mental, spiritual, moral, or social development;
 - Works considered hazardous for children include work: i) with exposure to physical, physiological or sexual abuse; ii) underground, underwater, working at heights or in confined spaces; iii) with dangerous machinery, equipment or tools, or involving handling or transport of heavy loads; iv) in unhealthy environments exposing children to hazardous substances, agent, or processes, or temperature, noise or vibration damaging to health; or v) under difficult conditions such as work for long hours, during the night or in confinement on the premises of the employer.
 - The contractor will be required to verify and list the age of all workers. Workers will be required to provide official documentation, such as a birth certificate, national identity card, or school records (if relevant).
- If a child under the minimum age is found to be working for the project, actions will be taken to immediately terminate the employment or engagement of the child in a responsible manner, considering the best interests of the child
- Promote fair treatment, non-discrimination, and equal opportunity in selection of their workers.
- Provide specific measures, as appropriate, to vulnerable workers such as women and persons with disabilities.
- Contractors will be required to establish a worker grievance redress mechanism. Workers may file complaints through a formal channel provided by their employers (as required in the bidding documents) or informally through their worker representatives, OHS officers in charge or contractor management, and it is expected to handle the complaint. However, if the complaint cannot be resolved at the contractor management level, it may be escalated to the district/province level (according to the work location). The workers' grievance redress mechanism will be socialized to the contracted workers as part of the induction and will be refreshed at least every once every six months as relevant. All received grievances will be investigated and resolved in a timely and transparent manner.
- The project will conduct regular field inspection to monitor and assess the performance and compliance of the contractors against the labor laws and regulations. The inspection will cover issues include but not limited to child labor, workers' health and safety, working hours, compensation and benefits, etc. Findings from the field inspection will be

followed up with appropriate mitigation measures to be implemented by the contractors within an agreed timeline. Contractors may receive penalties e.g. warning letter, temporary contract termination, permanent contract termination and black-list, if they fail to address the findings.

Occupational Health and Safety

- Identify health and safety hazard from working sequence, working area and working condition and provide the control measures prior to the implementation of working activity.
- Conduct safety briefing / toolbox meeting prior to daily work activity.
- Ensure that the workers are capable or having sufficient skill to perform the work. For example, certified operator for heavy equipment, certified expert for electrical installation, if applicable.
- Conduct HSE orientation, periodic HSE awareness and SOP training to all workers, relevant to hazards of their working activities.
- Provide sufficient protection to equipment and electrical installation (i.e. machine guarding, safety arrestor, insulation, grounding).
- Implement stop work policy for any unsafe condition, action or behavior that may potentially lead to incident/accident.
- No employee should be exposed to a noise level greater than 85 dB(A) for a duration of more than 8 hours per day without hearing protection
- The use of hearing protection should be enforced actively when the equivalent sound level over 8 hours reaches 85 dB(A), the peak sound levels reach 140 dB(C), or the average maximum sound level reaches 110dB(A)
- Protection against vibration should be controlled through choice of equipment, installation of vibration dampening pads or devices, and limiting the duration of exposure
- Entry into all confined spaces should be restricted and subject to permitted supervision by properly trained persons
- Store combustible materials in a secure and well-ventilated storeroom
- Provide resources for daily HSE inspection, first aider, appropriate to the number of worker and level of risk.

Infection/Disease Prevention

- Provide and regularly maintain a proper sanitation facility for the civil work worker, separated from the healthcare workers', patients' and visitors' facilities (i.e., toilet, cleaning/washing facility, waste bin, clean water supply facilities).
- Provide and socialize infection and disease control policies and procedures to all workers.

- For COVID-19, conduct screening of vaccinated worker, periodic Covid-19 test, health screening (i.e., temperature and symptoms report), and limitation on the number of workers in the same working area.
- Socialize and implement grievance mechanisms, accessible to all workers.
- Report any unsafe condition, unsafe behavior, near-miss, incident and accident, following the defined communication/reporting lines.

Emergency Response

- Identify potential emergency situation (i.e., fire, earthquake, riot), potential affected parties, and prepare an emergency preparedness and response plan (ERP).
- Establish the emergency response team, emergency call tree, emergency evacuation route, and coordinate with relevant government authorities.
- Display the evacuation map and the emergency contact channel at easily visible locations.
- Conduct periodic socialization, training and drill of the ERP, participated by relevant affected parties.

SEA/SH Prevention

- Request for Code of Conduct on the prevention SEA/SH and GBV within the bidding document to the Contractor during the procurement stage.
- Implement Code of Conduct for prevention of SEA/SH and GBV during implementation stage, applicable to all workers.
- Especially for female workers, the Project will ensure that work implementation will occur in public spaces and in groups or not conducted alone.
- Project to implement additional measures (i.e., sanction) to prevent any negative interactions between the incoming workers with the community (i.e., harassment, safety hazards, security, communicable diseases, etc.).

Confidential grievance mechanism is provided, if community prefers to raise on SEA/SH and GBV related issues in a secretive manner. Additional measures shall be implemented by the Project to prevent any negative impact to the reporter of this SEA/SH and GBV related grievance.

Annex 2: Occupational Health and Safety Good Practices

Safety during Equipment Transport, Operation and Maintenance⁶

The primary supplier will be entrusted with the responsibility of transporting and distributing medical equipment to the selected healthcare facilities at the sub-national level. It is important to note that the mishandling of these devices, especially ones that contain hazardous substances, or use of improper vehicles may lead to moderate to substantial health and safety hazards for workers and communities in close proximity. The following are suggested measures to minimize these risks:

- Medical products should be transported in accordance with the conditions stated on the labels. There should be no risk to the quality of the medical product during transport and distribution.
- Product, batch and container identity should be maintained at all times.
- All labels should remain legible.
- Distribution records should be sufficiently detailed to allow for a recall when required.
- Drivers of vehicles should be identified and present appropriate documentation to demonstrate that they are authorized to transport medical products.
- Vehicles should be suitable for their purpose, with sufficient space and appropriately equipped to protect medical products.
- The design and use of vehicles and equipment must aim to minimize the risk of errors and permit effective cleaning and/or maintenance to avoid contamination, build-up of dust or dirt and/or any adverse effect on the quality of the products.
- Where feasible, consideration should be given to adding technology, such as global positioning system (GPS) electronic tracking devices and engine-kill buttons to vehicles, which would enhance the security and traceability of vehicles with products.
- Where possible, dedicated vehicles and equipment should be used for medical products. Where non-dedicated vehicles and equipment are used, procedures should be in place to ensure that the quality of the products will not be compromised. Defective vehicles and equipment should not be used. These should either be labelled as such or removed from service.
- There should be procedures in place for the operation and maintenance of all vehicles and equipment.
- Equipment and materials used for the cleaning of vehicles should not become a source of contamination or have an adverse effect on product quality.
- Appropriate environmental conditions should be maintained, monitored and recorded during the equipment transportation /delivery activity. All monitoring records should be kept for a defined period of time as required by national legislation. Records of monitoring data should be made available for inspection by the regulatory or other oversight body.
- Instruments used for monitoring conditions, for example, temperature and humidity, within vehicles and containers should be calibrated at regular intervals.

⁶ WHO Drug Information 2019, vol. 33, 2

- Measures should be in place to prevent unauthorized persons from entering and/or tampering with vehicles and/or equipment, as well as to prevent the theft or misappropriation thereof.
- Shipment containers should have no adverse effect on the quality of the medical products and should offer adequate protection to materials and these products. Containers should be labelled indicating, for example, handling and storage conditions, precautions, contents and source, and safety symbols, as appropriate.
- Special care should be taken when using dry ice and liquid nitrogen in shipment containers due to safety issues and possible adverse effects on the quality of medical products.
- Written procedures should be available for the handling of damaged and/or broken shipment containers. Particular attention should be paid to those containing potentially toxic and hazardous products.

The use of medical equipment procured by the project poses a low to moderate probability of serious adverse effects to human health and/or the environment, including exposure of potential hazardous substances from operation of the medical equipment to medical personnel, health facilities workers, and patients. Good practices on general facility operation, including medical equipment operations include, but not limited to:

- Ensuring that the manual book for equipment operations from producers and suppliers of medical equipment is fully understood by the health personnel (operators). The manual book should be available in the facility in case of malfunction, improper use of equipment, and other emergency situations.
- Performing regular maintenance of medical equipment according to manual book. If necessary, the facility shall engage a qualified professional and/or third-party to conduct the regular equipment maintenance, including inspection.
- All equipment and storage that may contain substances that are hazardous as a result of chemical or toxicological properties, or temperature or pressure, should be labeled as to the contents and hazard, or appropriately color coded. The information on the label should be in accordance with international standards and be well known to, and easily understood by health personnel and the general public, as necessary.
- Provide adequate supplies of PPE for personnel involved in the equipment operation.
- Provisions should be made to provide OHS training for healthcare personnel to ensure they are apprised of the basic rules of work at the healthcare facility and of personal and public protection.
- Monitoring and record-keeping activities, including audit procedures designed to verify and record the effectiveness of prevention and control of exposure to occupational hazards, and maintaining accident and incident investigation reports on file for a period.
- In the cases of emergencies and accidents, the healthcare facilities shall prepare an emergency response plan:
 - Emergency response and evacuation plans with adequate information (this information should be displayed in obvious locations and clearly written in relevant languages).

- Plans to train healthcare facility workers on fire drills for fire emergency response plan and other types of emergencies. This plan to consider specific measures for mitigation/evacuation of vulnerable people, including people with disabilities. Project to provide and socialize emergency response contact numbers. This contact number and emergency procedures to be socialized and displayed at easily visible locations.
- Documentation of availability of specific personal protective equipment and training needed to respond to an emergency.
- Qualified first-aid focal points and relevant equipment available at all times.

[Safety during Medical Waste Handling⁷](#)

During day-to-day healthcare facility operations, health care providers and personnel may be exposed to general infections, blood-borne pathogens, and other potential infectious materials during care and treatment, as well as during collection, handling, treatment, and disposal of health care wastes. This may include glutaraldehyde (toxic chemical used to sterilize heat sensitive medical equipment), ethylene oxide gas (a sterilant for medical equipment), formaldehyde, mercury (exposure from broken thermometers), chemotherapy and antineoplastic chemicals, solvents, and photographic chemicals, among others. Common hazardous substances that workers may be exposed to are as follows:

- **Waste Anesthetic Gas (WAG):** Health care workers may be at risk of toxic exposure to nitrous oxide; the halogenated agents, halothane (fluothane), enflurane (ethrane), isoflurane (forane); and other substances typically used as inhalation anesthetics. Recommended measures to control exposure to waste anesthetic gas (anesthetic gas used in the operating room for example) include use of a scavenging unit attached to the anesthesia unit. The scavenging unit may have a charcoal filter that absorbs waste halogenated anesthetic gases, but not nitrous oxide. Spent charcoal filters should be disposed of as hazardous waste. If there is no scavenging unit, or if the scavenging unit does not have a filter, vacuum lines are used to collect WAGs which are subsequently vented outside and dispersed.
- **Radiation:** occupational radiation exposure may result from equipment emitting X-rays and gamma rays (e.g., CT scanners), radiotherapy machines, and equipment for nuclear medicine activities. HCF operators should develop a comprehensive plan to control radiation exposure in consultation with the affected workforce. Under the project, this plan can be integrated as part of the equipment operation plan which should be refined and revised as soon as practicable on the basis of assessments of actual radiation exposure conditions, and radiation control measures should be designed and implemented accordingly. Training to be given to the potentially impacted workers, in addition to the preventive measures (i.e., exposure time limit, distance limit, shielding barrier or devices, personal radiation badge). The training of operators on release prevention, including drills specific to hazardous

⁷ IFC Environmental, Health, and Safety Guidelines on health care facilities

materials as part of emergency preparedness response training. A follow-up health check may need to be conducted for these workers.

The following measures are recommended to reduce the risk of transferring infectious diseases to health care providers:

- Formulate an exposure control plan for blood-borne pathogens.
- Provide staff members and visitors with information on infection control policies and procedures.
- Establish Universal/Standard Precautions to treat all blood and other potentially infectious materials with appropriate precautions, including:
 - Immunization for staff members as necessary (e.g., vaccination for hepatitis B virus).
 - Use of gloves, masks, and gowns.
 - Adequate facilities for hand washing. Hand washing is the single most important procedure for preventing infections (e.g., nosocomial and community). Hand washing should involve use of soap/detergent, rubbing to cause friction, and placing hands under running water. Washings of hands should be undertaken before and after direct patient contacts and contact with patient blood, body fluids, secretions, excretions, or contact with equipment or articles contaminated by patients. Washing of hands should also be undertaken before and after work shifts; eating; smoking; use of personal protective equipment (PPE); and use of bathrooms. If hand washing is not possible, appropriate antiseptic hand cleanser and clean cloths / antiseptic towelettes should be provided. Hands should then be washed with soap and running water as soon as practical
 - Procedures and facilities for handling dirty linen and contaminated clothing and preparing and handling food.
 - Appropriate cleaning and waste disposal practices for the health care workplace
- The following recommendations should be implemented when using and handling needles / sharps:
 - Use safer needle devices and needleless devices to decrease needlestick or other sharps exposures.
 - Do not bend, recap, or remove contaminated needles and other sharps unless such an act is required by a specific procedure or has no feasible alternative.
 - Do not shear or break contaminated sharps
 - Discard contaminated sharps immediately or as soon as feasible into appropriate containers.
 - Used disposable razors should be considered contaminated waste and disposed of in appropriate sharps containers.

In addition to the above recommendations, the following measures are applicable to personnel involved in waste management to reduce the risk of transferring infectious diseases:

- Implement immunization for staff members, as necessary (e.g., vaccination for hepatitis B virus, tetanus immunization).
- Provide adequate supplies of PPE for personnel involved in waste management including overalls/ industrial aprons, leg protectors, boots, heavy duty gloves, helmets, visors / face masks and eye protection (especially for cleaning of hazardous spills), and respirators (for spills or waste involving toxic dust or incinerator residue) as necessary.
- Provide washing facilities for personal hygiene, particularly at waste storage locations.

The following measures are recommended to reduce the risk of electrical and fire hazard:

- **Electrical safety:** relevant measures include:
 - all electrical equipment to be checked for its electrical cords, cables, and power tools for frayed or exposed cords and follow the manufacturer recommendations for the maximum permitted operating voltage of the power tools.
 - Installation of electrical fittings for medical equipment to be conducted by the supplier/manufacturers or by electrical experts following the safety procedures suggested in the manufacturer's manuals.
 - Sufficient protection (i.e., insulation, grounding, overcurrent protection) to be provided to the electrical installation.
- **Fire safety:** the risk of fire in health care facilities is significant due to the storage, handling, and presence of chemicals, pressurized gases, boards, plastics, and other flammable substrates. Recommendations for fire safety include:
 - Installation of smoke alarms and sprinkler systems.
 - Maintenance of all fire safety systems in proper working order, including self-closing doors in escape routes and ventilation ducts with fire safety flaps.
 - Training of staff for operation of fire extinguishers and evacuation procedures.
 - Storing flammables away from ignition sources and oxidizing materials.
 - Providing specific worker training in handling of flammable materials, and in fire prevention or suppression.
 - Provision of manual firefighting equipment that is easily accessible and simple to use.
 - Identification of the potential fire hazard and to provide equipment for fire prevention and control appropriate to the potential hazards (i.e., from chemicals, hazardous material/waste, electrical sparks, etc.), that is accessible and well maintained and display the fire escape route at easily visible locations.
 - Implementation of inspection programs to maintain the fire safety system at the healthcare facilities.
 - Development of facility fire prevention or emergency response and evacuation plans with adequate guest information (this information should be displayed in obvious locations and clearly written in relevant languages).

Annex 3: Healthcare Waste Management Good Practices

Wastes from health care facilities can be divided into two separate categories: i) hazardous health care wastes, and ii) general wastes, similar in composition to domestic wastes generated during administrative, housekeeping, and maintenance functions.

Medical Waste

All health care facilities shall have an adequate facility-specific medical waste management system in place prior to receiving new medical equipment. The CPMU/PMUs and the Mapping Working Group shall assess the appropriateness of the system, ensuring their adherence to national and local medical waste management regulations, as well as good practices. The assessment shall consist of, but not limited to:

- The identification of type, volume, characteristic, and hazards of the medical waste (i.e., infectious, non-infectious, hazardous waste)
- Waste segregation strategies. Infectious and/or hazardous wastes should be identified and segregated according to its category using a color-coded system. If different types of waste are mixed accidentally, waste should be treated as hazardous.
- On-site handling, collection and storage system.
- Information about the waste transportation. If the medical waste will be transported to external facilities, the information on the off-site facilities should be recorded. This includes the collection of administration documents and technical requirements during waste transportation.
- Information on whether the medical waste will be treated and disposed on-site or off-site the healthcare facility. If the facilities use on-site treatment such as incineration plant, the project shall incorporate the pollution prevention and control measures, required documents, training plan into the waste management plan. For off-site treatment and disposal, the identification and information of the transporter and handler shall be included.
- Emergency preparedness response plan, equipment, and training in handling medical waste.
- Adequate occupational health and safety implementation plan. This includes information on infection control policies and procedures, adequate supplies of PPE for personnel involved in waste management, and washing facilities for personal hygiene, particularly at waste storage locations.
- Periodic medical health surveillance plan for the health personnel and waste handlers that may be exposed to general infections, blood-borne pathogens, and other potential infectious material during collection, handling, treatment, and disposal of medical waste.

The facility should have established clear definitions of roles, responsibilities, and codes of practice assigned to personnel who will be engaged in waste segregation, storage, and handling as part of their daily duties, as well as the person in charge of monitoring the implementation of waste management within the facility. Additionally, special practices such as handling of radioactive waste or hazardous chemical waste shall be clearly defined and assigned to trained personnel.

The monitoring plan of the implementation of waste handling as well as the records on occupational accidents and diseases might include regular visual inspection of all waste storage collection and storage areas and to verify that wastes are properly labeled and stored, keeping manifests or other records that document the amount of waste generated and its destination, periodic auditing of third-party treatment, and disposal services when significant quantities of hazardous wastes are managed by third parties.

Continuous training and capacity development are strongly advised, particularly for personnel directly involved in the management of healthcare waste. This ESMF includes international best practices on medical waste management, detailed in Annex 2, which can serve as resources for guiding capacity-building initiatives. It is recommended that the CPMU, with assistance from the E&S focal point and E&S consultants, thoroughly review these materials and strategically plan and execute capacity-building activities as necessary.

Electronic Waste

The project will also support the procurement of telemedicine enabled equipment and the digitization of healthcare facilities. This initiative aims to aid MoH in realizing its health transformation agenda, specifically for digital transformation. Additionally, the project will procure ICT equipment to further improve data management and reporting of healthcare services. Consequently, the implementation may involve replacements of existing equipment, leading to the generation of electronic waste.

Electronic waste or E-waste is any electronic items or equipment which no longer needed (whether still functioning or broken) and which is intended to be discarded. This type of waste is categorized as hazardous waste due to the various hazardous and toxic materials such as lead, mercury, arsenic, cadmium, selenium and chrome that the waste may contain. Hazardous waste included e-waste as a specific waste which need special treatment. Without a proper disposal management, this e-waste can cause negative impact to the human health and environment.

The following are list of some electrical and electronic equipment relevant to Information Technology (IT) and Telecommunications equipment which subject to e-waste disposal management once they will be removed or discarded:

- Centralized data processing systems: mainframes, mini computer
- Personal computing:
 - Personal computer (Central Processing Unit with input and output devices)
 - Laptop (Central Processing Unit with input and output devices)
 - Notebook computers
 - Notepad computers
- Printer including cartridge
- Copying equipment
- Scanner
- UPS and Batteries
- Electrical and electronic typewriter
- User terminal and systems
- Facsimile

- Telephones, including smart phone

The government is responsible for hazardous waste management. The Law No 32/2009 on Protection and Management of the Environment and the Law no 18/2008 on Solid Waste Management cover in general the need to manage hazardous waste from all sources. The government need to ensure that the e-waste is handled properly as per Government Regulation No. 27 of 2020 on Specific Waste. For any goods including electronic equipment which was procured under government funds will be registered as government/state assets (Barang Milik Negara-BMN) on which removal of these assets are subject to Minister of Finance Regulation PMK No 83/PMK.06/2016 on Procedure for Implementation of Disposing State assets. Pending official notification of removal of used equipment from the list of the State assets, all used equipment (including e-waste) will be placed in storage. The used equipment which are categorized as e-waste should be put in separate box/container and labelled “hazardous waste” or “B3”. Once the goods (including used electronic equipment or e-waste) are declared removed from the registration list then it will be ready to follow disposal procedure under the e-waste disposal management.

The following summarizes the procedure for e-waste disposal management as per national regulations:

1. Separate the e-waste from other waste.
2. Place the e-waste in “Dropbox” container or other proper container with labelled “hazardous waste”
3. Pending process of removal of the IT used equipment from the list of State Assets (BMN), the e-waste in the container will be placed in the storage room.
4. Once obtain notification/clearance that the item has been delisted and depend on the condition of the item (in particular, for computer or lap top) at the time of delisted, subsequently the item can be treated as follows:
 - Donate to appropriate institutions for further use; or
 - Transport the e-waste to the E-Waste Shelter: Dropping Point/Temporary Collection Facility (determined by the local government); or
 - “Trade in”. Prior arrangement needs to be made during procurement of the electronic equipment. The vendor/supplier will remove the old/used equipment upon delivery of new equipment. The Vendor/supplier will be responsible for the e-waste management;
 - Invite a certified waste collector company to collect the e-waste for disposal (note: certain fee may apply).

General Waste

Non-hazardous or general waste is waste that has not been in contact with infectious agents, hazardous chemicals or radioactive substances and does not pose sharp hazard. Non-hazardous waste is usually similar in characteristics to municipal solid waste. More than half of all non-hazardous waste from healthcare facilities is paper, cardboard and plastics, while the rest comprises discarded food, metal, glass, textiles, plastics and wood. It is important to ensure that general wastes are segregated from hazardous substances and stored in separate containers. This separation will minimize potential risks of contamination and facilitates safe disposal procedures. The management of general waste should be carried out in close coordination with local environmental agencies, or as outlined by national regulations.

Efficient Management of Healthcare Waste

As part of an operation plan, each health facility shall establish, operate, and maintain a health care waste management system, commensurate to the scale and types of activities and identified hazards. Within each healthcare facilities, facility operators shall undertake regular assessment of waste generation quantities and categories to facilitate waste management planning and identify measures to reduce wastes on a continuous basis. Health care waste management system shall consist of the following components:

Waste Minimization, Reuse and Recycling

Health care facilities shall consider practices and procedures to minimize waste generation, without sacrificing patient hygiene and safety considerations, covering:

- Source reduction measures
 - Consider options for product/material substitution to avoid products containing hazardous materials that require the product to be disposed as hazardous or special waste (i.e., mercury or aerosol cans) and preferring products with less packaging or products that weigh less than comparable products that perform the same functions.
 - Use of physical rather than chemical cleaning practices (i.e., use of microfiber mops and cloths) where such practices do not affect disinfection and meet relevant standards for hygiene and patient safety.
- Waste toxicity reduction measures
 - Consider options for product/material substitution for equipment containing mercury or other hazardous chemicals, products that may become hazardous waste when disposed, products made of polyvinyl chloride (PVC)⁸, halogenated compounds, products that off-gas volatile organic compounds (VOCs), or products that contain persistent, bio-accumulative, and toxic (PBT) compounds, products that contain substances that are carcinogenic, mutagenic, or reproductive toxins (CMR).
 - Use of efficient stock management practices and monitoring and monitoring (i.e., for chemical and pharmaceutical stocks) including i) small/frequent orders for products that spoil quickly and strict monitoring of expiry dates; ii) complete use of old products before new stock is used.
 - Maximization of safe equipment reuse practices, including reuse of equipment following sterilization and disinfection (e.g., sharps containers).

Waste Segregation

⁸ Products made of PVC may include intravenous (IV) bags, blood bags, and tubing, basins, hemodialysis equipment, patient identification bracelets, bedpans, inflatable splints, respiratory therapy products, stationary supplies, catheters, lab equipment, drip chambers, medical gloves, thermal blankets, internal feeding devices, and packaging. When burned at certain temperatures, PVC has the potential to release dioxins and furans, and other persistent organic pollutants (POPs).

Wastes should be disaggregated at the point of generation. Non-hazardous wastes, such as paper and cardboard, glass, aluminum, and plastic, should be collected separately and recycled. Food wastes should be segregated and composted. Infectious and/or hazardous wastes should be identified and segregated according to its category using a color-coded system as described in Table 7 below. In the event of accidental mixing, such wastes shall be treated as hazardous. Other segregation considerations include the following:

- Avoid mixing general healthcare waste with hazardous health care waste to reduce disposal costs.
- Segregate waste containing mercury for special disposal. Management of mercury containing products and associated waste should be conducted as part of a plan involving specific personnel training in segregation and clean up procedures.
- Segregate waste with a high content of heavy metals (i.e., cadmium, thallium, arsenic, lead) to avoid entry into wastewater streams.
- Separate residual chemicals from containers and remove to proper disposal containers to reduce generation of contaminated wastewater. Different types of hazardous chemicals should not be mixed.
- Establish procedures and mechanisms to provide for separate collection of urine, feces, blood, vomits and other wastes from patients treated with genotoxic drugs.
- Aerosol cans and other gas containers should be segregated to avoid disposal via incineration and related explosion hazard.
- Segregate health products containing PVC to avoid disposal via incineration (refer to air emissions) or in landfills.

On-site Handling, Collection, Transport and Storage

- Seal and replace waste bags and containers when they are approximately three quarters full. Full bags and containers should be replaced immediately.
- Identify and label waste bags and containers properly prior to removal (refer Table 7).
- Transport waste to storage areas on designated trolleys/carts, which should be cleaned and disinfected regularly.
- Waste storage areas should be located within the facility and sized to the quantities of waste generated, with the following design considerations:
 - Hard, impermeable floor with drainage, and designed for cleaning / disinfection with available water supply.
 - Secured by locks with restricted access.
 - Designed for access and regular cleaning by authorized cleaning staff and vehicles.
 - Protected from sun, and inaccessible to animal/rodents.
 - Equipped with appropriate lighting and ventilation.
 - Segregated from food supplies and preparation areas.

- Equipped with supplies of protective clothing, and spare bags/containers.
- Unless refrigerated storage is possible, storage times between generation and treatment of waste should not exceed 48 hours during cool season, 24 hours during hot season.
- Store mercury separately in sealed and impermeable containers in a secure location.
- Store cytotoxic waste separately from other waste in a secure location.
- Store radioactive waste in containers to limit dispersion and secure behind lead shields.

Transport to External Facilities

- Transport waste destined for off-site facilities according to the guidelines for transport of hazardous wastes/dangerous goods as stipulated in Table 7.
- Transport packaging for infectious waste should include an inner, watertight layer of metal or plastic with a leak-proof seal. Outer packaging should be of adequate strength and capacity for the specific type and volume of waste.
- Packaging containers for sharps should be puncture-proof.
- Waste should be labeled appropriately, noting the substance class, packaging symbol (e.g., infectious waste, radioactive waste), waste category, mass / volume, place of origin within healthcare facilities, and final destination.
- Transport vehicles should be dedicated to waste and the vehicle compartments carrying waste sealed.

Table 7. Treatment and Disposal Methods for Categories of Health Care Wastes

Types of Wastes	Summary of Treatment and Disposal Options
Infectious wastes, including wastes suspected to contain pathogens (i.e., bacteria, viruses, parasites, fungi) in sufficient concentration or quantity to cause disease in susceptible hosts. These include pathological and anatomical materials (i.e., tissues, organs, body parts, human fetuses, animal carcasses, blood, and other body fluids), clothes, dressings, equipment/instruments, and other items that may have come into contact with infectious materials.	<p>Waste segregation: yellow or red-colored bag/container, marked “infectious” with international infectious symbol. Strong, leak proof plastic bag, container capable of being autoclaved.</p> <p>Treatment: chemical disinfection, wet thermal treatment, microwave irradiation, safe burial on permitted premises, sanitary landfill, incineration (rotary kiln, pyrolytic incinerator, single-chamber incinerator, drum, or brick incinerator. Highly infectious waste, such as cultures from lab work should be sterilized using wet thermal treatment, such as autoclaving. Anatomical waste should be treated using incineration.</p>
Sharps, including needles, scalpels, blades, knives, infusion sets, saws, broken glass, and nails, etc.	<p>Waste segregation: yellow or red color code, marked “sharps”. Rigid, impermeable,</p>

	<p>puncture-proof container (i.e., steel, or hard plastic) with cover. Sharps containers should be placed in a sealed, yellow bag labelled as “infectious waste”.</p> <p>Treatment: chemical disinfection, wet thermal treatment, microwave irradiation, encapsulation, safe burial on permitted premises, incineration (rotary kiln, pyrolytic incinerator, single-chamber incinerator, drum, or brick incinerator).</p> <ul style="list-style-type: none"> - Following incineration, residues should be landfilled. - Sharps disinfected with chlorinated solutions should not be incinerated due to risks of generating Persistent Organic Pollutants (POPs). - Needles and syringes should undergo mechanical mutilation (e.g., milling or crushing) prior to wet thermal treatment.
<p>Pharmaceutical wastes including expired, unused, spoiled, and contaminated pharmaceutical products, drugs, vaccines, and sera that are no longer needed, including containers and other potentially contaminated materials (e.g., drug bottles vials, tubing etc.).</p>	<p>Waste Segregation: Brown bag / container. Leak-proof plastic bag or container.</p> <p>Treatment: Sanitary landfill, encapsulation, discharge to sewer, return expired drugs to supplier, incineration (rotary kiln; pyrolytic incinerator), safe burial on permitted premises as a last resort.</p> <ul style="list-style-type: none"> - Small quantities: Landfill disposal acceptable, however cytotoxic, and narcotic drugs should not be landfilled. Discharge to sewer only for mild, liquid pharmaceuticals, not antibiotics or cytotoxic drugs, and into a large water flow. Incineration acceptable in pyrolytic or rotary kiln incinerators, provided pharmaceuticals do not exceed 1 percent of total waste to avoid hazardous air emissions. Intravenous fluids (e.g., salts, amino acids) should be landfilled or discharged to sewer. Ampoules should be crushed and disposed of with sharps. - Large quantities: Incineration at temperatures exceeding 1,200 °C.

	<p>Encapsulation in metal drums. Landfilling not recommended unless encapsulated in metal drums and groundwater contamination risk is minimal.</p>
<p>Genotoxic / cytotoxic waste: Genotoxic waste may have mutagenic, teratogenic, or carcinogenic properties, and typically arises from the feces, urine, and vomit of patients receiving cytostatic drugs, and from treatment with chemicals and radioactive materials. Cytotoxic drugs are commonly used in oncology and radiology departments as part of cancer treatments.</p>	<p>Waste Segregation Strategy: See above for “infectious waste”. Cytotoxic waste should be labeled “Cytotoxic waste”.</p> <p>Treatment: Return expired drugs to supplier, chemical degradation; encapsulation, inertization, incineration (Rotary kiln, pyrolytic incinerator):</p> <ul style="list-style-type: none"> - Cytotoxic waste should not be landfilled or discharged to sewer systems. - Incineration is preferred disposal option. Waste should be returned to suppliers where incineration is not an option. Incineration should be undertaken at specific temperatures and time specifications for particular drugs. Most municipal or single chamber incinerators are not adequate for cytotoxic waste disposal. Open burning of waste is not acceptable. - Chemical degradation may be used for certain cytotoxic drugs. - Encapsulation and inertization should be a last resort waste disposal option.
<p>Chemical waste: Waste may be hazardous depending on the toxic, corrosive, flammable, reactive, and genotoxic properties. Chemical waste may be in solid, liquid, or gaseous form and is generated through use of chemicals during diagnostic / experimental work, cleaning, housekeeping, and disinfection. Chemicals typically include formaldehyde, photographic chemicals, halogenated and non-halogenated solvents, organic chemicals for cleaning / disinfecting, and various inorganic chemicals (e.g., acids and alkalis).</p>	<p>Waste segregation: Brown bag/container. Leak-proof plastic bag or container resistant to chemical corrosion effects.</p> <p>Treatment: Return unused chemicals to supplier, encapsulation, safe burial on permitted premises, incineration (pyrolytic incinerator):</p> <ul style="list-style-type: none"> - Facilities should have permits for disposal of general chemical waste (e.g., sugars, amino acids, salts) to sewer systems. - Small hazardous quantities: Pyrolytic incineration, encapsulation, or landfilling. - Large hazardous quantities: Transported to appropriate facilities for disposal or returned to the original supplier using

	<p>shipping arrangements that abide by the Basel Convention. Large quantities of chemical waste should not be encapsulated or landfilled.</p>
<p>Radioactive waste: Includes solid, liquid, and gaseous materials that have been contaminated with radionuclides. Radioactive waste originates from activities such as organ imaging, tumor localization, radiotherapy, and research/clinical laboratory procedures, among others, and may include glassware, syringes, solutions, and excreta from treated patients.</p>	<p>Waste Segregation: Lead box, labeled with the radioactive symbol.</p> <p>Treatment: Radioactive waste should be managed according to national requirements and current guidelines from the International Atomic Energy Agency. IAEA (2003). Management of Waste from the Use of Radioactive Materials in Medicine, Industry and Research. IAEA Draft Safety Guide DS 160, 7 February 2003.</p> <p>Under the project, generation of radioactive materials is assessed as low.</p>
<p>Waste with high content of heavy metals: Batteries, broken thermometers, blood pressure gauges, (e.g., mercury and cadmium content)</p>	<p>Waste Segregation: Waste containing heavy metals should be separated from general health care waste.</p> <p>Treatment: Safe storage site designed for final disposal of hazardous waste. Waste should not be burned, incinerated, or landfilled. Transport to specialized facilities for metal recovery.</p>
<p>Pressurized containers: Includes containers / cartridges / cylinders for nitrous oxide, ethylene oxide, oxygen, nitrogen, carbon dioxide, compressed air and other gases.</p>	<p>Waste Segregation: Pressurized containers should be separated from general health care waste.</p> <p>Treatment: Recycling and reuse; crushing followed by landfill · Incineration is not an option due to explosion risks. Halogenated agents in liquid form should be disposed of as chemical waste, as above.</p>
<p>General health care waste (including food waste and paper, plastics, cardboard)</p>	<p>Waste Segregation: Black bag / container. Halogenated plastics such as PVC should be separated from general health care facility waste to avoid disposal through incineration and associated hazardous air emissions from exhaust gases (e.g., hydrochloric acids and dioxins).</p>

	Treatment: Disposal as part of domestic waste. Food wastes should be segregated and composted. Component wastes (e.g., paper, cardboard, recyclable plastics [PET, PE, PP], glass) should be segregated and sent for recycling.
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Pollution Control and Prevention

Emission to Air

Sources of air emissions at healthcare facilities may include exhaust air from heating, ventilation, and air conditioning (HVAC) systems, ventilation of medical gases and fugitive emissions released from sources such as medical waste storage areas, medical technology areas, and isolation wards.

Emissions may include exhaust from medical waste incineration if this waste management option is selected by the facility⁹. In addition, air emissions may result from combustion related to power generation. Exhaust air (e.g., from medical technology areas, including isolation wards, laboratories, and waste storage and treatment facilities) may be potentially contaminated with biological agents, pathogens, or other toxic materials, and should be treated by conveying the exhaust air to combustion air to render it non-toxic and non-contagious before discharge. Condensate and blowdown liquids should be classified as health care wastewater and treated accordingly (refer to the wastewater section). A stack sufficiently tall to eliminate odor nuisances and optimize dispersion should be used. Further guidelines can be referenced in the World Bank Group General EHS Guidelines.¹⁰

Incineration: Healthcare facilities, commonly hospitals, may be equipped with their own incinerator facility, which is the major source of emissions to air and wastewater. Typically, only a relatively small portion of medical waste should be incinerated, and the need for a medical waste incinerator should be carefully evaluated against other technologies and techniques for waste management and disposal. Pollutants potentially emitted from incinerators include:

- Heavy metals.
- Organics in the flue gas, which can be present in the vapor phase or condensed or absorbed on fine particulates.
- Various organic compounds (e.g., polychlorinated dibenzop-dioxins and furans [PCDD/Fs], chlorobenzenes, chloroethylenes, and polycyclic aromatic hydrocarbons [PAHs]), which are generally present in healthcare facility waste or can be generated during combustion and post-combustion processes.

⁹ Controlled-air incineration (also referred to as pyrolytic, starved-air, two-stage incineration, or modular combustion) is the most widely used HWI technology. Single-chamber and drum / brick incinerators should be used only as a last resort option.

¹⁰https://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines

- Hydrogen chloride (HCl) and fluorides, and potentially other halogens-hydrides (e.g., bromine and iodine).
- Typical combustion products such as sulfur oxides (SOX), nitrogen oxides (NOX), volatile organic compounds (including non-methane VOCs) and methane (CH₄), carbon monoxide (CO), carbon dioxide (CO₂), and nitrous oxide (N₂O).

Pollution prevention and control measures include:

- Application of waste segregation and selection including removal of the following items from waste destined for incineration: halogenated plastics (e.g., PVC), pressurized gas containers, large amounts of active chemical waste, silver salts and photographic / radiographic waste, waste with high heavy metal content (e.g., broken thermometers, batteries), and sealed ampoules or ampoules containing heavy metals.
- Incinerators should have permits issued by authorized regulatory agencies and be operated and maintained by trained employees to ensure proper combustion temperature, time, and turbulence specifications necessary for adequate combustion of waste. This includes implementation of operational controls including combustion and flue gas outlet temperatures (combustion temperatures should be above 850 °C while flue gases need to be quenched very quickly to avoid formation and reformation of POPs) as well as use of flue gas cleaning devices meeting international standards.

Secondary air pollution control measures for medical waste incinerators include the following:

- Wet scrubbers to control acid gas emissions (e.g., hydrochloric acid [HCl]), sulfur dioxide [SO₂, and fluoride compounds]). A caustic scrubbing solution will increase the efficiency for SO₂ control.
- Control of particulate matter may be achieved through use of cyclones, fabric filters, and / or electrostatic precipitators (ESP). Efficiencies depend on the particle size distribution of the particulate matter from the combustion chamber. Particulate matter from incinerators is commonly between 1.0 to 10 micrometers (µm). ESPs are generally less efficient than baghouses in controlling fine particulates and metals from HWI.
- Control of volatile heavy metals depends on the temperature at which the control device operates. Fabric filters and ESP typically operate at relatively high temperatures and may be less effective than those that operate at lower temperatures. Venturi quenches and venturi scrubbers are also used to control heavy metal emissions. The volatile heavy metals usually condense to form a fume (less than 2 µm) that is only partially collected by pollution control equipment.
- Management of incineration residues such as fly ash, bottom ash and liquid effluents from flue gas cleaning as hazardous waste as they may contain high concentrations of POPs.

Wastewater:

Process Wastewater: wastewater from health care facilities often has a quality similar to urban wastewater. Contaminated wastewater may result from discharges from medical wards and operating theaters (e.g., body fluids and excreta, anatomical waste), laboratories (e.g., microbiological cultures, stocks of infectious agents), pharmaceutical and chemical stores; cleaning activities (e.g., waste storage rooms), and x-ray development facilities. The project shall prevent

wastewater from entering and polluting the environment, especially to natural water that is used as community water source.

Wastewater may also result from treatment disposal technologies and techniques, including autoclaving, microwave irradiation, chemical disinfection, and incineration (e.g., treatment of flue gas using wet scrubbers which may contain suspended solids, mercury, other heavy metals, chlorides, and sulfates). Depending on the effectiveness of hazardous waste management practices (in particular waste segregation strategies described above), hazardous health care wastes may enter the wastewater stream, including microbiological pathogens (wastewater with a high content of enteric pathogens, including bacteria, viruses, and helminthes/parasitic worms), hazardous chemicals, pharmaceuticals, and radioactive isotopes. Pollution prevention measures to minimize the generation of wastewater include the following:

- Waste segregation measures should be employed to minimize entry of solid waste into the wastewater stream, including:
 - Procedures and mechanisms for separate collection of urine, feces, blood, and vomit from patients treated with genotoxic drugs to avoid their entry into the wastewater stream (as described above under waste segregation for hazardous and other wastes).
 - Collection of large quantities of pharmaceuticals for separate treatment or return to manufacturers. Small quantities of mild, liquid pharmaceuticals, excluding antibiotics or cytotoxic drugs, may be discharged to sewer systems with a large water flow.
- If wastewater is discharged to municipal sewage treatment systems (if available), the healthcare facilities shall ensure that wastewater characteristics are in compliance with all applicable standards and that the municipal facility is capable of handling the type of effluent discharged.
- If on-site wastewater treatment is required, healthcare facility operators shall ensure that wastewater receives on-site primary and secondary treatment, in addition to chlorine disinfection. Techniques for treating wastewater in this sector include source segregation and pretreatment for removal/recovery of specific contaminants such as radio isotopes, mercury, etc., skimmers or oil water separators for separation of floatable solids, filtration for separation of filterable solids, flow and load equalization, sedimentation for suspended solids reduction using clarifiers; biological treatment, typically aerobic treatment, for reduction of soluble organic matter (BOD); biological or chemical nutrient removal for reduction in nitrogen and phosphorus; chlorination of effluent when disinfection is required; dewatering and disposal of residuals as hazardous medical / infectious waste.

Additional engineering controls may be required for (i) removal of active ingredients (antibiotics and miscellaneous pharmaceutical products, among other hazardous constituents), and (ii) containment and treatment of volatile constituents and aerosols stripped from various unit operations in the wastewater treatment system. Wastewater generated from use of wet scrubbers to treat air emissions should be treated through chemical neutralization, flocculation, and sludge settling. Sludge should be considered hazardous and may be treated off-site in a hazardous waste facility or encapsulated in drums with mortar and landfilled. Sludge treatment should include anaerobic digestion to ensure destruction of helminths and pathogens. Alternatively, it can be dried in drying beds before incineration with solid infectious wastes.

Annex 4: Code of Conducts

4.1. Manager's Code of Conduct

Managers Code of Conduct

In Implementing Health, Safety, and Environment Standards and Prevention of Gender-Based Violence

Managers at all levels have the responsibility to uphold the company's commitment to implement ESHS and OHS standards, as well as preventing and addressing SEA and VAC issues. This means that managers have the responsibility to create and maintain an environment that respects these standards and prevents Sexual Exploitation and Abuse (SEA) and Violence Against Children (VAC) issues. Managers must support and promote the implementation of the Company's Code of Conduct. Therefore, managers must comply with this Code of Conduct for Managers and sign the Code of Conduct for Individuals. This forces them to support the implementation of the OHS standards and develop a system that facilitates the implementation of the Action Plan on SEA and VAC issues. They need to maintain a safe workplace, as well as an SEA-free and VAC-free environment in the workplace and in the local community. These responsibilities include but not limited to:

Implementation

To ensure maximum effectiveness of the Code of Conduct for Contractors/Vendors and Individuals:

- Where applicable, clearly display the Contractor and Individual Code of Conduct in the workers' camps, offices, and in the public areas of the workspace. Examples of these areas include waiting rooms, break rooms and on-site lobbies, canteen areas and health clinics.
- Where applicable, ensure that copies of the Company and Individual Code of Conduct submitted and distributed are translated into the appropriate language of the area of the workplace as well as for any international staff in their native language

Verbally and in writing explain the Code of Conduct for Contractors/Vendors and Individuals to all staff. Make sure that:

- Everybody reports in person and sign the 'Individual Code of Conduct', including an acknowledgment that they have read and agree with the Code of Conduct.
- The list of staff and signed copies of the Individual Code of Conduct are submitted to the OHS Coordinator, the Grievance handling officer, and the PIU Manager/E&S team.
- Participate in training and ensure that staff also participate as described below.
- Create a mechanism for staff to:
 - Report concerns about ESHS or OHS compliance; and,
 - Confidentially report SEA or VAC incidents through the Feedback and Grievance Redress Mechanism (FGRM).

Staff are encouraged to report suspected or actual ESHS, OHS, SEA or VAC issues, emphasize staff responsibilities to the Company and the country where they work, and emphasize respect for confidentiality. In accordance with applicable laws and to the best of their ability, prevent perpetrators of sexual exploitation and abuse from being hired, recruited or deployed. Use background checks and criminal referral lists for all employees. Make sure that when involving partnerships, sub-contractors, suppliers or similar agreements, this agreement shall:

- Include ESHS, OHS, and Code of Conduct related to SEA and VAC as annexes.
- Include appropriate language that requires contracting entities and natural persons, and their employees and volunteers, to comply with the Code of Conduct for Individuals.
- Clearly state that the agency or the individual, as appropriate, to ensure compliance with ESHS and OHS standards, is taking preventive measures against SEA and VAC, to investigate suspected violations, or to take corrective action in the event of an SEA or VAC, which will not only be the basis for sanctions and penalties in accordance with the Code of Conduct for Individuals but also termination of the agreement to work on or supply to the project.

Provide supports and resources to the Grievance Team to create and disseminate internal sensitivity initiatives through an awareness-raising strategy based on the SEA and VAC-related Action Plan. Ensure that SEA or VAC issues that require police action to be taken are reported to the police, PIU/PMO and the World Bank immediately. because managers have a responsibility to uphold company commitments and are responsible for their direct reports. Ensure that any major ESHS or OHS incidents are reported promptly to the client and the supervisory engineer.

Training

Managers are responsible to:

- Ensure the OHS standards is implemented, with appropriate training required for all staff, including sub-contractors and suppliers; and,
- If relevant, ensure that staff have an appropriate understanding of C-ESMP and receive training where necessary to apply C-ESMP requirements.

All managers are required to attend an induction training course for managers prior to commencing on-site work to ensure that they understand their roles and responsibilities in enforcing the SEA and VAC elements of this Code of Conduct. The training will be separated from the job introduction training course required for all employees and will provide managers with the necessary understanding and technical support to address SEA and VAC issues. Managers are required to attend and assist project-facilitated training courses for all employees. Managers will be requested to introduce training and announce self-evaluations, including collecting satisfaction surveys to evaluate training experience and provide suggestions to improve training effectiveness. Ensure that time is provided (for training?) during working hours and that prior to starting work on site, staff attend mandatory job introduction training facilitated by the project regarding:

- OHS and ESHS; and,
- SEA and VAC required for all employees.

Response

Managers will be required to take appropriate action to address ESHS or OHS incidents:

- Provide input for Action Plans related to SEA and VAC as needed.
- Once adopted by the contractor, the manager will uphold the measures set forth in the Action Plan regarding the SEA and VAC to maintain the confidentiality of all employees who report or (are suspected to) commit SEA and VAC incidents (unless disclosure of confidentiality is necessary to protect persons or property from the threat of serious harm or where required by law).

- If a manager has any concerns or suspicions regarding an SEA or VAC incident through one of his/her direct reports, or through the report of an employee working for another contractor at the same job site, he or she shall be required to report the case using FGRM.
- Once sanctions have been established, the relevant manager is expected to be personally responsible for ensuring that the measures related to the violation are effectively enforced, within a maximum period of 14 days from the date the decision to impose sanctions is made.
- If a Manager has a conflict of interest due to a personal or family relationship with the survivor and/or perpetrator, he or she must notify his/her company and the SEA Grievances Team. The company will be requested to appoint another manager who does not have a conflict of interest to respond to the grievance.
- Ensure that SEA or VAC issues that require police action to be taken are reported to the police, PIU/PMO and the World Bank immediately.

Managers who fail to address ESHS or OHS incidents or fail to report or comply with SEA and VAC requirements may be subject to disciplinary actions, which is determined and enforced by the CEO, Company Managing Director or the equivalent highest-ranking manager. The measures may include:

- Unofficial warning;
- Official warning;
- Additional training;
- Payroll deduction of up to one week;
- Suspension of work (either on administrative leave as above or without payment of salary), for a minimum period of one month to maximum six months;
- Termination of employment.

In the end, failure to respond effectively to cases of ESHS, OHS, SEA and VAC at the workplace by company managers or the CEO can provide grounds for legal action by the authorities.

I hereby acknowledge that I have read the above Code of Conduct for Managers, agree to comply with the standards contained therein and understand my role and responsibility to prevent and respond to ESHS, OHS, SEA and VAC requirements. I understand that any action that is inconsistent with this Code of Conduct for Managers or failure to act as mandated by this Code of Conduct for Managers may result in disciplinary actions.

Signature:

Printed Name:

Position:

Date:

4.2. Contractor/Vendor's Code of Conduct

Supplier/Vendor or Contractor Code of Conduct

In Implementing Health, Safety, and Environment Standards and Prevention of Gender-Based Violence

The Company, (Company Name), is committed to ensuring that the Project minimize negative impacts on the surrounding environment, communities, and workers. This will be done by implementing Health, Safety, and Environment standards, and ensuring Occupational Health and Safety standards and prevention of gender-based violence in accordance with the laws and regulations. (Company name) is also committed to protecting children under the age of 18 by creating and maintaining a safe and violence-free environment, as well as ensuring that there are no incidents of sexual exploitation and abuse and sexual violence. All inappropriate acts against children, including exploitation, abuse and sexual violence, constitute violence against children. Therefore, all parties involved in the project, including workers, contractors, suppliers, partners, or company representatives are not allowed to commit these actions.

The Company is committed to implementing the following basic principles and minimum standards of behavior. These minimum standards of behavior will apply to all parties involved in the project, without exception:

General

1. (Company Name) including its employees, colleagues, representatives, subcontractors and suppliers — committed to complying with all applicable national and local laws, rules and regulations.
2. (Company Name) is committed to fully implementing the minimum standards of behavior as stipulated in the code of conduct.
3. (Company Name) is committed to treating women, children¹¹ (individuals under the age of 18), and men regardless of race, color, language, religion, political or other opinion, nationality, ethnicity or social status, or other status. Any action that is not in accordance with the rules set out in this code of conduct is considered a violation of this commitment.
4. (Company Name) must ensure that interactions with members of the surrounding community are respectful, non-discriminatory and free from violence.
5. All parties in the project are prohibited from using degrading, threatening, harassing, abusive, inappropriate or sexually provocative language and behavior.
6. (Company Name) will follow all appropriate work instructions/rules (including environmental and social norms).
7. (Company Name) will protect and ensure proper use of the property (e.g. prohibiting theft, carelessness or waste).

Health and safety

8. (Company Name) will ensure that the project's OHS standards is effectively implemented by the staff, workers, and all parties involved in the project.
9. (Company Name) will ensure that everyone on the job site wears appropriate personal protective equipment provided on site, prevents avoidable accidents, and reports conditions or events that can potentially create a safety hazard or threaten the environment.
10. (Company Name) will:
 - a. prohibit consumption of alcohol during work activities.

¹¹ Referring to the Committee on the Rights of the Child (CRC)

- b. prohibit the use of narcotics and illegal drugs or other materials that can interfere with work activities.
- 11. (Company Name) will ensure that adequate water and sanitation facilities are available on site and can be used by workers at the project site.
- 12. (Company Name) will not hire children under the age of 18 for construction work and/or domestic work, or allow them on the job site, due to the hazardous construction site.

Gender Based Violence

- 13. Gender-based violence is a serious violation and must be sanctioned. Sanctions can be given in the form of punishment and/or termination of employment, and if necessary, can be reported to the Police if cases have entered the realm of law.
- 14. Any form of gender-based violence is unacceptable, regardless of whether it occurs in the workplace, around the workplace, or in the surrounding community.
- 15. Sexual harassment of workers and staff (e.g. by flirting, making unwanted sexual advances, and other verbal or physical behavior of sexual nature, or sexual gestures or written messages) is a form of gender-based violence that is strictly prohibited for all parties in the project.
- 16. Prohibition of promising or giving rewards with the aim of obtaining sexual rewards (e.g. promising promotions, or threatening to terminate employment), making in kind or cash payments for the purpose of obtaining sexual rewards and any other forms of exploitative behavior.
- 17. Prostitution in any form and at any time at work or in the surrounding community is strictly prohibited.
- 18. Sexual contact or activity with children under 18 years old — including through digital media, is strictly prohibited. The lack of information or a misunderstanding about the age of the child cannot be used as an excuse/justification for cases of violence that occur. Moreover, consent from the child cannot be used as an excuse/justification for cases of violence.
- 19. In addition to being sanctioned by the company, perpetrators of gender-based violence can also be prosecuted if they are proven to have done so.
- 20. All employees, workers, and parties involved in other projects are strongly encouraged to report allegations or acts of gender-based violence and violence against children committed by fellow workers, both in the same company/institution or in different companies/institutions. Reports must be made in accordance with the project's existing gender-based violence reporting procedure.
- 21. The project manager (project leader) is required to report and handle gender-based violence, whether it is suspected or already occurring, because the project manager has the responsibility to not only implement the company's commitments, but also to hold workers accountable in fulfilling their obligations with regards to the relevant rules.

Implementation

To ensure that the principles above are effectively implemented, the company is committed to:

- 22. Ensuring that all managers sign the project's 'Managers Code of Conduct' detailing their responsibilities to implement company commitments and enforce responsibilities in the 'Individual Code of Conduct'.
- 23. Ensuring that all employees sign the project's 'Individual Code of Conduct' confirming their agreement to comply with the Health, Safety, and Environment standards, as well as

ensuring Occupational Health and Safety (OHS) standards, and not engaging in activities that result in gender-based violence, violence against children, or sexual exploitation and abuse/sexual harassment.

24. Displaying the Company's Code of Conduct and Individuals in the office and public areas in the workplace. Such as waiting areas, rest areas and lobbies, canteen areas and health clinics.
25. Appointing/selecting the right workers to be nominated as the company's focal point or person in charge to handle SEA/SH or GBV and VAC cases
26. Ensuring that (Company Name) effectively implements the agreed code of conduct, monitors and evaluates its implementation and provides appropriate final reports to the appointed PIU and World Bank.
27. Ensuring that all employees and workers undergo induction training prior to starting work on site to ensure they understand (Company Name)'s commitment to comply with Health, Safety, and Environment and OHS standards, and the project's Code of Conduct for Gender-Based Violence.
28. Ensuring that all employees and workers attend training or information dissemination activities related to SEA/SH or GBV/VAC, including daily briefings or trainings to increase understanding of project health, safety, and environment standards and OHS as well as code of conduct for gender-based violence.

I hereby acknowledge that I have read the Company's Code of Conduct above, and on behalf of the company agree to comply with all the provisions that have been determined. I understand my role and responsibility to support the implementation of the project's Health, Safety, and Environment and OHS standards, and the prevention of gender-based violence and violence against children. I understand that any action that is not in line with the Company's Code of Conduct may result in disciplinary action and legal repercussions.

Institution Name* :

Name of Institution Officer :

Position in the Institution :

Date :

Signature (and Seal) :

Stamp duty 10,000

* Company name is the name of the contractor/vendor company selected to carry out construction work

4.3. Individual Worker Code of Conduct

Individual Worker Code of Conduct

In Implementing Health, Safety, and Environment Standards and Prevention of Gender-Based Violence

I, the undersigned, as presented below, understand that compliance with the implementation of Health, Safety, and Environment (HSE) standards and the Prevention of Gender-Based Violence

(GBV) and Violence Against Children (VAC) in all project activities must be carried out. The project is committed to implementing a code of conduct for health, safety, and environment standards, as well as the prevention of gender-based violence and violence against children; be it at the work site, in the environment around the work location, and/or in the community. Failure to follow these standards is considered to be a serious violation and sanctions will be imposed, ranging from warnings, punishments or termination of employment. If it is categorized as a criminal act, the perpetrator of the violation can be prosecuted by law (police).

I agree to do the following while implementing the project:

1. Comply with all the rules and conditions set out in the project code of conduct
2. Wear personal protective equipment (PPE) when on the job site or when involved in project activities.
3. Comply with the zero alcohol policy during work activities and not use narcotics, drugs or other substances that can interfere with or impair work ability at any time.
4. Attend and actively participate in training and/or information dissemination related to Health, Safety, and Environment (HSE) and the prevention of gender-based violence organized by the company where I work.
5. Respect diversity and treat all individuals, including women, children (under the age of 18), and men with respect regardless of culture, ideas, opinions, limitations, gender, ethnicity, origin, political beliefs, religious beliefs, generation, civic status, social class, sexual orientation, and education level.
6. Not use inappropriate language or behave inappropriately towards everyone, including women, and children, such as being rude, sexually harassing, degrading or other actions that are inappropriate for local or general culture.
7. Not committing sexual exploitation to fellow workers and/or to members of the surrounding community.
8. Do not sexually harass fellow workers and/or members of the surrounding community, either verbally or sexually, making the person feel offended, humiliated and/or intimidated. For example, teasing, sexist jokes, inviting/forcing others to perform unwanted sexual acts, including giving personal gifts to obtain sexual rewards.
9. Do not promise anything favorable (e.g. promotions), or make threats (e.g. threats of losing your job) or pay in kind or money, for sexual favors.
10. Do not use prostitution in any form and at any time in the workplace or the environment around the workplace.
11. Do not engage in/be involved in sexual activity with children under the age of 18 including teaching or contact through digital media. Misunderstanding of the age of the child cannot be considered as a defense/justification for the violence. In addition, the consent of the child cannot be used as a defense or justification for the violence.
12. Will not engage in sexual interactions with community members around the project, including relationships that involve lucrative promises (can be in the form of money or goods) to community members in exchange for sex (including prostitution). Such sexual activity is not justified within the scope of this code of conduct.
13. Will report to superiors or through existing reporting channel mechanisms about all actions related to gender-based violence or other forms of violation of the code of conduct, both for suspected cases or cases committed by colleagues.
14. Provide approval for background checks carried out by the local police (police record certificate or Minutes of Investigation-BAP), if proven to have violated the code of conduct.

For children under the age of 18:

1. Inform superiors if children are found at the project site or if children are involved in hazardous activities.
2. Whenever possible, ensuring there are other adults working in areas close to children.
3. Will not invite children (non-family) to work or labor camps without being accompanied by an adult, unless they are injured or are in physical danger while being accompanied by an adult familiar to the child.
4. Do not use computers, mobile phones, video and digital cameras or other media to exploit or abuse children or access child pornography sites.
5. Avoid corporal punishment or discipline on children who enter the project area.
6. Will not hire children under the age of 18 in the project, even for domestic work.
7. Comply with all relevant national and local laws and regulations, including labor laws related to child labor.
8. Be careful when photographing or videoing children, whether for project activities or for personal use. This action must be approved by the accompanying adult.

Sanctions

I understand that if I violate the provisions set out in this code of conduct, I will be subject to disciplinary action and will be given sanctions which may include:

1. Informal warning.
2. Formal warning.
3. Termination of employment.
4. Legal process (report to the police), if necessary.

I understand that I am responsible for complying with all the provisions set out in the code of conduct, by avoiding all actions or behavior that can be classified as gender-based violence and violence against children. I hereby declare that I have read the provisions in the individual code of conduct and understand my role and responsibility to prevent all prohibited acts, and I understand that any action that is inconsistent with this individual code of conduct may result in disciplinary action that may affect the work contract in place. Therefore, I agree to comply with all of these terms.

Appendices

List of Workers who have signed the code of conduct

No	Name	Date	Signature
1			
2			
3			
4			
5			
6			

Annex 5: Minutes and Documentation from Public Consultation of Environmental and Social Safeguard Documents

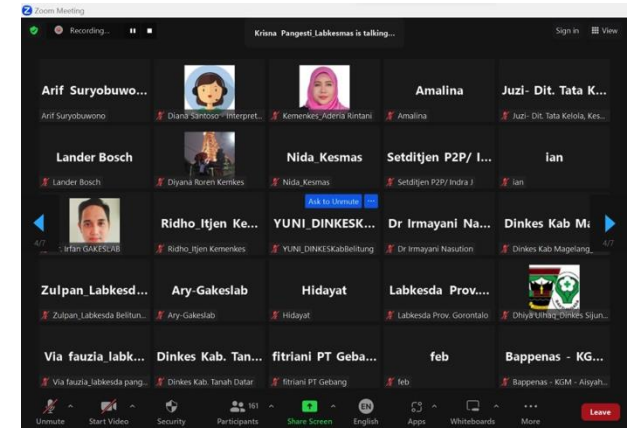
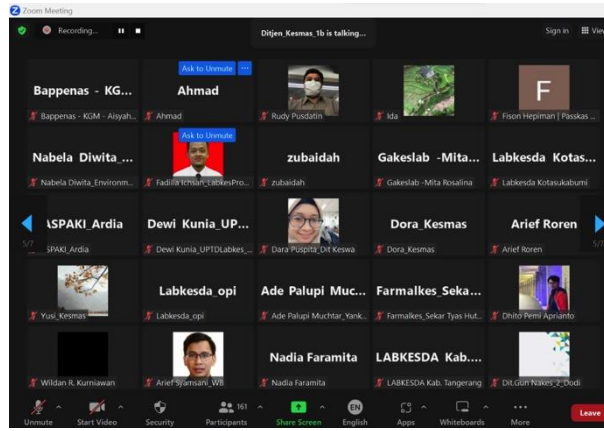
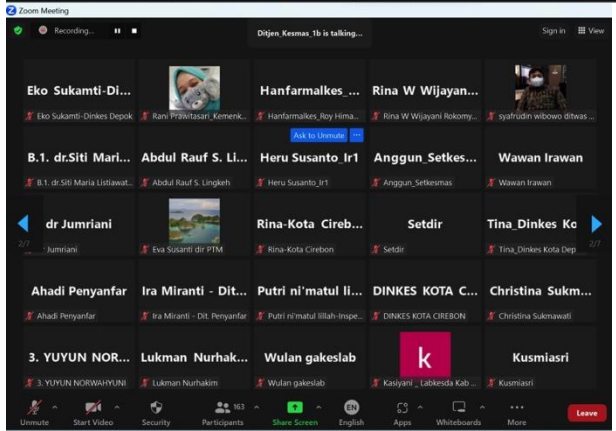
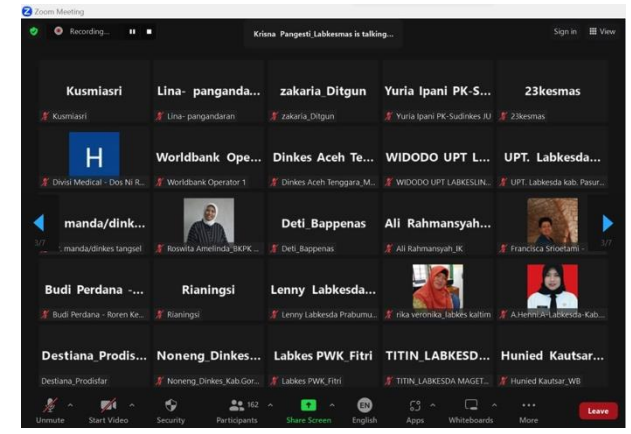
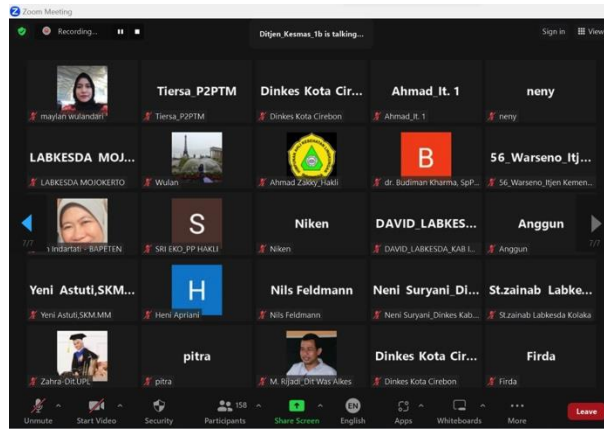
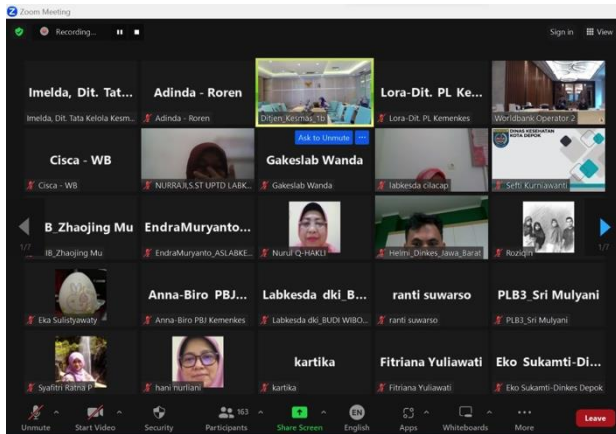
- Date and time : Friday, 6 October 2023 14.30 – 12.00 WIB
- Platform : Webinar Zoom
- Participants : 180 participants in the webinar
- Lead for the Public Consultation : Liendha Andajani, Head of the Planning and Budgeting Bureau
- Moderator : Budi Perdana, Head of the Loans and Grants Team, Planning and Budgeting Bureau

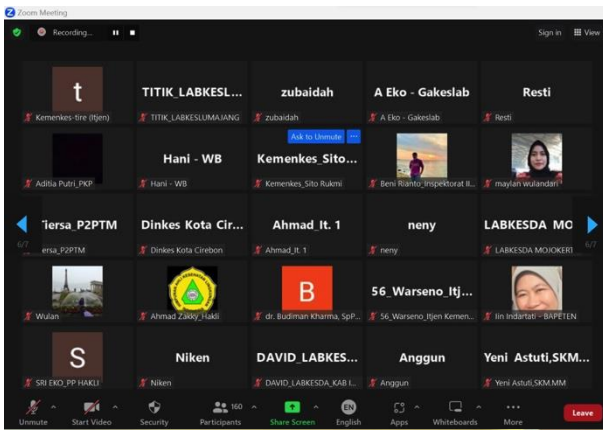
Participants	Minutes
<p>National Institutions: Kemenkes, Bappenas, Bapeten</p> <p>Local Institutions: Dinkes Kab. Sijunjung, Dinkes Kab. Gorontalo Utara, Dinkes Kab. Belitung, Dinkes Kota Cirebon, Dinkes Kota Bukittinggi, Dinkes Prov. Riau, Dinkes Kab. Siak, Dinkes Kab. Kaimana, Dinkes Kota Sukabumi, Dinkes Prov Kalimantan Timur, Dinkes Kab. Pangandaran, Dinkes Kab. Pasuruan, Dinkes Kota Depok, Dinkes Kab. Lumajang, Dinkes Kab. Purwakarta, Dinkes Kab. Pati, Dinkes Kab. Tangerang, Dinkes Kab. Kolaka, Dinkes Kab. Prabumulih, Dinkes Kab. Magetan, Dinkes Prov. DKI Jakarta, Dinkes Kab. Minahasa Utara, Dinkes Kab. Aceh Tenggara, Dinkes Kota Tangerang Selatan, Dinkes Prov. Jawa Barat, Dinkes Kota Cirebon, Dinkes Kab. Cilacap, Dinkes Kota Tual, Dinkes Kab. Bone, Dinkes Kab. Batang, Dinkes Kab. Magelang, Dinkes Prov. Sulawesi Tengah, Dinkes Kab. Probolinggo, Dinkes Kota Balikpapan, Dinkes Kota Jakarta Utara, Dinkes Kab. Poso, ASLABKESDA Indonesia, Gakeslab, PT Gebang Surya Harapan, PP HAKLI, KGTK, ASPAKI, Pusat Kebijakan Kesehatan Global dan Teknologi Kesehatan (PKKGTK), PDS PatKLI, PT Dos Ni Roha, FIND</p>	<p style="text-align: center;">Presentation</p> <ol style="list-style-type: none"> 1. Background of the Project. The project’s objective to increase access to healthcare services and lower the mortality rate in Indonesia through the procurement and equal distribution of medical equipment. 2. Health transformation pillars. Project activities will aim to transform (1) primary health services; (2) referral services; (3) health resilience system; (4) health funding system; (5) human resources in health services; (6) healthcare technology 3. Project activities are divided into 3: (1) SOPHI; (2) InPULS; (3) SIHREN. 4. SOPHI. Scope of activities under SOPHI includes the procurement of 196 types of equipment for local clinics (puskesmas, pustu, posyandu) 5. InPULS. Scope of activities under InPULS includes the procurement of 128 types of equipment for tier 2-5 health labs 6. SIHREN. Scope of activities under SIHREN includes the procurement of 33 types of equipment for Cancer, Heart, Stroke, and Uro-Nephrology services in hospitals 7. Project Timeline. The project will start in 2024 until 2028. 8. The potential environmental and social risks and impacts associated with the project includes medical waste, fire and accident from equipment operations, increased greenhouse gas emissions, OHS risks, and gender-based violence 9. The ESMF document. Generally, identifies potential social and environmental risks or impacts when implementing SOPHI, SIHREN, and InPULS activities and also its mitigation efforts. Emphasize from MOH to Fasyankes to pay attention to management of environmental and social 10. Stakeholder Engagement Plan. Identifies and map project stakeholders and ensure the inclusiveness and transparency of project activities. Additional information that engagement with vendor will also conducted for 3-4 years of project implementation. MOH request for Puskesmas and Labkesda inputs for optimization of medical equipment and its benefit for communities. 11. FGRM. MOH have prepared channels and mechanisms for complaints (through Halo Kemkes and LAPOR) that may be communicated by the community or the parties involved or stakeholders during the project implementation process. 12. Environmental and Social Commitment Plan. The document lists MOH’s commitment to manage environmental and social risks 13. Link to uploaded ESCP, ESMF and SEP drafts for stakeholders input <p style="text-align: center;">Next Steps</p> <ol style="list-style-type: none"> 1. The relevant ES safeguard documents will be socialized to project beneficiaries during project implementation

Question and Answers Session

Question / Suggestion	Response
<p>1. What are the documents that need to be prepared for the Environmental & Social of project preparation?</p> <p>2. Can the Labkesda (regional health laboratory) choose not to receive the equipment, since there is no more space in the existing infrastructure?</p> <p>(Rika, Labkesda Kalimantan Timur)</p>	<p>1. Colleagues attending the public consultation are not required to prepare any additional documents for Environmental & Social. The Environmental & Social documents have been prepared by the Ministry of Health (MOH) as the project's executing agency, signifies that the MOH is prepared to conduct this project. The beneficiaries only need to fill in the proposal for medical equipment that is requested by the central, upload it to the link, and provide the commitment letter of able to provide the supporting facilities for the equipment that will be distributed</p> <p>2. The facilities are allowed to opt out from receiving the equipment. The local government will only needs to provide a Statement Letter to indicate that the region does not require an equipment assistance</p>
<p>1. Our laboratory lacks funds for calibration, can this be supported by the project?</p> <p>(Nurruji, Labkesda Sijunjung)</p>	<p>1. For the calibration funds, this will be supported by the Takelkesmas team to find other sources of funds. This can also be asked to Labkesda at Provincial level and borrow from the Labkesda that owned the calibration equipment</p>
<p>1. What active role should vendor do in regards to the documents?</p> <p>2. Are there any aspects to consider in fulfilling the program?</p> <p>(Mita, Gakeslab)</p>	<p>1. Vendor role is important. Vendor role is required, for example during the delivery of medical equipment, the vendor must ensure that during distribution all are safe and prevented from occupational accidents, relevant to the ESMF document. Vendor is also expected to be involved in providing training for the equipment operation in accordance with the SEP document.</p>
<p>1. What is the mechanism/channel for submitting the documents?</p> <p>(Wanda, Gakeslab)</p>	<p>1. There is no requirement of submitting the Environmental & Social documents. Through this public consultation the MOH asked for the participants for suggestion to the Environmental & Social documents. All critiques and suggestion can be shared through the link http://link.kemkes.go.id/konsultasipublikHSS that will remain opens for the next 7 days. Next, if there is any critiques and suggestion for the overall project can be submitted through HaloKemenkes and Lapor.go.id</p>
<p>1. Suggestion to MOH to embrace all parties since cross-program and cross-sector synergies are needed in this project</p> <p>(Endra, Labkesda)</p>	<p>-</p>
<p>1. Many health and non-health workers are working in the health facilities, therefore there will be many risks that are related with their works. Please to expand the training program to also include the non-health workers</p> <p>(Sri Eko, HAKLI)</p>	<p>-</p>
<p>1. The result from this public consultation will be included in the ES document as well as the critiques and inputs received from the participant to improve the ES documents, prior to finalization</p> <p>(Ms. Cisca, WB)</p>	<p>-</p>

Photographic Documentation of the Public Consultation conducted 6th October 2023.





DAFTAR ISI

- Latar Belakang Proyek & Gambaran Umum Proyek
- Kerangka Kerja Pengelolaan Lingkungan dan Sosial (ESMF)
- Rencana Pelibatan Pemangku Kepentingan (SEP)
- Rencana Komitmen Lingkungan dan Sosial (ESCP)

13

REKORDEBAN KESEHATAN INDONESIA

DIRJEN KESEHATAN RI

ESEHATAN

