REPUBLIC OF LEBANON

MINISTRY OF PUBLIC HEALTH

PRIMARY HEALTHCARE DEPARTMENT

LEBANON HEALTH RESILIENCE PROJECT

SOCIAL AND ENVIRONMENTAL SAFEGUARDS FRAMEWORK

BEIRUT

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Abbreviations and Acronyms

AEC	Arcenciel
CDR	Council for Development and Reconstruction
COM	Council of Ministers
COR	Critical Organization Requirements
CSO	Civil Society Organization
EHS	Environmental, Health and Safety
EPHRP	Emergency Primary Healthcare Restoration Project
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
ESM	Environmental and Social Management
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
GCFF	Global Concessional Financing Facility
GRM	Grievance Redress Mechanism
HC	Health care
HCWMP	Health Care Waste Management Plan
HIS	Health Information System
HSE	Health, Safety and Environment
IBRD	International Bank for Reconstruction and Development
ICU	Intensive care Unit
IEE	Initial Environmental Examination
IFC	International Finance Corporation
IFP	Investment Project Financing
IHCW	Infectious Healthcare Waste
I-RAT	Individualized Rapid Assessment Tool
IsDB	Islamic Development Bank
ISWM	Integrated Solid Waste Management
IT	Information Technology
LHRP	Lebanon Health Resilience Project
M&E	Monitoring and Evaluation

MoE	Ministry of Environment
MoPH	Ministry of Public Health
NCD	Non Communicable Diseases
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
OHS	Occupational Health and Safety
OP	Operational Policy
OSHA	Occupational Health and Safety Act
PAD	Project Appraisal Document
PDO	Project Development Objective
PHCC	Primary Health Care Centers
PMU	Project Management Unit
POPs	Persistent Organic Pollutants
PPE	Personal Protective equipment
SAFE	Sustainable Alternative For the Environment
SORT	Systematic Operation Risk-Rating Tool
TOR	Terms of Reference
UHC	Universal Health Coverage
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
UNHCR	United Nations High Commissioner for Refugees
WB	World Bank
WHO	World Health Organization
WMP	Waste Management Plan

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Executive Summary

This report analyses the environmental and social impacts associated with activities undertaken by Lebanon Health Resilient Project (LHRP) and provides a framework for social and environmental management.

Description of the Project

Lebanon Health Resilience Project (LHRP) complements and adds to the objectives of the Emergency Primary Healthcare Restoration Project (EPHRP) that was initiated by the Ministry of Public Health (MoPH) in 2015 with the support of the World Bank (WB). It has a total budget of 120 M $US and a duration of 6 years (from 23 June 2017 to 30 June 2023). The total LHRP cost is 120 M $US provided by International Bank for Reconstruction and Development (IBRD). The Islamic Development Bank (IsDB) will provide parallel financing in the amount of 30 M $US.[1]

The main components of the project are the following:

Component 1: Scaling up the scope and capacity of the PHC UHC program (US$76.5 million).

This component builds on and scales up the ongoing EPHRP which provides subsidized package of Primary Health Care (PHC) services to poor Lebanese through capitation payment mechanisms. This project aims to expand and strengthen the ongoing Universal Health Coverage (UHC) program to reach a larger number of beneficiaries with a more comprehensive package of enrollment-based preventive health services to meet the growing needs of poor and vulnerable Lebanese. The displaced Syrians will benefit from the increased network of participating primary healthcare facilities as well as the expanded package of health services to be provided by the increased network. It is expected that the number of displaced Syrians that will access the centers and the scaled up package of services under various subsidy mechanisms will increase from 130,000 to 375,000. More specifically, this component will:

- Scale up the provision of capitation payments to participating Primary Health Care Centers (PHCCs) for delivery of output based packages of essential health services to vulnerable Lebanese, as elaborated in the respective Health Service Provider Agreements. This will increase the number of Lebanese receiving subsidized PHC services from 150,000 to 340,000 and the number of contracted network PHCCs from 75 to 204.
- Strengthen the capacities of participating PHCCs for provision of quality healthcare services, through: (i) expanding the scope of said output-based packages of essential health services to include, inter alia, core preventive and curative healthcare services in areas such as reproductive health, non-communicable disease case management, healthcare for the elderly, general wellness, mental health and provision of medication to patients; (ii) improving the technical, managerial and physical capacities of participating PHCCs for delivery of said output based packages of essential health services; (iii) supporting communications and outreach to targeted communities to facilitate enrolment and/or access to said output-based packages of essential health services; and (iv) strengthening the accreditation program to, inter alia, include all participating PHCCs.

Component 2: Provision of health care services in public hospitals (US$36.4 million).

This component will finance:

- Provision of special capitation payments to participating public hospitals for delivery of medical and paramedical services to uninsured Lebanese and delivery of emergency healthcare services to eligible beneficiaries, as elaborated in the respective Health Service Provider Agreements.
- Strengthening of the technical and organizational capacities of participating public hospitals for provision of quality healthcare services, through: (a) provision of training to clinical and nonclinical

[1] Project Appraisal Document for Lebanon Health Resilience Project, WB, June 13, 2017

staff; and (b) strengthening the health information management system targeting participating public hospitals, participating PHCCs and the MoPH.

Component 3: Strengthening project management and monitoring (US$6.8 million).

This component will finance:

- Strengthening the capacities of the MoPH and Project Management Unit (PMU) for implementation, coordination and management of activities under the project (including, inter alia, procurement, financial management, technical and financial audits, environmental and social safeguards, grievance redress mechanisms, monitoring and evaluation, health information management, supervision and reporting aspects), all through the provision of consulting services, non-consulting services, training and workshops, operating costs, and acquisition of goods for the purpose.
- Carrying out of a comprehensive assessment of hospitals focusing on accuracy of hospital case mix, use of hospitalization data in medical auditing, development of performance indicators incorporating actual patient outcomes, resource allocation decisions, and institutional/organization structures, so as to identify gaps and make recommendations for improvement. Results of the assessments will inform the MoPH in refining their hospital contracting reforms to ensure more efficient reimbursement system. Implementation of revised contracting measures is contingent on legislative approvals by the government.
- Carrying out of an independent evaluation of project activities and results. An independent project evaluation will be conducted to assess the achievements of the project on household service utilization and the capacity of providers to deliver services effectively and cost efficiently.

IsDB Parallel Financing: Procurement of essential equipment in a set of public hospitals entailing scaling up and replacing critical equipment

Baseline

The MoPH conducted a quick assessment of waste management in 213 PHCCs and 31 public hospitals in an attempt to assess the situation of infectious waste. The assessment revealed that 80.5% of surveyed PHCCs sort their medical waste, however there is an uncertainty in the proper disposal of infectious waste. Regarding hospitals, results revealed that 70% of the contacted hospitals hand their infectious wastes to specialized companies. Hence, the quick assessment reveals that proper measures of segregation and disposal are not always followed by the PHCCs and hospitals that will benefit from LHRP.[2]

Policy, Legal and Institutional framework for ESM

Lebanon has a number of sector policies and strategies upon which the Project is based. These are the Health Strategic Plan (2016-2010), the Environment Policy and in particular the solid waste policy (2018). Lebanon also has an abundance of environmental laws and regulations as well as other legislations related to the health care sector namely the Environment Protection Law 444 of 2002 and its EIA Decree no. 8633 of 2012, Decree 8471 of 2012 on Environmental Audit, Decree 8006 (2002) and its amendment by Decree 13389 (2004) for healthcare waste, Circular 11/2011 on reporting to MoE by health care facilities managing hazardous infectious waste, Decision 1/1294 (2018) and 1/1295 (2018) that regulate infectious waste, Decree 167 (2017) for tax exemption on environmental-friendly goods, Law 48 (2017) on Private Public Partnership, circular 7/1 (2017) listing the institutions for disposal of potentially recyclable material and equipment, Hospital Accreditation and Healthcare waste collection and disposal companies' accreditation and authorization.

Lebanon has ratified several international agreements namely, the Basel Convention on transboundary movement of hazardous wastes, the Stockholm Convention on POPs, the Minamata convention on Mercury and the Barcelona Convention for the Protection of the marine environment and the coastal region of the

[2] Information provided by MoPH

Mediterranean Sea and the United Nations Framework Convention on Climate Change. As a WB Project funded, LHRP triggers OP/BP 4.01 and Environmental, Health and Safety General Guidelines.

The Lebanese EIA system was analyzed in the Country Environment Analysis of Lebanon[3] to determine the equivalence with that of the World Bank. The analysis showed that the World Bank's EIA policy and the Lebanese EIA system have many common features and are comparable in many aspects.

The Lebanese EIA Decree no. 8633/2012 and its annexes provide a list of projects that will require either an Environment Impact Assessment Report, Annex 1 projects or an Initial Environmental Examination (IEE) Annex 2 projects; Annex 3 projects are projects that are re-categorized as Annex 1 or 2 since they fall in an environmentally sensitive area and would have an impact on that area. Annex 1 projects are similar to Category A projects of the World Bank and Annex 2 Projects are similar to Category B projects of the World Bank.

The Institutional Framework consists of the Ministry of Public Health (MoPH), The Ministry of the Environment (MoE), the Ministry of Justice, the Council for Development and Reconstruction (CDR) and treatment and recycling companies listed in circular 7/1 (2017) of the MoE. WHO has an indirect role in improving the management of the health facilities.

The Ministry of Environment is mandated for EIAs and the proper disposal of hazardous infectious waste. The Service of Environmental Technology within MoE is in charge of medical waste.

Stakeholder's Consultation

Consultations took place before and during the preparation of the ESMF in addition to a collective public consultation session. Invitations to stakeholders for public consultation was sent on May 23, 2018 via email with the draft ESMF attached. The collective public consultation took place at the MoPH, third floor, at the director general conference room on May 28, 2018 at 10:30 am. Presence included representative from MoPH, NGOs, PHCCs, UNHCR, UNICEF, WHO and Public hospitals. Findings of the consultations were considered in the final version of the ESMF. They include a recommendation to tackle the disposal rather than segregation of wastes, the need to subvention the HC institutions to help them dispose their waste properly. It was also mentioned that the present ESMF will be used as pilot and possibly be extended to the national level in the future.

Environmental and Social Analysis

LHRP was classified as category B in accordance with OP 4.01. The Project has numerous positive impacts in particular on improving HC services, reducing tensions between refugees and local communities and promoting preventive HC. It has also some negative impacts mainly due to the increased volumes of patients covered by the project. Such impacts are the increase in HC and municipal waste generation, in addition to the increased exposure of personnel and patients to Infectious Healthcare Waste (IHCW) leading to OHS risks. Those impacts can be mitigated by the preparation of an Environmental and Social Management Plan (including the preparation or upgrading of the Health Care Waste Management Plan) as well as its proper implementation within the HC institution. Other impacts may be due to the potential emissions from the new equipment that will be provided to the hospitals. The ESMP that should be included in the environmental and social safeguard instrument, can reduce their impacts substantially.

Other less severe negative impacts are due to the increase in use of services provided by infrastructure utilities (air emission, wastewater generation, water consumption, traffic). Civil works that may be needed to scale up the facility could cause negative impacts on the neighboring communities and on the staff working in the HC institution. ESMP and relevant mitigation measures that will be included in the scope of work of the bidding documents of the contractor executing the works, can reduce their impacts considerably.

[3] The World Bank: Country Environment Analysis of Lebanon, <www.moe.gov.lb>.

Implementation of the ESMF

The first step in the implementation of the ESMF by MoPH shall be the recruitment of an E&S officer.

Different procedures are to be followed by the PHCCs and the hospitals as shown below:

The project will not involve or rely on:

- Any category A subproject with significant environmental and social risks, the negative impacts of which will be considered diverse, varied, irreversible and unprecedented.
- Any Subproject with civil works involving construction/decommissioning of building containing asbestos cement.
- Any subproject involving construction/rehabilitation of incinerators
- Any subproject involving construction of Medical waste treatment plants
- Any subproject involving resettlement and/or land acquisition

The implementation of the ESMF cannot rely on accreditation system as the accreditation system for PHCC is still being designed and achieving accreditation for hospitals does not guarantee that care is optimal nor that environmental protection measures or operational, health and safety procedures are applied. A hospital can get the passing score for the accreditation even if it fails in getting a passing grade for those standards thus, a pre-screening is required in order to decide on the eligibility of the institutions to receive funds under this Project and the environmental and social safeguard instrument needed.

1. The project will involve subproject from the exclusion list	Yes	No
2. The project will involve large civil works[4]	Yes	No
PHCC		
2. The project will involve generation of health care waste	Yes	No
3. The project will involve small civil works[5]	Yes	No
Hospitals		
4. The project will involve generation of health care waste	Yes	No
5. The project will involve small civil works	Yes	No

- If the answer is yes to question 1; the project is Not eligible
- If the answer is Yes to question 2; the project is Not eligible
- If the answer is Yes to question 3, the PHCC will prepare an ESMP including a HCWMP
- If the answer is Yes to question 4 or 6; the PHCC/Hospital will prepare an ESMP taking into consideration the construction works.
- If the answer is Yes to question 5; the hospital will prepare an Environmental Audit (if it has an approved EIA/an ESIA (if it does not have an ESIA approved) to be cleared by the MoE including a HCWMP included.
- If the answer is No to all questions, no environmental assessment is needed.

[4] Large civil works are construction of new buildings, large rehabilitation of old buildings, water treatment plants, small wastewater treatment plants, construction of wastewater networks,

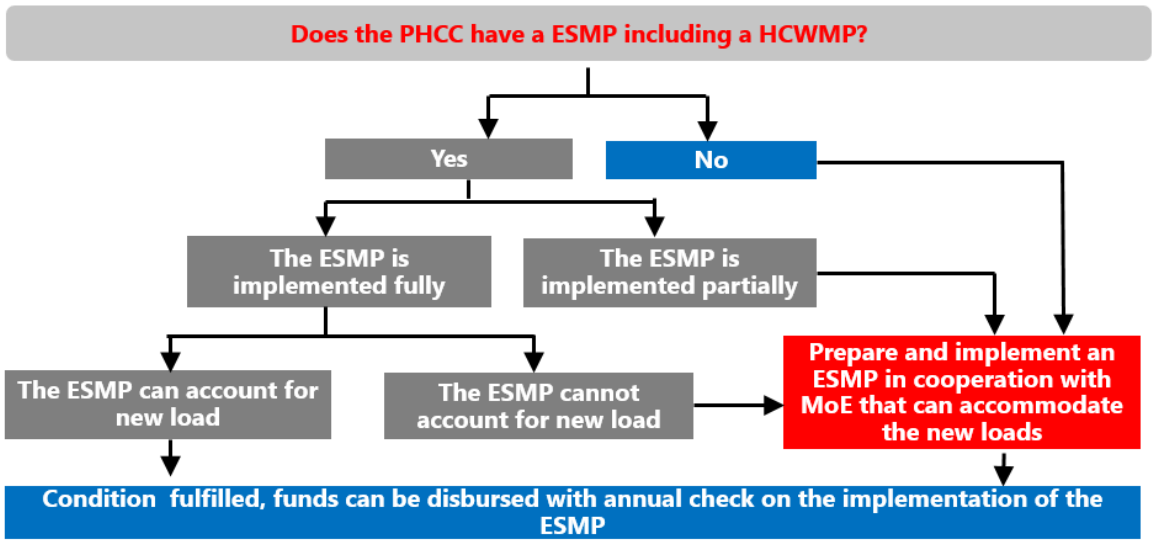
[5] Small civil works are those needed to accommodate new equipment. They consist of the installation of electrical socket and wiring works, installation of lights, installation of air conditioning units, plumbing works, connection to existing sewage, changing floor tiles and painting…….

Procedures to be followed by the PHCCs and the hospitals are shown below:

1. The MoPH team will be trained by E&S officer in cooperation with MoE.
2. An initial assessment will be undertaken by the MoPH Team. The team shall start by making sure that a simple ESMP including a full Health Care Waste Management Plan (HCWMP) is prepared by the PHCC.
3. The MoPH will then send the ESMP to the MoE.
4. The MoPH will make sure that the ESMP including the HCWMP is part of the contract with PHCC
5. The MoPH will make sure that PHCC is contracting a Healthcare Waste management treatment contractor with a License from MoE
6. The MoPH will make sure the ESMP is being implemented by the healthcare facility.
7. The MoPH can then disburse the funds.

The MoPH in cooperation with MoE will check on the implementation of the ESMP annually.

The following graphic shows the procedure to be followed by PHCCs before disbursement of funds.



a. Procedures for hospitals that have an approved EIA:

1. The Hospital will recruit a consultancy firm from the CDR list of prequalified experts.
2. The consultancy firm shall perform an EA and submit it to MoE.
3. The MoE will nominate a committee to review the EA. The EA is checked for conformity of content for an EA report as set by MoE. If there is missing information, a letter is issued to the proponent to revise the EA.
4. If the EA conforms, then the EA is reviewed by the committee. The committee will conduct a field examination.
5. Further to review and examination, the MoE can approve, request modifications or refuse the EA.
6. If there is a need for improvement in the waste management process at the hospital, relevant actions shall be implemented. The consultancy firm will then do the necessary adjustments and resend the EA to MoE.

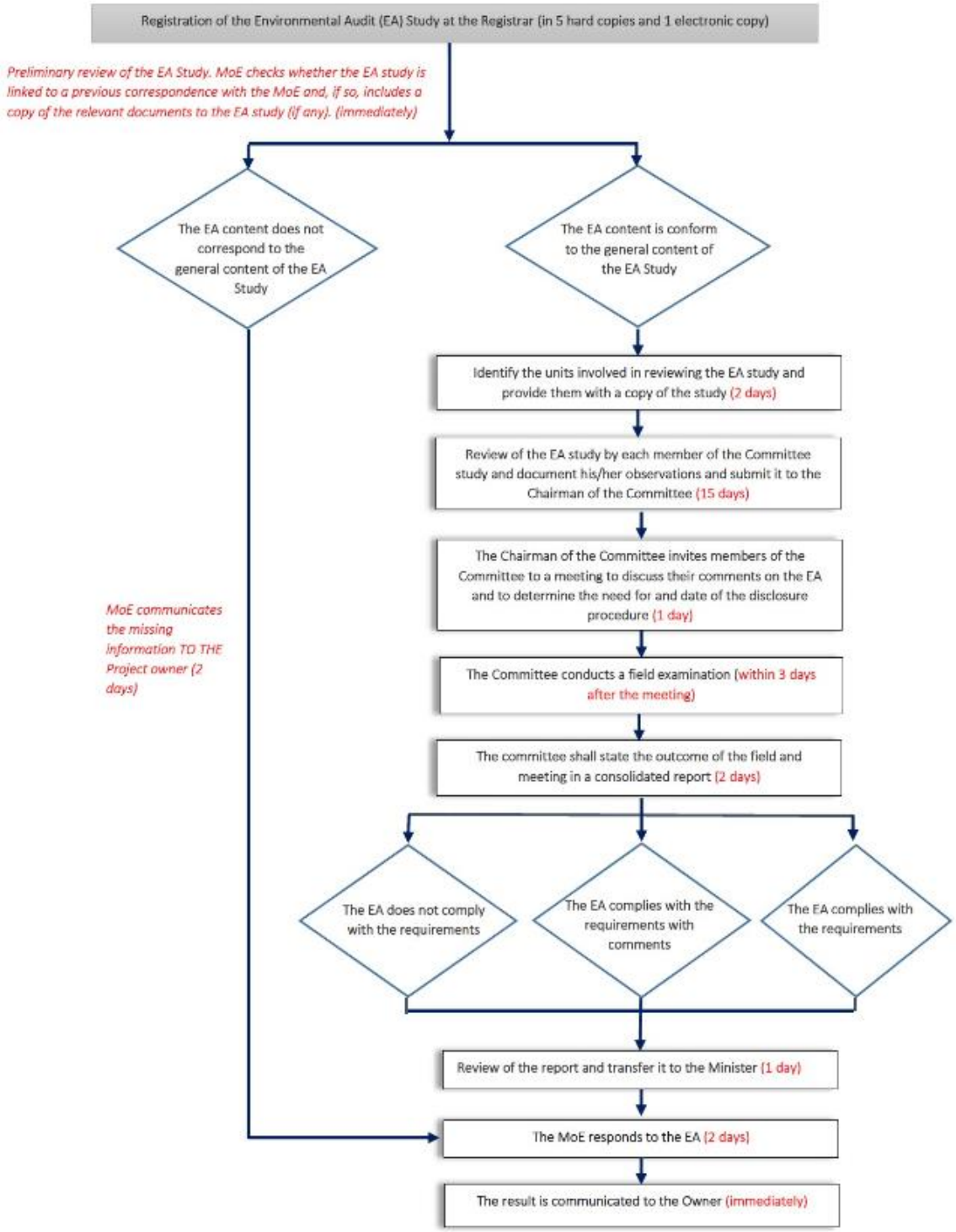
7. The MoPH will make sure that the ESMP including the HCWMP is part of the contract with the hospital

8. The MoPH will make sure that Hospital is contracting a Healthcare Waste Management Treatment contractor with a License from MoE

9. The MoPH will make sure the ESMP is being implemented by the healthcare facility.

10. The MoPH can then disburse the funds.

The following graphic shows the procedure to be followed by hospitals that have an approved EIA before disbursement of funds. Hospitals will be given a grace period of a year to fully implement the ESMP.



b. Procedures for hospitals that did not previously submit an EIA to MoE

1. The hospital will hire a consultancy firm from the CDR list of prequalified experts to prepare a screening file based on Annex 4 of the EIA decree. The hospital will submit a request to the MoE to classify the submitted project.

2. The MoE will respond with a classification as per the EIA decree.

3. If the project is classified as needing an EIA, a limited EIA needs to be prepared for the hospital by the consultancy firm under supervision of the environmental specialist of the PMU.

4. The Hospital submits the limited EIA to MoE. The limited EIA preparation should include public consultation.

5. The MoE can approve, request modifications or refuse the EIA.

6. When approved, the PMU will post the EIA on the MoPH website. Upon request, the EIA will be made available for consultation at MoE premises.

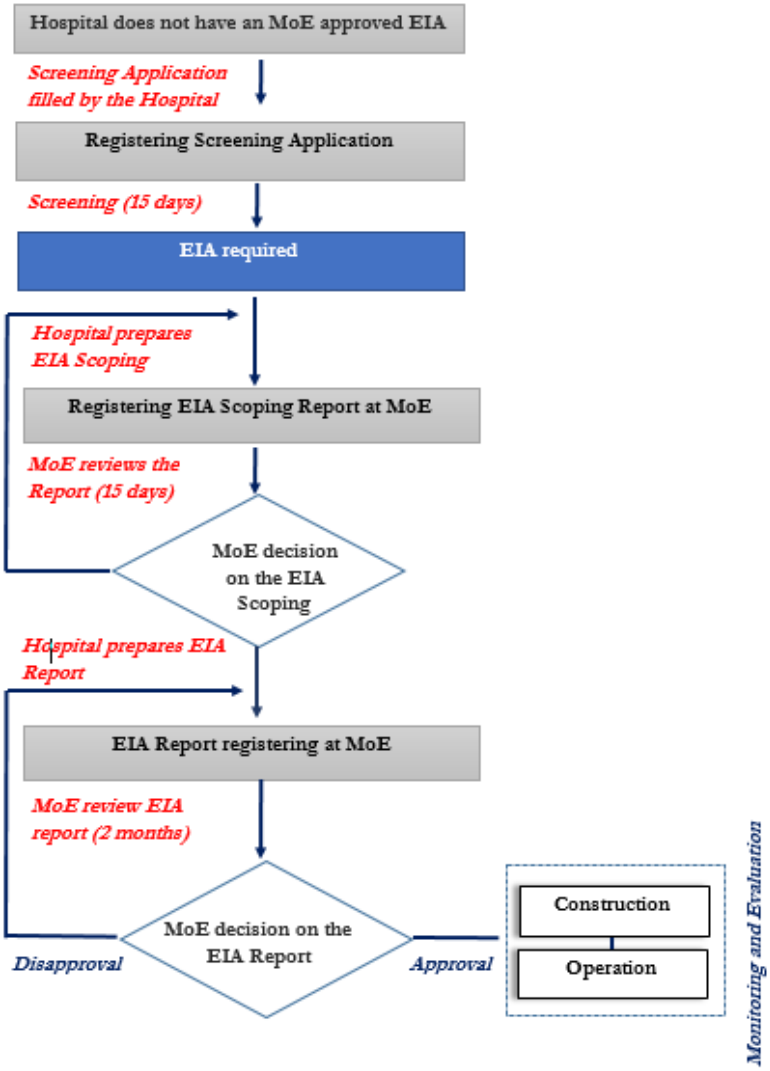
7. The MoPH will make sure that the ESMP including the HCWMP is part of the contract with the hospital

8. The MoPH will make sure that the hospital is contracting a Healthcare Waste Treatment contractor with a License from MoE

9. The MoPH can then disburse the funds.

10. The PMU, in coordination with the MoE, will follow-up on the implementation of the EMP and include its requirements in contracting documents.

The following graphics explain the procedure to be followed by hospitals before disbursement of funds. Hospitals will be given a grace period of a year to implement the ESMP.


Hospital does not have an MoE approved EIA
Screening Application filled by the Hospital
Registering Screening Application
Screening (15 days)
EIA required
Hospital prepares EIA Scoping
Registering EIA Scoping Report at MoE
MoE reviews the Report (15 days)
MoE decision on the EIA Scoping
Hospital prepares EIA Report
EIA Report registering at MoE
MoE review EIA report (2 months)
MoE decision on the EIA Report
Disapproval
Approval
Construction
Operation
Monitoring and Evaluation

Waste Management Plan for Medical Activities

A waste management plan has been included in this ESMF in order to identify requirements for the safe management of HCW and comply with national health and environmental regulations. Facilities selected for support by LHRP will need to have a complete waste management plan in place or take necessary actions to be able to implement a waste management plan. This plan will support the PMU in identifying gaps and needed mitigation measures.

Monitoring and Evaluation System

The PHCCs/Hospital through the MoPH officer, will work with MoE to check the existence, and proper implementation of the proper Environmental and Social safeguard instrument. They should in particular look for the possibility of accommodation of additional waste that will potentially be generated by LHRP. This will require expertise at least at MoPH level and at the PMU level.

The PMU should check that the Healthcare WMP, the ESMF and the ESMP are being fully implemented by the Hospitals and PHCCs.

Institutional Arrangements

The Institutions involved in the implementation of the Project include:

- The Council for Development and Reconstruction which manages the World Bank and IsDB funds and verifies the implementation of safeguards.
- The MoPH Steering Committee which was established under EPHRP and would be expanded to include a representative from MoPH hospital sector and CDR. It is recommended to include also a representative from the MoE. The role of the Steering Committee is to provide oversight to the Project, coordinate interagency policies and programs and resolve any strategic and implementation issues.
- The Project Management Unit (PMU) manages the implementation of the Project.

The MoPH developed a monitoring and evaluation plan for the ongoing EPHRP project supported by the upgraded Health Information System (HIS). The current Project will build on the EPHRP M&E System and will consist of the following:

- Internal oversight by the MoPH on PHCCs and Hospitals including continuous monitoring of the activities
- Independent project evaluation including ongoing and planned project activities
- Beneficiary assessment and grievance redress mechanisms at the central and facility levels.
- External medical auditing (will be conducted as post-review)
- Project final evaluation

In order to ensure proper implementation of the HCWMP and ESMF, the MoPH will organize training and institutional capacity building for all implementing stakeholders and health workers.

Cost Estimate

Below is the ESMF Indicative Budget.

Elements	Subproject Activities	Responsibility	Number	Unit Price US$	Total Cost US$
Training for the preparation and implementation of an ESMP/WMP	Public Hospitals and PHCC	PMU/MoPH	10 (each comprising around 25 representatives of institutions, one from each HC institution)	3,000	30,000
EIA preparation including an ESMP	Public Hospitals	Hospital Waste management Committee	30 (worst case scenario: all the hospitals need an EIA)	8,000	240,000
Financial Support and Contribution from MoPH for the Implementation of ESMP (prepared in the EIA) and WMP	Public Hospitals	Hospital Waste management Committee	30 (worst case scenario)	10,000	300,000
Technical support	Short term consultants for PMU support and enforcement including potential recruitment of WMP expert/environmental expert to assist in supervision, implementation and monitoring of WMPs and ESMP	PMU/MoPH	810 working days (243 institutions, visited twice a year for 5 years at a rate of 3 per day) 90 working days (provisional for desk work, reporting, and supervising environmental instruments)	300	270,000
Sub-Total					840,000
Contingencies (approximately 7% of the total costs)					60,000
Total Cost					**900,000**

MAIN REPORT

1. General Description of the Project

1.1 Context

The Project Development Objective (PDO) is to increase access to quality healthcare services to poor Lebanese and displaced Syrians in Lebanon.

The Syrian crisis and the consequent influx of Syrian refugees lead to a sudden increase in the Lebanese population by about 40%. This sudden increase has had weighty economic and social impacts. Support by relevant agencies was primarily directed towards the refugees. The quality of life and the socio-economic conditions of the hosting populations were adversely affected by the influx.

Access to health services was provided to the refugees falling short of meeting the needs of Lebanese citizens. These suffered from reduced access to primary healthcare and hospital services. This has resulted in tensions between the refugees and the hosting communities. Cost of medical care for refugees was mostly covered by United Nations (UN) agencies and international donors while the Lebanese bore their own costs. Maintaining and promoting greater social cohesion is essential to reducing the negative social and economic impacts of this crisis, especially on the poor Lebanese.

The goal of the Ministry of Public Health (MoPH) as articulated in the Health Strategic Plan 2016-2020 is to achieve Universal Health Coverage. It is based on the principles of justice, equity, poverty reduction and the rational use of resources. It requires providing quality health care for all, satisfying individual needs while alleviating the financial burden, on households, especially the poor.

The Emergency Primary Healthcare Restoration Project (EPHRP) was initiated in 2015 with the support of the World Bank (WB). The project responds to the emergency needs of the MoPH engendered by the Syrian crisis as well as to the medium term goal of the ministry to provide Universal Health Care (UHC). The project helps in providing coverage for a package of essential healthcare services comprising of preventive, primary, and ambulatory care to the poor. It also contributes to strengthening government systems namely, providing primary and ambulatory care coverage to the uninsured and poor.

1.2 Project Components

Lebanon Health Resilience Project (LHRP) complements and adds to the objectives of EPHRP. It has a total budget of 120 M $US and a duration of 6 years (from 23 June 2017 to 30 June 2013). The main components of the project are the following:

Component 1: Scaling up the scope and capacity of the PHC UHC program (US$76.5 million).

This component builds on and scales up the ongoing EPHRP which provides subsidized package of PHC services to poor Lebanese through capitation payment mechanisms. This project aims to expand and strengthen the ongoing UHC program to reach a larger number of beneficiaries with a more comprehensive package of enrollment-based preventive health services to meet the growing needs of poor and vulnerable Lebanese. The displaced Syrians will benefit from the increased network of participating primary healthcare facilities as well as the expanded package of health services to be provided by the increased network. It is expected that the number of displaced Syrians that will access the centers and the scaled up package of services under various subsidy mechanisms will increase from 130,000 to 375,000. More specifically, this component will:

- Scale up the provision of capitation payments to participating PHCCs for delivery of output based packages of essential health services to vulnerable Lebanese, as elaborated in the respective Health Service Provider Agreements. This will increase the number of Lebanese receiving subsidized PHC services from 150,000 to 340,000 and the number of contracted network PHCCs from 75 to 204.
- Strengthen the capacities of participating PHCCs for provision of quality healthcare services, through: (i) expanding the scope of said output-based packages of essential health services to include, inter alia, core preventive and curative healthcare services in areas such as reproductive health, non-

communicable disease case management, healthcare for the elderly, general wellness, mental health and provision of medication to patients; (ii) improving the technical, managerial and physical capacities of participating PHCCs for delivery of said output based packages of essential health services; (iii) supporting communications and outreach to targeted communities to facilitate enrolment and/or access to said output-based packages of essential health services; and (iv) strengthening the accreditation program to, inter alia, include all participating PHCCs.

Component 2: Provision of health care services in public hospitals (US$36.4 million).

This component will finance:

- Provision of special capitation payments to participating public hospitals for delivery of medical and paramedical services to uninsured Lebanese and delivery of emergency healthcare services to eligible beneficiaries, as elaborated in the respective Health Service Provider Agreements.
- Strengthening of the technical and organizational capacities of participating public hospitals for provision of quality healthcare services, through: (a) provision of training to clinical and nonclinical staff; and (b) strengthening the health information management system targeting participating public hospitals, participating PHCCs and the MoPH.

Component 3: Strengthening project management and monitoring (US$6.8 million).

This component will finance:

- Strengthening the capacities of the MoPH and Project Management Unit for implementation, coordination and management of activities under the project (including, inter alia, procurement, financial management, technical and financial audits, environmental and social safeguards, grievance redress mechanisms, monitoring and evaluation, health information management, supervision and reporting aspects), all through the provision of consulting services, non-consulting services, training and workshops, operating costs, and acquisition of goods for the purpose.
- Carrying out of a comprehensive assessment of hospitals focusing on accuracy of hospital case mix, use of hospitalization data in medical auditing, development of performance indicators incorporating actual patient outcomes, resource allocation decisions, and institutional/organization structures, so as to identify gaps and make recommendations for improvement. Results of the assessments will inform the MoPH in refining their hospital contracting reforms to ensure more efficient reimbursement system. Implementation of revised contracting measures is contingent on legislative approvals by the government.
- Carrying out of an independent evaluation of project activities and results. An independent project evaluation will be conducted to assess the achievements of the project on household service utilization and the capacity of providers to deliver services effectively and cost efficiently.

IsDB Parallel Financing: Procurement of essential equipment in a set of public hospitals entailing scaling up and replacing critical equipment

The following Figure presents the different components of LHRP.[6]

Component 1: Scaling up the scope and capacity of the PHC UHC program (76.50 M $US)	Component 2: Provision of health care services in public hospitals (36.40 M $US)	Component 3: Strengthening project management and monitoring (6.86 M $US)	IsDB Parallel Financing: Procurement of essential equipment in a set of public hospitals (30.00 M $US)

• Increase the number of poor Lebanese receiving subsidized PHC services from 150,000 to 340,000
• Increase the number of Syrian receiving subsidized PHC services from 130,000 to 375,000
• More comprehensive package of enrollment-based preventive health services
• Increased network of participating primary healthcare facilities from 75 to 204
• Strengthening the capacities of participating PHCCs for provision of quality healthcare services through:
  • Expanding the HC package to include core preventive and curative healthcare services
  • Improving the technical, managerial and physical capacities of PHCCs for delivery of services
  • Supporting communications and outreach to targetted communities to facilitate enrolment and/or access to essential health services packages
  • Strenghthening the accreditation program to include all participating PHCCs.
	• Provision of medical and paramedical services to uninsured Lebanese
	• Provision of emergency healthcare services to eligible beneficiaries
	• Strengthening the technical and organizational capacities of public hospitals through:
	  • Provision of training to clinical and non-clinical staff
	  • Strenghthening the health information management system targeting public hospitals, PHCCs and MoPH
		• Strengthening the capacities of the MoPH and Project Management Unit (PMU) for implementation, coordination and management activities such as procurement, financial management, technical and financial audits, environmental and social safeguards, grievance redress mechanisms, monitoring and evaluation, health information management, supervision and reporting (including acquisition of goods for the purpose)
		• Carrying out of a comprhensive assessment of hospitals so as to identify gaps and make recommendations for improvement
		• Carrying out of an independent project evaluation of project activities and results
			• This component entails scaling up and replacing critical equipment that may include:
			  • diagnostic equipment
			  • treatment machines,
			  • medical monitors,
			  • therapeutic equipment
			  • electo-mechanical equipment (generators)
			• Impacts related to the safe installation, use and maintenance of such equipment and the disposal of any old equipment will be assessed and managed in accordance with WB safeguards policies.

[6] Project Appraisal Document

1.3 Project Cost

This Project builds and scales up the ongoing EPHRP. The total LHRP cost is 120 M $US provided by International Bank for Reconstruction and Development (IBRD) including a concessional part of the loan to be financed by the Global Concessional Financing Facility (GCFF). The Islamic Development Bank (IsDB) will provide parallel financing in the amount of 30 M $US.[7]

1.4 Improvement of the Medical Waste Management

This Project is limited in financial capacity. It does not aim at resolving the waste management system of the health sector as funds will be allocated to other specific urgent priorities. However, it will contribute to the management of the medical waste by making the preparation of an ESMP (for PHCCs)/EA and ESIA (for hospitals) a condition of eligibility for funds. The project was classified as category B, consequently, it cannot fund activities like incinerators or waste medical management plants.

[7] Project Appraisal Document for Lebanon Health Resilience Project, WB, June 13, 2017

2. Presentation of the ESMF

2.1 Project background

LHRP has been prepared and will be implemented under paragraph 12 of the WB Operational Policy (OP) 10.00, Investment Project financing (IPF). The justification for the project comes from the urgent need to address the capacity needs of both primary and hospital-level institutions to respond to growing health demands due to the refugee crisis. As a result, the environmental and social requirements set out in OP/BP 4.01 (Environmental Assessment), and the IPF Directive, that are applicable during the project preparation stage, were deferred to the project implementation stage.

2.2 Objectives

The purpose of the Environmental and Social Management Framework (ESMF) is to ensure that works carried out under LHRP, address and identify measures to avoid and minimize environmental and social impacts, as much as possible, and where they cannot be avoided, the impacts are adequately identified/assessed and necessary mitigation measures designed and implemented.

Relevant Lebanese environmental and social legislation (EIA decree 8633/2012) and the World Bank's safeguards policies must be followed.

The detailed objectives of the ESMF:

- Describe the policy, legal and institutional framework for environmental management related to the health sector
- Evaluate the potential environmental and social impacts of the Project and identify mitigation measures;
- Establish clear procedures and methodologies for the environmental and social planning, review, approval and implementation of subprojects to be financed under the Project;
- Develop a monitoring program for compliance of project activities to ESMF
- Establish the project funding required to implement the ESMF requirements.

The implementation of actions in different health care institutions receiving LHRP funding will be subject to the processes defined in this ESMF, regardless of funding source.

2.3 Methodology

The development of this ESMF was based on a desk review of policies, legal texts, strategies, and technical documents related to the environment and health sector in Lebanon especially to hazardous waste generation and management.

The literature review was followed by meetings with stakeholders and site visits to selected PHCCs and hospitals in order to field assess their hazardous waste management capacities, challenges and needs for implementing the ESMF for LHRP.

3. Baseline Information

MoPH conducted a quick assessment of the waste management in 213 PHCCs and 31 public hospitals in an attempt to assess the situation of infectious waste.[8]

3.1 Primary Health Care Centers

The national network of primary healthcare centers in Lebanon comprises 213 centers. The quick assessment conducted by the MoPH in 2017, revealed that 80.5% of the surveyed centers (169 out of 210) sort their medical waste. However, only 39% (82 out of 210) have a contract with specialized companies (Arcenciel, Mirage and Safe) for proper disposal of their infectious waste and 27.6% (58 out of 210) hand them over to hospitals. 1.5 % (3 out of 210) have incinerators and the rest (32% or 67 out of 210) have their infectious waste dumped in landfills directly or through municipalities.

3.2 Public Hospitals

LHRP will tackle 30 to 33 public hospitals. Thirty-one (31) public hospitals were contacted to check on the disposal of their infectious wastes. Results revealed that 70% (21 out of 31) of the contacted hospitals hand them to specialized companies (Arcenciel or Safe), 9.7% (3 out of 31) dispose them in municipal dump sites or simply burn them. The remainder 20.3% (7 out of 31) did not answer, have an autoclave or are in transitory phase and looking for a solution.

The quick assessment reveals that proper measures of segregation and disposal are not always followed by the PHCCs and Hospitals that will benefit from LHRP. Consequently, several health facilities will need to implement a HCWMP prior to receiving funds from LHRP.

[8] Information provided by MoPH

4. Policy Framework for Environmental Management

4.1 The Health Strategic Plan (2016 – 2020)

The Ministry of Public Health has prepared, in 2016, a Strategic Plan for the medium term along with an Operational Plan. The plan revolves around four strategic goals.

Strategic Goal 1: Modernize and strengthen Sector Governance
Strategic Goal 2: Improve collective health and promotion across the life-cycle
Strategic Goal 3: Continue progress to Universal Health Coverage:
Strategic Goal 4: Develop and maintain emergency preparedness and health security

The MoPH requires hospitals to apply for accreditation based on a system developed by the Ministry. Accreditation includes environmental management. Hospitals however, can be accredited without complying to the environmental requirements.

4.2 Environment Policy

The Environmental Policy of the Ministry of Environment (MoE) is based on five major pillars: Sustainable Ecological Development, Protection through Prevention, Polluter Pays Principle, National Equitable Development, and Mainstreaming of Environmental Policy into other sectors of the economy.

4.2.1 The solid waste policy

The Ministry of Environment has launched in 2018 a Policy for the Integrated Solid Waste Management (ISWM). The policy was approved by the Council of Ministers.

The Policy is founded on the following eight principles: [9]

1 Respect for the principles stipulated in the Environmental Protection Law No. 444/2002, especially its environmental principles (precaution, and protection and preservation of biodiversity; avoidance of depletion of natural resources; pollution control; and environmental impact assessment), economic principles (the polluter pays principle and adoption of economic incentives), social principles (the importance of customary norms in the rural milieu in the absence of statutes), and governance principles (cooperation and partnership), with a view to protecting the environment and thus preserving public health.
2 Recovery of as much waste as possible (material recovery and energy recovery) by adopting the integrated solid waste management hierarchy towards a circular economy.
3 Respect for the jurisdictions of the Ministry of Environment in solid waste management, while reinforcing the policy of cooperation with the other relevant ministries and public departments, and cooperation with municipalities and local communities.
4 Adoption of administrative decentralization in waste management, in accordance with the conditions set by the laws and regulations, by devolving to the municipalities the first stages of the waste management hierarchy (reduction, re-use, sorting at source), in addition to sweeping and collection.
5 Reaffirming the Government's duty to ensure efficient resource allocation by assigning to the central authorities the final steps of the hierarchy of management of waste from municipalities that are not capable of carrying them out on their own (i.e. the stages of treatment preceded by necessary additional sorting and final disposal), in-line with the regions divisions (service areas) laid out in principle six below.

[9] Policy Summary on Integrated Solid Waste Management as approved by the Council of Ministers in its meeting of January 11, 2018. MoE

6 Balanced development by including all governorates in the proposed policy. With the aim of proper implementation of principle five above in relation to the last stages of the waste management hierarchy, and the adoption of the service areas specified in Council of Ministers Decision 1 of June 28, 2006.
7 Ensuring competitiveness, innovation and the spirit of enterprise by adopting various internationally proven technologies, selecting sites based on specified environmental conditions and adopting degraded as a preference.
8 Disseminating a culture of shared responsibility for integrated solid waste management.

In the policy, MoE set the procedural aspect relating to Hazardous and Other Wastes:

The Ministry of Environment shall prepare a prompt feasibility study based on the available studies in the sector of hazardous and other wastes. Based on the findings and in accordance with Law 48/2017 and the environmental laws and regulations in effect, it shall take the necessary steps to:

- Build three interim storage plants (two on the cost and one inland; the sites shall be proposed by the bidders as per the standards set in terms of reference) for hazardous industrial waste, electronic waste, expired drugs, healthcare waste (hazardous and non-infectious, and those requiring special management), persistent organic pollutants, etc.
- Build treatment plants, on sites proposed by the bidders as per the standards set in the terms of references, for used oil, tires, and batteries.
- Build special incinerators for other types of wastes (such as slaughterhouse wastes, dead animals, etc.).
- Allocating an abandoned quarry in each district for the treatment of rubble waste and final disposal of bulky refuse/waste.

5. Legal and Institutional Framework for ESM

5.1 National Legislation

Following is a summary of relevant national legislations. Extracts from legal texts can be found in the Annex E.

Lebanese law 444/2002

The Code of the Environment forms the legal basis for environmental management in Lebanon, for the principles mentioned below and the Environmental Impact Assessment (EIA) system.

Lebanese decree 8633/2012

Decree 8633/2012 "The EIA decree", requires projects mentioned in its annexes to either undergo an EIA or an IEE. It describes the process required for preparing an EIA or an Initial Environmental Examination (IEE) and the timeline for responses and approvals from MoE. Annex 1 of this decree states that the establishment of a hospital requires an EIA.

Lebanese decree 8471/2012 and relevant decision 202/1 2013

Decree 8471 "the Environmental compliance decree" requires institutions to undergo an Environmental Compliance Certificate and decision 202 describes the process required to prepare an Environmental Audit. Both PHCCs and hospitals can apply for the environmental compliance certificate.

Lebanese decrees 8006-2002 and 13389-2004

Decree 13389/2004, amends decree 8006/2002. 13389 regulates healthcare waste. It defines the type of healthcare wastes. It requires proper waste segregation and minimization. It sets guidelines for the collection and storage of waste. Finally, it requires an EIA for healthcare waste treatment facilities in order to get a license from MoE. PHCCs and Hospitals are required to abide by decree 13389/2004.

Decision 1/1294-2018 and 1/1295-2018

These decisions regulate the transport of infectious healthcare waste (1/1294) and the construction and operation of facilities (1/1295) for the disinfection of hazardous and infectious waste. 1/1295 specifies the process for the acquisition of an environmental license to operate such facilities. For the disposal of their wastes, PHCCs and hospitals should make sure they contract companies that abide by these two decisions and this should be specified in the bidding documents.

Decree 167/2017

This decree provides tax exemptions on income and customs for individuals or legal entities are engaged in environmental activities or importing goods to be used to avoid, reduce or eliminate pollution or to treat recycle and or reuses waste. Both PHCCs and hospitals are concerned by this decree that help them prevent pollution.

Decision 8/1 2001 ELVs

This decision specifies the emission limits of liquid waste that is dumped in water bodies or sewers. PHCCs and hospitals are required to abide by this decision.

Circular 11/2011

This circular defines the trimestral reporting template for Infectious Healthcare Waste Treatment facilities.

Law 48/2017

This recent law regulates Public Private Partnerships (PPP). The law is important in the context of LHRP since private operators such as Arcenciel, Safe and Mirage and not the state, manage the collection and treatment of healthcare waste in Lebanon.

Circular 7/1- 2017

This recent decision provides a list of institutions for the disposal of material and equipment for potential recycling. PHCCs and hospitals can make use of this list to dispose their recyclable wastes.

Hospital Accreditation

Before 2000, hospitals in Lebanon were classified based on an alpha-star classification that reflected the level of medical services. The tariffs of medical services were then set by MoPH according to the hospital class. This system provided a strong financial incentive for hospitals to invest in equipment and high-tech services.

In the context of the health sector reform, the MoPH has developed, in 2000, standards for hospitals in Lebanon. Since then, The MoPH induced and supported the development of an accreditation program for hospitals. The quality assessment of hospital care has seen a shift, from a traditional focus on physical structure and equipment to a broader approach including managerial processes, performance and output indicators.

In May 2000, an Australian Consultant team was contracted to set up accreditation standards and to develop guideline manuals for hospitals in Lebanon. A survey was conducted on 128 hospitals through Lebanon and a follow-up audit in 2002-2003. Up until this stage, accreditation was a requirement by the MoPH for contracting the hospital, but tariff had still not been linked to accreditation scores.

MoPH decided then to upgrade the accreditation system. The original standards emphasized on the existence of documentation but did not require except for the medical file, thorough assessment of their content. Proper implementation was not evaluated for all written policies and procedures nor was the measurement of expected outcomes. The revised standards (2004) were written in a way that hospitals are required to provide evidence that policies and procedures are appropriately executed to improve quality. Specific standards have been produced for 5 additional specialty areas. A third survey was launched in October 2004 according to the upgraded accreditation system. Small and medium-sized hospitals considered accreditation as a serious threat for losing their contracts as they rely mainly on public financing.

The MoPH included in the auditing survey all public hospitals, even those who just started to operate and were still in a period of staff recruitment. But MoPH did not penalize public hospitals that failed the accreditation at this stage. The MoPH decided to support those hospitals by a training program on total quality management. New accreditation policies and procedures and addenda to the accreditation standards were published. Other Audits followed.[10]

In January 2019, The MoPH announced the official publication of the new accreditation standards manual for hospitals. But also mentioned that the present version will be updated soon[11].

Some of the standards were classified under Critical Organization Requirements (COR) and others were not. The COR standards are the minimum required standards that a hospital should meet to be accredited, the "make it or break it" standards. Those standards are essential to ensure patient safety and include the international patient safety goals. The COR standards are incorporated from different themes and were selected based on a risk assessment that involves identifying a numerical risk score based on the likelihood that the identified risk will actually happen or materialize and the consequences on the organization if the risk does materialize or happen.

Achieving accreditation does not guarantee that care is optimal nor that environmental protection measures or operational, health and safety procedures are applied. A hospital can get the passing score for the accreditation even if it fails in getting a passing grade for those standards. For instance, the following standards are not considered as COR.

[10] WHO-MoPH, Walid Ammar, Health Beyond Potlitics, 2009.

[11] https://www.moph.gov.lb/en/Pages/3/20553/accreditation-standards-for-hospitals-in-lebanon-january-2019#/en/view/20553/accreditation-standards-for-hospitals-in-lebanon-january-2019

- IPC 23: The hospital ensures the correct usage and availability of personal protective equipment, soap and hand antiseptics.

- FMS 10: The hospital has a program in place for the inventory, handling, storage, and use of hazardous materials.

- MM16: The hospital prepares and dispenses medications in a safe and appropriate environment.

- IPC 19: The hospital establishes and implements a process for proper and safe disposal of infectious wastes to reduce infection.

- IPC 20: The hospital reduces the risk of infection through proper handling and disposal of sharps.

Healthcare waste collection and disposal companies' accreditation and authorization
Companies are requested to apply for a license from the Ministry of Industry (MoI) and are required to submit an EIA to the MoE to get an environmental license. The MoPH plays an indirect role as a member of licensing committees.

5.2 International Agreements and Principles

The Basel Convention (Ratified by law 387/1994, 29/2015)
The Basel Convention on the control of transboundary movements of hazardous wastes and their disposal. The Basel Convention's main objectives are:

- to reduce the production of hazardous waste
- to treat and dispose of hazardous waste at the nearest possible place from the source and
- to reduce transboundary movements of hazardous waste.

In 2015 hazardous waste export to and from OECD countries has been banned.

The Stockholm Convention (Ratified by law 432/2002)
The Stockholm Convention on persistent organic pollutants is "a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of human and wildlife and have harmful impacts in human health or on the environment".

Minamata Convention on mercury (Acceded by law 2/2017)
The Minamata Convention on Mercury is "a global treaty to protect human health and the environment from the adverse effects of mercury".

The Barcelona Convention Signature (Acceded by Decree Law No. 126 30/6/1977 Amendments Adhesion Law No.34 16/10/2008)
The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, originally the Convention for Protection of the Mediterranean Sea against Pollution, known as the Barcelona Convention, is a regional convention that was adopted in 1976 and amended in 1995 to prevent and reduce pollution from land based sources, ships and aircraft in the Mediterranean Sea.

The UNFCCC (Ratified Law No.359 11/8/1994)
The United Nations Framework Convention on Climate Change (UNFCCC) entered into force on 21 March 1994. From the handbook of the Convention (2006), according to Article 2, the Convention's ultimate objective is "to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system".

The Polluter Pays Principle

The polluter pays principle was adopted by the Organization for Economic Co-operation and Development (OECD) in 1972. It stipulated that every waste producer is legally and financially responsible for the elimination of their waste in a safe way for both the environment and humans (even if certain jobs are outsourced).

Precautionary principle

The precaution principle was formulated for the first time in 1972, in the principle 15 of the Rio Declaration on Environment and Development. It stipulated that when there is a possibility of serious or irreversible damages on the environment, the lack of scientific proofs doesn't have to be considered as a reason to delay economic measures which help to prevent the environmental degradation

Proximity principle

The proximity principle recommended that the treatment and the elimination of hazardous waste are required to happen at the nearest place from their production location, in order to minimize risks related to the transportation.

Diligence principle

This principle stipulates that every individual who is involved in waste management has to take necessary measures which help to maintain an appropriate waste management from the production's point to the final elimination. The main responsibilities of the waste producer, in the context of the diligence principle are: To identify precisely the waste which is produced to complete and sign monitoring sheets for hazardous waste before transferring it to another part, to condition the packaging in a safe way in appropriate packages, to insure a safe storing of the waste, to select an appropriate treatment and elimination method

5.3 World Bank Policies

The project is expected to trigger only **OP/BP 4.01:** Environmental Assessment, as some of the subprojects could impact the physical environment. As per the PAD, category A subproject will not be eligible for funding only category B subprojects will be funded.

5.4 Environmental, Health, and Safety (EHS) General Guidelines

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific guidelines. Healthcare facilities follow industry special EHS guidelines. It covers waste management, emissions to air and wastewater discharges.

5.5 Lebanese EIA Procedures

The table below describes the procedures for IEEs and EIAs in Lebanon.

Stage	Activity
Initial Filing and Screening	The PMU of the project or the Hospital complete a Project Screening Form (PSF) of the intended project in accordance to Annex 4 of the EIA Decree 8633/2012 for submission to the MoE for screening. Screening is made through the Service of Environmental Technology based on lists of projects in Annexes I and II, as well as Annex III of the EIA decree (which takes into account the sensitivity of the project's location). The service determines if the project is among: • Annex I projects for which an EIA report, based on Annex VIII, is required; • Annex II projects for which only an Initial Environment Examination (IEE) based on Annex VI, is required -an Annex II project located in an Annex III location would require an EIA; and, • If not listed in Annex I or Annex II, no further Environment Analysis is required, unless located in an Annex III area, in which case an IEE would be required. • The Minister of Environment has the right, and based on a reasonable justification, to request an IEE or an EIA regardless of the classification of the project. • Further to an IEE, the MoE can request the MoPH to prepare an EIA if the IEE shows the need for an EIA due to an important environmental impact. • Duration of the MoE response is 15 days; if no response within this period is issued by MoE, the project may proceed on the basis of the above screening rules.
Scoping	• Scoping (report as per Annex VII) is required for projects subject to an EIA study; no scoping is required for projects requiring an IEE. • The MoPH or the PHCC/Hospital is required to inform the stakeholders, concerned ministries and NGOs of the preparation of an EIA report and the municipality (Kaem Makam or Mohafez in the absence of a municipality) should post on its bulletin board and on the premises of the project, an announcement to that effect during 15 days and requesting comments from the public. MoE could also receive comments from the public or stakeholders for a duration of one month from the publication of the announcement. • The MoPH or the Hospital is required to submit a report on any EIA consultations and meetings with stakeholders. • The scoping report is available for consultation at the MoE by the public or by the concerned institutions. • MoE should provide its official comments on the scoping report within 15 days from its registration at the Ministry; if no answer is obtained within this period, the MoPH or the Hospital can proceed with the preparation of the ESIA report on the basis of the scoping report.

Stage	Activity
Technical Evaluation	• A technical committee comprising 3 to 5 members of various background and expertise from the different services of the MoE is responsible for the review of the EIA and IEE studies. If need be, experts not available at the MoE can be subcontracted to assist with the review of the EIA studies. • The technical committee uses the methodology set in the MoE's Decisions 229/1-230/1 of 2012 (similar to the "MNA Guide for the Preparation and Review of EA reports of the World Bank" under section 4-part B "reviewing EA reports."). The methodology is based on 'Review Checklists' with corresponding scores (A-F). A total score of C is considered to be satisfactory despite omissions and/or inadequacies.
Decision and Approval	• The MoE reviews the Committee's report and notifies its decision to the MoPH or Hospital and publishes it within two months for an ESIA report and within 30 days for an IEE report. This decision is transmitted to the concerned institutions and should be published on the municipality bulletin board during 15 days. The decision could be acceptance of the ESIA report, conditional acceptance or rejection. • In case no response is obtained from MoE within the stipulated review periods; than the MoPH can consider the EIA or IEE reports, whichever applicable, approved, and can proceed with the project on the basis of the Environmental and Social Management Plans (ESMPs) included in the reports. An outline of an ESMP can be found in Annex A. PMU shall closely monitor the review process to ensure that review deadlines are not exceeded. • In case of conditional acceptance or rejection, objections and complaints from the MoPH or Hospital can be submitted to the MoE within 15 days from the announcement of its decision and a reply should be provided within 15 days from receiving the complaints.
Appeal	The MoPH or PHCC/Hospital can appeal the decision of the MoE articles 6, 7 10 and 15, the objections will be sent to the Council of Ministers.
Integration of Results	ESMPs of approved EIA/IEE studies should be integrated in project design. Notably, costs of the EMSP should be taken into consideration in the project's feasibility study and mitigation and monitoring measures should be integral parts of the project design.
Disclosure of EIA and IEE	Article12 of the EIA Decree states that the EIA and IEE are to be available for examination at the MoE.
Monitoring and Reporting	The MoE will monitor the implementation of subproject specific ESMP and the PMU of the Project should report implementation of ESMP regularly to MoE. A General Outline of an ESMP is included under Annex A.
Enforcement	MoE shall be responsible for enforcement and will exercise site inspections as needed to ensure projects follow EMSP requirements and meet relevant standards.
Validity	The EIA and IEE reports are considered valid for a period of 2 years from the date of the decision of the MoE

Stage	Activity
Penalties	Article 58 of the Environment Protection Law no. 444 states that shall be punishable by imprisonment from one month to a year and to a fine ranging between LP 50.0 million (US$ 34,000) and LP 200.0 million (US$ 134,000) or either of these two sanctions, every person who (a) did not prepare an EIA or IEE; (b) implemented a project contrary to the EIA or IEE approved by the MoE; (c) executed a project for which EIA/IEE is not required but is not conformed to the national standards; and/or (d) opposes or obstructs the measures of control, inspection and analysis provided in the Environment Protection Law.

5.6 Analysis and Comparison

The Lebanese EIA system was analyzed in the Country Environment Analysis of Lebanon[12] to determine the equivalence with that of the World Bank. The analysis showed that the World Bank's EA policy and the Lebanese EIA system have many common features and are comparable in many aspects.

The Lebanese EIA Decree no. 8633/2012 and its annexes provide a list of projects that will require either an Environment Impact Assessment Report, Annex 1 projects or an Initial Environmental Examination (IEE) Annex 2 projects; Annex 3 projects are projects that are re-categorized as Annex 1 or 2 since they fall in an environmentally sensitive area and would have an impact on that area. Annex 1 projects are similar to Category A projects of the World Bank and Annex 2 Projects are similar to Category B projects of the World Bank.

5.7 Lebanese EA Procedures

The Procedures for EA in Lebanon are summarized below:

1. The Proponent will recruit a consultancy firm from the CDR list of prequalified experts.
2. The consultancy firm shall perform an EA and submit it to MoE.
3. The MoE will nominate a committee to review the EA. The EA is checked for conformity of content for an EA report as set by MoE. If there is missing information, a letter is issued to the proponent to revise the EA.
4. If the EA conforms, then the EA is reviewed by the committee. The committee will conduct a field examination.
5. Further to review and examination, the MoE can approve, request modifications or refuse the EA.
6. If there is a need for improvement, relevant actions shall be implemented. The consultancy firm will then do the necessary adjustments and resend the EA to MoE.

[12] The World Bank: Country Environment Analysis of Lebanon, <www.moe.gov.lb>.

6. Institutional Framework for ESM in Lebanon

6.1 The Ministry of Public Health

The Ministry of Public Health (MoPH) (Decree 8377/1961) is mandated with the drafting of laws and regulations related to the management of the health sector. The MoPH supervises and monitors healthcare facilities. It has recently launched an accreditation system for hospitals which includes a section on environmental management. The goal of the MoPH, in its recent strategy, is to provide UHC.

6.2 The Ministry of Environment

The Ministry of Environment (MoE) (Law 690/2005) elaborates policies, strategies, plans and projects in all that relates to the safety of the environment and the sustainability of natural resources. It also prepares laws, standards and norms.

The MoE requires, reviews and approves or not Environmental Impact Assessment (EIA) and Initial Environmental Examinations (IEE) studies for specified types of projects (Law 444/2002 Code of the Environment, EIA decree 8633/2012 and MoE Decision no. 7/1/ 2003). The Service of Environmental Technology at MoE is in charge of the EIA and IEE processes and also hazardous waste including medical waste.

The MoE specifies environmental conditions for the permitting of classified facilities including healthcare waste treatment. It also sets and monitors through inspection, the implementation of strategies related to the management of hazardous waste (Decree 8006/2002 amended by decree 13389/2004).

6.3 The Ministry of Justice

The Ministry of Justice (decree 151/83) is in charge of appointing environmental prosecutors.

6.4 The Council for Development and Reconstruction

The Council for Development and Reconstruction (CDR) (Decree 117/1991 last amendment) is a public institution under the tutelage of the Council of Ministers (COM). The objective of CDR is the preparation, financing and execution for development and reconstruction projects. The CDR plays an advisory role to the COM and can even propose laws related to development and reconstruction.

CDR will be fully responsible for the application of the World Bank's safeguards policies. IsDB and WB will independently review safeguards documents related to the Project, however, the safeguards teams will aim to coordinate comments to the Borrower.

6.5 Treatment and recycling companies listed in circular No. 7/1

6.5.1. Arcenciel

Arcenciel (AEC) is a Lebanese based non-profit organization established in 1985 during the Lebanese civil war. It was recognized as a public interest NGO in 1995 by Presidential Decree No. 7541. The NGO has taken over the management of around 85% of the medical waste in Lebanon in close collaboration with the MoE, the MoPH, the Syndicate of Hospitals and Healthcare Institutions, and municipalities. The waste is treated by autoclaving in one of the 5 centers of AEC in Jisr el Wati, Zahlé, Hotel-Dieu, Saida, and Zgharta The collection fee is between 0.64 $/kg for hospitals to 1.72 $/kg for labs and PHHC.

6.5.2. SAFE

SAFE is a Lebanese company operating an infectious waste treatment plant that was funded by the European Union located in Al-Abbasiyeh, South Lebanon. The waste is treated by autoclaving. The collection fee is between 0.6$/kg for hospitals to 2$/kg for labs and PHHCs.

6.5.3. Other companies

Other institutions for the disposal of material and equipment, for potential recycling, are listed in this recent circular.

6.6 The Ministry of Interior and Municipalities

The Ministry of Interior and Municipalities is in charge of enforcing laws and regulations including environmental laws and legislation related to hazardous infectious waste.

6.7 The World Health Organization

The World Health Organization has an indirect role in improving the management of the health facilities.

7. Stakeholders Consultations and Social Mobilization

7.1 Objectives of the Consultations

WB policies require that broad and open public consultations be held with the project-affected people (PAP). These consultations are to ensure that the PAPs, interest groups, NGOs/CSOs (local and international) and local governments are provided with the opportunity to engage in the planning process, to raise questions and receive input and responses to their concerns. Stakeholders consultation helps to identify opportunities and risks, it improves project design / implementation and increases project ownership and sustainability. Consultations took place before and during the preparation of the ESMF. The minutes of meetings can be found in Annex B and the report of the public consultation can be found in Annex C.

7.2 Public Consultation Process

Invitations to stakeholder's consultation were sent on May 23, 2018 via email with the draft ESMF attached. The public consultation took place at the MoPH, third floor, at the director general conference room on May 28, 2018 at 10:30 am. Presence included representative from MoPH, NGOs, PHCCs, UNHCR, UNICEF, WHO and Public hospitals. A power point presentation was prepared in order to present the ESMF.

7.3 Findings of the Public Consultations

Following are the main topics discussed during the consultations, details are provided in Annex C:

- The waste management plan should cover medical waste from drugs such as chemotherapy and not only infectious waste.
- The main problem of HC waste lies outside the hospitals and PHCCs, in the disposal rather than segregation and collection of waste.
- CDR built the governmental hospitals taking into consideration the loads and the storage room for infectious waste. One should look into what stopped the hospitals from using the assigned room.
- It was proposed that the MoPH offers a subvention on the collected waste to help the institutions dispose them properly through private companies.
- The present ESMF will be used as pilot and possibly be extended to the national level in the future.
- There should be coordination regarding medical waste management practices between the requirements of LHRP and the accreditation program of the MoPH.

8. Environmental and Social Analysis of the proposed Project

Referring to the Systematic Operations Risk-Rating Tool (SORT)[13], the rating of the Environmental and Social risk is Moderate. Given its scale and nature, the Project is classified as category B, in accordance with OP 4.01.

The following positive impacts are expected by the Project:

- Contribution to saving unnecessary HC costs and social care costs by preventing disease and supporting a healthy population.
- Increase in the productive labor force. The overall impact on the economy is positive.
- Improvement of the HC service by building its capacities and the procurement of needed equipment
- Reduction of tension between refugees and local populations because of the expansion of the services to poor who have been crowded out and denied access to services in areas with heavy overlap with the Syrian refuges. The Project will contribute significantly to reduce inter-communal tension and rebuilding the trust and social cohesiveness among the local communities where both Lebanese and Syrians coexist.
- The project focus on outreach and awareness-raising will allow reaching out to those most in need who are currently not aware of these services and strengthening communication channels between beneficiaries and service providers.
- Improvement of the access to health services for vulnerable individuals living in Lebanon and provision of services to the uninsured and underserved poor and reduction out of pocket payments for the poor
- Extension of referrals for specialized services in hospitals

The following potential negative impacts may be caused by the project:

- Increase in HC and municipal waste generation due to increased volumes of patients covered by the project
- Increased exposure of personnel and patients to Infectious Healthcare Waste (IHCW) leading to OHS risks.
- Increase in air emissions from power generators and ventilation equipment
- Increase in water consumption
- Increase in wastewater generation
- Slight disruptions due to minor civil works to accommodate increased patient volumes and waste generation.
- Increase in traffic due to patients and healthcare professionals
- Complains may arise from local communities
- Civil works that may be needed to scale up the facility could cause negative impacts on the neighboring communities and on the staff working in the HC institution. Those works are mainly needed to accommodate new equipment. They consist of the installation of electrical socket and wiring works, installation of lights, installation of air conditioning units, plumbing works, connection to existing sewage, changing floor tiles and painting. The impacts of such works include:
    - Hazardous waste pollution due to oil, grease, fuel & paint
    - Local generation of dust
    - Noise from machinery

[13] Project Appraisal Document for Lebanon Health Resilience Project, WB, June 13, 2017

    - Poor sanitation & solid waste disposal in work area
    - Health and Safety
- Although limited, potential disposal of old equipment inappropriately may harm the environment
- The project beneficiaries may not be well targeted and aware of their eligibility for services
- The poor, and especially those belonging to social and vulnerable groups and eligible to access services may be involuntary excluded.
- Tensions may increase between social groups especially if certain groups are excluded which may create tensions between Lebanese and Syrian communities

The Table below provides the Environmental and Social Plan (ESMP) summarizing positive and negative impacts and their severity. It proposes relevant mitigation measures. The mitigation measures should be included in the agreement with the beneficiary institution.

Impact	Type of Impact	Severity	Reversibility	Mitigation Measures	Responsibility	Cost ($US)
Contribute to saving unnecessary HC costs and social care costs by preventing disease and supporting a healthy population.	Positive	+++	Not applicable	None		
Increase the productive labor force. The overall impact on economy is positive.	Positive	+++	Not applicable	None		
Improve HC service by building its capacities and procurement of needed equipment	Positive	+++	Not applicable	None		
Reduce tension between refugees and local population	Positive	+++	Not applicable	Enhancement of the existing Grievance Redress Mechanism (accessible and responsive) in order to ensure targeted results are reached		
Improve access to health services for vulnerable individuals living in Lebanon.	Positive	+++	Not applicable	Enhancement of the existing Grievance Redress Mechanism and strong communication and outreach activities to inform vulnerable populations on the services and benefits available in order to make sure targets are reached		
Reduce diseases	Positive	++	Not applicable	None		
Increase in HC and municipal waste generation due to increased volumes of patients covered by the project	Negative	--	Reversible	• Verify HCW handling capacity of institution • Implement HCW management plan	-PMU Environmental Specialist -HC Institution	Cost will be determined later
Increased exposure of personnel and patients to infectious HCW leading to OHS risks.	Negative	--	Reversible	Implement OHS plan and HCW management	-PMU Environmental Specialist -HC facility	Cost will be determined later

Impact	Type of Impact	Severity	Reversibility	Mitigation Measures	Responsibility	Cost ($US)
Increase in air emissions from power generators and ventilation equipment	Negative	-	Reversible	Install proper air emissions filters in case missing and adjusting stack heights using as reference decision 8/1 of the MoE	-PMU Environmental Specialist -HC facility	Cost will be determined later
Increase in wastewater generation	Negative	-	Reversible	• Ensure connection to wastewater network or local treatment plant • Ensure existing connection can handle additional loads	-PMU Environmental Specialist -HC facility	Cost will be determined later
Increase water consumption	Negative	-	Reversible	Ensure connection to water network supports additional loads	-HC facility in coordination with Water Establishment	Cost will be determined later
Increase in traffic due to patients and healthcare professionals	Negative	-	Reversible	Investigate the use of alternative roads for the services	-HC facility in coordination with concerned Municipality	No Additional cost
The project beneficiaries may not be well targeted and aware of their eligibility for services	Negative	-	Reversible	Put in place strong communication and outreach activities that would inform beneficiaries on the services and benefits available and their eligibility for services	-PMU Environmental Specialist/MoPH	Already included
The poor, and especially those belonging to social and vulnerable groups and eligible to access services may be involuntary excluded.	Negative	-	Reversible	• Provide the proper GRM for handling complaints • A complaints register will be kept on site and this will feed into the GRM. Details of complaints received will be incorporated into the audits as part of the monitoring process • Put in place strong communication and outreach activities that would inform beneficiaries on the services and benefits available and their eligibility for services	-PMU Environmental Specialist/MoPH	Already included
Tensions may increase between social groups especially if certain groups are	Negative	-	Reversible	• Enhance the existing GRM and put in place strong communication and outreach activities	-PMU Environmental Specialist/MoPH	Already included

Impact	Type of Impact	Severity	Reversibility	Mitigation Measures	Responsibility	Cost ($US)
excluded which may create tensions between Lebanese and Syrian communities				that would inform populations on the services and benefits available and their eligibility for services.		
Impact of Minor Civil Works and scaling up the facility	Negative	-	Reversible	Implementation of the EMP	-Contractor -PMU Environmental Specialist -HC facility	No additional costs; the cost is imbedded in mandatory HSE measures and in Contract
• Hazardous waste pollution due to oil, grease, fuel & paint	Negative	-	Irreversible	• Collect and recycle lubricants in closed bins to avoid leakage and transferred to the refinery for processing • Keeping the site clean and tidy • Paints with toxic ingredients or solvents or lead-based paints will not be used	-Contractor -PMU Environmental Specialist -HC facility	No additional costs; the cost is imbedded in mandatory HSE measures and in Contract
• Local generation of dust	Negative	-	Reversible	• Periodically water down • Use dust barriers • Minimize dust from materials (such as sand, cement) and construction activities (such as excavation) by using covers, storage, control equipment, and increasing moisture content.	-Contractor -PMU Environmental Specialist -HC facility	No additional costs; the cost is imbedded in mandatory HSE measures and in Contract
• Noise from machinery	Negative	-	Reversible	• Use maintained equipment and silencers where possible • Place noise sources in a concealed area with respect to acoustic receptors	-Contractor -PMU Environmental Specialist -HC facility	No additional costs; the cost is imbedded in mandatory HSE measures and in Contract
• Poor sanitation & solid waste disposal in work area	Negative	-	Reversible	• All staff will avoid littering in the open. Workers to use bins to throw garbage • Provide adequately located & maintained containers and latrines (mentioned in HSE) • Timely disposal of wastes	-Contractor -PMU Environmental Specialist -HC facility	No additional costs; the cost is imbedded in mandatory HSE measures and in Contract

Impact	Type of Impact	Severity	Reversibility	Mitigation Measures	Responsibility	Cost ($US)
• Access and traffic	Negative	-	Reversible	• Set up warning signs in the workplace. All safe footpaths are marked; construction materials are not blocking pathways • Site entrances and exits are clearly marked for visitors and delivery drivers to see; • Avoid or minimize transport through hospital patients' areas. • public warned of all potential hazards by signposting and barriers / fencing • Ensuring safe and continuous access to all hospital departments during construction	-Contractor -PMU Environmental Specialist -HC facility	No additional costs; the cost is imbedded in mandatory HSE measures and in Contract
• Health and Safety	Negative	-	Reversible	• Providing site boundaries by installing suitable physical boundaries (barriers, tape or fence • Marking work area physical boundaries (barriers, tape or fence) • Store building materials (such as pipes, manhole rings, and cement bags) so that they cannot topple or roll over. • Contractor to ensure PPE (personal protective equipment) is used by all workers on site. • Materials and equipment are tidily stacked, protected and covered where necessary. Additionally, there is adequate space for new materials to be stored in secured covered areas to avoid damage, theft, and to protect these items from weather conditions. • Scaffolding for work in elevated areas such as ceiling painting should comply with the OSHA "General Requirements for Scaffolds	-Contractor -PMU Environmental Specialist -HC facility	No additional costs; the cost is imbedded in mandatory HSE measures and in Contract
Disposal of old equipment (potential and very limited)	Negative	-	Reversible	Send the old equipment to recycling companies	-PMU Environmental Specialist -HC facility	To be determined later

9. Implementation of the ESMF

The first step in the implementation of the ESMF by MoPH shall be the recruitment of an E&S officer. Different procedures are to be followed by the PHCCs and the hospitals as shown below:

9.1 Exclusion list:

The project will not involve or rely on:

- Any category A subproject with significant environmental and social risks, the negative impacts of which will be considered diverse, varied, irreversible and unprecedented.
- Any subproject with civil works involving construction/decommissioning of building containing asbestos cement.
- Any subproject involving construction/rehabilitation of incinerators
- Any subproject involving construction of Medical waste treatment plants
- Any subproject involving resettlement and/or land acquisition

9.2 Pre-screening:

The implementation of the ESMF cannot rely on accreditation system as the accreditation system for PHCC is still being designed and achieving accreditation for hospitals does not guarantee that care is optimal nor that environmental protection measures or operational, health and safety procedures are applied. A hospital can get the passing score for the accreditation even if it fails in getting a passing grade for those standards thus, a pre-screening is required in order to decide on the eligibility of the institutions to receive funds under this Project and the environmental and social safeguard instrument needed.

1. The project will involve subproject from the exclusion list	Yes	No
2. The project will involve large civil works[14]	Yes	No
PHCC		
3. The project will involve generation of health care waste	Yes	No
4. The project will involve small civil works[15]	Yes	No
Hospitals		
5. The project will involve generation of health care waste	Yes	No
6. The project will involve small civil works	Yes	No

- If the answer is yes for question 1; the project is Not eligible
- If the answer is yes for question 2; the project is Not eligible
- If the answer is Yes for question 3; the PHCC will prepare an ESMP including a HCWMP
- If the answer is Yes for question 4 or 6; the PHCC/Hospital will prepare an ESMP taking into consideration the construction works.
- If the answer is Yes for question 5; the hospital will prepare an Environmental Audit (if it has an approved EIA / an EIA (if it does not have an EIA approved) to be cleared by the MoE including a HCWMP included.
- If the answer is No to all the questions, no environmental assessment is needed.

[14] Large civil works are construction of new buildings, large rehabilitation of old buildings, water treatment plants, small wastewater treatment plants, construction of wastewater networks, .

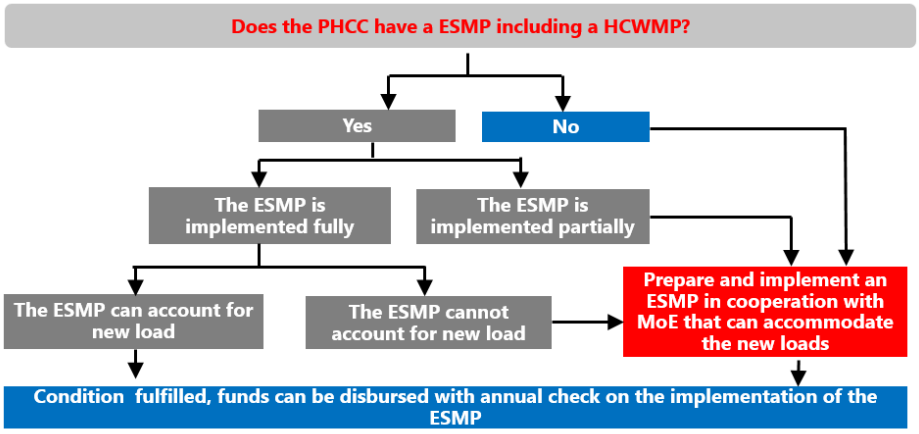
[15] Small civil works are those needed to accommodate new equipment. They consist of the installation of electrical socket and wiring works, installation of lights, installation of air conditioning units, plumbing works, connection to existing sewage, changing floor tiles and painting…….

9.3 Procedures to be followed by PHCCs:

1. The MoPH team will be trained by E&S officer in cooperation with MoE.
2. An initial assessment will be undertaken by the MoPH Team. The team shall start by making sure that a simple ESMP including a full Health Care Waste Management Plan (HCWMP) is prepared by the PHCC.
3. The MoPH will then send the ESMP to the MoE.
4. The MoPH will make sure that the ESMP including the HCWMP is part of the contract with PHCC
5. The MoPH will make sure that PHCC is contracting a Healthcare Waste management treatment contractor with a License from MoE
6. The MoPH will make sure the ESMP is being implemented by the healthcare facility.
7. The MoPH can then disburse the funds.

The MoPH in cooperation with MoE will check on the implementation of the ESMP annually.

The following graphic shows the procedure to be followed by PHCCs before disbursement of funds.



9.4 Procedures for hospitals that have an approved EIA:

1. The Hospital will recruit a consultancy firm from the CDR list of prequalified experts.
2. The consultancy firm shall perform an EA and submit it to MoE.
3. The MoE will nominate a committee to review the EA. The EA is checked for conformity of content for an EA report as set by MoE. If there is missing information, a letter is issued to the proponent to revise the EA.
4. If the EA conforms, then the EA is reviewed by the committee. The committee will conduct a field examination.
5. Further to review and examination, the MoE can approve, request modifications or refuse the EA.
6. If there is a need for improvement in the waste management process at the hospital, relevant actions shall be implemented. The consultancy firm will then do the necessary adjustments and resend the EA to MoE.

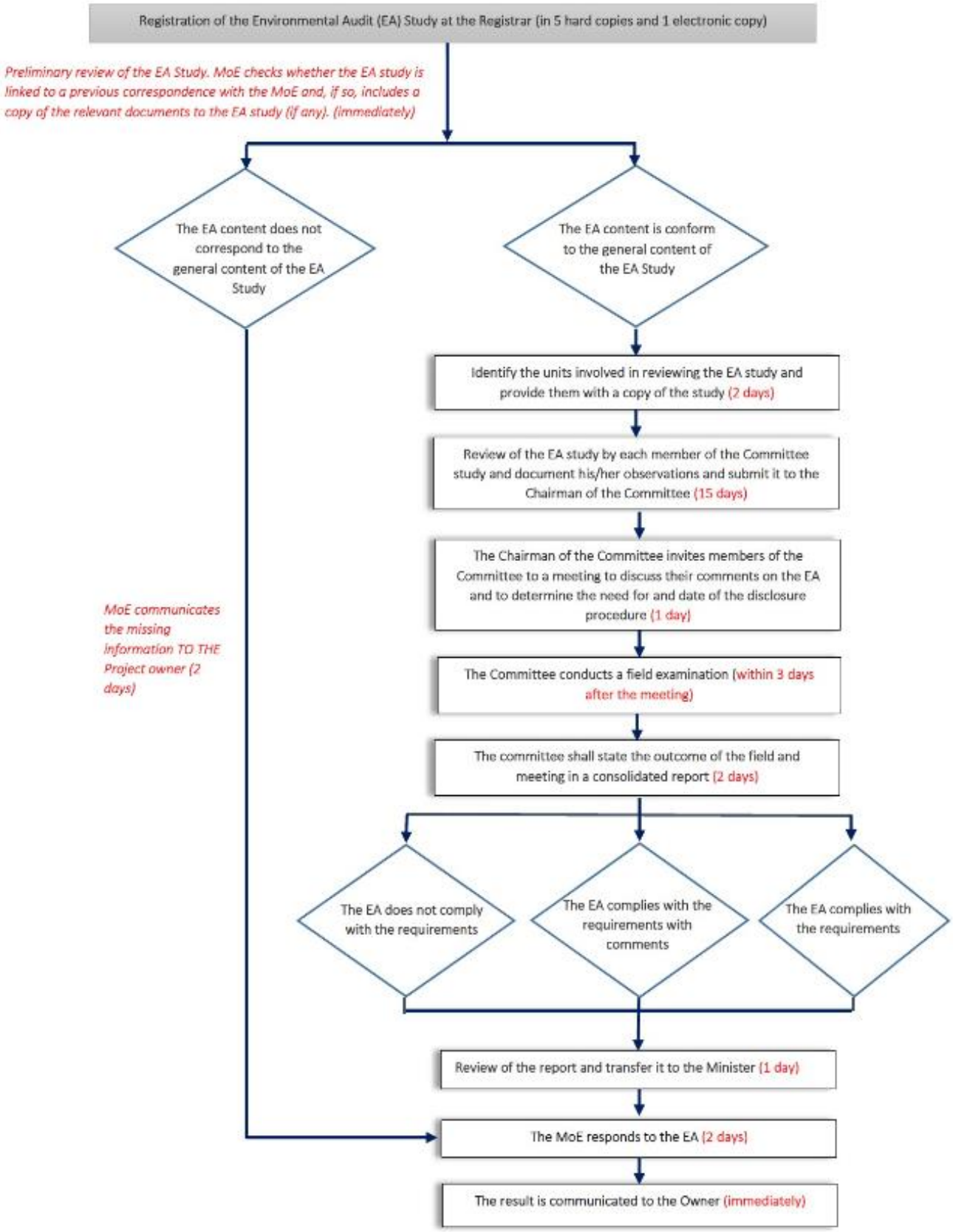
7. The MoPH will make sure that the ESMP including the HCWMP is part of the contract with the hospital

8. The MoPH will make sure that Hospital is contracting a Healthcare Waste management treatment contractor with a License from MoE

9. The MoPH will make sure the ESMP is being implemented by the healthcare facility.

10. The MoPH can then disburse the funds.

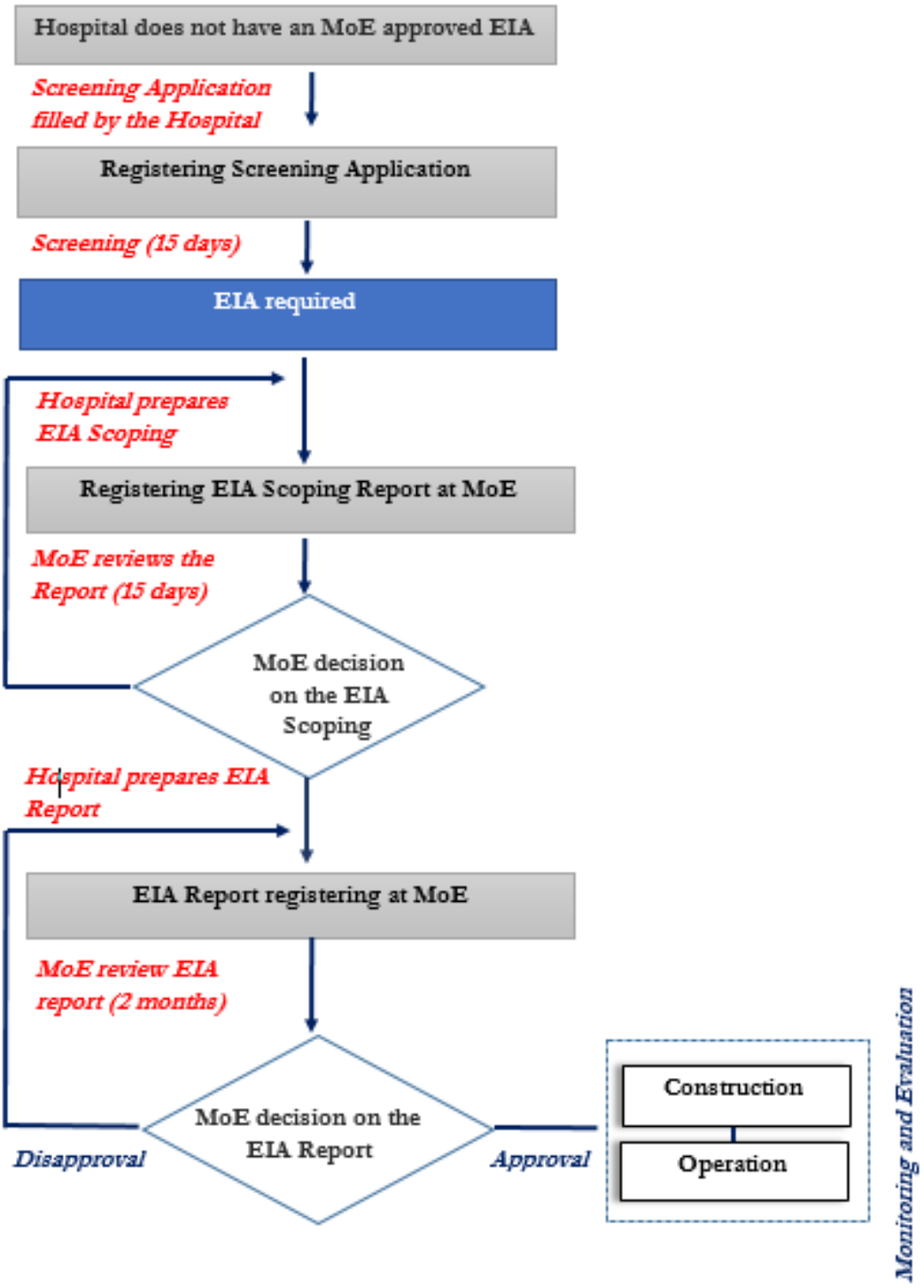
The following graphic shows the procedure to be followed by hospitals that have an approved EIA before disbursement of funds. Hospitals will be given a grace period of a year to fully implement the ESMP.


Registration of the Environmental Audit (EA) Study at the Registrar (in 5 hard copies and 1 electronic copy)
Preliminary review of the EA Study. MoE checks whether the EA study is linked to a previous correspondence with the MoE and, if so, includes a copy of the relevant documents to the EA study (if any). (immediately)
The EA content does not correspond to the general content of the EA Study
The EA content is conform to the general content of the EA Study
MoE communicates the missing information TO THE Project owner (2 days)
Identify the units involved in reviewing the EA study and provide them with a copy of the study (2 days)
Review of the EA study by each member of the Committee study and document his/her observations and submit it to the Chairman of the Committee (15 days)
The Chairman of the Committee invites members of the Committee to a meeting to discuss their comments on the EA and to determine the need for and date of the disclosure procedure (1 day)
The Committee conducts a field examination (within 3 days after the meeting)
The committee shall state the outcome of the field and meeting in a consolidated report (2 days)
The EA does not comply with the requirements
The EA complies with the requirements with comments
The EA complies with the requirements
Review of the report and transfer it to the Minister (1 day)
The MoE responds to the EA (2 days)
The result is communicated to the Owner (immediately)

9.5 Procedures for hospitals that did not previously submit an EIA to MoE

1. The hospital will hire a consultancy firm from the CDR list of prequalified experts to prepare a screening file based on Annex 4 of the EIA decree. The hospital will submit a request to the MoE to classify the submitted project.
2. The MoE will respond with a classification as per EIA decree.
3. If the project is classified as needing an EIA, a limited EIA needs to be prepared for the hospital by the consultancy firm under the supervision of the environmental specialist of the PMU.
4. The Hospital submits the limited EIA to MoE. The limited EIA preparation should include public consultation.
5. The MoE can approve, request modifications or refuse the EIA.
6. When approved, the PMU will post the EIA on the MoPH website. Upon request, the EIA will be made available for consultation at MoE premises.
7. The MoPH will make sure that the ESMP including the HCWMP is part of the contract with the hospital
8. The MoPH will make sure that Hospital is contracting a Healthcare Waste management treatment contractor with a License from MoE
9. The MoPH can then disburse the funds.
10. The PMU, in coordination with the MoE, will follow-up on the implementation of the EMP and include its requirements in contracting documents.

The following graphics explain the procedure to be followed by hospitals before disbursement of funds. Hospitals will be given a grace period of a year to implement the ESMP.


Hospital does not have an MoE approved EIA
Screening Application filled by the Hospital
Registering Screening Application
Screening (15 days)
EIA required
Hospital prepares EIA Scoping
Registering EIA Scoping Report at MoE
MoE reviews the Report (15 days)
MoE decision on the EIA Scoping
Hospital prepares EIA Report
EIA Report registering at MoE
MoE review EIA report (2 months)
MoE decision on the EIA Report
Disapproval
Approval
Construction
Operation
Monitoring and Evaluation

9.6 Capacity building program

In order to ensure proper implementation of environmental and social screening, and ESMF, the MoPH will undertake environmental training and institutional capacity building. Environmental training and sensitization will be required for the implementing stakeholders and health workers.

1. A capacity building program should accompany the HCWMP, the ESMF and the EMP
2. The staff of hospitals and PHCCs should be trained by the expert contracted to develop the EMP (including an HCWMP) and on the proper implementation of the plan
3. The contractor implementing works and the relevant personnel of hospitals and PHCCs should be made aware of the requirements of the EMP
4. All beneficiaries should be made aware of the requirements of the ESMF by the PMU

10. Health Care Waste Management Plan

10.1 Rational for the WMP

The information that should be included in a health care waste management plan is provided in section 10.3 below in order to identify requirements for the safe management of HCW and comply with national health and environmental regulations.

Facilities selected for support by LHRP will need to have a complete waste management plan in place or take necessary actions to be able to implement a waste management plan.

The HCWMP below can be used by the PMU to identify gaps in health care management and needed mitigation measures at each hospital and PHCC[16]. The different steps/actions in this plan should be implemented by the hospital in order to ensure safe disposal of IHCMW

10.2 Introduction

Healthcare waste can cause health and environmental hazards. Consequently, health care facilities are required to have and should be implementing a health care waste management plan (HCWMP). The HCWMP should consider waste from production, to handling and finally treatment.

Adequate financial and human resources should be allocated to the WMP in addition to the comprehensive training of relevant staff on its implementation.

10.3 The Development of the Healthcare Waste Management Plan

The development of the HCWMP starts with the allocation of responsibilities for its management to a person or group of person, understanding the waste generated at the facility, taking necessary steps to properly segregate waste, determining safe waste conveyance routing, properly storing the waste, and finally making sure waste is treated properly or disposed of, to operators who can safely treat it. The plan must comply with national legislation.

10.3.1 Allocate responsibilities

The first step in a HCWMP is putting a person or a group of persons in charge of the plan.

→ In PHCCs, assign a senior staff member to oversee the implementation of the WMP.
→ In hospitals, form a waste-management committee.

Suggestively, the waste management committee can comprise the following key personnel. In small hospitals, one person can fulfill more than one set of responsibilities.[17]

- The Head of the Hospital
- Heads of Departments
- Chief Pharmacist
- Senior Nursing Officer
- Hospital Manager
- Hospital Bio-Medical Engineer
- Financial Manager
- Environmental and Health Officer or Waste Management Officer (if not assigned, then assign)

The following Table summarizes the responsibilities of each key personnel.

[16] Starting Health Care Waste Management in Medical Institutions-A Practical Approach, Health Care Waste Practical Information Serie, No.1, WHO 2000
[17] Safe management of wastes from health-care activities, edited by Y. Chartier et al., 2nd edition, WHO 2014

Key Personnel	Responsibilities in Waste Management
Head of the Hospital	▪ Assigns the waste management committee and define responsibilities of each member of the team ▪ Steers and approves the WMP ▪ Calls for recurrent meetings to evaluate and improve the WMP ▪ Allocates funds and resources as necessary ▪ Supervises the implementation of the WMP ▪ Ensures staff are trained regularly
Heads of Departments	▪ Ensure all staff in the department are aware of the waste handling procedures and implement them. ▪ Respond to requests and claims made by the E&H / Waste officer ▪ Ensure staff in the department are well trained in waste handling procedures
Chief Pharmacist	▪ Safe management of pharmaceutical store in order to minimize waste ▪ Advises and monitors the appropriate treatment and disposal of Pharmaceutical waste ▪ Ensures personnel involved in waste handling, treatment and disposal is well trained
Senior Nursing Officer and Hospital Manager	▪ Responsible for training (induction, training and refresher training), nursing staff (medical assistants, hospital attendants and ancillary staff) in the correct procedures for segregation, sealing, storage, transport and disposal of waste. ▪ Advises on and monitors high standards of infection control
Hospital Bio-medical Engineer	▪ Responsible for installing and maintaining waste-storage facilities and handling equipment that comply with the national laws and regulations ▪ Ensures adequate operation and maintenance on waste treatment equipment ▪ Trains staff operating the waste treatment facilities
Financial Manager	▪ Makes sure funds are available for the continuous supply of items needed in the waste management.
Waste Management Officer	▪ Responsible for the daily operation and monitoring of the waste-management system ▪ Has direct access to all members of the hospital staff, reporting to the head of the hospital ▪ Controls and supervises collection, transport, storage of the waste on daily basis ▪ Makes sure supplies of bags, containers for HC solid waste, protective clothing and trolleys are convenient and available ▪ Ensures that staff replace bags and HC containers when ¾ full, adequately ▪ Coordinates waste disposal operations ▪ Ensures that waste is not stored for longer time than acceptable and collected at required frequency

- Organizes staff training and refresher trainings for nursing staff, medical assistant, hospital attendants, ancillary staff, doctors, clinical staff , waste handlers to make sure each member is aware of his own responsibilities
- Ensures compliance with occupational health and safety measures
- Prepares emergency plan and procedures for HC waste management
- Investigates and reports incidents concerning HC waste

10.3.2 Survey and evaluate existing waste management practices

The survey should include site observations and interviews at all the levels from front-line workers, support staff, physicians and managers. The survey should result in the creation of a status report. The report will help in identifying the different departments that are producing wastes and will lead to the categorization and the quantification of the different types of wastes generated. This information will facilitate the estimation of the number and the capacity of waste containers and the storage rooms, the collection and transportation frequency.

The survey can make use of the Individualized Rapid Assessment Tool (I-RAT) that was developed in 2009 as part of the UNDP GEF Global Project on Healthcare Waste. The I-RAT is based on WHO's Rapid Assessment Tool (RAT), which is part of WHO's overall strategy to reduce the disease burden caused by poor healthcare waste management (HCWM) through the promotion of best practices and the development of safety standards. Unlike the RAT which evaluates the HCWM situation on a national level, the UNDP GEF Project's I-RAT is intended for use at the individual healthcare facility level[18]. A pdf version of the excel tool can be found in Annex D. The survey comprises the following information:

→ **Collect information about existing waste-management arrangements**

- ✓ General Information:
  - Medical services provided
  - Number of patients treated
  - Total number of beds
  - Average rate of occupation
- ✓ Waste management practices in HC premises (written policy for healthcare waste management)
- ✓ Types and Quantities of waste generated per department (or practice in case of PHCC) per category and per day (in volume and weight) and systems for waste separation and containers type. Sample of checklist to be filled in each department is provided below.

Waste type	Volume/week (m3) and/or weight (kg)	Collection system/frequency	Transport	Final disposal
Infectious waste				
Sharps & cutting				
Bottles / glass				
Anatomical parts of the body				
Waste assimilated to household waste				

[18] www.undp.org.lb/announcement/Application_form accessed on 31-08-2018

Perforated, sharp or cutting cytotoxic waste				
Soft cytotoxic waste				
Pharmaceutical and chemical waste				
Radioactive waste				
Other waste				

- ✓ Any available documentation that could help in tracking the wastes
- ✓ Practices for reducing wastes
- ✓ Practices of reuse and possibilities of recycling
- ✓ Practices of transportation of wastes within the HC premises
- ✓ Storage practices, location, volume and equipment of the storage rooms (wastewater disposal, temperature control)
- ✓ Waste disposal: onsite or offsite (contract with waste management companies)
- ✓ Waste related equipment available and needed (no, status)
    - o Care trolleys
    - o Waste bins for wastes assimilated to household waste
    - o Waste bins for IHCW
    - o Waste trolleys for "General waste" or "Non-hazardous waste" (black), clearly labelled
    - o Waste trolleys for "Infectious waste" (Yellow), clearly labelled
    - o Boxes for "other hazardous waste" such as chemical and pharmaceutical wastes
- ✓ Personnel involved
    - o Number and qualifications (physicians, nurses, cleaning staff, etc.)
    - o Skills
    - o Person/Committee in charge of waste management
- ✓ Training of staff, and identification of the need for training
- ✓ Level of health protection of staff during segregation, collection, transportation, storage and disposal.
- ✓ Cost of waste management (capital, operation and maintenance costs)
- ✓ Monitoring practices and identification of the need for additional monitoring

→ **Evaluate waste management arrangements vis-a-vis the national legislations**

The results of the waste management survey and recommendations of each member of the Health committee will be evaluated by the waste management officer in the light of existing legislations.

The findings shall be summarized in a status report and major gaps and deviations from regulations and good practice identified. Based on the status report, the PMU will determine the needs of the facility for a full implementation of the HCWMP. The need could be for a complete HCWP or for filling gaps in a partial existing plan.

Based on the assessment of the facility, a draft waste management plan will be prepared by the waste management officer and discussed with the Health Committee members. The draft plan will be submitted to the PMU for approval.

10.3.3 The health care waste management plan.

The key elements

- Allocate resources and assign responsibilities;

- Promote the reduction of the wastes generated
- Ensure proper waste segregation;
- Select safe and environmentally-friendly management options, to protect people from hazards when collecting, handling, storing, transporting, treating or disposing of waste.
- Secure an environmentally safe treatment of hazardous health care wastes; and
- Raise awareness of the risks related to health-care waste and of safe practices;

At minimum, the waste management plan shall comprise the following information:

Introduction

Describe the planned services of the hospitals/PHCCs and the types of medical waste expected to incur.

Regulatory Framework and Technical Standards

Refer to the Lebanese regulatory framework on medical waste management (MWM) and existing technical standards/accreditation by MoPH/MoE, guidelines and operational procedures.

Compliance and Operational Management Plan

Preparation of a plan that:

(i) Establishes compliance in current MWM system, including repairs, upgrading, replacement and new construction / procurement of equipment and facilities;
(ii) Creates and operates systems and procedures for handling additional medical waste quantities generated by project activities,
(iii) Ensures staff is aware, trained, disciplined and diligent in operating MWMS;
(iv) Implements a monitoring plan for the generated quantities of the various waste types, their treatment and final disposal; includes basic quality criteria such as: state of repair of system components, cleanliness around MWM facilities, disposal options.

Following are details to include in a waste-management plan:

→ **Establish an effective Segregation of Waste (as recommended by MoE)**

Segregate waste in designated color coded bags/containers and duly symbol-coded as provided in the following table.

Waste category	Color of container and marking	Container type
Healthcare waste assimilated to household waste: Non-hazardous or general waste: waste that does not pose any particular hazard such as paper, packaging, food residues, dried flowers, tissues, materials not contaminated with body fluids	Black	Plastic bags
IHCW, sharp or cutting: Syringes, needles, disposable cutting instruments, razor blades, scalpel blades	Yellow with appropriate symbol	Plastic containers for sharp and cutting waste
IHCW Soft (no sharp , no cutting): waste contaminated with blood, bodily fluids, cultures and stocks of infectious agents from laboratory work, waste from patients with infections	Yellow with appropriate symbol	Plastic bag
Anatomical parts of the body: human tissues, organs or fluids and body parts;	Grey with appropriate symbol	Plastic bags or boxes
Perforated, sharp or cutting cytotoxic waste: waste containing substances with genotoxic properties (i.e. highly hazardous substances that are, mutagenic, teratogenic or carcinogenic), such as cytotoxic drugs used in cancer treatment;	Purple with appropriate symbol	Sharp containers
Soft cytotoxic waste: waste containing substances with genotoxic properties (i.e. highly hazardous substances that are, mutagenic, teratogenic or carcinogenic), such as cytotoxic drugs used in cancer treatment;	Purple with appropriate symbol	Plastic bag
Pharmaceutical and chemical waste: expired, unused and contaminated drugs and vaccines	Red with appropriate symbol	Plastic bag
Radioactive waste	Red with appropriate symbol	Plastic bag

- ✓ Assign specific disinfected bins for potentially infectious wastes
- ✓ Include drawings of the establishment showing designated bag (health-care waste or other waste) or disposal container for every department in the hospital or section of the PHCC;
- ✓ Include drawings showing the type of bag holder to be used in the departments or section.
- ✓ Include drawings of sharps containers, with their specification.

→ **Collection**

- ✓ Establish routes for infected waste capable of reducing transmission of infections, including elevators.
- ✓ Include drawings showing the paths of waste-collection trolleys through the hospital or PHCC, with clearly marked individual collection routes.

- ✓ Include drawings showing the type of trolley or wheeled container to be used for bags collection. Internal transport to a central storage area should be done in separate trolleys. For instance, yellow and black bags should not be carried in the same trolley. The trolley should be closed with a lid. Bags should not be hand-carried around the Health facility.
- ✓ Establish a fixed collection schedule. The collection shall be in a separate schedule, route and collection time for each type of waste to prevent any mishandling and timely collection. The minimum frequency is once a day. The schedule shall include a collection timetable for each trolley route, the type of waste to be collected, and the number of departments or sections to be visited on one round. The central storage point in the facility for that particular waste should be identified.
- ✓ Set a procedure to make sure all bags leaving are sealed and labelled to allow people in charge to trace any waste bag to its source if a problem is found. It also allows to quantify the waste produced in each department.

→ **Temporary storage**

- ✓ Establish the use of rigid 2-wheeled containers for temporary storage. This is to avoid filled waste bags being piled on the floor. The temporary storage should be located away from patient's areas.

→ **Central Storage**

- ✓ Establish drawings showing the central storage site for health-care waste and the separate site for other waste (the 2 types of central storages should be geographically separate). Make sure the central storage containers for black bags are clearly marked "for general waste only" and similarly, for yellow bags marked "for infectious waste only".
- ✓ Provide details of the type of containers, security equipment, and arrangements for washing and disinfecting waste-collection trolleys (or other transport devices).
- ✓ Address eventual needs for refrigerated storage facilities and drainage. The storage time should be short. All waste should be disposed of within 24 hours in hot season and maximum in 48 hours in cool season

→ **Disposal**

- ✓ Establish clear plans for the disposal of different types of wastes.

→ **Personnel Protection**

- ✓ Ensure personnel is well informed
- ✓ Ensure personnel (including healthcare, medical, paramedical, cleaning, collection) wear protective equipment
- ✓ Ensure waste workers are duly immunized
- ✓ Establish a training for personnel protection
- ✓ Establish a plan for the provision of protective equipment (gloves, masks, safety shoes, ….)

→ **Responsibilities**

- ✓ Define the responsibilities, duties and codes of practice for each of the different categories of personnel of the hospital who, through their daily work, will generate waste and be involved in the segregation, storage and handling of the waste.
- ✓ Define the responsibilities of hospital attendants and ancillary staff in collecting and handling wastes, for each area and department; where special practices are required (e.g. for radioactive waste or hazardous chemical waste), the stage at which attendants or ancillary staff become involved in waste handling shall be clearly defined.
- ✓ Set diagrams of the waste management structure and the connection between different managers and staff include their names and their telephone numbers.
- ✓ Provide names and phone numbers of persons to be contacted in case of emergency.

→ **Procedures and practices**

✓ Produce simple diagram (flowchart) showing procedure for waste segregation.

✓ Outline of monitoring procedures for waste categories and their destination.

→ **Training**

✓ Describe the training courses and programs to be set up and the personnel who should participate in each.
- Training on healthcare management (managers, health professionals, waste workers)
- Training on relevant national laws and regulations
- Training on segregation
- Training on collection
- Training on the use of personal protection equipment

✓ Establish that new members of staff should be trained

✓ Establish a training program that includes reminder training, short refresher courses, workshops, …

→ **Emergency Response**

✓ Contingency plan, containing instructions on storage or evacuation of health-care waste in case of breakdown of the treatment unit or during closure for planned maintenance, in the event of a natural disaster, spill, treatment system break down, power failure, etc. This plan is to be followed to ensure the proper disposal of medical waste.

→ **Monitoring and Evaluation**

✓ Establish record keeping, tracking and traceability

✓ Establish a schedule for the implementation of the tasks showing dates and resources and the date when the waste management plan is officially put into practice.

✓ Establish an implementation strategy

✓ Set follow up and weekly auditing plans with corrective measures in case of non-conformity.

→ **Cost for required material and human resources**

✓ Estimate the number and cost of bag holders and collection trolleys.

✓ Estimate the number of sharps containers and health-care waste drum containers required annually, categorized into different sizes, if appropriate.

✓ Estimate the number and cost of color-coded bags or bins to be used annually.

✓ Estimate the number of personnel required for waste collection and the relevant cost.

✓ Estimate the cost for the implementation of the waste management Plan including investment cost (containers, storage location) and operational cost (fuel, electricity, maintenance, salaries of staff in charge of the healthcare waste management and collection, sharp boxes, …)

10.3.4 Revisions and updated of the WMP

When full agreement is reached between all members of the waste management committee, the revised WMP document is signed and designated as the official HC Institution WMP. The allocated person for implementation of WMP/ the waste management committee shall review, at least on yearly basis, the WMP and suggest its revision if needed especially if new legislation is in place.

11. Monitoring and Evaluation System

The MoPH E&S Officer (PHHC) will work with MoE to check the existence, and proper implementation of Environmental and Social Safeguards Instruments in the HC institutions. The HC institutions should look in particular on the possibility of accommodation of additional waste that will potentially be generated by LHRP. This will require expertise at least at MoPH and PMU level.

If the HC institution ESMP involves wastewater works and/or infectious waste storage upgrading or assignment, then it should submit to MoE the Annex 4 template (Decree 8633/2012) for Screening. If an EIA is required, then an independent consultant shall be assigned to prepare it. It will be reviewed by the MoE, revised if necessary and approved.

The PMU should check that the Healthcare WMP, the ESMF and the ESMP are being fully implemented by the Hospitals and PHCCs.

The following table presents the main tasks to be undertaken to monitor the proper environmental implementation of the project.

Task	Indicator	Frequency	Responsibility	Phase
Review the ESMP including an HCWMP	ESMP prepared and approved by MoE	Once	HCWM expert	Pre-disbursement of funds
Monitor the implementation of the HCWMP	Visit and compliance report by HCWM expert	Once	PMU	Pre-disbursement of funds
Decide if an Institution needs an EIA	Wastewater networks and/or infectious waste storage need upgrading, waste-related equipment	Once, after the preparation of the ESMP	PMU	Pre-disbursement of funds
Monitor the progress of the preparation of an EIA	Environmental Expert contracted	Once	PMU	Pre-disbursement of funds
Follow up with Environmental expert to get the EIAs approved by the MoE	Scoping submitted and answered EIA approved	Once	PMU/Environmental Expert	Pre-disbursement of funds
Check the implementation of the ESMP (included in the EIA)	Report submitted by the Environmental Expert supervising the implementation of the ESMP	Monthly, during implementation of the ESMP	PMU	During project life time
Check the implementation of the ESMP	Report submitted Observations during site visits	Twice yearly, every 6 months	Report submitted	During project life time

12. Institutional Arrangements

The Institutions involved in the implementation of the Project include:

The Council for Development and Reconstruction manages the World Bank and IsDB funds and verifies the implementation of safeguards.

MoPH Steering Committee which was established under EPHRP and would be expanded to include a representative from MoPH hospital sector and CDR. It is also recommended to include a representative from the MoE. The role of the Steering Committee is to oversight the Project, coordinate interagency policies and programs and resolve any strategic and implementation issue. The steering Committee meets quarterly and is headed by the MoPH Director General with representatives from: the PMU (PHCC Coordinator), the PMU Hospital Coordinator, CDR, Civil Society, public hospitals, and academia.

The Project Management Unit (PMU) manages the implementation of the Project. The PMU includes an E&S Officer, two project coordinators - a PHCC Coordinator and a Hospital Coordinator, a financial and accounting manager, and a procurement officer. The PHCC Coordinator is currently responsible for the implementation of the EPHRP and will continue in the same role under the proposed operation. Specifically, the PHCC Coordinator will ensure the implementation of Component 1 and relevant parts of Component 3. The Hospital Coordinator will be a new appointment by the MoPH, to manage the implementation of Component 2. PMU Environmental specialist will be in charge of Environmental and Social implementation, following up and reporting at the PMU level. As mentioned above, it is recommended to

The MoPH developed a monitoring and evaluation plan for the ongoing EPHRP project supported by the upgraded Health Information System (HIS). The current Project will build on the EPHRP M&E System and will consist of the following:

- Internal oversight by MoPH on PHCCs and Hospitals including continuous monitoring of the activities
- Independent project evaluation including ongoing and planned project activities
- Beneficiary assessment and grievance redress mechanisms at the central and facility levels.
- External medical auditing (will be conducted as post-review)
- Project's final evaluation

13. Grievance Redress Mechanism

An effective Grievance Redress Mechanism (GRM) is in place at MoPH covering PHHCs and Hospitals. It plays an important role in enhancing public trust and can be valued as a means to strengthen the performance and to improve the MoPH reputation, administrative and systemic issues related to its projects and programs implemented. This GRM is detailed in the Memorandum No. 133 dated 20 May 2015 issued by the Minister related to the receipt and follow up on complaints. Details on the GRM at MoPH and Memorandum No. 133 (in Arabic) can be found in Annex F.

Below is the summary of the GRM process at MoPH covering both PHCCs and Hospitals, as detailed in Memorandum 133.

1- Grievance can be addressed 24/24, 7/7 through the following uptake channels:
    a. Hotline No. 1214 that is handled by a private company (TelePerformance)
    b. Email "info@moph.goc.lb" or though MoPH website
    c. Through MoPH mobile application.
2- All grievances addressed by email or through mobile application are conveyed to the company in charge of following up on the grievances (Teleperformance). An acknowledgement of receipt is sent to the complainant and a complaint ticket is opened
3- The complaint is sorted and processed to the assigned person at MoPH (listed in Memorandum 133). TelePerformance conveys the complaint through an email and copies the grievance coordinator at MoPH who will follow up on the grievance with the complainant and the HC Institution. In case of emergency, the concerned person at MoPH is informed through a call on his mobile phone.
4- The assigned person at MoPH shall report to TelePerformance about the resolution of the complaint within 24 hours if the case is considered urgent and within 72 hours for less urgent matters.
5- The complainant is given a phone call and informed about the resolution of the grievance and the ticket is closed.
6- TelePerformance shall issue weekly reports of the pending issues to the MoPH Director General and Minister

14. Cost Estimate

Below is the ESMF Indicative Budget

Elements	Subproject Activities	Responsibility	Number	Unit Price US$	Total Cost US$
Training for the preparation and implementation of a ESMP (including an WMP)	Public Hospitals and PHCC	PMU/MoPH	10 (each comprising around 25 representatives of institutions, one from each HC institution)	3,000	30,000
EA/EIA preparation including an ESMP	Public Hospitals	Hospital Waste management Committee	30 (worst case scenario: all the hospitals need an EIA)	8,000	240,000
Financial Support and Contribution from MoPH for the Implementation of ESMP (prepared in the EIA) and WMP	Public Hospitals	Hospital Waste management Committee	30 (worst case scenario)	10,000	300,000
Technical support	Short term consultants for PMU support and enforcement including potential recruitment of WMP expert/environmental expert to assist in supervision, implementation and monitoring of WMPs and ESMP	PMU/MoPH	810 working days (243 institutions, visited twice a year for 5 years at a rate of 3 per day) 90 working days (provisional for desk work, reporting, and supervising environmental instruments)	300	270,000
Sub-Total					840,000
Contingencies (approximately 7% of the total costs)					60,000
Total Cost					**900,000**

15. Annexes

Annex A: General Outline of an Environmental and Social Management Plan (ESMP)

Annex B: List of people met and minutes of meetings

- Ministry of Public Health-Bir Hassan
- Ministry of Environment-Beirut Downtown
- Al Azm wal Saada PHCC
- Iman PHCC - Mina
- Tripoli Governmental Hospital (TGH)
- Arcenciel
- SAFE

Annex C: Report of the Public Consultation

Annex D: I-RAT

Annex E: Relevant Legal Texts

Annex F: Memorandum No. 133 and Grievance Redress Mechanism at MoPH

Annex A: General Outline of an ESMP

- **Executive summary**
- **Table of content**
- **Introduction.** Includes a project description, name of owner, name of expert or firm, doing the EIA and a brief description of the project toe, location and size
- **Policy and legal framework** relevant to the project
- **Description of the proposed HC establishment**. The description should include drawings, maps and pictures. It should also include the size, operations schedule, services and period of operation of the project.
- **Description of the surrounding physical, chemical, biological, social and economic environment** and expected changes before the beginning of the project and in the future.
- **Environmental impacts** of the project positive or negative, direct and indirect, short or long term.
- **Environmental and social management plan** to include mitigation measures, monitoring tools, institutional measures to be undertaken all over the different phases of the project to remove or reduce environmental impacts to acceptable levels and finally the cost of the ESMP
- **Summary of impacts**: Predicted adverse environmental impacts and their relationship to social impacts (and any uncertainties about their effects) for which mitigation is necessary should be identified and summarized.
- **Description of mitigation measures**: Each measure should be briefly described in relation to the impact(s) and conditions under which it is required. These should be accompanied by, or referenced to, designs, development activities (including equipment descriptions) and operating procedures and implementation responsibilities. Public consultation should be clearly described and justified.
- **Description of monitoring program**: The ESMP identifies monitoring objectives and specifies the type of monitoring required; it also describes environmental performance indicators which provide linkages between impacts and mitigation measures identified in the ESIA/IEE report - parameters to be measured, methods to be used, sampling location and frequency of measurements, detection limits (as appropriate) and definition of thresholds to signal the need for corrective actions. Monitoring and supervision arrangements should ensure timely detection of conditions requiring remedial measures in keeping with good practice; furnish information and the progress and results of mitigation and institutional strengthening measures; and, assess compliance with national and Bank safeguard policies. Such arrangements should be clearly specified in the project implementation/operations manual to reinforce project supervision.
- For projects involving rehabilitation, upgrading, expansion, or privatization of existing facilities, remediation of existing environmental problems may be more important than mitigation and monitoring of expected impacts. For such projects, the management plan focuses on cost-effective measures to remediate and manage these problems.

- **Legal requirements and bidding and contract documents**: The incorporation of detailed mitigation, monitoring and supervision arrangements into legal conditions and covenants is essential. It is good practice to ensure that implementation of major environmental requirements is linked to disbursement conditions. It is important to translate ESMP requirements into bidding and contract documents to ensure that obligations are clearly communicated to contractors.

- **Institutional arrangements**: Responsibilities for mitigation and monitoring should be defined along with arrangements for information flow, especially for coordination between agencies responsible for mitigation. In particular, the ESMP specifies who is responsible for undertaking the mitigating and monitoring measures, e.g., for enforcement of remedial actions, monitoring of implementation, training, financing, and reporting. Institutional arrangements should also be crafted to maintain support for agreed enforcement measures for environmental protection. Where necessary, the ESMP should propose strengthening the relevant agencies through such actions as: establishment of appropriate organizational arrangements; training; appointment of key staff and consultants; and, arrangements for counterpart funding and on-lending. For projects having significant environmental implications, it is particularly important that there be in the implementing ministry or agency an in-house environmental unit with adequate budget and professional staffing strong in expertise relevant to the project.

- **Implementation schedule**: The timing, frequency and duration of mitigation measures and monitoring should be included in an implementation schedule, showing phasing and coordination with procedures in the overall project implementation/operations manual. Linkages should be specified where implementation of mitigation measures is tied to institutional strengthening and to the project legal agreements, e.g., as conditions for loan effectiveness or disbursement.

- **Reporting**: Procedures for providing information on the progress and results of mitigation and monitoring measures should also be clearly stated. Recipients of such information should include those with responsibility for ensuring timely implementation of mitigation measures and for undertaking remedial actions. In addition, the structure, content and timing of reporting to the Bank should be designed to facilitate supervision and should establish arrangements for the timely receipt of monitoring reports and their forwarding to the Bank's environment specialists for review and comment.

- **Cost estimates:** These should be specified for both the initial investment and recurring expenses for implementing all measures defined in the ESMP, integrated into the total project costs and factored into financing negotiations. As mitigating costs may occur at points during project implementation or operations, indications of cash flow should be provided. It is important to capture all costs – including administrative, consultancy, and operational and maintenance costs – resulting from meeting required standards or modifying project design.

Annex B: List of people met and minutes of meetings

Following is a list of relevant institutions met before the public consultations. The minutes of these meetings are also attached below.

- Ministry of Public Health-Bir Hassan
- Ministry of Environment-Beirut Downtown
- Al Azm wal Saada PHCC
- Iman PHCC - Mina
- Tripoli Governmental Hospital (TGH)
- Arcenciel
- SAFE

Minutes of meeting with MoPH

Location	Ministry of Public Health-Bir Hassan
Subject	First Meeting with Environmental Safeguards for Lebanese Health Resilience Project
Date	April 23, 2018
Starting time	9:00
Ending time	10:15
Reporter	Linda Khalil

Attendee	Title	Organization	Contact Details
Sizar Akkoum	Focal Point	MoPH	sizarak@gmail.com
Ola Kdouh	Monitoring, Evaluation & Technical Officer	MoPH	olakdouh@gmail.com
Lama Abdel Khalek		MoPH	
Rima Shaya	PHC Coordinator	MoPH	rgs066@gmail.com
Mohamed Bezzaouia	Environmental Specialist	World Bank	mbazzaouia@worldbank.org
Linda Khalil	Environmental Consultant	Consultant for MoPH	lindaslim@hotmail.com

Summary of Meeting and Action Items:

No.	Action/Issue	Responsibility	Status
1	The main aim of the project in terms of primary care is to finance the provision of a basic benefit package of health services (consultations, lab tests etc) to needy Lebanese. The drugs and vaccines are part of the basic benefit package but this is the contribution of the ministry as part of its ongoing programs rather than a project activity,	Mrs. Kdouh	For Information
2	Mrs. Khalil asked how do public hospitals disposing their HC wastes. MoPH answered that they usually have contracts with the NGO Arcenciel.	Mrs. Akkoum	For Information
3	MoPH confirmed that hospitals can fail the waste management chapter and yet get the accreditation. MoPH will share the accreditation files with the Consultant.	Mrs. Akkoum	For Action
4	MoPH will share documentations about the Previous Projects and new documentation about this Project.	Mrs. Kdouh	For Action

5	MoPH prepared a draft ESF for the Project and will share it with the Consultant.	Mrs Akkoum and Kdouh	For Action
6	Mrs. Khalil asked about the status of the Steering Committee for the Project. MoPH replied that it was not established yet.		For Information
7	Mrs. Khalil asked about the Project Operation Manual. MoPH replied that it was not ready yet.		For Information
8	Mrs. Khalil asked about the structure of MoPH. MoPH will share the old MoPH organization chart and a new proposed chart (not yet approved).	Mrs. Akoum	For Action
9	Mrs. Khalil asked if all the public hospitals will benefit from HCRP. MoPH confirmed that they are 30 to 33. MoPH will send a list of all concerned hospitals to the Consultant.	Mrs. Akkoum	For Action
10	Mrs. Khalil asked for a list of all the PHCC that will benefit from HCR Project. MoPH will send it to the Consultant.	Mrs. Kdouh	For Action
11	Mrs. Khalil inquired about the rules that governs the relation between MoPH and Public Hospitals. MoPH explained that before 1996, the public hospitals were under the direction of MOPH. After 1996 (date of issuance of a law) the hospitals became under the tutelage of MoPH. MoPH checks their budgets and their medical plans. A unit in MoPH is assigned for Public Hospitals. However, there is a need to confirm if it is active.	Mrs. Akkoum	For Information
12	MoPH explained that there are some basic criteria that differentiate between the dispensaries and the PHCC. Those criteria are related to HR, Quality of Service, Structure, ... A field coordinator visits the PHCC, checks the compliance with the criteria, put some recommendations and if HCC complies, then it will be part of MoPH PHCC Network.	Mrs. Kdouh	For Information
13	MoPH explained that Public Hospitals are contracting Safe or Arcenciel to dispose their HC wastes. MoPH advises dispensaries to have an agreement with hospitals located in their vicinity to dispose their HC wastes. The disposal of expired drugs is a major issue. Usually, drugs that will expire in 3 months can be given back to Karantina Public Hospital or to YMCA for a quick use. MoPH is working on helping PHCC have effective medication management and predict their needs through the Health Information System.	Mrs. Shaya	For Information
14	As the World Bank is not financing vaccines and drugs, dispensaries shall not be included in the ESF.	All attendees	Agreed
15	Mrs. Khalil asked if the works will include any infrastructure or construction. MoPH replied that they were limited to minor rehabilitation and upgrading to ensure proper connections of the new equipment.	Mrs. Akkoum	For Information
16	Mrs. Khalil asked about the types of the equipment that will be replaced. MoPH explained that they include all types of machines but not radioactive ones. MoPH will provide the Consultant with files	Mrs. Akkoum	For Action

	listing all the works and equipment to be provided to each hospital under HCR Project.		
17	Mrs. Khalil asked if any Grievance Redress Mechanism is in place. MoPH confirmed that the GRM was very active and efficient at the PHCC but was not very sure about its efficiency at the hospitals. Every quarter, 300 beneficiaries, chosen randomly, are called and asked about the quality of the service and informed about the GRM. There is a coordinator at the Ministry taking care of the GRM. The hotline 1214 is managed by the company teleperformance that will help proceed the grievance in MoPH. A copy of the grievance redress log sheet will be sent to the Consultant.	Mrs. Kdouh	For Action
18	Mrs. Khalil expressed her interest in visiting selected hospitals and PHCC preferably with a representative from the Ministry. As Mrs. Akkoum will not be available before May 11, 2018 she will ask MoPH to assign a representative and will issue an introduction letter for the Consultant in case she needs to go alone. As per the visits to selected PHCC, they will need coordination only as the staff is ready to go on site.	Mrs. Akkoum	For Action
19	It was agreed that the lines of communication will be by email to Mrs. Akkoum copying Mrs. Kdouh and Dr Hamadeh.		For Information

Minutes of meeting with MoE

Location	Ministry of Environment-Downtown Beirut
Subject	Overview of national legal framework and potential MoE intervention - Lebanon Health Resilience Project
Date	May 21, 2018
Starting time	10:00
Ending time	12:00
Reporter	Linda Khalil

Attendee	Title	Organization	Contact Details
Samar Malek	Acting Head of the Service of Environmental Technology	MoE	samar@moe.gov.lb
Linda Khalil	Environmental Consultant	Consultant for MoPH	lindaslim@hotmail.com

Summary of Meeting and Action Items:

No.	Action/Issue
1	Mrs. Khalil presented LHRP and its main components. Then a list of national legislations relevant to the Project was provided to Mrs. Malek to check for any missing legal document
2	Mrs. Malek pointed out 2 relevant decisions: 64/88 (sanction to the responsible of illegal disposal of infectious wastes) and 71/1 (import of waste). Legal texts were sent to Mrs. Khalil by email.
3	When asked about the disposal of expired medical products. Mrs. Malek explained that MoE is the focal point of Basel convention. If any company has expired drugs, it should collect them and inform MoE of the need to export these hazardous wastes. MoE will inform the receiving country in addition to all the transit countries. The procedure is clear and all the route and the means of transportation (boat, trucks,…) are investigated and set.
4	Mrs. Malek explained that an experimentation on the disposal of expired drugs though incineration at Sibline took place. The results were very satisfactory. A zero emission of Dioxine was registered. Unfortunately, the Mohafez did not approve the process as he wanted to prevent a potential public grievance.
5	When asked about the interventions of MoE with the Healthcare providers. Mrs. Malek explained that in 2015, an audit on 80 hospitals (including 18 public hospitals) took place with the help of YMCA. It tackled mainly the waste stream. As a result, MoE filed several law cases. The file is still confidential and cannot be dispatched. It is in the hands of the Ministry of Justice. Since that date, no efficient monitoring is taking place mainly because of the lack of personnel at the MoE.

6	When asked about the use of the reports submitted by AEC. Mrs. Malek explained that they are cross checked for accuracy with reports submitted by the hospitals.
7	Mrs. Malek provided Mrs. Khalil with references and booklets published by the MOE.

Minutes of meeting with Al Azm Wal Saada PHCC

Location	Al Azm wal Saada PHCC – Beib El Raml- Haddadin – Phone No. 06-432100
Subject	Site visit and assessment of waste management
Date	May 14, 2018
Starting time	12:00
Ending time	12:45
Reporter	Linda Khalil

Attendee	Title	Organization	Contact Details
Mohamad Ayoubi	Head of Pharmacy department / Assistant director	Al Azm Wal Saada	06-432100
Jalal Juneid	Waste and services Manager	Al Azm Wal Saada	06-432100
Sandy Laham	Field Coordinator in North Lebanon	MoPH	sandylaham@gmail.com
Linda Khalil	Environmental Consultant	Consultant (MoPH)	lindaslim@hotmail.com

Summary of Meeting:

No.	Question/Issue	Answer/Observation
At date of visit, PHCC was under maintenance and not receiving patients		
1	No. of patients/day	3000 monthly average
3	Number of personnel	11
4	Number of staff for cleaning	1
6	Type of services	Primary healthcare services: general practitioner, pediatrics, OBGYN, dentistry, cardiology, essential medications, vaccination, phlebotomy (blood withdrawal) and other medical specialties.
7	Existence of written waste management procedures	Yes, prepared by Abdallah Mikati, Quality Assurance Consultant. The policy needs update to fit the procedures done in collaboration with Tripoli's MoPH office and the municipality concerning the disposal of sharp containers. Usually, the procedures are updated yearly.
8	Were PHHC staff trained on waste management?	Yes, they are, monthly. In addition to the training, they are monitored and tested by the quality assurance consultant

9	What are the main types of wastes?	color of bag/container, estimated quantities, disposal
	• Domestic wastes	Black, 8-10 kg/day, thrown in collective containers daily
	• Infectious wastes	Yellow, < 3 kg daily, collected separately but when accumulated had to throw them in municipal containers
	• Sharp materials	Special containers, 3 containers monthly, disposed through new agreement with Municipality of Tripoli, local hospitals and Arcenciel
	• Expired drugs	Given back to provider. Stock is very well managed through a software. Usually, drugs are out of stock and rarely expire
	• Broken Thermometers	Only digital thermometers are used
10	Cleaning personnel is wearing protection	Yes
11	Frequency of collection	Domestic waste twice daily
12	Temporary storage of the waste	In a room without refrigerator, in the same floor. Was not able to get the key as the PHCC was under maintenance.

Minutes of meeting with Iman PHCC

Location	Iman PHCC - Mina – Phone No. 06-211770
Subject	Site visit and assessment of waste management
Date	May 14, 2018
Starting time	13:00
Ending time	14:00
Reporter	Linda Khalil

Attendee	Title	Organization	Contact Details
Jihad Fahmi	Director	Iman PHCC	06-211770
Mary Nasbe	Quality Coordinator	Iman PHCC	06-211770
Sandy Laham	Field Coordinator in North Lebanon	MoPH	sandylaham@gmail.com
Linda Khalil	Environmental Consultant	Consultant (MoPH)	lindaslim@hotmail.com

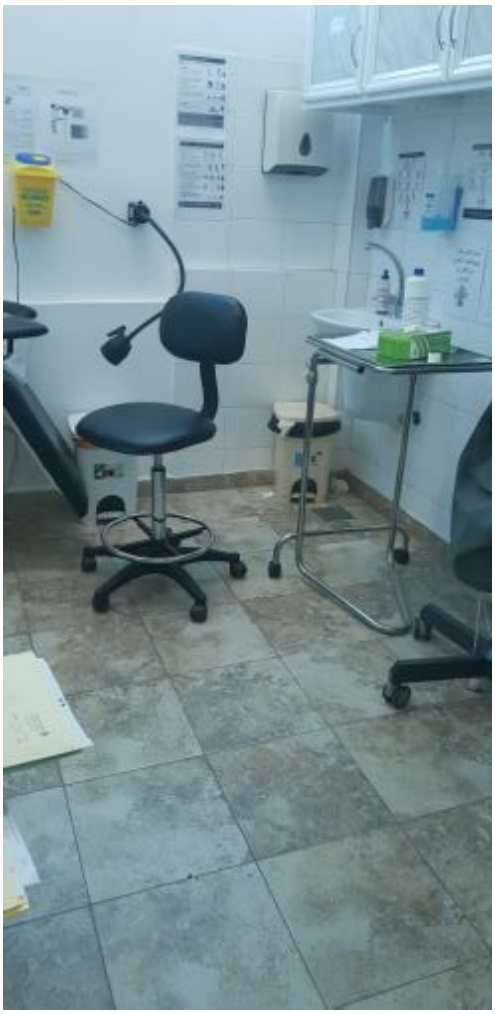
Summary of Meeting:

No.	Question/Issue	Answer/Observation
1	No. of patients/day	50 consultations, plus 30 patients that visit the PHCC for the procurement of medicaments
3	Number of personnel	10
4	Number of staff for cleaning	1 (not very literate, as concerns the handling of infectious waste, she has to take direct orders from waste manager as it is difficult for her to follow the procedures)
6	Type of services	Primary healthcare services including: general practitioner, pediatrics, OBGYN, dentistry, cardiology, essential medication, vaccination, phlebotomy (blood withdrawal) and other medical specialties.
7	Existence of written waste management procedures	Yes, they were updated 2 months ago.
8	Were PHHC staff trained on waste management?	Yes, a year and a half ago by International Medical Corps (IMC) and by PHC department through the Order of nurses
9	What are the main types of wastes?	color of bag/container, estimated quantities, disposal

	• Domestic wastes	Black, 40l/day, thrown in collective containers daily
	• Infectious wastes	Yellow, 2 kg daily, weekly to Dar Al Shifa Hospital (entity affiliated to same NGO)
	• Sharp materials	Special containers, 2 containers weekly, Dar Al Shifa Hospital
	• Expired drugs	Given to Dar Al Shifa. They are clearly marked. Pharmacy stock looks quite well managed.
	• Broken Thermometers	Mercury is collected and thrown in the infectious waste container but they usually use digital thermometers
10	Cleaning personnel is wearing protection	Yes
11	Frequency of collection	Domestic waste twice daily, however some bins were observed more than ¾ full with some waste on the floor Infectious waste and sharp materials, when ordered only and under the supervision of the waste manager.
12	Temporary storage of the waste	In a refrigerator located at the first floor in a locked room. However, when visited, the refrigerator was empty and the waste manager stated that infectious waste is collected on Saturday. Next to this room, it is planned to furnish a conference room.

Below are some photos taken during site visit


Islamic Medical Association
الجمعية الطبية الاسلامية
رموز ألوان تاريخ انتهاء الصلاحية
تدل كل من الدوائر بالألوان التالية على انتهاء واقتراب انتهاء صلاحية الدواء كما يلي:
اللون الأحمر : منتهي الصلاحية
اللون البرتقالي : انتهاء الصلاحية بعد شهرين
اللون الأخضر : انتهاء الصلاحية بعد ثلاثة اشهر
اللون الأصفر : انتهاء الصلاحية بعد اربعة اشهر



Minutes of meeting with Tripoli Governmental Hospital

Location	Tripoli Governmental Hospital (TGH) – Phone No. 06-385300
Subject	Site visit and assessment of waste management
Date	May 14, 2018
Starting time	10:00
Ending time	11:15
Reporter	Linda Khalil

Attendee	Title	Organization	Contact Details
Roula El Hajj	Head Nurse	TGH	03-967014
Moustapha Karhani	Cleaning and Waste Manager	TGH	70-138176
Sandy Laham	North Field Coordinator	MoPH	sandylaham@gmail.com
Linda Khalil	Environmental Consultant	Consultant (MoPH)	lindaslim@hotmail.com

Summary of Meeting:

No.	Question/Issue	Answer/Observation
1	No. of beds	165, an additional floor was constructed but remains unopen due to budget limitations. Will reach 230 when the additional floor is opened
2	Occupation rate	100%
3	Number of personnel	300 to 320
4	Number of staff for cleaning	21 (10 employee and 11 provided by a contractor)
5	Number of management staff	10: 6 in the board and 4 heads of departments
6	Type of services	Radiotherapy, pet scan, kinesitherapy, maternal delivery, 1-day surgery, neonate, chirurgic, pediatric, maternity, intensive care and reanimation, emergency, operations, laboratory, blood bank, radiology, pharmacy, oncology, dentistry. In addition to having a primary healthcare center including: general practitioner, pediatrics, OBGYN, dentistry, cardiology, essential medication, vaccination and other medical specialties.
7	Existence of written waste management procedures	Yes, they were elaborated in 2011 and they are checked yearly. Procedures were changed on the ground but not in the text.

8	Were hospital staff trained on waste management?	Yes, and there are continuously trained. There is a department in the hospital responsible for the continuous formation of the staff
9	What are the main types of wastes?	color of bag/container, estimated quantities, disposal
	• Domestic wastes	Black, 5 barrels daily, Lavajet collect them daily directly from the hospital
	• Recyclables (paper, carton, metals, plastics, glasses)	They go into domestic wastes,-, They used to be segregated and collected by Mimosa but then Mimosa refrained.
	• Infectious wastes	Yellow, 120 kg daily, Arcenciel daily or every other day
	• Anatomic organs	-,-, Given back to relatives
	• Sharp materials	Special containers, -, Arcenciel daily or every other day
	• Expired drugs	Thrown in wastewater
	• Chemical solvents	Thrown in wastewater
	• Plasma	Collected separately, around 70 kg daily, collected by Arcenciel daily
	• Broken Thermometers	Mercury is sprayed by a neutralizer and then collected in container of the cutting
	• Chemotherapy waste	In a special room without light, 0.5 to 1kg daily, stay in stock
10	Cleaning personnel is wearing protection	Yes
11	Frequency of collection	4 times/24 hours, a special elevator is dedicated for infectious waste, however, it is not locked. It is cleaned 4 times daily, after each collection.
12	Temporary storage of the waste	In a separate room located outside, not refrigerated but equipped with an AC. However, it is not locked. It does not have a dedicated water source and sink. It is relatively small.
13	Price paid to Arcenciel for infected wastes	0.55 $US/kg

Below are some photos taken during site visit

Minutes of meeting with Arcenciel

Location	Arcenciel (AEC)
Subject	Disposal of Infectious Healthcare Waste
Date	May 18, 2018
Starting time	3:15
Ending time	4:30
Reporter	Linda Khalil

Attendee	Title	Organization	Contact Details
Romaric Kazarian	Production Manager-Infectious Healthcare Waste Treatment	Arcenciel	Kazarian.romaric@gmail.com 01-495565 70-605962
Linda Khalil	Environmental Consultant	Consultant (MoPH)	lindaslim@hotmail.com

Summary of Meeting and Action Items:

No.	Action/Issue
1	**Where do you collect waste from (Yes/No)?** • **North Lebanon including Akkar**: Yes • **Mount-Lebanon and Beirut:** Yes • **Bekaa including Hermel**: Yes • **South Lebanon including Nabatiyeh**: Yes
2	**How many hospitals and PHCCs have contract with you, (mentioned 307 in the annual report 2017)?** • **In North Lebanon including Akkar**: 68 • **In Mount-Lebanon and Beirut**: 137 • **In Bekaa including Hermel**: 43 • **In South Lebanon including Nabatiyeh:** 56 Name of the institutions can be provided to MoPH after issuance of an official letter
3	**What are the quantities that you collect and treat? According to your annual 2017 report, the total is 4000t/year around 11t/day how are they distributed?** The quantity handled is around 12 t daily (or 4,380t/year) distributed as follow: • North Lebanon including Akkar: around 2t

	• Mount-Lebanon and Beirut: around 6-7t • Bekaa including Hermel: around 2t • South Lebanon including Nabatiyeh: 2t
4	**What is the percentage of coverage in terms of quantities generated at the national level?** **As per the information on the website, 80% is handled by AEC what will happen to the remaining 20%?** Currently, AEC covers 85% of the infectious waste. • Some hospitals have their own autoclaves, • Mirage (another company) handle 2-3t daily mainly in South Lebanon, and • unfortunately, there are still some illegal disposal, although limited.
5	**Why don't you collect Infectious Health care waste from some locations example in the North?** All the regions are covered by AEC. Due to political reasons, Zgharta treatment site was closed. The number of trucks in AEC procession is low (8) and there are in acceptable condition. (Their yearly maintenance cost 40% of their total price). Although the sterilization units can handle the waste, there is no possibility to transport the infectious waste from the North to Beirut. The trucks are running on average 200km/day including Saturdays and Sundays
6	**How do you treat infectious waste?** By sterilization (autoclave)
7	**Where are the treatment facilities located?** • Jisr el Wati (the largest) • Zahleh, • Hotel-Dieu de France (land owned by HDF, it is operated and maintained by AEC) • Saida (new equipment was installed recently to double its capacity) • Zgharta (has been closed for a year now, for political reasons)
8	**Where are the disposal sites located?** Treated infectious waste is filled in black bags labeled sterilized healthcare waste (in Arabic). They are disposed of in the same stream as household waste.
9	**You treated 4000 t of infectious waste in 2017, what is your maximal capacity, and where do you stand vis-a-vis this maximal capacity?** The treatment equipment is at 60% to 70% of its capacity. A new autoclave is being manufactured and will be sent to AEC in 6 months. The capacity will increase.
10	**What do you think are the solution to make sure the infectious health care wastes follow the adequate stream?** • Proper training of the personnel in the healthcare institution • Stringent monitoring and enforcement of the regulations by the MoPH or MoE • For the accreditation put more weight on the Medical waste chapter or make the waste chapter mandatorily

11	**What are the challenges that you are facing and what are their potential solutions?** The closure of Zgharta Plant and the limited number of trucks we have, made it very difficult for us to collect healthcare infectious waste from North Lebanon. As we are a non-lucrative NGO, we are seeking donors to grant us 1 to 2 trucks for the transportation of infectious healthcare waste. As the waste reaches the treatment plant in less than 3 hours, there is no need for refrigeration. We usually use Toyota Dyna 250. It costs around 25,000 US$ and the box cost around 6,000 US$. We can provide the personnel and cover the fuel cost.
12	**What is the number of staff dedicated to the Infectious Healthcare Waste, and what is their occupation?** 55 to 60 (1 head, 3 managers, 4 assistants and the rest are drivers and operators)
13	**How much do you charge the HC institution per kg?** It depends on many factors for instance: the quantities of wastes (economy of scale), the frequency of collection, who will provide the containers? The range is between 0.64 $/kg for all hospitals to 1.72 $/kg for labs and PHHC.
14	**What is the procedure for a HC institution to have a contract with Arcenciel?** When an institution contacts AEC, it is conveyed to the quality manager at AEC. The institution is asked to do a self-assessment and fill-in a template including the generated quantities and the frequency of collection. Based on this assessment, a contract is prepared mentioning a proposed cost and a mandatory training for the personnel handling infectious healthcare waste in the hospital. Then, it signed. The storage room should be refrigerated and the temperature kept between 3-8 degree C. Some hospitals use an AC in the storage room, this is used to be acceptable as long as the waste is collected on daily basis.
15	**What do you know about other operators like Mirage/Safe? The purpose from the questions is to complete the waste stream process to understand the impacts when it stops.** Safe is the infectious waste collector for Mirage. Basically they are under the same entity. Mirage covers IHCW treatment mainly in South Lebanon. It has a proper equipment because to import any equipment relevant to infectious waste a whole procedure is followed.
16	**Does Arcenciel has a specific waste management plan that they give to hospitals?** Yes, a red booklet entitled "(booklet of AEC Guide of the Healthcare Waste Management will be provided) available also on AEC website (in 3 languages).
17	**Is AEC process without environmental impacts?** Disinfected trucks, charged with disinfected containers leave the treatment plants. When they reach the healthcare institution, they discharge the containers and take the full ones. When they reach the treatment plant, the waste is loaded into the autoclave or sent into the refrigerators. Waste can be kept without refrigeration for less than 6 hours and in the refrigerator for a maximum of 48 hours. When charged into the autoclave, bags are not opened. Staff handling waste are fully protected with special gloves, safety shoes, masks and uniform. A boiler sends vapor to the autoclave that should be kept at constant temperature of 124 degrees Celsius for 30 minutes. The whole process of sterilization cycle will take 2 hours. The verification of the sterilization consists of using biological test and chemical test every 2 weeks. When sterilization is completed, waste is filled in labeled black bags and disposed in landfill and it follows the same stream as household waste. Then the whole plant is disinfected, the containers and the trucks also.

The personnel handling the waste follow strict rules and is fully protected. Condensed water from autoclave is collected and treated before disposal in the sewage system. Every 3 months as report of the quantities treated from each institution and waste water treatment plant quality effluent is sent to the Ministry of Environment. Yearly emissions results from boiler and generator are also reported to MoE.

Copy of reports sent to MoE can be provided to MoPH after issuance of an official letter

Below are some photos taken during site visit


نفايات طبّية معقّمة
من أجل صحّتكم!
نفايات طبّية معقّمة
من أجل صحّتكم!

Minutes of meeting with SAFE

Location	MoPH
Subject	Sustainable Alternative For the Environment (SAFE) - Disposal of Infectious Healthcare Waste
Date	May 30, 2018
Starting time	13:30
Ending time	14:45
Reporter	Linda Khalil

Attendee	Title	Organization	Contact Details
Leyla Farhat	OHS and Infectious waste Manager	SAFE	70-839432 Head.projects1@miragewm.com
Sizar Akoum	Biomedical Engineering Expert/ Project coordinator	MoPH	sizarak@gmail.com
Rawan Hammoud	Monitoring and evaluation officer	MoPH	Rawan.hammoud@gmail.com
Lama Abdel Khalek	Research and Technical Assistant	MoPH	lamaabdelkhalek@gmail.com
Imad ElHaddad	Accreditation and NCD Coordinator	MoPH	i.haddad@hotmail.com
Linda Khalil	Environmental Consultant	Consultant (MoPH)	lindaslim@hotmail.com

Summary of Meeting and Action Items:

No.	Action/Issue
1	**Where do you collect waste from?** Details provided in attached documents
2	**How many hospitals and PHCCs have contract with you?** 46, details provided in attached documents
3	**What are the quantities that you collect and treat?** 16t to 20t monthly
4	**Why don't you collect Infectious Health care waste from other locations?**

	We are planning to.
5	**How do you treat infectious waste?** By Autoclave Equidas T300 that can treat 40 kg/cycle. The autoclave was installed in 2010. Bags are not opened; the autoclave has a pre-shredder. The temperature is kept 140 degrees Celsius at 3.6 bar for 30 minutes. When the sterilization is completed, the waste is filled in black bags labeled in Arabic "sterilized waste similar to domestic waste"
6	**Where are the treatment facilities located?** In Abbassiyeh and the offices in Msaileh
7	**What is your maximal capacity, and where do you stand vis-a-vis this maximal capacity?** We are at 70% of our capacity and we are planning to expand or facility and maybe having a new one.
8	**What do you think are the solutions to make sure the infectious health care wastes follow the adequate stream?** The issue in improper HC waste disposal is the lack of awareness about the importance of the environmental protection. The financial status of some HC facilities may also be a barrier to the proper disposal of HC waste.
9	**What are the challenges that you are facing and what are their potential solutions?** The cost of the installation of a HCW treatment plan is very high and such project is not always feasible.
10	**What is the number of staff dedicated to the Infectious Healthcare Waste, and what is their occupation?** 2 drivers, 3 workers at the plant and 3 employees in the operation and management.
11	**How much do you charge the HC institution per kg?** The range is between 0.6 and 2$ per kg. It is related to the economy of scale.
12	**What is the procedure for a HC institution to have a contract with SAFE?** If an institution calls and asks for a cooperation, we pay a visit and check the HCWMP (Temperature of refrigeration, storage space, segregation process, storage outside the building,…). Then we ask the institution to implement correction measures. Staff are then trained. The institution is randomly audited.
13	**Does SAFE has a specific waste management plan that they give to hospitals?** Details provided in attached documents
14	**Is SAFE process without environmental impacts?** Yes, its EIA was approved by the MoE.
15	**Are you aware of circular no 1/11 dated 24/3/2011? Do you send periodic report to the MoE?** Yes, every 6 months

16	**Other Information** Safe has a sister company named Mirage that is responsible for cleaning and waste management inside the HC institutions.

Sample of Contract between SAFE and HC Facilities

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عناية

الموضوع: عقد لمعالجة النفايات الطبية الحاملة خطر العدوى

جانب المدير العام ---------- **المحترم**

تتمتّع شركة **SAFE** لمعالجة النفايات الطبية بالخبرة الكافية في مجال إدارة النفايات، استنادا إلى معايير ضبط العدوى وخدمات عالية الجودة لمشاريع الرعاية الصحية المختلفة ، من تنظيف، تطهير، فرز ونقل للنفايات الإستشفائية، متابعة وتدريب.

يسر شركة **SAFE** أن تقدّم عرضاً لمعالجة النفايات الطبية الحاملة خطر العدوى طبقاً للمرسوم رقم 13389 - الصادر في 2004/9/18 والذي يحدّد معايير التخلص من النفايات الطبية الحاملة خطر العدوى المتولدة عن أنشطة الرعاية الصحيّة ، في خطوة إلى الأمام لتقديم أفضل الحلول المبتكرة والصديقة للبيئة.

نتطلّع لموافقتكم،

SAFE Co.

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تمت الموافقة على هذا العقد بتاريخ ...../...../..... وقد دخل حيّز التنفيذ بتاريخ...../...../..... بين كلٌ من:

- شركة **Sustainable Alternatives for the Environment (SAFE S.A.L.)**، شركة لبنانية لمعالجة النفايات الخطرة المنشأة والمسجّلة وهنا ممثلة بالسيّد بصفته المدير العام لتمكينهم على النحو الدخول في هذا الاتفاق (المشار إليها فيما بعد "SAFE")،

- **مستشفى** ----------

في حين:

في حين أن وزارة البيئة قد أصدر المرسوم رقم 8006 والذي نشر في الجريدة الرسمية في 21 يونيو 2002، المعدل في عام 2004 بالمرسوم 13389 تحدد بذلك معايير التخلص من النفايات الطبية المتولدة عن أنشطة الرعاية الصحيّة، و،

في حين أن المستشفى وشركة **SAFE** قد وافقتا على التعاون من أجل تمكين المستشفى من الامتثال للمرسوم أعلاه وغيرها من القوانين السائدة، الأنظمة والقواعد، وفقا للشروط والأوضاع المنصوص عليها فيما بعد، و،

أخذاً بعين الاعتبار كل من الوعود والتعهدات المتبادلة والواردة في هذه الوثيقة، وغيرها من الاعتبارات القيّمة، تلقي وكفاية كلا الطرفين ، يتفق الطرفان على هذا العقد وفقا للأحكام والشروط المنصوص عليها فيما بعد على ما يلي :

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أولاً: المقدّمة والملحقات

تعتبر المقدّمة أعلاه وأي وثيقة يشار إليها هنا أو المرفقة مع العقد جزءا لا يتجزأ من هذا الاتفاق.

ثانياً: التزامات شركة SAFE

1. ضمان القيام بزيارتين منفصلتين أسبوعياً لنقل مستوعبات النفايات الطبية تحدّد بعد الاتّفاق بين الطرفين.
2. تقليل الضوضاء والإزعاج خلال الزيارة.
3. تزويد المستشفى بمستوعبات (حجم 240 ليتر) للنفايات الطبية المعدية مطابقة للمعايير العالمية حسب الحاجة.
4. وزن النفايات الطبية في مكان تخزين النفايات التابع للمستشفى وتوقيع الإيصالات ذات الصلة بالشحن.
5. توفير الصيانة الدورية لمستوعبات النفايات الطبية.
6. التواصل الدوري مع موظفي المستشفى.
7. التخلص من النفايات المعالجة في مكب البلدية.
8. مساعدة المستشفى في الامتثال للقوانين والمراسيم السائدة.
9. تنظيف وتطهير مستوعبات النفايات الطبية قبل تسليمها إلى المستشفى.
10. نقل النفايات الطبية في شاحنة مخصّصة لنقل النفايات الطبية تتوافق والمعايير الأوروبية.

ثالثاً: التزامات المستشفى

وفقا لهذا العقد، تلتزم المستشفى تأمين التالي طوال فترة هذا العقد:

1. وضع النفايات الطبية الحاملة خطر العدوى في أكياس مخصّصة لذلك (علب للأدوات الحادة)، وذلك بعد القيام بالفرز الصحيح وفق نوع النفايات.
2. تخزين النفايات في موقع يمكن الوصول إليه بسهولة، مبرّد، ذو تهوئة جيدة، قبل تسليمها لشركة **SAFE**.
3. تأمين مصدر للمياه قريب من موقع الاستلام والتسليم لاحتواء أي حادث انسكاب للنفايات المعدية.
4. تأمين ميزان لوزن النفايات في الموقع.
5. تأمين مكان للدخول ووقوف الشاحنة التابعة للشركة خلال القيام بجولة نقل النفايات الطبية لمكان المعالجة.
6. التقيد بفرز النفايات الطبية الناتجة عن أنشطة الرعاية الصحية في المستشفى وتزويد الشركة بالنفايات الطبية الحاملة خطر العدوى فقط.

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7. الامتناع عن وضع النفايات الطبية الخطرة الغير معدية في مستوعبات النفايات الطبية، كما ورد في المرسوم أعلاه من مواد مشعّة، نفايات صيدلانية، باثولوجية، مسمّة، أو غيرها من النفايات الخطرة كالزئبق، المعادن الثقيلة والمواد الكيميائية.
8. في حال عدم وفاء المستشفى لالتزاماتها بموجب الفقرة (6 و 7) ، تتحمّل المستشفى وحدها المسؤولية الكاملة عن جميع النتائج والعواقب المترتبة على ذلك. ويجب، في جميع الأوقات، عدم الإضرار بالشركة والتعويض عن أي خسائر قد تلحق بالشركة **SAFE**، من التزامات، نفقات، أو أي تكاليف أخرى تنتج عن الإخلال بأي من البنود المدرجة في الفقرة الثالثة بعنوان (التزامات المستشفى).
9. تأمين موظّف لتمثيل **المستشفى** وذلك لوزن وتسليم النفايات غير المعالجة واستلام مستوعبات النفايات الطبية الفارغة، والتوقيع على واستلام جميع المستندات اللازمة خلال كل زيارة.
10. تلتزم الدفع في الوقت المحدّد على النحو المنصوص عليه في المادة الثالثة فيما يلي.
11. الامتناع عن التعامل مع أي طرف آخر يمكنه تقديم خدمات مشابهة لتلك التي تقدمها شركة **SAFE**.

رابعاً: سعر الخدمة المقدّمة

إن سعر الخدمة المقدّمة من شركة SAFE للقيام بعملية معالجة النفايات الطبية المتولدة عن المستشفى والذي اتفق عليه الطرفان هو كالتالي:

سعر معالجة الكلغ الواحد من النفايات الطبية بالدولار:

- كلفة معالجة الكلغ الواحد من النفايات الطبية هي ؟؟؟؟ $ إذا كان وزن النفايات الطبية المنتجة من قبل المستشفى شهرياً يتراوح ما بين 1 كلغ و 2500 كلغ.
- أما ما يزيد عن ال 2500 كلغ فتبلغ كلفة معالجة الكلغ الواحد ؟؟؟؟؟ $.

يتم الدفع خلال الأيام العشرة الأولى من كل شهر بحد أقصى ، وإن أي تعديل على نسبة الضريبة على القيمة المضافة سوف ينعكس على قيمة الفاتورة.

تلتزم **المستشفى** بمسؤولية المحافظة على سلامة ونظافة مستوعبات النفايات الطبية المزوّدة من قبل الشركة **SAFE** .

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خامساً: سريان هذا العقد

هذا العقد سيدخل حيّز التنفيذ، ويكون ملزماً للموقعين أدناه ويبقى ساري المفعول لمدة سنة واحدة اعتبارا من تاريخ الدورة الأولى لمعالجة النفايات الطبية.

في نهاية العام الأول، يجب تجديد العقد الحالي للفترة نفسها ما لم يبلغ أي طرف إشعارا إلى الآخر بالعكس، قبل ثلاثة أشهر من نهاية السنة الأولى. وتنطبق نفس القواعد والشروط على العقد الجديد.

سادساً: إنهاء هذا العقد

يمكن للمستشفى إنهاء هذا العقد:

1/6 – إذا فشلت شركة SAFE في مواصلة العمل لمدة 4 دورات (أربعة) أو أكثر، إلا إذا كان هذا الفشل بسبب إحدى الكوارث الطبيعية، حروب، نزاعات، أو بسبب إغلاق مؤقت لا يتجاوز 15 (خمسة عشر) يوم عمل لأغراض الصيانة أو إصلاح أي من المعدّات.

2/6 - إذا لم تلتزم شركة **SAFE** حسن النية لتقديم كافة الخدمات المذكورة في الفقرة (2) في غضون ستة أشهر (6) من تاريخ هذا العقد ، أو بعد أي شهر يلي ذلك ، تفشل شركة **SAFE** في تقديم خدماتها ، تستطيع **المستشفى** إنهاء هذا العقد ، عن طريق إشعار إنهاء الخدمة لشركة **SAFE** . يعتبر هذا الإشعار نافذا عندما إشعار **الشركة** حسب الأصول.

3/6 - إذا أعلنت شركة **SAFE** إفلاسها ، أو أحالت مهامها لصالح دائنيها أو دخلت في أي ترتيب آخر بموجب قانون الإفلاس، أو إذا أوقفت الشركة **SAFE** أعمالها ، وبذلك ينتهي هذا العقد حكماً بعد 90 يوماً من إشعار الشركة حسب الأصول.

4/6 - إذا كان المستشفى أو شركة **SAFE** تنتهك أي من التزامات الأخرى وفقا لأحكام هذا العقد ، يكون للطرف الآخر الحق في فسخ العقد الحالي بعد 30 يوماً من إشعار الشركة كتابة . تلغى صلاحية هذا الإشعار فقط عند قيام الطرف المخالف بإصلاح المخالفة خلال فترة ثلاثين يوما (30)، وإرضاء الطرف الآخر أنه تم تدارك هذه المخالفة.
ويبدأ نفاذ إنهاء العقد وفقا لأحكام هذه الفقرة بشكل لا يخل بأي حق من الحقوق ، والتي قد يكون لطرف ضد الآخر على خلاف ذلك . عند انتهاء هذا العقد ، وعلى خلاف ما تقدّم في الفقرة الخاصة بالدفع، كل المستحقات المستوجبة على الخدمات المقدمة تصبح واجبة الدفع فورا وبشكل كامل.

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سابعاً: العقد بالكامل

يتفق الطرفان على أن هذا العقد يتضمن التفاهم الكامل والاتفاق فيما بينهما.

لا يجوز تعديل أي حكم من أحكام هذا الاتفاق، أو التنازل عنها بأي شكل من الأشكال، إلا إذا تمت الموافقة على مثل هذا النوع من التعديل أو التنازل عنه من قبل جميع الأطراف عبر كتاب يوقّع من قبل جميع الأطراف.

يعتبر أي تنازل من أي طرف في أي وقت عن مخالفة الطرف الآخر لأي بند من شروط أو أحكام هذا العقد، تنازلاً عن أحكام أو شروط مختلفة أو غير مختلفة في الوقت عينه أو في أي وقت سابق أو لاحق لذلك.

لا يعتبر أي اتفاق أو تمثيل قائماً ، صريح اً كان أم ضمنياً، فيما يتعلق بالموضوع المذكور هنا، والتي لم ينصّ عليه هذا العقد صراحة أو في أي اتفاق مكتوب موقّع من قبل الأطراف المعنية.

ثامناً : أحكام القانون

يخضع هذا العقد للقوانين السائدة في الجمهورية اللبنانية.

تاسعاً : الصلاحية

إن بطلان أو عدم نفاذ أي حكم أو أحكام هذا العقد لا يؤثر على شرعية أو نفاذ أي حكم آخر من أحكام هذا العقد ، بحيث يظل في كامل مفعوله ونفاذه ، وفي حال عدم نفاذ أي من أحكام هذا العقد وتحدد أنه غير صالح أو غير قابل للتنفيذ لأي سبب من الأسباب ، يجب تبني هذا الحكم عن طريق الحد من نفاذه والعمل ليكون صالح اً وقابلاً للتنفيذ إلى أقصى حد ممكن يتفق مع وبموجب القانون المعمول به.

عاشراً : أشكال ومحتوى الإشعار

يجب، عند أي إشعار عن مخالفة أو طلب الحصول على أداء أو غيرها، شمل بيان مفصّل عن جميع الحقائق التي تبيّنت للطرف المقدّم للإشعار، ان هذا الطرف يدّعي وجود مخالفة ما. ويعتبر الإشعار الذي لا يحتوي مثل هذه العبارة إشعاراً بالمخالفة ، شرط أن يكون الطرف المتلقي إشعار من هذا القبيل ، في غضون 72 (إثنان وسبعون) ساعة من تلقيها ، قد أبلغ الطرف المدعي وجود مثل تلك المخالفة أو مطالبة الحصول على الأداء ، وجود نقص في إشعار المخالفة أو طلب الحصول على الأداء.

إحدى عشر : أشكال ومحتوى الإشعار

تعتبر كل الإشعارات والطلبات والمطالب والتوجهات والاتصالات المنصوص عليها بموجب هذا العقد أو الضرورية منها في حكم المبلّغ عنها إذا كان قد تم إرسالها كتابةً (بما في ذلك التلكس ، وإرسال رسائل الفاكس، عن طريق

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الاتصال البرقي أو البرقية)، إرسالها عن طريق بريد موثوق، مع طلب إيصال استلام ، (رسوم الطوابع مدفوعة مسبقاً) ، إبراقها ، عبر التلكس (مع تأكيد الرد) ، عبر ال الفاكس (مع تأكيد الرد) أو تسليمها شخصيا إلى الطرف الآخر على العنوان المذكور أدناه :...

إذا كان لشركة **SAFE**:

عناية السيّد .....
شركة **SAFE**
العباسية، جنوب لبنان
تلفون: **+9613709341**
فاكس: **+9617260863**

إذا كان **للمستشفى**:

عناية الدكتور خير الله قرباني
مستشفى الشهيد الشيخ راغب حرب،
الجنوب، لبنان
تلفون: **+9617766799**
فاكس: **+9617769767**

أو إلى عنوان آخر يعين من قبل أي طرف في إشعار خطي للطرف الآخر وبالتالي الامتثال لأحكام التسليم بموجب المادة الحالية.

الثاني عشر : التقاضي والنزاعات

إن أي نزاع أو دعوى تنشأ من تنفيذ أو تفسير الحاضر يجب إحالته إلى المحكّم الذي سيكون بمثابة موفق بين الأطراف لحل النزاع . ويتم الاتفاق على هوية هذا المحكّم من قبل الطرفين وإلا لقاضي المسائل المستعجلة في المحافظة في حال النزاع بشأنه.

وإذا تعذر التوصل إلى التسوية ، يتعين على المحكّم تسوية النزاع أو التقاضي وفقا للقواعد التي تنظم التحكيم العادي في لبنان ، ولا سيما قانون أصول المحاكمات المدنية.

تجرى عملية التحكيم في المحافظة ذات الصلة، وباللغة العربية . يتحمّل الطرف المدّعى عليه كافة رسوم المحكّم وجميع رسوم التحكيم، النفقات، الضرائب وأي نفقات الأخرى.

الثالث عشر : السرية

يتعيّن على كل طرف من الأطراف، أثناء وبعد الاتفاق على شروط هذا العقد ، عدم استخدام، الكشف عن، أو السماح لموظفيها والمتعاقدين معها بالكشف عن أي "معلومات سرية " ، (كما هو موضح أدناه) المتعلقة بهذا

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الاتفاق ، باستثناء ما قد يؤذن كتابةً ومقدما من قبل الطرف الآخر . كل طرف يمثّل ويضمن الحد من الكشف عن أي معلومات سرية لموظفيها والمتعاقدين معها ، من أجل تقديم الخدمات على النحو المنصوص أدناه ، والذين وافقوا على الالتزام بالقيود الواردة في هذه المادة، وأنه سوف لن يتم استخدام أي معلومات سرية لغير الغرض المنشود منه ، أو على النحو المطلوب عبر أمر من المحكمة.

"المعلومات السرية " تشمل ، ولكن لا تقتصر بالضرورة على، أي معلومات، معارف أو بيانات ، وأية معلومات تقنية أخرى غير عامة أو تجارية ، سواء كانت شفهية، كتابة ، بالشكل الكتروني ، هنا يحدّد الطرف مسبقاً وكتابة ، للطرف المتلقي على أنها "معلومات سرية" . لتجنب الشك ، "المعلومات السرية" تتضمن الأسعار المشار إليها في المادة الرابعة من هذا العقد وأي اتفاقات أخرى مكتوبة كانت أو شفهية . ويسري مفعول هذا الحكم حتى مع إنهاء هذا العقد.

وإثباتا لما تقدّم، قد تم الاتفاق على تنفيذ هذا العقد في نظيرين، في التاريخ المكتوب أعلاه.

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Sample of Report sent to MoE

التقرير الدروي لمعجلاة النفايات اطلةيب الحلملة خطر الدعوى

1 - عملومات عاةم:

مركز المعجلاة للنافيات الحلملة خرط العدوى	رمكز البعساية روصـ
الشصخ الملووسـ	رشكة SAFE
الونعان	البعساية روصـ
لاهافـت	07 260 560
افلاسك	07 260 863
البريد الإلتكرنوي	info@miragelb.com
رقم اخرلصة اليئيية	1/41
تراخيـ صإدار اخرلصة	28/08/2008
اهتنإ خيراتء ةصخرلا	03/09/2017 (اخرلصة يقد التدجيد)
فلاتقر المشمولةب لاترقير	Oct, Nov, Dec 2017
ن عوناظم العتقمي	Shredding and sterilization Type: ECODAS T300 ID Number: 090300-133 Year :2009

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2 - دروات اتلقعيم كومايت انلفايات المعلاةجـ:

ددع دوارتا لا ميقعتلإمجلالاخ يلا لرتفذا لمشملوب ةلاريرقت: 1249 دوتر / 33 كغ م)عدل 16 دوتر لا يفيولا مواحد رقتبيا)

Projects	Oct	Nov	Dec
ا ىفشتسمليشخ غاربرحـ ب	4422.7	4332.5	4269.9
ا ىفشتسملشهيدحلاصـ نغودر	637.4	506	490.4
ا ىفشتسمللنبا ي نلإطيلاي	1146.7	1163.4	1265.4
بجـ ىفشتسمل عامل	2050.8	1855.3	2661.3
ا ىفشتسملقبا علي برغ - رمحسـ	191	244.2	131.1
ا ىفشتسملجرب	799	836	870
يعجرمـ ىفشتسموا نلكحويمـ	612.2	759.5	637.1
ا نينبت ىفشتسملكحويمـ	962.4	765	838.4
لاء ىفشتسمء نيدلا	699	680	601.7
اربتخمتا لرشمق	135	142	68
اربتخمتا لبصاح للحتلايلا ليميكاةيئ	49	61	41
اربخمت نبلان للحتلايلا ليميكاةيئ	15		18
ماريدـ ىفشتسمـ	1395.1	1343.6	1291.3
اربتخمتا لميرك	70	60	78
افشلا تاربتخمء	8	43	9
اربتخمتا لليقس	26	20	11
مؤسستاا لإما ملصدر	47	22	41
اهلا ةنيلا ةيحصلإةيملاسـ	557.8	552.2	695

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3 - سلجإ إخابتر الرشؤم ايبلولجوي لنظام اتلقعيم:

- ت رايخ الإختبار: 26-12-2017
- عون المشؤر الويبلوجي : Gke steri Record Instant mini Bio plus

إن المرشؤ المذكرو أعملا لا حيتاج إلى Incubation Time **صترديتة جة اصحفل وفرا**

اجرلا تاامولعملا نم ديزمللء ىلع علاطلإا Direction of use gke

- مسإ اليتكبريا المعتسملة: **Geobacillus Stearathermophilus**
- بسن ةة ريكز اليتكبريا في المشؤر الويبلوجي: **2.0E+ 05 CFU/carrier**

اجرلا تاامولعملا نم ديزمللء ىلع علاطلإا certificate of Analysis gke

- كم اعضو ن المشؤر: Emplacement of the indicator **in the bottom** of autoclave
- إ خبترا المشؤر الويبلوجي:

	ةنيع 1	ةنيع 2	ةنيع 3	ا ةنيعلةبقارم
ا مقرلمؤرشر/ا دلةعف	Lot-2016069434	Lot-2016069434	Lot-2016069434	Lot-2016069434
تايرخا لةيحلاص	06-2018	06-2018	06-2018	06-2018
يك نزوسا لفنايتاا ذلي تحيوي علا ىلمؤغك رشر	33Kg	33Kg	33Kg	--
م ويك عقسا لفنايتاا ذلي تحيوي علا ىلمؤيف رشر ظناا ملميقعت	Bottom of shredder	Bottom of shredder	Bottom of shredder	--
رارحةظن اا ملميقعت ةجردئم وةي	140	142	142	رحاقر الغفرة
ةدما لميقعت على ا ةجردلرارحةا لمذكولاعأ ره	32 min	34 min	34 min	--
ظن طغضاا ملب ميقعتار	3.3	3.1	3.1	--
دب تقوء ميقعتلا ةرود	9:00	10:15	2:30	--
امهتنإ تقوء ميقعتلا ةرود	9:32	10:49	3:04	--
التنائج	No Growth	No Growth	No Growth	Growth

*اجرلاء قفرملا يجولوبيلا رشؤملا ىلع علاطلإا

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4 - سلجإ إخابتر الرشؤم الكيميئاي:

- ت راخيإ الإخبتار: 27-12-2017
- عونـ المشؤر ART NO: 3FSKS645818 : EMULATING INDICATOR

- كم اعضو ن المشؤر: mplacement of the indicator **in the bottom** of autoclave

	ةنيع 1	ةنيع 2	ةنيع 3	ا ةنيعلةبقارم
ا مقرلمؤرشا/ا دلةعف	Lot- 1099017	Lot- 1099017	Lot- 1099017	Lot- 1099017
تايرخا لةيحلاص	11-2018	11-2018	11-2018	11-2018
يك نزوسا لفنايتاا ذلي تحي وي علا ىلمؤغك رشـ	33Kg	33Kg	33Kg	--
م ويك عقسا لفنايتاا ذلي تحي وي علا ىلمؤيف رشـ ظنا املميقعت	Bottom of shredder	Bottom of shredder	Bottom of shredder	--
رارحةظنـ اا ملميقعت ئم ةجردوةي	141	140	141	رحاةر الغفرة
ةدما لميقعت على ا ةجردلرارحةا لمذكولاعأ ره	35 min	32 min	34 min	--
ظنـ طغضاا ملب ميقعتار	3.3	3.1	3.1	--
دب تقوء ميقعتلا ةرود	7:00	10:25	11:15	
امهتنإ تقوء ميقعتلا ةرود	7:35	10:57	11:49	
التنائج	Change in color from light blue to black	Change in color from light blue to black	Change in color from light blue to black	No change in color (color remained blue)

*اجرلاء ةفرملا يئايميكلارشؤملا رابتخإ ىلع علاطلإا

5- المايه المتبذلة:

ارجإ متء ةقفرملا تاصوحفلا.

6-برانمج انايصلة:

اجرلاء ةفرملا ةنايصلا ريرقت ىلع علاطلإا.

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Sample of Audit Report conducted by SAFE

ومنذج قتييم دإارة النفايات اطلةيب لؤمسسات الراعةي احصلةي
(لامستفشيات/لارماكز احصلةي)

سإم الرشكة	SAFE	اترخي اتلقرير	
دعم اتلقرير	Laila Farhat		

أولا: عملومات عاةم			
مسإ المشتسىف			
الونعان			
الهافت		افس ك	
قاطع	□عما		□خصا
مسإ لووؤسم إداةر النافيات اطلبية في المشرعو			
مسا الشصخ المزود بلامعلومات صوفته الوظيفية			
ددع الأسةر:	بسنة الإغشال:	ددع أجهةز لييسغ الكيل:	
البسنة الميونة الموتقعة للنافيات اطلبية			

ايناث: دإارة انلفايات الطبية ونظام الفزر	C	NC	
▪ جويد ميزاينة اخةصم لإادةر الفنايات.			
▪ جويد جلنة اخةصم لإادةر الفنايات الطبية وقعتد جإمتاعات رودية.			
▪ ارجإو تاسايس (نيلماعلل ي داشرإ ليلد وأ قطخ دجويءتا)			
▪ وجود سيسة التخيفف من ومدا الزبئق يف المستشيفات (لآية التخلص من الزبئق).			
▪ جويد احولت اشرإدية معلقة يف مكان زرابد داخل الأماسة (تصينف الفنايات يف الماسسؤت اصلحية- رتيمز الألونا).			
▪ اطغ اهل تايافنلا س ايكأ تلاماحء ةقباطمو مدقلاب حتفتو مكحم ولن اليكس(مستوعبات).			
▪ سعة ايكلأسا تنتساب عم مجد الفنايات التمودلة (أماجد خمتلفة من ايكلأسا).			
▪ يتم زرف الفنايات التمودلة سحب الدليل اللوني يف فاكة الأماسة (تزويع انلأواع يف الأماسة).			
▪ دليل وجود احمضرات للمظويفن عن إادةر الفنايات يف المستشفى سنويا .(البرنامج التجوهيي العما).			

C	Conformity
NC	Non conformity
NA	Non applicable

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ثالثاً: الأكياس والعبوات البلاستيكية			
▪ سماكة مجمو ايكلأسا منسابة.			
▪ ايكلأسا والعبوات البسلايكيتة رممتز سحب الألونا.			
▪ البعوات البسلايكيتة المخصص للفنايات الواحدة منسابة وغير ثابتة للتفح (سحب التوصيات الزلامة).			
▪ يتم تثبعة ايكلأسا والعبوات حتى ثلثي المجم فقط.			
▪ يترفو عبوات وأيكسا أبدادع فاكية داخل الأماسق.			
▪ لا يتم خلط أيكسا الفنايات الطيبة والعادية يف فرغ الجمع			
▪ يتم نقل الفنايات العادية وألا مث الفنايات الطيبة اثينا وأخيرا الفنايات القرطخ (لا يتم الخلط عند القنل).			
▪ يتم زرف الفنايات اليكمايئة وتجمعيما يف عبوات منسابة يغر ثابتة للفتال مهما (محمكة الإغلاق) مسق الباثولي جو			
▪ زوتع علب الأدوات الواحدة يف جيمع أماكن مصادر الفنايات الواحدة (اخصص رعبة الأدوية).			
▪ اطعإ دنع ةداحلا تاودلأا بلع دجاوتء وأ نقحلا ضيرملا اودلل اهلامعتسإء.			
رابعا: العمج ونلاقل دالخ الحوقد			
▪ جويد ربنامج حمدد جلمع وقنل الفنايات إلى فرغة التزخين.			
▪ وجود فرغ جمع للفنايات يف كل اطبق.			
▪ لا تقبى الفنايات يف مكان وتدلاه أكثر من موي واحد.			
▪ يتم وضع قاطبة بيان على ايكلأسا والعبوات.			
▪ وتضع عبقو/ كيس جديد بلد القنمول روفا وفنبس اللون.			
▪ واحيات القنل وأ العربات: ✓ سهتل التحيمل والافتريغ. ✓ اسلم حطسأ تاذء. ✓ يتم سغلها وتطيهاهر وييما.			
▪ جويد عمال خمصصون لقنل الفنايات الطيبة.			
▪ المعال وزمدون بعمادت الاقوية الخشصية النمسابة.			
▪ الرطيق المؤدي إلى فرغة التزخين لا يمر أبماكن حتضير الطعما:			

C	Conformity
NC	Non conformity
NA	Non applicable

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اخسما: غرفة اتلزخنيد الخ السمتشفى			
▪ المحاسة منسابة.			
▪ مفصولة عن ماسقأ المستشفى والماطبخ وأماكن زختين الفنايات النمزلية.			
▪ تترفو أدوات تنظيف ومدصر امئي ومصفر ليمما التنظيف.			
▪ لا يكمن وخدل الحيوانات والماطيرو إلى المعقو.			
▪ اذلإقرا فاكية ونمسابة.			
▪ فرغة التزخين وزمدة بباب يغلق دامئا (وهل آلية التفح من االدلخل إذ اكن وأتوماكيتي).			
▪ مبردة (أو ربدا).			
▪ يتم زون الفنايات قبل وضعها داخل الغفرة.			
▪ لا زتيد مدة التزخين عن 48 اسةع صفيا و 72 اسةع اتشء			
▪ رطقية التزخين منسابة.			
▪ لا وتضع أيكسا وعبوات الفنايات الطيبة على الأضر .			
▪ يتم تنظيف وتطيهر الغفرة سحب ربنامج زنمي سحوب الجاحة.			
▪ الرطيق إلى فرغة التزخين سهةل وآنمة.			
▪ يترفو ميزنا جسول ابليمكات التمودلة عن كل مسق.			
▪ النفاظة العامة للغفرة جيدة.			
اسدسا: انلقل خارج الةسسؤم			
▪ يترفو سيقرا خمةصص لقنل الفنايات الطيبة فقط احوةلص على تصريح قؤمت من مديرية حصة النيبة.(لابدلية)			
▪ اعمل القنل ريتدي الملابس الاقويئة الزلامة عند نقل الفنايات.			
باسعا: المعجلاة وتلاخلص انلهيئا			
التخلص راخج المستشفى			
▪ يتم اسرإل الفنايات الطيبة إلى: رمكز البعساية /.SAFE CO			
▪ كيمة الفنايات الطيبة التي يتم اسرإلها يف الزيقرا الواحدة :			

C	Conformity
NC	Non conformity
NA	Non applicable

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- عدد الزيارات في الأسبوع :
- رطقية التخلص من الفنايات الناتجة عن مسة الأشعة :
  - ✓ حملول التبثم :
  - ✓ ملافأ الأشعة المسهتلكة: لاشريف /الفنايات العادية
- رطقية التخلص من ومازين الرحاقر وأجهقز قيسا اضلغط الكمقروس :
- رطقية التخلص من البعوات البسلايكيتة للماحليل الملحية المستخدمة في مسة سغيل الكلى:
- هل يتم تصريف الفنايات الطيبة الاسئقا إلى:
  - ☐ شكبة اصلفر اصليح مبقرشا.
  - ☐ شكبة اصلفر اصليح بعد اليقعتم.
  - ☐ طحمة معالجة اتعبة للمستشفى.
  - ☐ زخنا سإتنمي مصتم وغير نفاذ لليمها العادمة.

اثمانا: الجسلات

- جويد جسل صاخ لتطيعم الكودار الطيبة وللامعال:
- جويد جسل صاخ لإصابات المعل الناتجة عن العتامل عم الفنايات الطيبة:
- جويد جسل جلإمتاعات جلنة إدةر الفنايات الطيبة:
- وجود بيانات ناخقص زوبن الفنايات :
- طخة سحتينية لإدةر الفنايات:
- وجود تدقيق على آلية الفزر في المورشع:
- طتبيق ويفنتذ نقطا التدقيق سحب ميعرا زواقر اصلحة في المورشع

اتسعا: قناط الخلل حسب اتلقييم وتلاقديق على الأقسام:

C	Conformity
NC	Non conformity
NA	Non applicable

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اعشرا: اليصوتات
➢ مسة اداةر النافيات يحتاج ىلإ

مسإ الملوؤسنع ملف إداةر النافيات	
الوتقعي	.....
إسم الملوؤسم عن اتلقديق	سموؤلة ادتلقيق في شةكر SAFE: لليى فرحات
تلاوقيع	.....

ةخسنىلإ:

- ادلإارة للعامة.
- مسة دوجلاة
- مسة دخلامتا لايئيبة

C	Conformity
NC	Non conformity
NA	Non applicable

Waste Weights Collected by SAFE

#	Projects	Jan	Feb	March	April	May	June	July	August	Sep	Oct	Nov	Dec	Total
1	وفشتسم خيشلا بغار ببرد	5290	4258.4	4579.7										
2	وفشتسم ديهشلا حلاصر رودنغ	630.9	501.7	604.4										
3	وفشتسم ياناتيللا ياناطيلإا	1367.6	1294.2	1432.5										
4	وفشتسم لبج لماع	2261.5	2057.1	1920.7										
5	وفشتسم رمحس	184.9	169.2	173										
6	وفشتسم جربلا	677	738	1056										
7	وفشتسم نويعجرم يموكحلا	518.6	717.4	808.5										
8	وفشتسم نينبة يموكحلا	1052.2	740.8	817.3										
9	لاع وفشتسمء نيدلا	498.9	797.7	788.2										
10	تاربتخم قرشملا	165	146	145.5										
11	تاربتخم حابصلا		52	62										
12	تاربخم نانبلا		19											
13	وفشتسم ماربد	1656	1451.6	1910.4										
14	تاربتخم مبركلا	67	61	79										
15	افشلا تاربتخمء	17	22	15										
16	تاربتخم سبقللا	21	10	23										
17	تاسسوم ردصلا		20	48										
18	أبريدم بوتجلا يلولا	116	111.2	145.6										
19	أبريدم بوتجلا أينانثا	95	103	109										
20	زكرم ماملإا يفيمخلا- قوشعم	21	32	20										
21	جرب يولاقة	45	43.4											
22	اروحلا راد زكرمء	232.2	238.1	345.6										
23	زكرم اضرلا	22	24	29.5										
24	زكرم جربلا	19.5	17.5	26										
25	عابج	27												
26	مايخلا	9	11	9										
27	نيقيدصء	16.6	23	10.9										
	زكرم تبتيوء	13.8	8	7										
28	زكرم أيزاغلا يبطلا		19											
	أياعرلا			19										
	زكرم أبيابهشلا		16	11										
29	زكرم نيز نيدباعطا		8	6										
30	زكرم ماملإا قداصلا		6	11										
31	تاربتخم رورسء	9	7	11										
32	أيعمج نيقاعملا	20		24										
33	تاسسوم لماع أيلودلا	20												
34	وفشتسم روصء يموكحلا													
35	وفشتسم نارسءء	753.6	1092	851										
36	راد نامالإا	40												
37	م. سريم لبجلا يموكحلا	268.5	154.2	354.2										
38	فصوتسم أيدلب راصنإ	10	12	15										
39	زكرم تامدخلا أيفاشتلإا- اتيوء بعشلا	4	9											
40	وفشتسم أيطبنلا يموكحلا	3195	2531.5	2972.8										
41	زكرم نابكلا	52		50										
42	تاربتخم لابكء	28	19	35										
43	تاربتخم جاحلا	19		22										
44														
		19443.8	17541	19547.8	0	0	0	0	0	0	0	0	0	0

أنيهلا أبحصلا

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التاريخ:

السادة / المحترمين

عناية المحترم

الموضوع: ملف إدارة النفايات

بالإشارة إلى الموضوع أعلاه وعطفاً على الإجراءات الأخيرة والشروط المفروضة من قبل كل من وزارة الصحة العامة ووزارة البيئة والتي تستوجب معها الدقة والحرص في إنجاز هذا الملف بالشكل الذي يتوافق مع المعايير المعتمدة إستناداً إلى مرسوم وزارة البيئة رقم 13389 ، نعرض من خلال هذا التقرير المعايير المطلوبة لإنجاز الملف الخاص بقسم إدارة النفايات بالإضافة إلى بعض النقاط التي يتم التدقيق عليها والتي يجب الحرص على إنجازها والعمل عليها بالتعاون ما بين كافة المعنين:

1. توافر غرفة لتخزين النفايات والتي تُطبق عليها المعايير التالية:
   - ✓ توفير براد كبيرة درجة الحرارة تكون ما بين 8°C – 3 C°.
   - ✓ تتوافق سعة البراد مع حجم النفايات المنتجة اسبوعيا .
   - ✓ أن يكون موقع التخزين منفصل عن بقية أقسام المركز وبعيداً عن الأماكن العامة.
   - ✓ سهولة الوصول إلى موقع التخزين لغرض التخزين والنقل والتنظيف. يفضل أن يوضع البراد في غرفة محكمة الاغلاق .(بها قفل)
   - ✓ أرض صلبة غير قابلة للنش، وجدران سهلة التنظيف ومبلطة ومصرف جيد للمياه.
   - ✓ عدم وجود تشققات وفواصل في الجدران منعاً لدخول القوارض والحشرات.
2. يجب أن يزود المخزن بمعدات الحماية الشخصية، مواد التنظيف والتطهير، معدات إدارة الإنسكاب (SPILL KIT)، توضع في خزانة خاصة مقفلة بجانب المخزن.
3. أدوات السلامة والحماية ضد الحريق.
4. وجود مغسلة بجانب الغرفةلغسل اليدين.
5. مُعنونة بالتالي (غرفة النفايات الطبية المعدية، ممنوع التدخين، ممنوع الدخول لمن ليس له عمل، شعارالنفايات الطبية الخطرة وممنوع الاكل والشرب .).
6. وجود ميزان حراري ثابت لقياس درجة حرارة البراد .

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7. تفعيل خطة إدارة النفايات في المركز وذلك من خلال:
8. تحديد إحتياجات التدريب المستمر لطاقم التمريض والمساعدين المعنين حول الإجراءات الصحيحة لفرز النفايات وتخزينها ونقلها وإدراج هذه الاجراءات كجزء من برامج التمريض الأساسية .
9. مراقبة تطبيق الخطة من خلال جولات دورية وتسجيل المخالفات ودراسة التقارير.
10. تأمين سلات مهملات داخل الغرف والعيادات لفرز النفايات على أنواعها (النفايات المشابهة للنفايات المنزلية، النفايات الحاملة خطر العدوى والنفايات الحادة).
11. تأمين سلات نفايات Pedal للنفايات الحاملة خطر العدوى.
12. تحضير بروشورات لفرز النفايات وترميز الألوان وتوزيعها على كنتوارت التمريض.
13. تأمين ملصقات لسلات النفايات (نفايات العادية، نفايات خطرة).
14. مراقبة نوعية ال Sharp box ومدى الإلتزام بتعبئتها وإغلاقها وتسليمها إلى عمال الخدمات البيئية.
15. ضرورة وجود سجل تطعيم دوري لعامل النفايات الخاص بالمستشفى أو المركز.
16. وضع النفايات الطبية الخطرة المعدية فقط في اكياس نفايات صفراء .
17. توفير اكياس نفايات صفراء مقاس 110 لجمعها من البراد ونقلها لسيارة شركة المعالجة .

,, وتفضلو بقبول فائق الاحترام ,,

شركة SAFE

معهد البحوث الصناعية
IRI

مبنى معهد البحوث الصناعية
مجمّع الجامعة اللبنانية - الحدث (بعبدا) - لبنان
تلفاكس: ٤٦٧٨٣١ ٥ ٩٦١+ - ٣ ٢٨٦٣٤٠ ٩٦١+
ص.ب.: ٢٨٠٦ - ١١ بيروت
e-mail: info@iri.org.lb - http://www.iri.org.lb

تقرير

تاريخ: ٢٠١٧/٠٨/١١

رقم: ٢٠١٧/٤٠٨٣٩٦/١٣٠٩/٥٢٢١

العينة

إستُلمت على إعتبار أنها:
"مياه"
(ضمن عبوات من اللدائن)

بتاريخ: ٢٠١٧/٠٧/٢٥

صاحب العلاقة

الإسم: MESSRS SUSTAINABLE ALTERNATIVE FOR THE ENVIRONMENT SOUTH - LEBANON

المرجع: كتابكم المؤرخ في ٢٠١٧/٠٧/١٧

النتائج

مدة اجراء التحليل: من ٢٠١٧/٠٧/٢٦ الى ٢٠١٧/٠٨/٠٩ ما لم يذكر خلاف ذلك، تم الإعتيان بواسطة صاحب العلاقة

تحليل كيميائي، فحص فزيقي وإختبار جرثومي

رقم المعهد:		العينة مرجعكم "١"	العينة مرجعكم "٢"	العينة مرجعكم "٣"	طريقة التحليل
٧ – ٢٦٧	المتطلبات البيوكيمائية للأوكسجين على شكل O، لمدة ٥ أيام (مغ/ل)	٦٢٧	٥٣٥	٧١٢	EPA 405.1
١ – ٢٨٧	المتطلبات الكيميائية للأوكسجين على شكل O (غ/ل)	١,٤٨	١,٣٨	١,٩٤	ISO 6060
٢ – ٢٩٩	تركيز شوارد الهدرجين عند حرارة ٢٥°س	٨,٥	٨,٥	٨,٥	pH-meter
١ – ٣٠١	الفسفات الإجمالية على شكل P_2O_5 (مغ/ل)	٦,٥	٧,٧	٥,٣	EPA 365.3
٢ – ٣٣٧	المواد الصلبة الحلولة (غ/ل)	٤,١	٤,١	٤,٠	AOAC 920.193
٢ – ٢٧٥	النترجن الإجمالي على شكل N (مغ/ل)	٦٣	٦٥	٦١	ISO 5663
٦ – ٤١١	الزئبق على شكل Hg (مغ/ل)	أقل من ٠,١	أقل من ٠,١	أقل من ٠,١	AAS-MVU
٥ – ٤١١	النحاس على شكل Cu (مغ/ل)	٠,١	٠,١	٠,١	ISO 8288
٥ – ٤١١	النيكل على شكل Ni (مغ/ل)	٠,٦	أقل من ٠,١	أقل من ٠,١	ISO 8288
٣٠ – ٢٦٦	القولونيات الإجمالية (مستعمرة/١٠٠ مل)	$١,٠ \times ١٠^{٢}$	$٤,٠ \times ١٠^{٢}$	$٣,٠ \times ١٠^{٢}$	ISO 9308-1 +ISO 4832

"النتائج غير متعلقة إلا بالعينات الخاضعة للتحليل".

ك ك/د ج/ا م/أ ج/ج س/ب ح/م م/ن ي

١/١

د. جوزيف متى
رئيس مصلحة المختبرات

ناديا خوري
مدير الابحاث التطبيقية والاختبارات

شروط وأحكام: يحظر استعمال هذا التقرير لأغراض دعائية

معهد البحوث الصناعية

لا يتحمل معهد البحوث الصناعية اية مسؤولية لجهة اصالة العينة التي اخذت منها المواد واجريت عليها الفحوص موضوع هذا التقرير ما لم يقم المعهد نفسه بأخذ العينة وفي هذه الحال يشار بوضوح الى هذا الواقع فتصبح الاشارة بذلك جزءاً من هذا التقرير.

SAFE

Sustainable Alternative For the Environment
Abbassieh, South Lebanon
Tel: +9613709341

CERTIFICATE OF STERILIZATION

Company Name: Heram Hospital
Company Representative Name: Dr. Solliman Aideby
Company Rep Phone #: +961 7 343700
Company Rep Email:

The infectious medical waste received by **SAFE co.** have been sterilized by **direct heated steam** in accordance with CDC standards & regulations of Infection Prevention & Infection Control, as well as local regulations of disposal of infectious medical waste, **Decree 13359 - 18/09/2004.**

Month	Type of waste	Weight(kg)	Remarks
Jan 2017	**Infectious medical waste**	1081.3	The medical waste received by our representative are well segregate according to the policy and procedure for waste management
Feb 2017	**Infectious medical waste**	1111	
March 2017	**Infectious medical waste**	1053.5	
April 2017	**Infectious medical waste**	1116.7	
May 2017	**Infectious medical waste**	1135.4	
June 2017	**Infectious medical waste**	1145.2	
July 2017	**Infectious medical waste**	1299.6	
Aug 2017	**Infectious medical waste**	1592.4	
Sep 2017	**Infectious medical waste**	1376.6	

CERTIFICATION OF ABANDONMENT & STERILIZTION:

I certify that the items listed in the above transaction were sterilized by SAFE co. in the manner authorized by the laws governing the Republic of and/or other applicable laws and regulations. Heram Hospital is released of all liability for any items processed by SAFE co. on their behalf.

SAFE Representative: Layla Farhat
Date: 27/10/2017

SAFE
Sustainable Alternatives
For the Environment

الجمهورية اللبنانية
محافظة الجنوب
بلدية العباسية
Tel: 07/380190 - Telefax: 07/380290

بلدية العباسية

وزارة البيئة
٧ تشرين الثاني ٢٠١٧
١٢٢٢٨

جانب وزارة البيئة المحترمين

المرجع: **بلدية العباسية.**

الموضوع: **طلب تجديد ترخيص.**

نأمل من جانبكم الكريم تجديد الترخيص لمعمل تعقيم ومعالجة النفايات الطبية التابع لبلدية العباسية ضمن العقار رقم (١١٣) منطقة العباسية العقارية ، والمملوك من قبل بلدية العباسية ، والحائز على ترخيص من وزارة البيئة بموجب القرار رقم (١/٤١) بتاريخ:٢٠٠٨/٠٨/٢٨.

العباسية في:٢٠١٧/١١/٠١

وتفضلوا بقبول فائق الإحترام

بلدية العباسية

بلدية العباسية
رئيس بلدية العباسية
خليل محمد حرشي

01/976555

الجمهورية اللبنانية
محافظة الجنوب
بلدية العباسية
Tel: 07/380190 - Telefax: 07/380290

بلدية العباسية

١٥٧٢٤ر
٢٠١٧

جانب وزارة البيئة المحترمين

المرجع: **بلدية العباسية.**

الموضوع: **طلب تجديد ترخيص.**

عطفاً على طلب تجديد الترخيص بتاريخ: لمعمل تعقيم ومعالجة النفايات الطبية التابع لبلدية العباسية ضمن العقار (١١٣) منطقة العباسية العقارية المملوك من قبل بلدية العباسية، والحائز على ترخيص من وزارة البيئة بموجب القرار رقم(١/٤١)، بتاريخ:٢٠٠٨/٠٨/٢٨، نحيطكم علماً بالمؤسسات الصحية التي يتم معالجة النفايات الطبية الصادرة عنها في المركز:

- مستشفى اللبناني الإيطالي (نجم)
- مستشفى صور الحكومي
- الهيئة الصحية الإسلامية
- مستشفى علاء الدين
- مستشفى جبل عامل
- مستشفى مرجعيون الحكومي
- مستشفى تبنين الحكومي
- مستشفى البقاع الغربي- سحمر
- مستشفى بنت جبيل الحكومي
- مستشفى البرج
- مستشفى النبطية الحكومي
- مركز الكيان
- مستشفى عسيران
- مستشفى دار الأمان
- مستشفى حيرام
- مستشفى الشيخ راغب حرب
- مختبر الشفاء
- مختبرات اللقيس
- مختبرات لبنان للتحاليل الطبية
- مختبرات الصباح للتحاليل الكيميائية
- مختبرات الكريم
- مستشفى الشهيد صلاح غندور
- مؤسسات الإمام الصدر
- مختبرات المشرق
- مختبرات سرور
- جمعية المعوقين
- مؤسسة عامل الدولية

العباسية في:٢٠١٧/١١/٠١

وتفضلوا بقبول فائق الإحترام

بلدية العباسية

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بلدية العباسية
قائمقامية صور
الداخلية والبلديات

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بلدية العباسية

لزوم عقد إتفاق بالتراضي لتشغيل معمل لمعالجة النفايات الطبية

فيما بيين:
فريق أول: بلدية العباسية ممثلة برئيسها السيد **خليل محمد حرشي**.
فريق ثاني: شركة SAFE ممثلة بمديرها العام الأستاذة **ليلى فرحات**.

بتاريخه أدناه تم الإتفاق بالرضى والقبول المتبادل دون عيب فيما بين المذكورين أعلاه الموقعين أدناه على ما يلي:

- حيث أن بلدية العباسية حصلت على هبة مقدمة من الإتحاد الأوروبي وهي عبارة عن معمل لفرز النفايات الصلبة والنفايات الطبية التي تنتج عن المستشفيات ، وفق إتفاقية موقعة مع وزير الدولة لشؤون التنمية الإدارية.
- وحيث أن المواد الثانية والثالثة والرابعة من الإتفاقية تنص على أن تتعهد بلدية العباسية تأمين تشغيل المعدات وصيانتها.
- وحيث أن المادة العاشرة في الإتفاقية تُلزم البلدية بتشغيل المشروع وصيانته إما مباشرة أو عن طريق تلزيم التشغيل لمؤمن خدمات.

- بناءً على ما تقدم إتفق الفريقان على ما يلي:

١. يتعهد الفريق الثاني إستقبال ومعالجة النفايات الطبية المعدية والخطرة من المستشفيات والمختبرات والمراكز الطبية والمتابعة مع هذه المؤسسات على تسليم نفاياتها للمعمل للمعالجة وذلك لقاء بدل يتقاضاه بسعر يحدد بينه وبين مراكز المعالجة عن كل كيلو غرام واحد للنفايات.
٢. يتعهد الفريق الأول ويلتزم بإلزام المراكز الصحية والمستشفيات بتسليم نفاياتها الطبية الخطرة والمعدية بناءً على التعهدات الصادرة عنهم وفقاً للقوانين والمراسيم المرعية الإجراء.
٣. وافق الفريقان على التعامل فيما بينهما بهدف معالجة النفايات الطبية المعدية والخطرة والمعددة حصراً في الفقرة الرابعة من المادة الأولى من المرسوم الإشتراعي رقم(١٣٣٨٩) تاريخ:٢٠٠٤/٠٩/١٨ وملحقاته وذلك على أن يتم هذا التعامل وفقاً للشروط المنصوص عنها في هذه الإتفاقية وعملاً بأحكام هذا المرسوم.
٤. يتعهد الفريق الثاني الإلتزام بكل ما ورد في دراسة الأثر البيئي للمشروع وتعتبر جزءاً أساسياً من هذه الإتفاقية.
٥. يتعهد الفريق الثاني بالصيانة الدائمة للمعدات والبناء ومحتوياته وتسليمه عند إنتهاء مدة العقد الى الفريق الأول بحالة جيدة وتكون كلفة التشغيل والصيانة مع ثمن قطع الغيار على عاتقه بكافة مراحل الفرز وبعده.

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٦. تقع على الفريق الثاني مسؤولية معالجة النفايات الطبية المتراكمة في حال حدوث أية أعطال للمعدات وتقع على عاتقه ومسؤوليته عملية المعالجة في المعمل للتخلص منها بالطرق البيئية المناسبة وفقاً لشروط الإدارة البيئية الواردة في دراسة الأثر البيئي.

٧. يتعهد الفريق الأول الإستحصال على كل التراخيص اللازمة مع الوزارات المعنية لتشغيل معمل معالجة النفايات الطبية وفقاً للقوانين والمراسيم المرعية الإجراء وإبقائها سارية المفعول ووضعها في تصرف واستعمال الفريق الثاني.

٨. يتعهد الفريق الثاني إستصدار بوليصة تأمين (All Risk) وعقد صيانة مع الشركة المصنعة لماكينة التعقيم (Autoclave) وتأمين جميع العاملين في المعمل وجميع آليات الشركة.

٩. يتعهد الفريق الثاني بدفع الرسوم الناتجة عن التشغيل وعن إشغال المبنى.

١٠. يتعهد الفريق الأول بجمع ونقل النفايات المعقمة الناتجة عن المعمل والتخلص منها على مسؤوليته ونفقته.

١١. حدد الفريقان بدل تشغيل المعمل موضوع هذا الإتفاق بمبلغ ثلاثون مليون ليرة لبنانية سنوياً وتُدفع شهرياً من قبل الفريق الثاني من تاريخ إستلام المعمل من البلدية.

١٢. نوع العملة بالليرة اللبنانية.

١٣. في حال مخالفة الفريق الثاني بنود هذه الإتفاقية يترتب عليه بند جزائي عبارة عن مئة ألف ليرة لبنانية يومياً عن الخسائر المترتبة مع تحمل كامل مسؤوليته تراكم النفايات الطبية الناتجة عن هذا التعطيل.

١٤. إن رسوم المياه والكهرباء والهاتف والحراسة والتنظيفات والرسوم البلدية وسائر الرسوم والمصاريف والغرامات والضرائب التي تترتب للإدارات الرسمية أثناء مدة هذا الإتفاق هي على عاتق ونفقة الفريق الثاني.

مدة العقد:

١٥. حددت مدة هذا العقد لمدة سنة واحدة تبتدأ من تاريخ إستلام المعمل من الفريق الثاني وتنتهي بعد سنة واحدة وقد تعهد الفريق الثاني المشغّل بتسليم المعمل مع كامل محتوياته موضوع الإتفاق للفريق الأول دونما حاجة لأي إنذار ودون مراجعة القضاء.

أما إذا استمر المشغّل في إشغال المعمل موضوع هذا العقد بعد إنتهاء مدة العقد فإنه يعتبر شاغلاً له بدون أي مسوغ قانوني ويكون قاضي الأمور المستعجلة المرجع الصالح للحكم بإخلاء الفريق الثاني المشغل.

١٦. تخضع هذه الإتفاقية لحرية التعاقد ولمشيئة المتعاقدين في كل ما لا يتعارض مع الإتفاقية الموقعة مع الإتحاد الأوروبي والبلدية ووزارة شؤون التنمية الإدارية.

١٧. لا يحق للفريق الثاني تعيين أو تكليف من ينوب عنه بتشغيل وإدارة المعمل.

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١٨. على الفريق الثاني إقامة تصوينة خلال مدة شهر من تاريخ توقيع العقد.

١٩. على الفريق الثاني تأمين حارس ليلي خلال فترة شهر من تاريخ توقيع العقد

٢٠. من المتفق عليه صراحة بين الفريقين أن شركة SAFE SAL تحل حكماً محل الفريق الأول في كافة الإلتزامات والموجبات الناشئة عن هذه الإتفاقية.

٢١. حررت إتفاقية تشغيل المعمل في العباسية بتاريخ: ١ /٠٢ /٢٠١٧ على نسختين لكل فريق نسخة أصلية للعمل بها عند الإقتضاء على ان يعمل بها بعد موافقة سلطات الرقابة حسب الصلاحية.

العباسية في:

الفريق الأول

المؤجر

رئيس بلدية العباسية
خليل كمال حمشي

الفريق الثاني

المشغّل

SAFE
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قرار مجلس بلدي رقم (٢٢)

الموضوع: الموافقة على عقد اتفاق بالتراضي مع شركة SAFE لتشغيل معمل النفايات الطبية.
إنّ مجلس بلدية العباسية.
بناءً على المرسوم الاشتراعي رقم ١١٨ تاريخ ١٩٧٧/٦/٣٠ (قانون البلديات وتعديلاته).
بناءً على محضر الانتخاب المؤرخ في ٢٠١٦/٥/٢٧.
بناءً على البند ..... من محضر جلسته المنعقدة بتاريخ ٢٦ / ٥ /٢٠١٧.
بناءً على المرسوم رقم ١٤٢٩ تاريخ ١٩٩١/٧/٥ القاضي بإخضاع بلدية العباسية لأحكام قانون المحاسبة العمومية المنفذ بموجب المرسوم رقم ١٤٩٦٩ /٦٣ وتعديلاته.
عقد مجلس بلدية العباسية عند الساعة الثانية من يوم الجمعة الواقع في ٢٦/ ٥ /٢٠١٧ بحضور رئيس البلدية والأعضاء السادة جعفر معلبكي - حسن زين - رولا عجمي - صالح صالح - طاهر فردون - عبدالله شعلان - علي دربج - علي موسى عزالدين - علي كلش - فايز جحا - فؤاد معتوق - محمد خليل عزالدين
وتغيب بعذر عن الجلسة السادة .....

تداول المجلس في البند المتعلق بمركز النفايات الطبية التابع لبلدية العباسية وابرام عقد مع شركة SAFE الممثلة بمديرها العام الاستاذة ليلى فرحات،
وحيث ان البلدية أعلنت عن المزايدة لمرتين متتاليتين حسب الأصول القانونية دون أن تسفر عن نتيجة إيجابية، بسبب تقديم عرض وحيد في كل مرة،
حيث أن الشركة تعمل في مجال التنظيفات وإدارة معالجة النفايات ولديها الخبرة اللازمة في ادراة وتشغيل المعمل المذكور سابقا"
لذلك ترى البلدية ضرورة استمرار عمل المرفق العام، لما له من اهمية على صعيدي الصحة والسلامة العامة، من خلال عقد اتفاق بالتراضي مع شركة SAFE وهو الانسب لصالح البلدية، لأنها شركة متخصصة وتعمل في هذا المجال.
بناءً عليه،

قرر المجلس ما يلي:

المادة الأولى : الموافقة على اجراء عقد اتفاق بالتراضي مع شركة SAFE التي تعمل في مجال التنظيفات وإدارة معالجة النفايات ولديها الخبرة اللازمة في ادراة وتشغيل المعمل المذكور أعلاه والممثلة بمديرها العام الاستاذة ليلى فرحات.
المادة الثانية : تكليف رئيس البلدية التوقيع على عقد الاتفاق مع شركة SAFE وأجراء اللازم حسب الأصول القانونية .
المادة الثالثة : يعمل بهذا القرار بعد موافقة الجهات المختصة وتصديقه من سلطة الرقابة الادارية.
المادة الرابعة : ينشر هذا القرار ويبلغ حيث تدعو الحاجة .
الاعضاء السادة:

جعفر معلبكي — حسن ياسين — حسين زين — رولا عجمي — صالح صالح — طاهر فردون — عبدالله شعلان
علي دربج — علي موسى عزالدين — علي كلش — فايز جحا — فؤاد معتوق — محمد خليل عزالدين

نائب الرئيس
حسين عبدالله جوني

الرئيس
خليل محمد حرشي

رئيس بلدية العباسية
خليل محمد حرشي

SAFE

Sustainable Alternatives For the Environment
Abbassieh, South Lebanon

((فرز النفايات الطبية في المراكز الصحية))

❖ نفايات غير خطرة مشابهة للنفايات المنزليّة

تشمل نفايات المطبخ، الأوراق، الزجاج، التنك، النايلون، البلاستيك، المحارم، الحقن والأمصال الغير ملوّثة وتوابعها

تخزن في أكياس نفايات ذات لون أسود

❖ النفايات خطرة ومعدية

أ. نفايات معدية غير حادة: وهي النفايات الملوّثة بالدم أو السوائل الحيوية والتي يمكن أن تتسبّب بأمراض معدية (نفايات غرف العزل، تنظيف الجروح، القساطر الملوّثة بأنواعها، الأنسجة، عينات الدم والزرع montage.. الملوث بالدم ...الامصال والانابيب الملوثة بالدم .....)

تخزن في أكياس نفايات ذات لون أصفر

ب. نفايات معدية حادة: الحقن والإبر الملوّثة، الشفرات. كالأمبولات.....

تخزن في علب لون أصفر

مهم جدا ((فقط هذه النفايات يتم استلامها من قبل الشركة المعالجة))

❖ النفايات خطرة غير معدية

أ. وهي النفايات التي تحتوي على مواد سامة وخطرة مثل المواد الكيميائية، الأدوية المنتهية الصلاحية، ، أو مواد التظهير ,مواد التعقيم .

تخزن في أكياس نفايات لون أحمر

ب. النفايات الصيدلانية الحادة: الادوية الفارغة (vials)..بقايا الادوية الزجاجية ....

تخزن في عبوات ذات علامة لون أحمر Pharmaceutical

مسؤولة العمليات في الشركة
ليلى فرحات

Annex C: Report of Public Consultation

Minutes of the Public Consultation

Location	Ministry of Public Health-Bir Hassan
Subject	Public consultation to discuss a draft of the Environmental and Social Management Framework for the Lebanon Health Resilience Project
Date	May 28, 2018
Starting time	10:30
Ending time	11:30
Reporter	Linda Khalil

No.	Name of Attendee	Expertise	Affiliation	Phone number	Email
1	Marie Akiki Abi Safi	National public health officer	UNHCR	01-849201 ext. 2343	akiki@unhcr.org
2	Genevieve Begkoyian	Chief child survival	UNICEF	70-112296	gbegkoyian@unicef.org
3	Jeus Griww	Contracting	UNICEF	78-808485	jgriww@unicef.org
4	Alissar Rady	Health	WHO	70-147305	radya@who.int
5	Iman Shankiti		WHO		shankitii@who.int
6	Youssef Akiki	Pharmacist /DBA	Cedars Medical Association	03-458660	Youssef_akiki@yahoo.com
7	Mustafa Mirhi	Physician and Manager	Hayaa Islamic association	03-661982	moustaphamirhi@yahoo.com
8	Khaled Kaskas		Order of Malta	03-840506	Malte3@fattal.com.lb

9	Rania Zaatari	MBA- health	Makassed Communal Healthcare Bureau	03-944170	raniazaatari@hotmail.com
10	Dana Sinno		Makhzoumi foundation	03-112227	d.sinno@makhzoumifoundation.org
11	Dania Hajj Ali	Accreditation Coordinator	Makhzoumi foundation	03-040861	d.hajj-ali@makhzoumifoundation.org
12	Walid Ammar	Director General	MoPH		Wammarmd@gmail.com
13	Randa Hamade	Head of PHC department	MoPH	03538878	Randa_ham@hotmail.com
14	Jihad Makkouk	Chief of Hospitals, Dispensaries and medical Professions Service	MoPH	03-874872	drmakouk@yahoo.fr
15	Sizar Akoum	Biomedical Engineering Expert/ Project coordinator	MoPH	03-388177	sizarak@gmail.com
16	Rima Shayya	PHC coordinator	MoPH	03-581727	Rgs066@gmail.com
17	Wafaa Kanaan	MoPH PHC chief center coordinator	MoPH	70-982290	wafakan@hotmail.com
18	Imad Haddad	Accreditation and NCD Coordinator	MoPH	03-918099	i.haddad@hotmail.com
19	Rawan Hammoud	Monitoring and evaluation officer	MoPH	70-977228	Rawan.hammoud@gmail.com
20	Ola Kdouh	Monitoring and evaluation officer	MoPH	71-472742	Olakdouh@gmail.com
21	Lama Abdel Khalek	Research and Technical Assistant	MoPH	76-642280	lamaabdelkhalek@gmail.com

Summary of Meeting and Action Items:

1. Mrs. Khalil presented an overview of the Environmental and Social Framework for the Lebanon Health Resilience Project. The presentation began with an overview of the relevance of the ESMF and a brief overview of the EPHRP and LHR projects. The presentation also included some baseline information about healthcare waste management practices at PHCCs and public hospitals, the legal and institutional framework for ESM and the institutional framework for ESM in Lebanon. The presentation concluded with an overview of the implementation of the ESMF and a cost estimate for the different components
2. After Mrs. Khalil concluded the presentation, the floor was open for 10 minutes for discussion.
3. The WHO representative, Dr. Rady, pointed out that the real problems lie outside the hospital and PHCCs, in the disposal rather than segregation and collection of waste. She also mentioned that the ESMF should look into medical waste from drugs such as chemotherapy and not only infectious waste. Mrs. Khalil replied that the waste management plan for each PHCC or hospital will cover all waste generated, not just infectious. Mrs. Khalil also explained the ESMF specifically covers the activities of LHRP. Mrs. Khalil also mentioned that the project with waste disposal is a national one, and it is impossible to fix problems at the national level. Mrs. Khalil also mentioned that she met with Arcenciel who told her that they cannot collect waste from the North because the treatment Plant in Zgharta was closed for political reasons and they do not have a collection vehicle (it was proposed that the MoPH could buy a vehicle for AEC). Dr Rady then also asked about the cost per kg and how the increase in waste generated would be reflected on the cost the PHCCs/hospitals would be required to pay. It was proposed that this issue be subject to subvention by MoPH. Dr Rady also pointed out that public hospitals were built by CDR, thus they should have been built according to standards. Mrs. Khalil explained that during site visit to a hospital, the infectious waste storage room was not adequately built and equipped.
4. UNICEF representative, Mr. Griww, also pointed that the waste management plan can only be functional if it follows through to disposal.
5. UNHCR representative, Mrs. Marie Akiki, mentioned the impact of waste from non-accredited hospitals where refugees visit, and other dispensaries. She also mentioned that this is where most of the medical waste in Lebanon is generated. Mrs. Khalil replied that under this project we are only tackling public hospitals and PHCCs within the national network, and that the aim is to mitigate any impacts from this specific project. Dr. Randa Hamade pointed out that the ministry is considering the implementation of this ESMF as a pilot which could possibly be expanded to the national level in the future.
6. Dr Mustafa Mirhi, representative of the Hayaa Islamic Association, pointed out the need for coordination regarding medical waste management practices between what is required for this project, and what is required under accreditation standards, to avoid any confusion. Mr Imad Haddad, accreditation and NCD coordinator at the MoPH, assured him that there will be coordination.

Photos showing representatives from different stakeholders discussing ESMF during public consultations

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Safeguard Consensus meeting / EPHRP & LRP

May 28, 2018

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REPUBLIC OF LEBANON
MINISTRY OF PUBLIC HEALTH

Safeguard Consensus meeting / EPHRP & LRP

May 28, 2018

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LEBANESE HEALTH RESILIENCE PROJECT

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

Relevance of the ESMF

ESMF analyses the environmental and social impacts associated with activities undertaken by Lebanon Health Resilient Project (LHRP)

and

provides a framework for social and environmental safeguard.

EPHRP (2015-ongoing)

Component 1:	Component 2:	Component 3:
Provision of essential healthcare packages	Readiness and capacity building of 75 PHCCs	Project outreach, management and monitoring

LHRP: A 6-year Project

Component 1:	Component 2:	Component 3:	IsDB Parallel Financing:
Scaling up the scope and capacity of the EPHRP	Provision of health care services in public hospitals	Strengthening project management and monitoring	Procurement of essential equipment in a set of public hospitals
(76.50 M $US)	(36.40 M $US)	(6.86 M $US)	(30.00 M $US)

LHRP in numbers

- Increase the number of **Lebanese** receiving subsidized PHC services from 150,000 to 340,000
- Increase the number of **Syrian** receiving subsidized PHC services from 130,000 to 375,000
- More **comprehensive package of enrollment-based preventive** health services
- Increased network of participating **primary healthcare** centers from 75 to 204
- Involvement of 32 **Public Hospitals** in providing medical, paramedical and emergency healthcare services

What does the ESMF include?

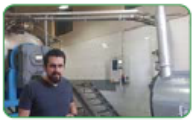
Relevant Lebanese environmental and social legislation (EIA decree 8633/2012) and the World Bank's safeguards policies must be followed

- **Policy, legal and institutional framework for environmental management** related to the health sector.
- Potential environmental and social **impacts** of the Project and identify **mitigation** measures;
- Present guidelines for **screening** Project activities from environmental and social aspects;
- Develop a **monitoring program** for compliance of project activities to ESMF
- **Cost Estimation** for the implementation of the ESMF

In preparation of this document…

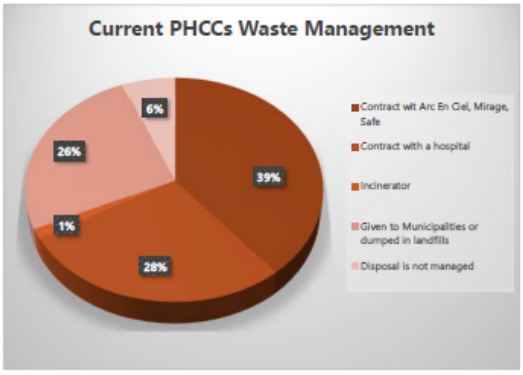
Relevant environment and social safeguard practices and reports from sources such as MoPH and WB were reviewed

Field visits to PHCCs and Hospitals including assessment towards understanding and implementation of environmental and social safeguard compliance



Different levels of consultations took place

Baseline Information…



Policy Framework for EM

The Health Strategic Plan (2016-2020)

The MoPH requires hospitals to apply for accreditation

Accreditation includes environmental management but Hospitals however, can be accredited without complying to the environmental requirements

Environment Policy including the solid waste policy (2018)

Sustainable Ecological Development, Protection through Prevention, Polluter Pays Principle, National Equitable Development, and Mainstreaming of Environmental Policy into other sectors of the economy.

Policy Framework for EM

Environment Policy including the solid waste policy (2018)

With regards of Hazardous and Other Wastes, MoE shall take:

- Build 3 interim storage plants for hazardous industrial waste, electronic waste, expired drugs, healthcare waste (hazardous and non-infectious, and those requiring special management), POPs, etc.
- Build treatment plants, for used oil, tires, and batteries.
- Build special incinerators for other types of wastes (such as slaughterhouse wastes, dead animals, etc.).
- Allocating an abandoned quarry in each district for the treatment of rubble waste and final disposal of bulky refuse/waste.

National Legislations

- **Lebanese law 444/2002** and **decree 167**: Code of the Environment
- **Lebanese decree 8633/2012**: EIA Decree
- **Lebanese decrees 8006-2002 and 13389-2004:** Healthcare waste
- **Decision 1/1294-2018 and 1/1295-2018**: transport of healthcare waste, and the construction and operation of facilities for the disinfection of hazardous and infectious waste.
- **Decree 167/2017**: Tax exemptions on income.
- **Law 48/2017**: Regulates Public Private Partnerships (PPP).
- **Circular 7/1- 2017** : list of institutions for the disposal of material and equipment for potential recycling.
- **Hospital Accreditation/2000:** Standards are divided in 40 chapters. One chapter concerns waste management.

International Agreements & Principles

- **The Basel Convention** (Ratified by law 387/1994, 29/2015): control of transboundary movements of hazardous wastes and their disposal.
- **The Stockholm Convention** (Ratified by law 432/2002): to protect human health and the environment from chemicals that remain intact in the environment for long periods.
- **Minamata Convention on mercury** (Acceded by law 2/2017): to protect human health and the environment from the adverse effects of mercury.
- **The Polluter Pays Principle**
- **Precautionary principle prevent the environmental degradation**
- **Proximity principle**
- **Diligence principle**

World Bank

- **World Bank Policies**

The project is expected to trigger only OP/BP 4.01: Environmental Assessment, as some of the subprojects could impact the physical environment. As per the PAD, category A subproject will not be eligible for funding only category B subprojects will be funded.

- **Environmental, Health, and Safety (EHS) General Guidelines**

The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents. The Health care facilities follow also industry special EHS guidelines. It covers waste management, emissions to air and wastewater discharges.

Institutional Framework

- The Ministry of Public Health
- The Ministry of Environment
- Ministry of Justice
- The Council for Development and Reconstruction
- Arcenciel

ES Analysis of the Project

- **Positive impacts mainly social:**
  - Saving in HC costs
  - Improvement of service at HC institutions
  - Reduction of tension between refugees and local population
  - Reduction of diseases

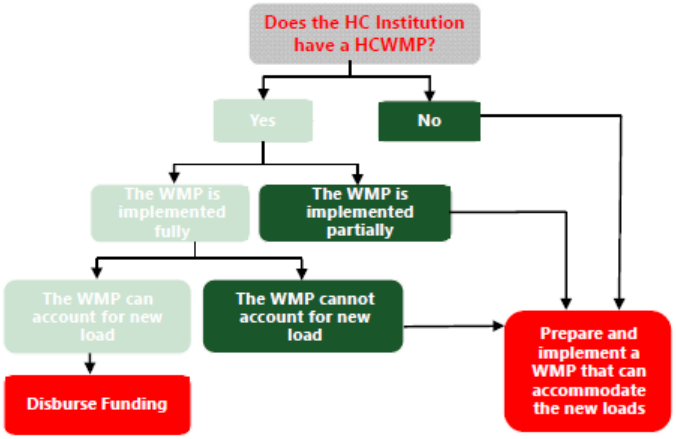
ES Analysis of the Project

- **Potential minor negative impacts**:
  - Increase in air emissions from power generators and ventilation
  - Increase in water consumption and wastewater generation
  - Slight disruptions due to minor civil works to accommodate increased patient volumes and waste generation.
  - Increase in traffic due to patients and healthcare professionals
  - Complains may arise from local communities

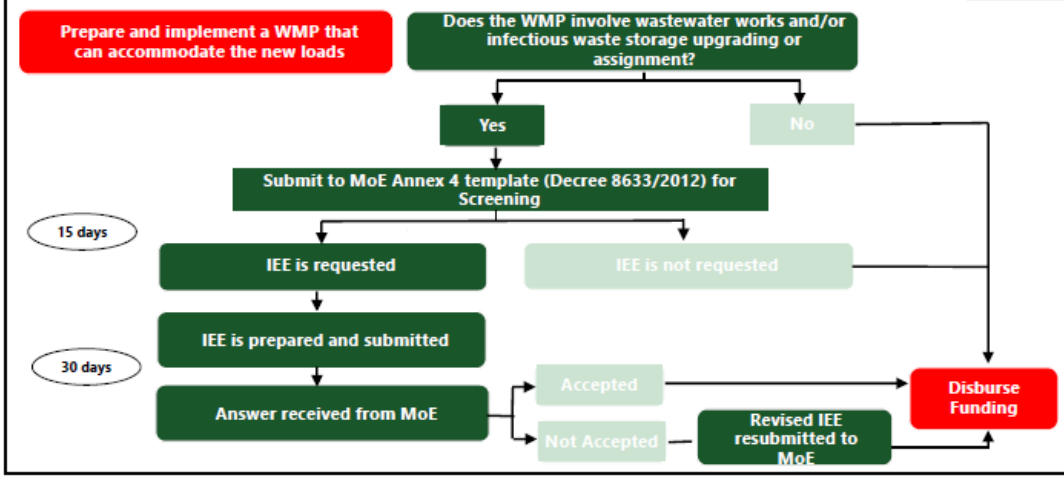
ES Analysis of the Project

Potential Impact	Mitigation Measures
Increase in HC and municipal waste generation due to increased volumes of patients covered by the project	• Verify the existence of a HCWMP • Verify HCW handling capacity of institution • Implement HCW management plan
Increased exposure of personnel and patients to infectious HCW leading to OHS risks.	Implement OHS plan and HCW management
Disposal of old equipment	Send the old equipment to recycling companies

How can a HC Institution benefit from the Project?



What are the Instruments needed?



Waste management Plan for Medical activities

A complete WMP has been included in this ESMF:

- Identify requirements for the safe management of HCW
- Comply with national health and environmental regulations.

Facilities selected for support by LHRP will need to:

- Have a complete WMP in place
- Take necessary actions to be able to implement a WMP that can also handle additional loads of wastes.

PMU will identifying gaps and needed mitigation measures.

Monitoring and Evaluation

The HC Institution (PHCCs and Public Hospital)

Senior staff officer (PHHC) or

Environmental Health Officer/Waste Management Officer (hospital

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Check **existence**, and **proper implementation** of a WMP in their institutions. They should also look for the **possibility of accommodation** of additional waste that will potentially be generated by LHRP. This will require expertise at least at MoPH level.

Monitoring and Evaluation

If the HC institution WMP involves wastewater works and/or infectious waste storage upgrading or assignment, then it should submit to MoE Annex 4 template (Decree 8633/2012) for Screening.

If an IEE is required, then an **independent consultant** shall be assigned to prepare it. It will be reviewed by the MoE, revised if necessary and approved.

The **PMU** should check that the Healthcare WMP, the ESMF and the ESMP are being fully implemented by the Hospitals and PHCCs.

Institutional Arrangement

The **Council for Development and Reconstruction** manages the World Bank and IsDB funds and verifies the implementation of safeguards.

MoPH Steering Committee which was established under EPHRP and would be expanded to include a representative from MoPH hospital sector and CDR. Its role is to oversight the Project, coordinate interagency policies and programs and resolve any strategic and implementation issue.

The **Project Management Unit (PMU)** manages the implementation of the Project.

Institutional Arrangement

The MoPH developed a monitoring and evaluation plan for the ongoing EPHRP project supported by the upgraded Health Information System (HIS). The current Project will build on the EPHRP M&E System and will consist of the following:

- **Internal oversight by MoPH on PHCCs and Hospitals** including continuous monitoring of the activities
- **Independent project evaluation** including ongoing and planned project activities
- **Beneficiary assessment** and grievance redress mechanisms at the central and facility levels.
- **External medical auditing** (will be conducted as post-review)
- **Project's final evaluation**

Institutional Arrangement

In order to ensure proper implementation of environmental and social screening, and ESMF, the MoPH will undertake **environmental training** and **institutional capacity building**.

Environmental training and sensitization will be required:

- Implementing stakeholders
- Health workers.

Cost Estimate of the ESMF

Elements	Subproject Activities	Responsibility	Number	Unit Price US$	Total Cost US$
Training for the preparation and implementation of a WMP	PHCC	PMU/MoPH	10	3,000	30,000
IEE preparation	Public Hospitals	Hospital Waste management Committee	32	8,000	256,000
Support for the Implementation of ESMP prepared in the IEE and WMP	Public Hospitals	Hospital Waste management Committee	32	10,000	320,000
Technical support	Short term consultants for PMU support and enforcement	PMU/MoPH	700	250	175,000
Total					**781,000**

DISCUSSION

Annex D: I-RAT

Content

	Section	Content
1.	Introduction	Basic information and instructions on the use of the I-RAT
2.	I-RAT	Individualized Rapid Assessment Tool for a single facility
3.	Answer Guide	Guide to YES and NO responses to the I-RAT questions
4.	Glossary	Glossary of terms and abbreviations

> **To access any of the above sections, click on the tabs below.**

Individualized Rapid Assessment Tool • Healthcare Waste Management

Background

- The I-RAT is a rapid assessment tool to obtain an initial indication of the level of healthcare waste management at an individual healthcare facility. The tool results in an overall score that can be used by Ministries of Health to compare and rank healthcare facilities for the purpose of prioritizing interventions. The tool can also be used as a quick tool to identify possible areas for improvement. The I-RAT is not intended to provide a detailed or comprehensive assessment. The I-RAT was designed for use by technical consultants and/or hospital personnel specializing in healthcare waste management.

- The Individualized Rapid Assessment Tool (I-RAT) was developed in 2009 as part of the UNDP GEF Global Project on Healthcare Waste by Dr. Jorge Emmanuel, Chief Technical Advisor. The I-RAT is based on WHO's Rapid Assessment Tool (RAT), which is part of WHO's overall strategy to reduce the disease burden caused by poor healthcare waste management (HCWM) through the promotion of best practices and the development of safety standards. The RAT can be found at: http://www.who.int/water_sanitation_health/medicalwaste/hcwmtool/en/index.html Unlike the RAT which evaluates the HCWM situation on a national level, the UNDP GEF Project's I-RAT is intended for use at the individual healthcare facility level.

- The I-RAT will be used by the model healthcare facilities at the beginning and end of the project to demonstrate improvements in the HCWM systems for the UNDP GEF Project.

Basic Information

- The I-RAT is comprised of a series of questions. Most questions can be answered by a YES or NO. Others require numerical or text answers. The I-RAT was designed to take about 4 to 8 hours to complete, depending on the size of the facility, scheduling, the level of knowledge of the people interviewed, and the availability of data.

- The I-RAT automatically computes a final score. A YES answer signifies good HWCM practices. Each YES/NO question is assigned a value (weighting factor) in column D. Some questions have a higher value than others because of their importance in healthcare waste management. The higher the final score, the better is the HCWM system of the facility. The highest score is 100 points.

- The I-RAT was designed for use by the technical consultants of the UNDP GEF Project in conjunction with the staff of the model healthcare facilities. The process has five main activities: (1) preparation, (2) I-RAT Part I - Initial Interview, (3) inspection tour of the facility, (4) I-RAT Part II - post-inspection tour Interview, and (5) scoring and final meeting. The sect below gives instructions for each stage and an estimated time needed to accomplish each activity.

Individualized Rapid Assessment Tool • Healthcare Waste Management

Put yes/no responses in the yellow spaces in column C; use "y" for yes and "n" for no. Put text or numerical responses in the yellow spaces in column F. Numerical answers should be in the units specified and should not include any text. The final score is shown at the bottom.

	C		F
Name of the person collecting the data			
Date of assessment			
PART I. INITIAL INTERVIEW			
BASIC DATA			
Name of the healthcare facility:			
Address			
Telephone/Fax:			
Description of healthcare facility:			
Number of beds:			
Average occupancy rate (in percent):			100
Average number of outpatients per day:			
#	"y" or	WeightValue	Score / Text or Numerical Input
ORGANIZATION			
1 Is there a person in charge of healthcare waste management?		5	0
If yes, write the name of the person in charge:			
2 Is there a permanent committee that deals with healthcare waste management and meets on a regular basis?		1.5	0
3 Are the roles and responsibilities regarding healthcare waste management made clear to the staff?		1.5	0
POLICY AND PLANNING			
4a Does the healthcare facility have written policies dealing with healthcare waste management?		2	0
4b Does the healthcare facility have written plans, manuals, or		2	0
5 Are the policies, plans, manuals, and/or written procedures consistent with national laws, regulations, and any permits?		3.5	0
6 Does the healthcare facility have a plan for recycling or waste minimization?		1.5	0
7 Does the healthcare facility policy explicitly mention a commitment to protect the environment?		0.5	0
8 Is the healthcare facility mercury-free? OR Does the healthcare facility have a policy or plan to phase out mercury?		1.5	0
TRAINING			
9 Does the facility have a training program on healthcare waste management for managers, health professionals, waste workers, and auxiliary staff?		5	0
10 Does the training program include relevant national laws and regulations?		1	0
11 Does the training program include the following: segregation, collection and handling of sharps waste, use of proper containers and bags for infectious waste, color coding, 3/4th fill rule, use of personal protection equipment by waste workers, transport, storage, and treatment?		2	0
12 Are the staff trained, including new staff when they begin their employment?		3	0
13 Is there refresher training at least once a year?		1	0
OCCUPATIONAL HEALTH AND SAFETY			

14 Do the policies and plans related to healthcare waste management include occupational health and safety (including policies for needle-stick injuries or exposure to blood splatter)? OR Does the facility have separate occupational health and safety policies that include needle-sticks and exposure to blood?		3	0	
15 Are the workers who collect, transport and treat waste provided with the proper personal protection equipment (gloves, shoes or boots, and aprons)?		2	0	
16 Are the health workers and workers handling waste given hepatitis and tetanus vaccinations?		2	0	
MONITORING, EVALUATION AND CORRECTIVE ACTION				
17 Is there a system of internal monitoring or inspection to determine compliance with healthcare waste management requirements?		1	0	
18 Is there a system of taking corrective action when practices or technologies related to healthcare waste management do not meet the requirements?		1	0	
19 Are policies and/or plans reviewed or updated at least once a year?		0.5	0	
FINANCING				
20 Does the facility have an annual allocation in its budget for healthcare waste management?		4	0	
21 Is the current budget sufficient for healthcare waste management?		2	0	
Budget for healthcare waste management (in the local currency):				
22 Does the facility have a long-term financing plan or mechanism to cover the costs for sustainable healthcare waste management?		0.5	0	
PART II: POST-INSPECTION TOUR INTERVIEW				
CLASSIFICATION AND SEGREGATION				
List the types of waste produced in the facility:				
23 Are the wastes properly segregated at the source according to different categories?		5	0	
24 Are the health workers familiar with the classification and segregation requirements?		2	0	
WASTE GENERATION DATA				
25 Have the amounts of total waste and infectious waste produced per day been measured? If yes, put the figures below; if no, provide the best estimate below.		1	0	
Total waste (infectious and non-infectious) generated on average (in kilograms per day):				100
Total waste minus recycled or reused waste (in kilograms per day):				
Infectious waste generated on average (in kilograms per day):				100
percentage of infectious waste relative to total waste:				15
kilograms infectious waste per bed per day:	**15**	0.5	0.5	
kilograms unrecycled waste per bed per day:	**0.2**			
	1.0	0.5	0.5	
COLLECTION AND HANDLING				
Describe the types of containers used for each separated category:				
26 Are used syringe needles collected WITHOUT recapping?		2	0	
27 Is sharps waste collected in sharps containers or destroyed using needle destroyers?		5	0	

28	Are the sharps containers puncture-resistant and leak-proof? OR Are the needle destroyers approved under existing regulations or standards?		2	0
29	Are the sharps containers filled only 3/4th full? OR Are the needle-destroyers well maintained?		2.5	0
30	Are the sharps containers or needle-destroyers always available?		1	0
31	Are the sharps containers or needle-destroyers properly placed such that they are easily accessible to personnel and located as close as possible to the immediate area where the sharps are used?		1.5	0
32	Do the health workers know what to do in the event of a needle-stick injury? OR Are the health workers familiar with the policy on needle-stick injuries?		1	0
33	Are the plastic bags used for non-sharps infectious waste of good quality? OR Do you use specialized containers that are disinfected, cleaned and reused and do not require a plastic bags?		1	0
34	Are plastic bags always available? OR are the specialized containers described in #33 always available?		1	0
35	Are the bag holders or hard containers holding the plastic bags of good quality? OR Do you use specialized containers that are disinfected, cleaned and reused and do not require a plastic bags?		0.5	0
36	Are the infectious wastes removed at least once a day?		1	0
37	Do the waste workers know what to do if sharps or infectious waste is accidentally spilled? OR Are the waste workers familiar with the spill clean-up plans?		0.5	0
	COLOR CODING AND LABELING			
38	Does the healthcare facility use a system of color coding for different types of wastes?		3	0
39	Are the colors of the waste containers consistent with the color coding?		2	0
40	Are the infectious waste bags colored or labelled in accordance with the policies or regulations?		1	0
	POSTERS OR SIGNAGE			
41	Are there posters or signs showing proper segregation of healthcare waste?		0.5	0
	TRANSPORTATION INSIDE HEALTH ESTABLISHMENT			
42	Is the waste transported away from patient areas and other clean areas?		0.5	0
43	Is the waste transported in a closed (covered), wheeled transport cart?		1	0
44	Is the transport cart cleaned at least once a day?		0.5	0
	STORAGE			
45	Does the storage area meet the proper requirements?		1	0
46	Is the storage area kept clean?		0.5	0
47	Are the wastes removed before the maximum allowable storage time is exceeded?		1	0
	HAZARDOUS CHEMICAL, PHARMACEUTICAL AND RADIOACTIVE WASTE			
48	Are hazardous chemical, pharmaceutical, and radioactive wastes segregated from infectious and general non-risk wastes? (Put Y		4	0

49	Does the healthcare facility have a plan for the treatment and disposal of hazardous chemical, pharmaceutical, and radioactive wastes? (Put Y in column C if the facilities does not generate these categories of waste.)		1	0	
	TREATMENT AND DISPOSAL				
50	Does the healthcare facility treat its infectious waste (either on-site or at an off-site treatment facility) before final disposal? If infectious waste is not treated before disposal, put N in column C of QUESTION #53b and skip to QUESTION #69.		25	0	
51	Are laboratory cultures and stocks of infectious agents treated within the healthcare facility before being taken away from the facility?		2	0	
52	Is there a contingency plan for the treatment of infectious waste in the event that the treatment technology is shut down for repair?		1	0	
53a	*>> Does the healthcare facility treat its waste on-site? If yes, put Y in column C, make sure column C of QUESTION #53b is left blank, and go to QUESTIONS #54-61. If the healthcare facility treats its waste off-site, put N in column C, make sure column C of QUESTION #53b is left blank, and go to QUESTIONS #63-68. However, if the healthcare facility treats its waste BOTH on-site and off-site, put Y in column C and Y in column C of QUESTION #53b.*				
53b	*>> Does the healthcare facility treat its waste both on-site and using an off-site treatment center? If yes, put Y in column C and answer QUESTIONS #54-68. If the healthcare facility does not treat its waste before disposal, put N in column C of QUESTION #50 and go to QUESTION #69.*				
	For facilities with on-site treatment: Describe the method of treatment used:				
54	Is the waste transported safely to the treatment area?		0.5	0	
55	Is the treatment area located in a place that is easily accessible to the waste worker but not accessible to the general public?		0.5	0	
56	Does the healthcare facility have a program of regular inspection and periodic maintenance of the treatment technology?		3	0	
57	Is the treatment system clean, operating properly, and well maintained?		3	0	
58	Does the treatment system destroy or mutilate sharps waste in order to prevent reuse?		1	0	
59	Does the healthcare facility use an approved non-incineration treatment technology such as an autoclave-shredder, integrated steam treatment system, or microwave unit? If yes, put Y in column C and skip to QUESTION # 60.		6	0	
60	If the facility uses an incinerator: Does the incinerator meet international standards?		3	0	
61	If the facility uses an incinerator: Are PVC plastics kept out of the waste that is burned?		0.5	0	
62	Is the waste that is treated in an alternative technology disposed of in a sanitary landfill? OR Is the incinerator ash buried in a hazardous waste landfill? *>> If the answer to QUESTION #53a is yes, go to QUESTION #69. If the answer to QUESTION #53b is yes, answer OUESTIONS #63-68.*		1	0	

	For facilities that use centralized off-site treatment:				
	Name of the company that transports the infectious waste:				
	Name and location of the off-site treatment center:				
63	Does the transport vehicle meet the regulations or international standards?		2	0	
64	Does the healthcare facility keep copies of manifests or shipment records?		2	0	
65	Has a representative of the healthcare facility inspected the off-site treatment center?		2	0	
	Describe the method of treatment used at the off-site treatment center:				
66	Does the off-site treatment center use an approved non-incineration treatment technology such as an autoclave-shredder, integrated steam treatment system, or microwave unit? If yes, put Y in column C and skip to QUESTION #68.		7	0	
67	If the answer to QUESTION #66 is no, does the off-site treatment center use an incinerator that meets international standards?		4.5	0	
68	Does the healthcare facility know where the treated waste or		2	0	
	If yes, described the final disposal of the treated waste or ash:				
	WASTEWATER				
69	Does the healthcare facility treat its wastewaste (liquid waste) before being released? OR Is the healthcare facility connected to a sanitary sewer that is linked to a wastewater treatment plant?		3	0	
70	Does the treated wastewater from the healthcare facility meet national or international standards?		1	0	

TOTAL SCORE =

Individualized Rapid Assessment Tool • Healthcare Waste Management

Answer guide: criteria for YES and NO responses to the I-RAT questions

		YES	NO
PART I. INITIAL INTERVIEW			
	ORGANIZATION		
1	Is there a person in charge of healthcare waste management?	YES - There is a person and the name of the person has been provided.	NO - There is no person, OR the name of the person cannot be provided.
2	Is there a permanent committee that deals with healthcare waste management and meets on a regular basis?	YES - A permanent healthcare waste committee officially exists and meets at least once a year to discuss healthcare waste.	NO - There is no healthcare waste committee, OR the committee exists only in name, OR the committee does not meet at least once a yea
3	Are the roles and responsibilities regarding healthcare waste management made clear to the staff?	YES - The facility representative states that at least 80% of the health professional staff, waste workers, and cleaners, and 50% of the administrative staff are informed about their specific roles and responsibilities related to	NO - The YES criteria cannot be met.
	POLICY AND PLANNING		
4a	Does the healthcare facility have written policies dealing with healthcare waste management?	YES - There is a written policy which has been shown to the consultant and a copy can be provided.	NO - A written policy cannot be shown to the consultant.
4b	Does the healthcare facility have	YES - There is a written plan, manual, or written	NO - A written plan, manual, or written
5	Are the policies, plans, manuals, and/or written procedures consistent with national laws,	YES - There are no inconsistencies with laws and regulations.	NO - There are one or more inconsistencies with the laws and regulations.
6	Does the healthcare facility have a plan for recycling or waste minimization?	YES - There is a written plan which has been described or shown to the consultant.	NO - There is no specific plan OR no written plan has been shown to the consultant.
7	Does the healthcare facility policy explicitly mention a commitment to protect the environment?	YES- The policy (or plan) explicitly mentions a commitment to environmental protection.	NO - The policy (or plan) does not mention a commitment to environmental protection.
8	Is the healthcare facility mercury-free? OR Does the healthcare facility have a policy or plan to phase out mercury?	YES - All mercury thermometers and sphygmomanometers are mercury-free, OR there is a written mercury phase-out policy or plan whic has been shown to the consultant.	NO - Mercury thermometers and sphygmomanometers are used in the facility, and there is no mercury phase-out policy or plan shown to the consultant.
	TRAINING		
9	Does the facility have a training program on healthcare waste management for managers, health professionals, waste workers, and auxiliary staff?	YES - The facility can show the consultant a copy of curricula specific to managers, health professionals, waste workers, and auxiliary staff.	NO - There is no training program, OR no curriculum was shown to the consultant.
10	Does the training program include relevant national laws and regulations?	YES - The training curriculum shows a discussion of relevant national laws and regulations..	NO - The training curriculum does not mention relevant national laws and regulations

11	Does the training program include the following: segregation, collection and handling of sharps waste, use of proper containers and bags for infectious waste, color coding, 3/4th fill rule, use of personal protection equipment by waste workers, transport, storage, and treatment?	YES - The training curriculum, slides or manual mentions all of the listed topics.	NO - The training curriculum, slides or manual lacks one or more of the listed topics.
12	Are the staff trained, including new staff when they begin their employment?	YES - at least 95% of the staff working for more than 1 year at the facility have been trained; and 75% of new staff working less than 1 year have been trained.	NO - One or both of the YES criteria ha s not been met.
13	Is there refresher training at least once a year?	YES - There is a refresher course every year and the facility can show documentation.	NO - There is no annual refresher course, OR the facility has no documentation of the annual refresher training.
	OCCUPATIONAL HEALTH AND SAFETY		
14	Do the policies and plans related to healthcare waste management include occupational health and safety (including policies for needle stick injuries or exposure to blood splatter)? OR Does the facility have separate occupational health and safety policies that include needle-sticks and exposure to blood?	YES - The facility can show the consultant a copy of the healthcare waste management plan which includes prevention and emergency response to needle-stick injuries and blood splashes; OR the facility can show the consultant a copy of the occupational health and safety plan that includes exposure prevention and safety regarding handling of sharps and blood/body fluids.	NO - One or more of the YES criteria cannot be met.
15	Are the workers who collect, transport and treat waste provided with the proper personal protection equipment (gloves, shoes or boots and aprons)?	YES - During the inspection tour, the consultant sees that all the workers collecting and transporting waste are using gloves, shoes or boots, and an apron or outer cover to protect their clothing.	NO - The consultant sees one or more waste worker without personal protection.
16	Are the health workers and workers handling waste given hepatitis and tetanus vaccinations?	YES - At least 75% of health workers and 90% of waste workers have both hepatitis and tetanus vaccination. Documentation of all tetanus and all three doses of hepatitis B can be provide	NO - One or both of the YES criteria cannot be met.
	MONITORING, EVALUATION AND CORRECTIVE ACTION		
17	Is there a system of internal monitoring or inspection to determine compliance with healthcare waste management?	YES - There is at least one staff person going to the major departments that generate potentially infectious waste to inspect healthcare waste management practices at least once every 6 months.	NO - The YES criteria cannot be met.
18	Is there a system of taking corrective action when practices or technologies related to healthcare waste management do not meet	YES - The hospital can give one or more example in the last five years showing how improper practices or poor techniques have been corrected	NO - The hospital cannot give any examples of corrections or improvements in the last five years.
19	Are policies and/or plans reviewed or updated at least once a year?	YES - The policies and/or plans dealing with healthcare waste management have been reviewed or updated some time within the last yea	NO - The policies and/or plans have no been reviewed or updated in more thar one year.
	FINANCING		

20	Does the facility have an annual allocation in its budget for healthcare waste management?	YES - The hospital can provide the actual amount of funds budgeted for healthcare waste management in the last year.	NO - The hospital cannot provide an amount for their annual healthcare waste management budget.
21	Is the current budget sufficient for healthcare waste management?	YES - The facility representative states that their budget is sufficient AND the consultant does not see any evidence of an inadequate budget, such as insufficient waste containers, missing carts, inadequate maintenance of the treatment technology, lacking personal protection equipmentt etc.	NO - One or both of the YES criteria cannot be met.
22	Does the facility have a long-term financing plan or mechanism to cover the costs for sustainable healthcare waste management?	YES - The facility representative can explain their long-term plan to cover the costs of healthcare waste management now or in the future.	NO - The facility representative cannot describe a long-term financing plan.
PART II: POST-INSPECTION TOUR INTERVIEW			
	CLASSIFICATION AND SEGREGATION		
	List the types of waste produced i the facility:	*(Write down the general waste categories used by the facility.)*	
23	Are the wastes properly segregated at the source according to different categories?	YES - The consultant observes that the contents of waste bags or containers show good segregation of sharps, non-sharps infectious waste, and general waste.	NO - The consultant finds one or more bags or containers with items of the wrong category, such as non-infectious waste in infectious waste containers or vice versa.
24	Are the health workers familiar wit the classification and segregation requirements?	YES - Staff members questioned randomly during the inspection tour show a clear understanding o the classification and segregation requirements.	NO - One or more of the staff members questioned during the inspection tour do not understand the classification and segregation requirements.
	WASTE GENERATION DATA		
25	Have the amounts of total waste and infectious waste produced per day been measured? If yes, put the figures below; if no, provide the best estimate below.	YES - The hospital can show documentation of previous measurements, OR can provide figures of their generation rates for total waste and infectious waste.	NO - One or both of the YES criteria cannot be met.
	percentage of infectious waste relative to total waste:	*(The percentage of infectious waste relative to total waste should be between 3% (for small facilities) to 25%.)*	
	kilograms infectious waste per be per day	*(Ideally, this should be the order of 0.2 kg infectious waste per bed per day)*	
	kilograms unrecycled waste pe bed per day:	*(Ideally, this should be less than 6 kg per bed per day.)*	
	COLLECTION AND HANDLING		
	Describe the types of container used for each separated category	*(Photographs can be used in place of a description.)*	
26	Are used syringe needles collected WITHOUT recapping?	YES - The consultant does not see any recapped needles in the sharps containers.	NO - The consultant sees one or more recapped needles in the sharps containers.
27	Is sharps waste collected in sharp containers or destroyed using needle destroyers?	YES - The consultant sees sharps containers or needle destroyers in use.	NO - The consultant sees one or more sharps in plastic bags or other non-sharps containers

28	Are the sharps containers puncture-resistant and leak-proof? OR Are the needle destroyers approved under existing regulations or standards?	YES - The consultant sees that the containers are made of metal, hard plastic, or thick cardboard sufficient to resist puncture and enclosed at the bottom and sides to prevent leaks of small amounts of liquid.	NO - The YES criteria cannot be met.
29	Are the sharps containers filled only 3/4th full? OR Are the needle-destroyers well maintained?	YES - The consultant does not see any over-filled containers, OR The consultant sees that the needle destroyers are clean and functioning properly.	NO - The consultant sees one or more sharps containers filled beyond the 3/4t mark, OR The consultant sees needle destroyers that are dirty or not operating properly.
30	Are the sharps containers or needle-destroyers always available?	YES - The facility representative states that they always have enough sharps containers or needle destroyers, and the consultant does not see any lacking containers.	NO - One or both of the YES criteria cannot be met.
31	Are the sharps containers or needle-destroyers properly placed such that they are easily accessible to personnel and located as close as possible to the immediate area where the sharps are used?	YES - The consultant sees that the sharps containers or needle-destroyers are placed within easy reach of the people using them.	NO - One or more of the sharps containers or needle-destroyers are too far from the people who need them.
32	Do the health workers know what to do in the event of a needle-stick injury? OR Are the health workers familiar with the policy on needle-stick injuries?	YES - Staff members randomly questioned by the consultant know what to do or are able to describe the policy regarding needle-stick injuries.	NO - One or more of the staff members randomly questioned do not know what to do or are unable to describe the policy regarding needle-stick injuries.
33	Are the plastic bags used for non-sharps infectious waste of good quality? OR Do you use specialized containers that are disinfected, cleaned and reused and do not require a plastic bags?	YES - The facility representative states that none of their plastic bags have broken, and a simple test by the consultant indicates that the bags are of good quality (see NOTE A); OR the facility representative states that they use specialized containers that are disinfected, cleaned and reused.	NO- plastic bags are not of good quality as described in YES Criteria; OR no plastic bags are used OR no specialized containers are used
34	Are plastic bags always available? OR are the specialized containers described in #33 always available	YES - The facility representative states that waste bags are always available, and the consultant does not see any lacking bags;OR the facility representative states that specialized containers are always available and the consultant does not see any lacking specialized containers	NO - plastic bags are not always available as defined in the YES Criteria; OR special containers are not available; OR plastic bags are not used
35	Are the bag holders or hard containers holding the plastic bags of good quality? OR Do you use specialized containers that are disinfected, cleaned and reused and do not require a plastic bags?	YES - The bag holders and/or containers are hard, durable, stable, with no sharp ends that could puncture the bags, and properly sized for the capacity of the plastic bag; OR the facility uses specialized containers that are disinfected, cleaned and reused.	NO - the bag holders and/or containers are not of good quality as described in the YES criteria; AND the facility does not use specialized containers
36	Are the infectious wastes removed at least once a day?	YES - The facility representative states that infectious wastes are removed at least once a day, and the consultant does not see any infectious waste bags piled up except in the storage area.	NO - One or both of the YES criteria cannot be met.
37	Do the waste workers know what to do if sharps or infectious waste is accidentally spilled? OR Are the waste workers familiar with the spi clean-up plans?	YES - Waste workers questioned by the consultant are able to describe what to do during a spill (see NOTE B).	NO - The YES criteria cannot be met.

	COLOR CODING AND		
38	Does the healthcare facility use a system of color coding different types of wastes?	YES - The consultant sees that color coding is used in the facility.	NO - The YES criteria cannot be met.
39	Are the colors of the waste containers consistent with the color coding?	YES - The consultant sees that all of the waste containers use the correct color code for the intended content.	NO - One or more containers have the wrong color code.
40	Are the infectious waste bags colored or labelled in accordance with the policies or regulations?	YES - The consultant sees that all the bags are of the correct color code and/or label (generally the international biohazard label) according to the policies or regulations	NO - One or more plastic bags have the wrong color code or label.
	POSTERS OR SIGNAGE		
41	Are there posters or signs showing proper segregation of healthcare waste?	YES - The consultant sees at least one poster or sign illustrating proper segregation.	NO - The YES criteria cannot be met.
	TRANSPORTATION INSIDE HEALTH ESTABLISHMENT		
42	Is the waste transported away fro patient areas and other clean areas?	YES - The facility representative states that the infectious waste is transported properly, the consultant is shown some of the routes, and the routes are safe and away from patients and clean areas.	NO - One or more of the YES criteria cannot be met.
43	Is the waste transported in a closed (covered), wheeled transport cart?	YES - The consultant sees that the transport carts are covered.	NO - The YES criteria cannot be met.
44	Is the transport cart cleaned at least once a day?	YES - The facility representative states that the carts are cleaned at least once a day, and the consultant is shown where and how the carts are cleaned.	NO - One or both of the YES criteria cannot be met.
	STORAGE		
45	Does the storage area meet the proper requirements?	YES - The consultant inspects the storage area and finds that all the regulatory requirements (or WHO standards (see NOTE C) if there are no regulatory requirements) are met.	NO - One or more of the requirements in the regulation or in the international standard are not met.
46	Is the storage area kept clean?	YES - The consultant sees that the storage are is clean.	NO - The YES criteria is not met.
47	Are the wastes removed before th maximum allowable storage time i exceeded?	YES - The facility representative states that the wastes are stored less than the maximum storage time (see NOTE D) and if the bags are labelled, the consultant does not see any labelled waste bags that have exceeded the time limit.	NO - One or both of the above criteria cannot be met.
	HAZARDOUS CHEMICAL, PHARMACEUTICAL AND RADIOACTIVE WASTE		
48	Are hazardous chemical, pharmaceutical, and radioactive wastes segregated from infectious and general non-risk wastes?	YES - The consultant is shown at least one example of hazardous chemical, pharmaceutical or radioactive waste segregated in separate containers.	NO - The consultant sees hazardous chemical, pharmaceutical or radioactive waste mixed with infectious or general (non-risk) waste.
49	Does the healthcare facility have a plan for the treatment and disposal of hazardous chemical, pharmaceutical, and radioactive wastes?	YES - The consultant is shown a written plan or policy regarding the treatment and disposal of hazardous chemical, pharmaceutical, and radioactive wastes.	NO - The YES criteria cannot be met.

TREATMENT AND DISPOSAL

50	Does the healthcare facility treat it infectious waste (either on-site or at an off-site treatment facility) before final disposal?	YES - Infectious waste is treated.	NO - Infectious waste is discarded without treatment.
51	Are laboratory cultures and stocks of infectious agents treated within the healthcare facility before being taken away from the facility?	YES - The laboratory manager or staff shows where and how the cultures and stocks are treated before leaving the facility.	NO - The YES criteria cannot be met.
52	Is there a contingency plan for the treatment of infectious waste in the event that the treatment technology is shut down for repair?	YES - The facility representative shows or explains the contingency plan.	NO - There is no contingency plan.

53a	>> *Does the healthcare facility treat its waste on-site?*	*If yes, put Y in column C, make sure column C of QUESTION #53b is left blank, and go to QUESTIONS #54-61. If the healthcare facility treats its waste BOTH on-site and off-site, put Y in column C and Y in column C of QUESTION #53b*	*If the healthcare facility treats its waste off-site, put N in column C, make sure column C of QUESTION #53b is left blank, and go to QUESTIONS #63-68.*
53b	>> *Does the healthcare facility treat its waste both on-site and using an off-site treatment center?*	*If yes, put Y in column C and answer QUESTIONS #54-68.*	*If the healthcare facility does not treat its waste before disposal, put N in column C of QUESTION #50 and go to QUESTION #69.*

For facilities with on-site treatment:

Describe the method of treatment used: *(Write a brief description and attach one or more photographs.)*

54	Is the waste transported safely to the treatment area?	YES - The facility representative or waste worker report that there have been no major spills in the last year due to problems in the method of transport to the treatment area.	NO - At least one major spill has been reported in the last year due to problems in transporting to the treatment area.
55	Is the treatment area located in a place that is easily accessible to the waste worker but not accessible to the general public?	YES – The consultant sees that the treatment area is accessible to the waste worker but is not accessible to the public.	NO - The YES criteria cannot be met.
56	Does the healthcare facility have a program of regular inspection and periodic maintenance of the treatment technology?	YES - The manager shows the consultant the repair and maintenance records, OR the	NO - Not one of the YES criteria can be met.

57	Is the treatment system clean, operating properly, and well maintained?	operator shows an inspection and maintenance schedule, OR the operator is able to describe daily, weekly, monthly and annual maintenance procedures	NO - The YES criteria cannot be met.
58	Does the treatment system destroy or mutilate sharps waste in order to prevent reuse?	YES - The consultant sees that the treatment system is reasonably clean and seems to be operating properly. YES - The treatment system uses a shredder, grinder, crusher, combustion (incineration), melting, solidifier, or other method to prevent sharps from being reused; or the facility uses auto-disable or retractable	NO - The YES criteria cannot be met.

59	Does the healthcare facility use an approved non-incineration treatment technology such as an autoclave-shredder, integrated steam treatment system, or microwave unit?	YES - The consultant sees the treatment technology and confirms that the technology is an approved alternative technology.	NO - The technology is not an approved alternative technology.
60	If the facility uses an incinerator: Does the incinerator meet international standards?	YES - see NOTE E.	NO - The incinerator does not meet all c the criteria in NOTE E.
61	If the facility uses an incinerator: Are PVC plastics kept out of the waste that is burned?	YES - The facility representative explains to the consultant how PVC plastics are kept out of the incinerator	NO - The YES criteria cannot be met.
62	Is the waste that is treated in an alternative technology disposed of in a sanitary landfill? OR Is the incinerator ash buried in a hazardous waste landfill?	YES - The facility representative states that the incinerator ash is buried in a special pit or landfill, OR that the treated waste from an alternative technology is sent to a sanitary landfill.	NO - Not one of the YES criteria can be met.
	For facilities that use centralized off-site treatment:		
	Name of the company that transports the infectious waste	*(Write the company name.)*	
	Name and location of the off-site treatment	*(Write the name and address of the off-site treatment center.)*	
63	Does the transport vehicle meet the regulations or international standards?	YES - The hospital representative's description o the transport vehicle is consistent with regulations or WHO standards (see NOTE F)	NO - The YES criteria cannot be met.
64	Does the healthcare facility keep copies of manifests or shipment records?	YES - The facility representative shows the consultant where they keep the manifests or records for the transport of infectious waste	NO - The YES criteria cannot be met.
65	Has a representative of the healthcare facility inspected the offsite treatment center	YES - The facility representative states that they have visited the off-site treatment center at least once.	NO - The YES criteria cannot be met.
	Describe the method of treatment used at the off-site treatment center:	*(Write a short description.)*	
66	Does the off-site treatment center use an approved non-incineration treatment technology such as an autoclave-shredder, integrated steam treatment system, or microwave unit?	YES - The facility representative describes the treatment technology which the consultant recognizes as an approved alternative technology.	NO - The YES criteria cannot be met.
67	If the answer to QUESTION #66 is no, does the off-site treatment center use an incinerator that meets international standards?	YES - The facility representative is able to describe the incinerator with sufficient detail to allow the consultant to determine that it meets international standards listed in NOTE E.	NO - The YES criteria cannot be met.
68	Does the healthcare facility know where the treated waste or incinerator ash is dumped	YES - The facility representative is able to describe where the treated waste or ash is dumped.	NO - The YES criteria cannot be met.
	If yes, described the final disposal of the treated waste or ash	*(Write a short description.)* :	
	WASTEWATER		
69	Does the healthcare facility treat it wastewaste (liquid waste) before being released? OR Is the healthcare facility connected to a sanitary sewer that is linked to a	YES - The facility representative explains how the wastewater is treated, OR the facility representative states that they are connected to a sanitary sewer that is linked to a wastewater treatment plant	NO - Not one of the YES criteria can be met.

70	Does the treated wastewater from the healthcare facility meet national or international standards?	YES - The consultant sees copies of the test results of effluent analysis and sees that the results meet the national standards, OR the wastewater treatment system meets the basic WHO standard (see NOTE G).	NO - Not one of the YES criteria can be met.

NOTE A

Some countries have specific requirements for infectious waste bags, as well as standardized tests such as ISO 7765-1, ASTM D 1709 Method A, BS2782 Method 352D, or IS 2508. Other countries specify a minimum thickness, typically 38 microns (1.5 mils) or 76 microns (3 mils). The consultant should inquire about the thickness of the plastic bags. Thicknesses greater than 30 microns (1.2 mils) are probably sufficient.

In the absence of thickness data, the consultant can perform a simple test of the durability, strength of the seals, and leakage resistance. Fill the bag with 10 kg (22 pounds) of water. Lift the bag from the top and carry it for 60 seconds. If the bag does not break and there are no signs of leakage, the bag is likely of sufficient quality.

The consultant can also conduct the following simplified test to obtain some indication of the impact resistance of the plastic bags. Obtain a metal or hard plastic object weighing no less than 165 grams (0.36 pounds) with a rounded end that measures about 3.8 cm (1.5 inches) in diameter. Open the plastic bag and tie two or more ends of it to sturdy immovable structures that can hold the plastic bag open and in place. Measure a point that is 66 cm (25 inches) above the bottom of the bag. Drop the object with the rounded end pointing downwards into the inside of the plastic bag from the point 66 cm (26 inches) above the bottom of the bag. If the bag does not break, it is an indication that the quality may be sufficient.

NOTE B

If the facility has no standard procedure, the consultant can evaluate the waste worker's responses based on the following typical spill procedure: (1) Determine the nature and extent of the spill; (2) Evacuate and restrict access to the spill area; (3) If an injury or exposure to infectious agents occurred, provide medical attention; (4) Put on the appropriate personal protective equipment depending on the potential exposure pathway (e.g., gloves, apron, goggles, face mask or respirator); (5) Remove spilled material using tools (e.g., shovels for solids, absorbent material for liquids), place the waste in the appropriate container (e.g., infectious waste bags, sharps container, etc.), and dispose of properly; (6) Clean and disinfect the area; (7) Remove and disinfect personal protective equipment, and wash hands and all exposed skin thoroughly.

NOTE C

The following are the WHO recommended standards for infectious waste storage areas:

- The storage area should have an impermeable, hard-standing floor with good drainage; it should be easy to clean and disinfect.
- There should be a water supply for cleaning purposes.
- The storage area should afford easy access for staff in charge of handling the waste.
- It should be possible to lock the store to prevent access by unauthorized persons.
- Easy access for waste-collection vehicles is essential.
- There should be protection from the sun.
- The storage area should be inaccessible for animals, insects, and birds.
- There should be good lighting and at least passive ventilation.
- The storage area should not be situated in the proximity of fresh food stores or food preparation areas.
- A supply of cleaning equipment, protective clothing, and waste bags or containers should be located conveniently close to the storage area.

NOTE D

If there are no national regulations on storage time limits, use the following WHO recommended guidelines: Unless a refrigerated storage room is available, storage times for healthcare waste (i.e. the delay between production and treatment) should not exceed the following: for temperate climate: 72 hours in winter, 48 hours in summer; for warm climate: 48 hours during the cool season, 24 hours during the hot season.

NOTE E

The Stockholm Convention, ratified by the GEF project countries, requires the use of Best Available Techniques for medical waste incinerators. The guidelines of Best Available Techniques requires performance levels in air emissions of dioxins and furans that do not exceed 0.1 nanograms I-TEQ/normal cubic meter at 11% O2. Moreover, dioxins and furans in the wastewater of treatment plants treating effluents fro any gas treatment scrubber effluents should be well below 0.1 nanograms I-TEQ per liter.

Since it is unlikely that the facility has conducted difficult and expensive dioxin tests, the consultant should inquire first about the incinerator design. The guidelines describe the following design as acceptable. An incineration plant should consist of the following units: (1) Furnace or kiln as the primary combustion chamber, (2) Afterburning chamber as the secondary chamber, (3) Flue gas cleaning device system, and (4) Wastewater treatment plant if a wet flue gas cleaning system is used. Single-chamber, drum and brick incinerators are not acceptable designs. The thermal treatment process used in the furnace or kiln could be one of the following: pyrolysis or gasification, rotary kiln, grate incineration specially adapted for healthcare waste, fluidized bed incineration, or modular excess air or controlled air incineration.

In addition, in order to meet the performance level, the incinerator needs the following primary measures: 1. Introduction of the waste in the combustion chamber only at temperatures of 850 °C; the plant should have an automatic system to prevent waste feed before the above-mentioned temperature is reached. 2. Installation of auxiliary burners (for start-up and shut-down operations). 3. Avoidance of starts and stops of the incineration process. 4. Avoidance of temperatures below 850°C and no cold regions in the flue gas. 5. Control of oxygen input depending on the heating value and consistency of feed material. 6. Minimum residence time of 2 seconds above 850°C in the secondary chamber after the last injection of air, or at 1100°C for wastes containing more than 1% halogenated organic substances (as is generally the case for medical waste), and 6% O2 by volume. 7. High turbulence of exhaust gases and reduction of air excess by injection of secondary air or re-circulated flue gas, pre-heating of the air-streams, or regulated air inflow. 8. On-line monitoring for combustion control (temperature, oxygen content, CO, dust), and operation and regulation of the incinerator from a central console. Preheating and initial co-firing with a clean fossil fuel is recommended, and continuous operation (as opposed to batch processes) should be the method of choice. Upsets should be minimized through periodic inspection and preventive maintenance. Operators should not feed waste during severe combustion upsets or during a filter bypass (dump stack) operation.

The following secondary measures should also be applied to meet the performance levels: the secondary measures below (an appropriate combination of dedusting and other equipment to further reduce dioxins) should be applied as best available techniques.

1. Dedusting
   - o Fabric filters used at temperatures below 260 ºC
   - o Ceramic filters used at temperatures between 800 to 1000 ºC
   - o Cyclones used for pre-cleaning of flue gases
   - o Electrostatic precipitators used at temperatures of around 450 ºC
   - o High-performance adsorption units with activated charcoal (electrodynamic venturi)
2. Techniques to further reduce emissions and PCDD/F
   - o Catalytic oxidation o Gas quenching
   - o Catalyst-coated fabric filters
   - o Different types of wet and dry adsorption systems using mixtures of activated charcoal, coke, lime and limestone solutions in fixed bed reactors (adsorption with activated charcoal or open hearth coke), moving bed reactors, or fluidized bed reactors (entrained flow or circulating fluidized beds with activated coke/lime or limestone followed by the use of fabric filters).

NOTE F

In the absence of regulations, the following WHO recommended standards should be used: § The body of the vehicle should be of a suitable size commensurate with the design of the vehicle, with an internal body height of 2.2 metres. § There should be a bulkhead between the driver's cabin and the vehicle body, which is designed to retain the load if the vehicle is involved in a collision. § There should be a suitable system for securing the load during transport. § Empty plastic bags, suitable protective clothing, cleaning equipment, tools, and disinfectant, together with special kits for dealing with liquid spills, should be carried in a separate compartment in the vehicle. § The internal finnish of the vehicle should allow it to be steam-cleaned, and the internal angles should be rounded. § The vehicle should be marked with the name and address of the waste carrier. § The international hazard sign should be displayed on the vehicle or container, as well as an emergency telephone number.

Vehicles or containers used for the transportation of health-care waste should not be used for the transportation of any other material. They should be kept locked at all times, except when loading and unloading. Open-topped skips or containers should never be used for transporting health-care waste.

NOTE G

The method of choice for wastewater treatment is a sanitary sewer connected to a centralized sewage treatment plant that provides at least primary and secondary treatment, and preferrably tertiary treatment as well. In the absence of a centralized modern treatment system, WHO recommends the use of a septic tank connected to a soakaway or infiltration trench, or an oxidation pond or lagoon system with mechanical aeration.

NOTE H

The technical consultant should follow basic infection prevention and control procedures during the site visit. Standard precautions include the use of personal protective equipment such as the correct types of gloves and masks in situations where the consultant may be exposed to infectious agents that can be transmitted through direct contact or inhalation, respectively. Appropriate personal protective equipment should also be used when examining sterile areas such as surgical theaters. The consultant should practice hand hygiene especially after touching waste bins, removing gloves, before taking breaks, before meals, and at the end of the day; washing the hands with soap and warm water remains the single most important procedure for preventing nosocomial infections. An alcohol-based hand sanitizer is highly recommended. Examining infectious waste containers should be done visually without touching the contents. The contents of infectious or hazardous waste containers or bags should not be handled, removed, or transferred. Once the infectious or hazardous waste containers or bags have been sealed, they should not be re-opened. The consultant should follow any transmission-based precautions when inspecting isolation wards or rooms of patients known or suspected to be infected with highly transmissible pathogens.

Individualized Rapid Assessment Tool • Healthcare Waste Management

Glossary of Terms

Term	Definition
Anatomic waste	Consists of recognizable body parts.
Auto-disable Syringe	A specially modified disposable syringe with a fixed needle which is automatically disabled by plunger blocking after a single use.
Burden of disease	The health and socio-economic cost of a given medical condition on a society.
Chemical waste	Consists of/or containing chemical substances.
Color coding	Designates the use of different colors for the storage of various categories of HCW.
Container	Vessel in which waste is placed for handling, transportation, storage and/or eventual disposal. The waste container is a component of the waste package.
Cytotoxic waste	Drugs possessing a specific destructive action on certain cells.
Disposal	Intentional burial, deposit, discharge, dumping, placing or release of any waste material into or on any air, land or water.
Handling	The functions associated with the movement of waste materials.
Healthcare waste	Healthcare waste is all waste that is generated from healthcare establishments, research facilities laboratories, and other sources. It includes infectious waste (including sharps waste and pathological waste), hazardous chemical waste (including pharmaceutical, cytotoxic, and radiological waste), and non-risk general waste.
Health-care wastes with high content of heavy metals	Consists of materials and equipment which include heavy metals and derivatives in their structure. [Includes: batteries; broken thermometers; manometers]
Hepatitis B	Hepatitis caused by a virus and transmitted by exposure to blood or blood products or during sexual intercourse. It causes acute and chronic hepatitis. Chronic hepatitis B can cause live
Hepatitis C	Hepatitis caused by a virus and transmitted by exposure to blood or blood products. Hepatitis C is usually chronic and can cause cirrhosis and primary liver cancer.
Incineration	The burning of solid, liquid or gaseous wastes to produce gases and residues containing little or no combustible material.
Infection prevention and control	The activities aiming at the prevention of the spread of pathogens between patients, from healthcare workers to patients, and from patients to healthcare workers in the healthcare setting.
Infectious waste	Discarded materials from health-care activities on humans or animals which have the potential of transmitting infectious agents to humans. These include discarded materials or equipment from the diagnosis, treatment and prevention of disease, assessment of health status or identification purposes, that have been in contact with blood and its derivatives, tissues, tissue fluids, or wastes
Open dump	Characterized by the uncontrolled and scattered deposit of wastes.
Pharmaceutical waste	Consisting of/or containing pharmaceuticals.
Pathogen	A microorganism capable of causing disease.
Radioactive waste	Consisting of/or containing radioactive substances.
Recycling	A term embracing the recovery and reuse of scrap or waste material for manufacturing or other
Risk	Probability that a hazard will cause harm and the severity of that harm.
Sanitary landfill	Characterized by the controlled and organized deposit of wastes which is then covered regularly
Sharps container	A puncture proof/liquid proof container designed to hold used sharps safely during disposal and
Segregation	The systematic separation of waste into designated categories.
Sharps	Sharps are a subcategory of infectious health care waste and include objects that are sharp and
Storage	The placement of waste in a suitable location where isolation, environmental and health protection and human control (e.g. radiation control, limitation of access) are provided. This is done with the intention that the waste will be subsequently retrieved for treatment and conditioning and/o
Treatment	Any method, technique or process for altering the biological, chemical or physical characteristics or waste to reduce the hazards it presents and facilitate, or reduce the costs of, disposal. The basic treatment objective include volume reduction, disinfection, neutralization or other change of composition to reduce hazards, including removal or radionuclides from radioactive waste.
Waste management	All the activities - administrative and operational - involved in the handling, treatment, conditioning, storage, transportation and disposal of waste

Abbreviation	Definition
HCW	Healthcare waste
HCWM	Healthcare waste management
HCF	Healthcare facility

Annex E: Legal Texts

(In separate volume)

Annex F: Memorandum 133 and GRM at MoPH

1) Memorandum 133

الجمهورية اللبنانية

وزارة الصحة العامة

رقم المحفوظات : الوزير

بيروت في : ٢٢ أيار ٢٠١٥ مذكرة رقم ١٣٣

تتعلق بتلقي ومتابعة شكاوى المواطنين في وزارة الصحة العامة

بناءً على ضرورات المصلحة العامة،

بناءً على المرسوم الإشتراعي رقم 111 تاريخ 1959/6/12 لاسيما المادة 5 منه (تنظيم الإدارات العامة)،

بناءً على المرسوم رقم 8377 تاريخ 1961/12/30 لاسيما المادة 12 منه، (تنظيم وزارة الصحة العامة)

وبما انه تم اعتماد خط هاتفي ساخن HOTLINE على الرقم 1214 وتم اعتماد التطبيق الخليوي للوزارة Mobile App. وضعا بتصرف المواطنين للإستعلام او التقدم بشكوى تتعلق بالوزارة او بالصحة العامة،

تعدل الآلية المحددة في المذكرة رقم 105 تاريخ 10 ك1 2011 ولائحة الأشخاص المعنيين بمتابعة الشكاوى اتصيحا على الشكل التالي:

أولاً: يتم تلقي شكاوى المواطنين واستعلاماتهم حول معاملات وخدمات وزارة الصحة العامة على رقم الهاتف 1214 من قبل شركة TelePerformance ، وعلى البريد الإلكتروني info@moph.gov.lb من خلال الموقع الإلكتروني والتطبيق الخليوي للوزارة على مدار 24 ساعة يومياً طوال أيام الأسبوع.

ثانياً: تحال جميع الشكاوى الواردة على الموقع الإلكتروني والتطبيق الخليوي للوزارة الى الشركة المكلّفة لمتابعتها.

ثالثاً: تحدد اللائحة المرفقة الأشخاص المعنيين بمتابعة هذه الشكاوى وفقاً لأنواعها.

رابعاً: تحيل الشركة المكلّفة الشكاوى بواسطة البريد الإلكتروني للأشخاص المعنيين بمتابعتها في الوزارة كما وترسل نسخة إلى مكتب الشكاوى في وزارة الصحة العامة حيث تقوم السيدة سناء ابو حمدان باستلامها.

خامساً: في حال كانت الشكوى تستدعي طابع العجلة او لأي أمر طارئ يتم الإتصال من قبل مكتب الشكاوى او الشركة مباشرة بالمسؤول عن المتابعة عبر هاتفه الخليوي. لا يجوز للشركة المكلّفة إبلاغ المواطن بأرقام الهاتف الخاصة بالموظفين المعنيين.

سادساً: على الشخص المعني بمتابعة شكوى أحيلت إليه أن يبلّغ مكتب الشكاوى والشركة المكلّفة بمآل الشكوى المتعلّقة به على أن تبلّغ شركة TelePerformance صاحب العلاقة بالنتيجة.

سابعاً: تحدّد مهلة إبلاغ مكتب الشكاوى والشركة بمآل الشكوى المقدمة بفترة 24 ساعة كحد أقصى للشكاوى الطارئة ومهلة 72 ساعة كحد أقصى للشكاوى العادية.

ثامناً: يتابع مكتب الشكاوى القضايا المثارة كما ينظم جدولاً اسبوعياً بالشكاوى التي ما تزال عالقة ويحيله إلى كل من المدير العام والوزير.

تاسعاً: يطلب من كافة الأشخاص المعنيين وفقاً للائحة المرفقة الإلتزام بالآلية المحددة في هذه المذكرة ومتابعة الشكاوى الواردة إلى وزارة الصحة العامة وصولاً إلى البت بها وإبلاغ أصحاب العلاقة بالنتيجة.

عاشراً: تكلّف السيدة لينا ابو مراد، مديرة برنامج الصحة الإلكترونية، بمتابعة هذا الموضوع وبالتنسيق بين الوحدات المعنية في الوزارة والشركة الملتزمة.

وزير الصحة العامة

وائل ابو فاعور

نسخة:
- المديرية العامة للصحة
- رؤساء الوحدات المركزية والإقليمية
- الموظفين المعنيين / المحفوظات
- Teleperformance

نوع الشكوى	الدائرة المختصة	الشخص المعني	الهاتف	البريد الإلكتروني
جميع الشكاوى	مكتب الشكاوى	سناء بو حمدان	03-638088	sb_hamdan@hotmail.com shakawa.info@moph.gov.lb
• شكاوى تتعلق بالتدخين • شكاوى تتعلق بتأخير إنجاز معاملة أو فرض شروط غير قانونية أو أية مخالفة للقوانين من قبل الموظف	مصلحة الديوان	السيد فادي سنان	70-781788	fadisnan@hotmail.com
		السيدة اليانور صهيون	03-064061	elionors@hotmail.com
شكاوى تتعلق بالإبلاغ عن حالات وبائية أو تسمم غذائي	وحدة الترصد الوبائي	د.ندى غصن	03-214520	esumoh1214@moph.gov.lb
	مصلحة الطب الوقائي	د.عاتكة بري	03-976032	aberrymd@gmail.com
شكاوى تتعلق بالمهن الطبية والمنشآت الصحية	قسم المهن الطبية	السيد انطوان رومانوس	03-975093	medicalprofessions@moph.gov.lb
شكاوى تتعلق بالمستشفيات	مديرية العناية الطبية	د.جوزيف الحلو	03-262288	dr.josephhelou@hotmail.com tinaaselwan@hotmail.com
	دائرة المستشفيات والمستوصفات	السيد هشام فواز	70-746756	hichamfawaz@hotmail.com
	نقابة المستشفيات	السيدة ريتا رحياني	03-111400	info@syndicateofhospitals.org.lb
شكاوى تتعلق بمراكز وخدمات الرعاية الصحية الأولية	دائرة الرعاية الصحية الأولية	السيدة رندا حماده	03-538878	phc@moph.gov.lb
		السيد فادي وهبة	03-305646	
مخالفات تتعلق بالصيدليات أو بالترويج أو التسويق غير المشروع للأدوية	مصلحة الصيدلة	د.كوليت رعيدي	03-821083	pharmacydpt@moph.gov.lb Coletteraidy@hotmail.com
	دائرة التفتيش الصيدلي	د.نجيب بو عرم	70-770967	najibbouorm@outlook.com
شكاوى عن عدم توفر دواء من أدوية الأمراض المستعصية في الكرنتينا أو أي إبلاغ عن مخالفة القوانين التي تتعلق بتوزيع أدوية الوزارة	مركز توزيع الأدوية في الكرنتينا	د.بطوني حرب	01-567101	antoineharb@hotmail.com
	مستودع الأدوية في الكرنتينا	د.مهى نعوس	01-566191	maha_naous@yahoo.com
شكاوى تتعلق بدور الحضانة وبصحة الأم والطفل	دائرة صحة الأم والولد	السيدة باميلا زغيب	03-089976	pamzeg@yahoo.com
شكاوى تتعلق بدائرة التغذية	دائرة التغذية	الآنسة وفاء حوماني	03-851240	Nutrition@moph.gov.lb
شكاوى تتعلق بالمؤسسات التي تتعاطى الأغذية	مديرية الوقاية الصحية - مصلحة الصحة البقاع	المهندس جويس حداد	70-173205	ingjoycehaddad@yahoo.com
ممارسات أو مؤسسات تخالف قواعد البيئة والصحة العامة وتسبب إزعاج للمواطن أو تهدد صحته	دكتور ميشال كنوري	رئيس مصلحة الصحة في جبل لبنان	03/620615	michfouri40@hotmail.com
	دكتور غسان زلاقط	رئيس مصلحة الصحة في البقاع	03/802020	ghassan_zalaquett@hotmail.com
	دكتور جمال عبدو	رئيس مصلحة الصحة في الشمال	03/406050	dr.Jamal.abdou@hotmail.com
	دكتور حسن علوية	رئيس مصلحة الصحة في الجنوب	03/315902	drhassanalawieh@hotmail.com
	دكتور علي سامر غندور	رئيس مصلحة الصحة في النبطية	03/302667	nabatieh_maslahetelsaha@outlook.com
شكاوى ضمن محافظة بيروت	دكتور خالد عبدالله	مصلحة الصحة في محافظة بيروت	01/661248 (Fax) 03/591579	

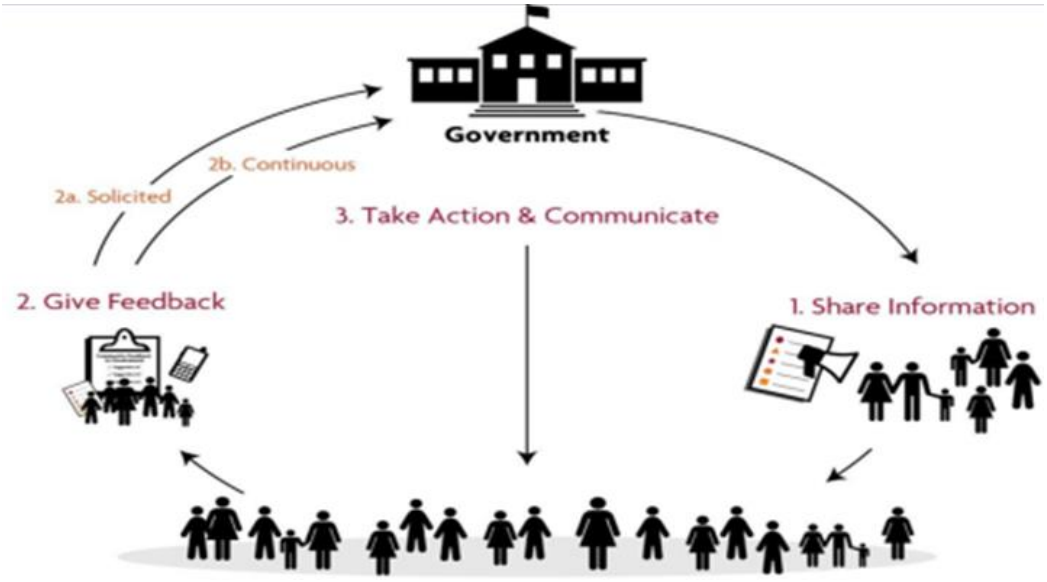
2) GRM at MoPH

1. Introduction/ Background Information

"A Grievance Redress Mechanism is a system by which queries or clarifications about the project are responded to, problems that arise out of implementation are resolved and grievances are addressed efficiently and effectively" [19]

Effective grievance redress systems play an important role in enhancing public trust and can be valued as a means to strengthen the performance and to improve the Ministry of Public Health's (MoPH) reputation, administrative and systemic issues related to its projects and programs implemented.

Figure 1. Citizen Engagement – A Feedback Loop between Government and Citizens[20]:



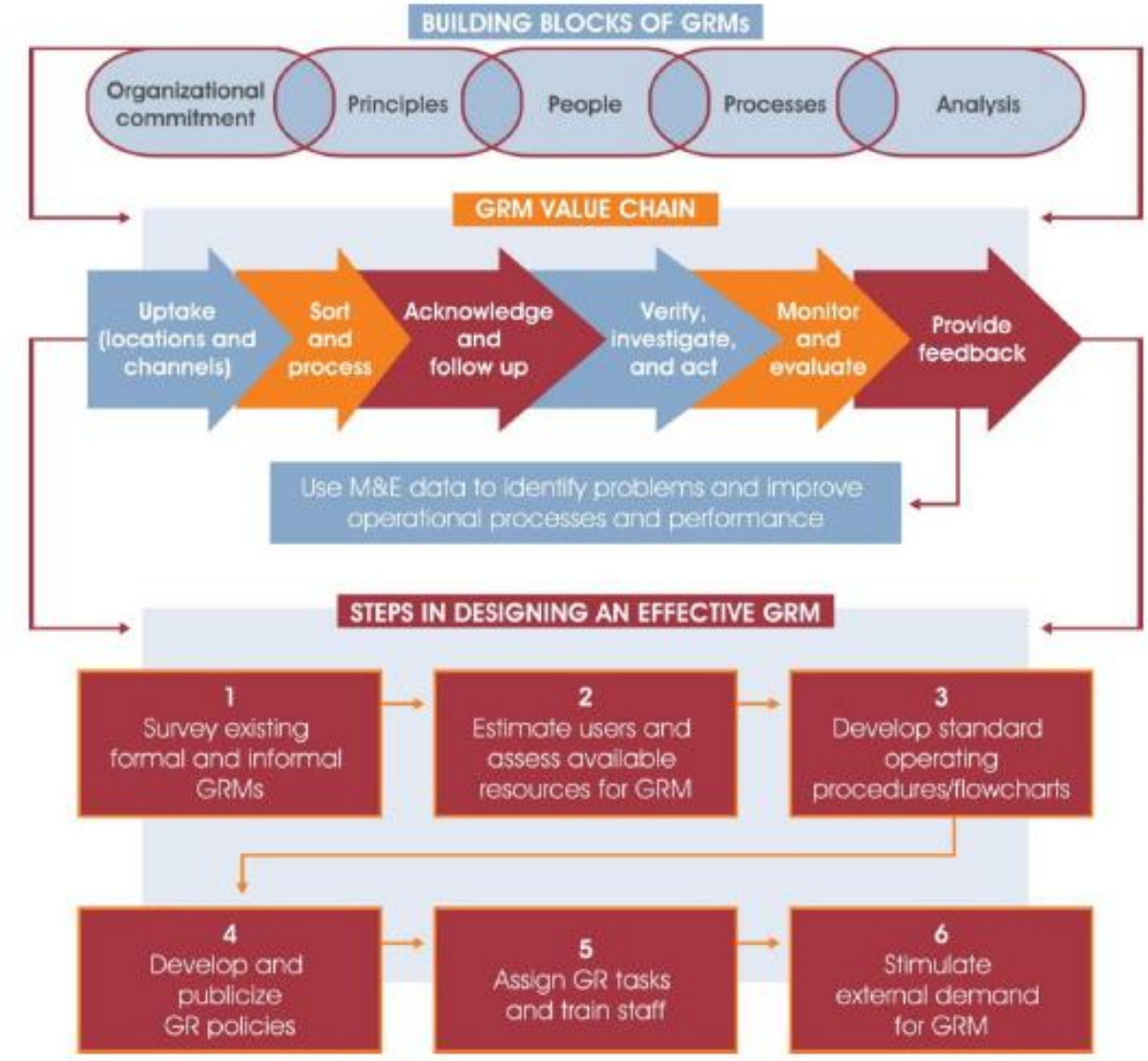
1.1. Common characteristics of effective GRMs

- ✓ Multiple **channels** for receiving grievances
- ✓ Clear **processing guidelines** (including, reviewing procedures and monitoring systems)
- ✓ Effective and timely grievance **response system** to inform complainants of the action taken
- ✓ Fixed **standards** for grievance resolution

[19] How-To Notes Feedback Matters: Designing Effective Grievance Redress mechanism for Bank-Financed Projects Part 1: The Theory of Grievance Redress. Social Development Department, World Bank

[20] Susan Wong and Sanjay Agarwal, "International Experience in Social Accountability," Presentation in Beijing, China, June 25, 2013. Adapted from: Piloting Citizen Engagement in Projects: A Guidance Note for World Bank Staff Working in the Middle East and North Africa Region. Sustainable Development Department, World Bank. 2014

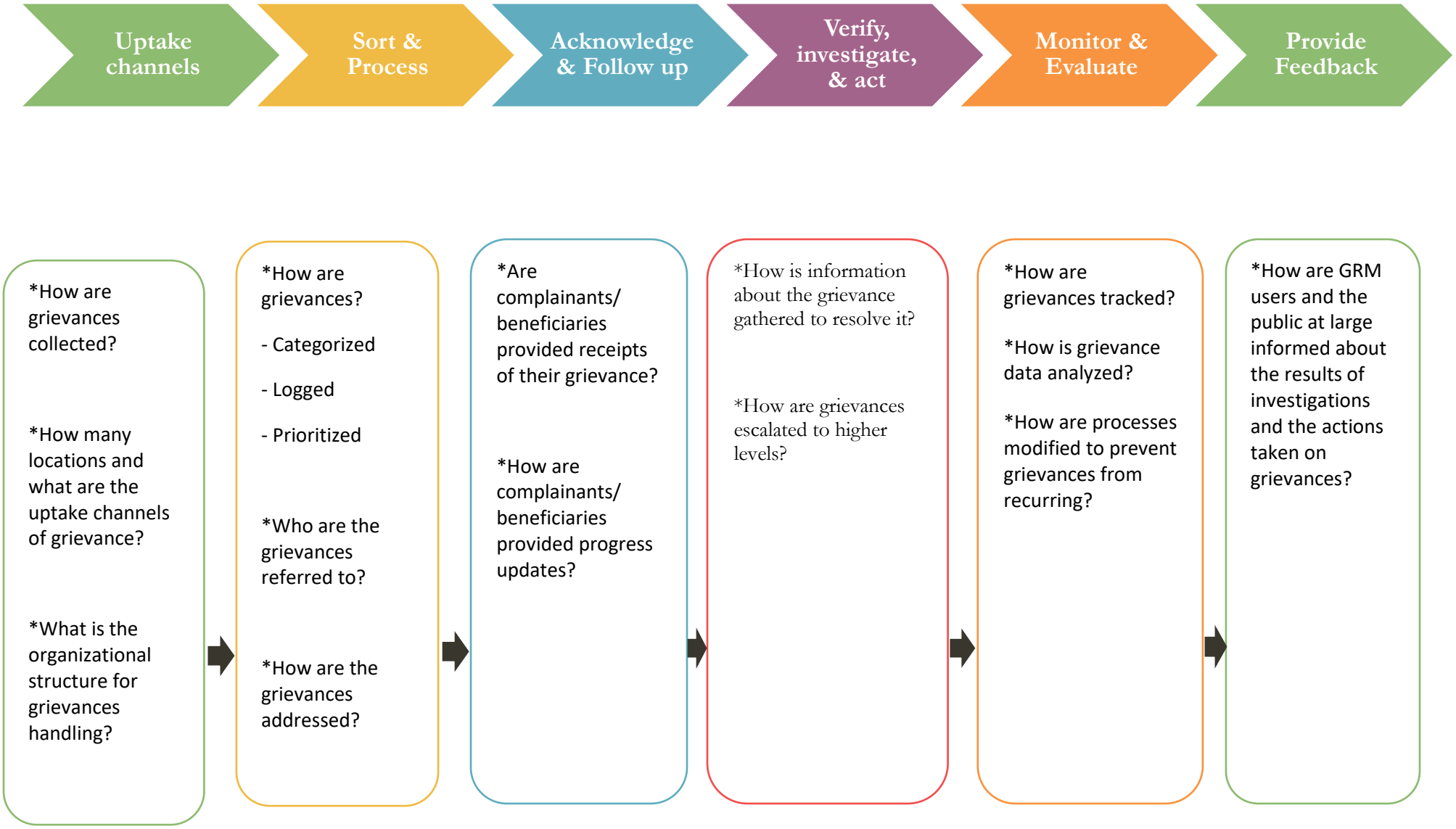
1.2. Grievance Redress Mechanisms: A Framework



1.3. Building blocks of GRMs

- ✓ **Organizational commitment:** Recognition and value of the grievance process as a means to strengthen public administration, improve public relations, and enhance accountability and transparency
- ✓ **Six Principles:** Fairness; objectiveness and independence; simplicity and accessibility; responsiveness and efficiency; speed and proportionality; and participation and social inclusion
- ✓ **People:** Dedicated and passionate GRS personnel; continuous training and learning
- ✓ **Processes:** Outlining and publicizing the six stages of the GRM Value Chain
- ✓ **Analysis:** Regularly review and act upon grievances data, trends and systemic issues

1.4. GRM Value Chain



2 Grievance Redress Mechanism at MOPH

2.1. Goals & Objectives for developing the Grievance Redress System

- ✓ **Goals:**
  The goal of the PHC department at MoPH is to value complaints and complainants and to assure to citizens and beneficiaries that the MoPH is committed to acknowledging their complaints and suggestions and to resolving them, for a quality service delivery.

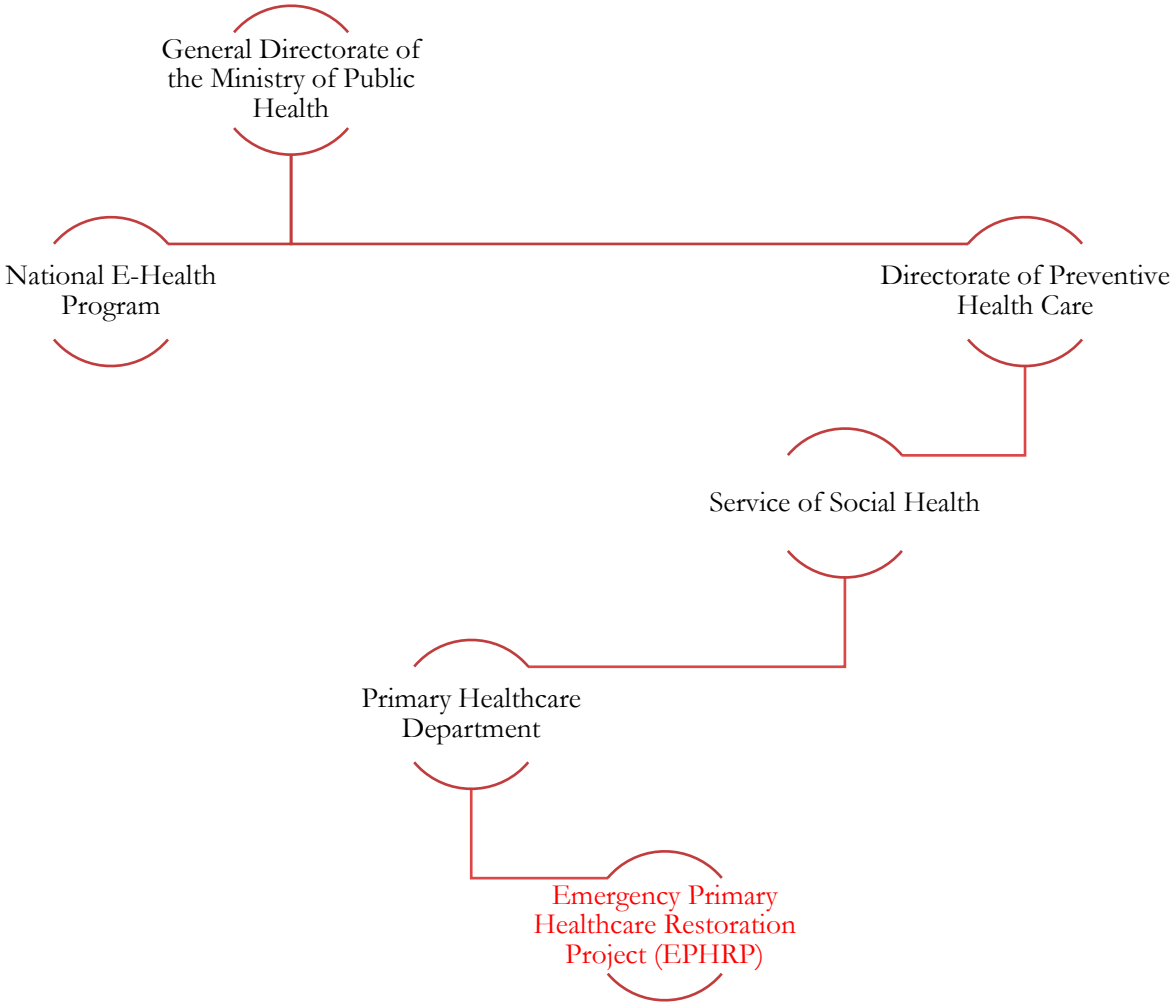
- ✓ **Objectives:**
  - Develop/upgrade an effective GRS that will collect citizens' and beneficiaries' complaints, suggestions, and inquiries from different CHMs available at MoPH and respond to them within a restricted time-frame
  - Develop a transparent and accountable system
  - Improve accessibility and visibility of the CHMs
  - Improve responsiveness and efficiency of complaint handling and response
  - Capacity building of staff at MoPH and PHC centers who handle grievances

2.2 Organizational Structure

The Ministry of Public Health is composed of different entities (directorates, departments, units, and programs), whereby the National E-Health Program is responsible for handling and monitoring the CHMs available at MoPH.

The PHC department receives grievances from several uptake channels. (as will be discussed later on). The implementing partners of the EPHRP project to reach the beneficiaries are the Primary Health Care centers.

The PHC department grievance focal unit coordinates with the hotline and other implementing partners in order to address the grievances.


General Directorate of the Ministry of Public Health
National E-Health Program
Directorate of Preventive Health Care
Service of Social Health
Primary Healthcare Department
Emergency Primary Healthcare Restoration Project (EPHRP)

2.3 Types of Grievances

A Grievance is defined as verbal or written issue, concern, suggestion or problem about facilities or services provided by individuals or groups. Grievances include: inquiries, suggestions, concerns and complaints.

Primary Health Care department receives different types of Grievances. Therefore, the MoPH adapted and conceptualized a three-level complaint coding taxonomy from *Reader TW, Gillespie A, Roberts J. Beneficiary complaints in healthcare systems: a systematic review and coding taxonomy. BMJ Qual Saf. 2014 Aug 1; 23(8):678-89).* A standardized and comprehensive categorization system was established to aid grievance handling personnel with identifying, coding and interpreting the issues raised within a registered grievance.

When solving any type of grievance, the grievance handling personnel (field or grievance coordinator) contacts the beneficiary to gather specific data about the grievance and the PHCC to investigate the case. The measures taken during the investigation depend on whether the beneficiary agrees to share his/her contact information with the PHCC.

For anonymous grievances, the grievance coordinator informs the PHCC about the grievance keeping all the beneficiary's information confidential. The PHCC grievance focal person/PHCC manager takes corrective actions to prevent the recurrence of the incident and reports back to the grievance coordinator. The grievance coordinator contacts the beneficiary to provide feedback and inform him/her about the corrective actions taken in case he/she pre-agreed to share his contact information with her only.

For combined /complex grievances (with at least one grievance category which is not within the scoped of handling of the grievance coordinator) the field coordinator is responsible for handling the grievance regardless of the categories in order to prevent the fragmentation of the workflow. The field coordinator reports back to the grievance coordinator on all elements of the grievance.

The table below describes the most frequent grievances by domain, category, and subcategory in addition to the measures taken. Those grievances are registered by beneficiaries who consensually agree to provide their contact information and permit the MoPH's staff to share it with the PHCC.

Domains	Categories	Sub-Categories	Description	Measures Taken
		Examinations	Inadequate beneficiary examination by clinical staff(Nurse/Doctor)	The field coordinator contacts the PHCC grievance focal person/PHCC manager to emphasize that the doctor and nurse should provide patient centered care, give time and attention to beneficiaries, as well as address their needs. For EPHRP PHCCs: The doctor and nurse should abide by the steps and assessments indicated in the packages. Nurses are required to obtain detailed health history, vital signs, and do the 1st phase of NCD screening when applicable. Doctors are required to do a thorough physical assessment, 2nd phase of NCD screening when applicable, and provide the correct clinical management.
Clinical	Quality			The PHCC grievance focal person/PHCC manager contacts the beneficiary to inform about the corrective actions taken, and schedule an appointment to provide the missing services. The field coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
		Treatment	Poor or unsuccessful clinical treatment	Such grievances are usually communicated to the ethical committee at the MoPH. The role of the committee is to investigate and deal with medical errors. The grievance will not be registered in the PHC department grievance log. The ethical committee takes further actions based on the result of its investigation. The committee follows up with the beneficiary.

	Errors in Diagnosis	Erroneous, missed, or slow clinical diagnosis	Such grievances are usually communicated to the ethical committee at the MoPH. The role of the committee is to investigate and deal with medical errors. The grievance will not be registered in the PHC department grievance log. The ethical committee takes further actions based on the result of its investigation. The committee follows up with the beneficiary.
	Medication Errors	Errors in prescribing or administering medications (wrong medication, route, dose, duration…)	Such grievances are usually communicated to the ethical committee at the MoPH. The role of the committee is to investigate and deal with medical errors. The grievance will not be registered in the PHC department grievance log. The ethical committee takes further actions based on the result of its investigation. The committee follows up with the beneficiary.
Safety	Safety Incidents	Events or complications that threatened the safety of beneficiaries(allergy, side effect of a medication or procedure)	Such grievances are usually communicated to the ethical committee at the MoPH except for the ones related to vaccination. The role of the committee is to investigate and deal with medical errors. The grievance will not be registered in the PHC department grievance log. The ethical committee takes further actions based on the result of its investigation. The committee follows up with the beneficiary. Grievances related to vaccinations are handled by the field coordinator. The field coordinator investigates the case. If it's is a side effect of the vaccine, the field coordinator contacts the beneficiary and explains to him/her the common side effects of the vaccine. The field coordinator later contacts the PHCC grievance focal person/PHCC manager and emphasises the need to give health education to beneficiaries about the side effects of vaccination and fill the reassessment forms.

		Skills and Conduct	Deficiencies in the technical and non-technical skills of staff that compromise safety	The field coordinator investigates the case. If the PHCC health worker is incompetent or has insufficient knowledge, a one to one training session is scheduled. Continuous trainings are being held by the MoPH. For one to one trainings, the medical advisor is contacted. Further measures for EPHRP PHCCs : As part of the family medicine program, the skills/competencies of nurses and doctors are assessed in PHCCs. Trainings are given based on gaps identified. A post training evaluation is later performed. The PHCC grievance focal person/PHCC manager contacts the beneficiary to inform him/her about the measures taken. The field coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
Management	Institutional Issues	Bureaucracy	Problems with administrative policies and procedures	The grievance coordinator contacts the PHCC grievance focal person/PHCC manager and informs about the grievance. The PHCC grievance focal person/PHCC manager calls the beneficiary to clarify the administrative policies and procedures, inform the beneficiary about the corrective actions taken and solve the misunderstanding. The grievance coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.

Environment	Poor accommodation or hygiene	The field coordinator contacts the PHCC grievance focal person/PHCC manage to inform about the grievance. The PHCC grievance focal person/PHCC manager addresses the problem by taking measures to improve their cleanliness and hygiene. During the field coordinator's next visit to PHCC, the cleanliness of PHCC is re-evaluated which is an indicator in the quality checklist. The PHCC grievance focal person/PHCC manager contacts the beneficiary and informs him/her of the measures taken. The field coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.

Finance and Billing	Healthcare-associated costs or the billing process	The grievance coordinator investigates the case. PHCCs are required to provide (non-chronic medications, vaccines, and EPHRP services for enrolled beneficiaries) for free and abide by the MoPH's ceiling of the cost of other primary healthcare services. In case the PHCC is not offering these services for free, the grievance coordinator reemphasizes the aim of providing affordable PHC services and re-sends the memo related to the cost of services. In such case, PHCC is required to inform him/her about the corrective measures taken and return the money to the beneficiary. If the registered complaint is related to a misunderstanding about a project specific service or cost, the PHCC grievance focal person/PHCC manager contacts the beneficiary to clarify and communicates the correct information. The grievance coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
Staffing	Inadequate staffing	The field coordinator assesses the number of staff and their working hours at the PHCC. The PHCC is advised to organize appointments and staff schedule, communicate the doctor's schedule to beneficiaries and hire extra staff if feasible. The PHCC grievance focal person/PHCC manager contacts the beneficiary, informs him/her of the measures taken and reschedules an appointment if needed. The field coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.

	Resources	Inadequate resources (medications, vaccines, medical equipment, etc.)	The grievance coordinator contacts the beneficiary. In case the resource is not provided by MoPH to PHCCs: The grievance coordinator explains to the beneficiary which health services are provided by the PHCCs and the presence of referral contracts between PHCCs and external health facilities for specific services. If the grievance is related to a shortage in medications or vaccines. The grievance coordinator investigates the reason behind the shortage and takes action accordingly. The PHCCs are required to request the quantity of medications and vaccines based on need. If the reason behind the shortage is internal, the grievance coordinator contacts the focal person. The PHCC grievance focal person/PHCC manager contacts the beneficiary to inform about the measures taken. The PHCC grievance focal person/PHCC manager either informs the beneficiary when the medications/vaccines would be available or refers him/her to another health facility which has the specific equipment if possible. The grievance coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
Timing and Access	Access	Lack of access to services or staff (distance, transportation, availability of services/appointments)	The grievance coordinator contacts the PHCC grievance focal person/PHCC manager and advises on better management and organization of appointments. In the case of an unavailable service, the PHCC should refer the beneficiary to an external health facility that provides the service. The PHCC grievance focal person/PHCC manager contacts the beneficiary to inform about the corrective actions taken and schedule the referral or appointment. For EPHRP:

				If the beneficiary prefers to be transferred to another PHCC due to distance, only if he/she haven't taken a service yet, the medical file will be transferred. The grievance coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
		Delays	Delays in access to treatment	The grievance coordinator contacts the PHCC grievance focal person/PHCC manager. The PHCC is advised to organize appointments and staff schedule, communicate the doctor's schedule to beneficiaries and hire extra staff if feasible. The PHCC grievance focal person/PHCC manager contacts the beneficiary to explain that the incident was not intentional and will be avoided as much as possible in the future, inform about the corrective actions taken and schedule another appointment. The grievance coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
		Referrals	Problems in being referred to a healthcare service	The field coordinator contacts the PHCC and explains that it needs to abide by the referral process. It is the PHCC's duty to coordinate with the referred to health facility and make sure that the beneficiary receives the service. The PHCC grievance focal person/PHCC manager contacts the beneficiary to inform about the corrective actions taken and solve the referral issue. The field coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
Relationships	Communication	Communication Breakdown	Inadequate, delayed, or absent communication with beneficiaries	The field coordinator contacts the PHCC grievance focal person/PHCC manager to emphasize the idea of patient cantered care and importance of timely proper communication. Continuous training sessions on communication are held by the MoPH for all PHCC employees. For EPHRP PHCCs:

		Communication for development trainings are held by the MoPH for EPHRP PHCCs employees. The PHCC health workers are advised to abide and refer to the C4D training material. The PHCC grievance focal person/PHCC manager takes disciplinary measures towards the staff member and contacts the beneficiary to inform about the corrective actions taken. The field coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
Incorrect Information		The field coordinator contacts the PHCC and explains the need to convey the right messages to beneficiaries. PHCC health workers are required to provide correct and clear information to beneficiaries about the rights/services they are entitled of. The PHCC grievance focal person/PHCC manager takes disciplinary measures towards the staff member, contacts the beneficiary to inform him/her about the corrective actions taken and provide the correct information. The field coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
Beneficiary-Staff Dialogue	lack of active listening and shared decision-making	The field coordinator contacts the PHCC and emphasizes the ideas of patient centered care, active listening, and respect of beneficiary's autonomy. The staff at PHCC are required to listen to beneficiaries, understand their point of view and respect their rights to make their own decisions. The PHCC grievance focal person/PHCC manager takes disciplinary measures towards the staff member and contacts the beneficiary to inform about the corrective actions taken. The field coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.

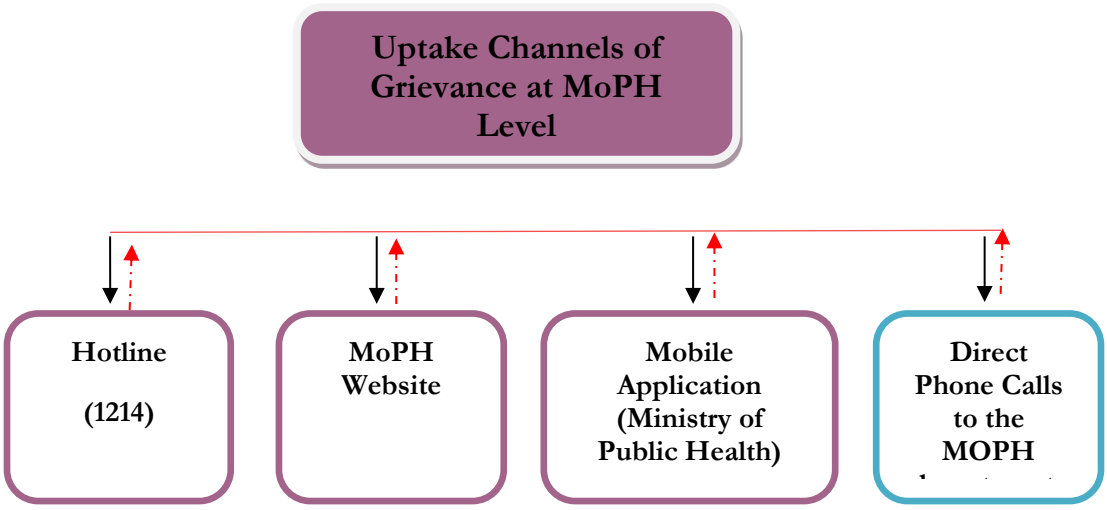
Humaneness	Staff Attitudes	Poor attitudes towards beneficiaries or their family members	The field coordinator contacts the PHCC and emphasizes the idea of patient centered care and the importance of having positive attitudes towards beneficiaries. The PHCC grievance focal person/PHCC manager takes disciplinary measures towards the staff member and contacts the beneficiary to inform about the corrective actions taken. The field coordinator contacts the beneficiary to make sure that the grievance handling outcome was satisfactory.
	Abuse	Physical, sexual, or emotional abuse of beneficiaries	The field coordinator contacts PHCC grievance focal person/PHCC manager to inform him/her about the grievance. The NGO administration or the PHCC grievance focal person/PHCC manager has to investigate the case (while respecting the beneficiary's right to choose who he/she would like to reveal his/her identity to). The investigation includes contacting/meeting with the beneficiary and the health worker separately, collecting information about the incident, and taking action accordingly. In case of GBV, the beneficiary can be referred to GBV organization. The field coordinator receives the investigation result from PHCC/NGO, calls the beneficiary to inform him/her about the corrective action taken, and make sure that the grievance handling outcome was satisfactory.
Beneficiary Rights	Confidentiality	Breaches of beneficiary confidentiality	The field coordinator contacts the PHCC and emphasises the beneficiary's right to confidentiality. The PHCC grievance focal person/PHCC manager takes disciplinary measures towards the staff member and contacts the beneficiary to inform about the corrective actions taken. The field coordinator contacts the beneficiary to make sure that the grievance handling was satisfactory.
	Consent	Coercing or failing to obtain beneficiary consent	The field coordinator contacts the PHCC and emphasises the beneficiary's autonomy and right to refuse any service.

		The PHCC grievance focal person/PHCC manager takes disciplinary measures towards the staff member and contacts the beneficiary to inform about the corrective actions taken. The field coordinator contacts the beneficiary to make sure that the grievance handling was satisfactory.
Discrimination	Discrimination against beneficiaries	The field coordinator contacts the PHCC and emphasises that all beneficiaries should be treated with equality. The PHCC manager takes disciplinary measures towards the staff member and contacts the beneficiary to inform about the corrective actions taken. The field coordinator contacts the beneficiary to make sure that the grievance handling was satisfactory.

8.2.4 Uptake Channels of Grievances

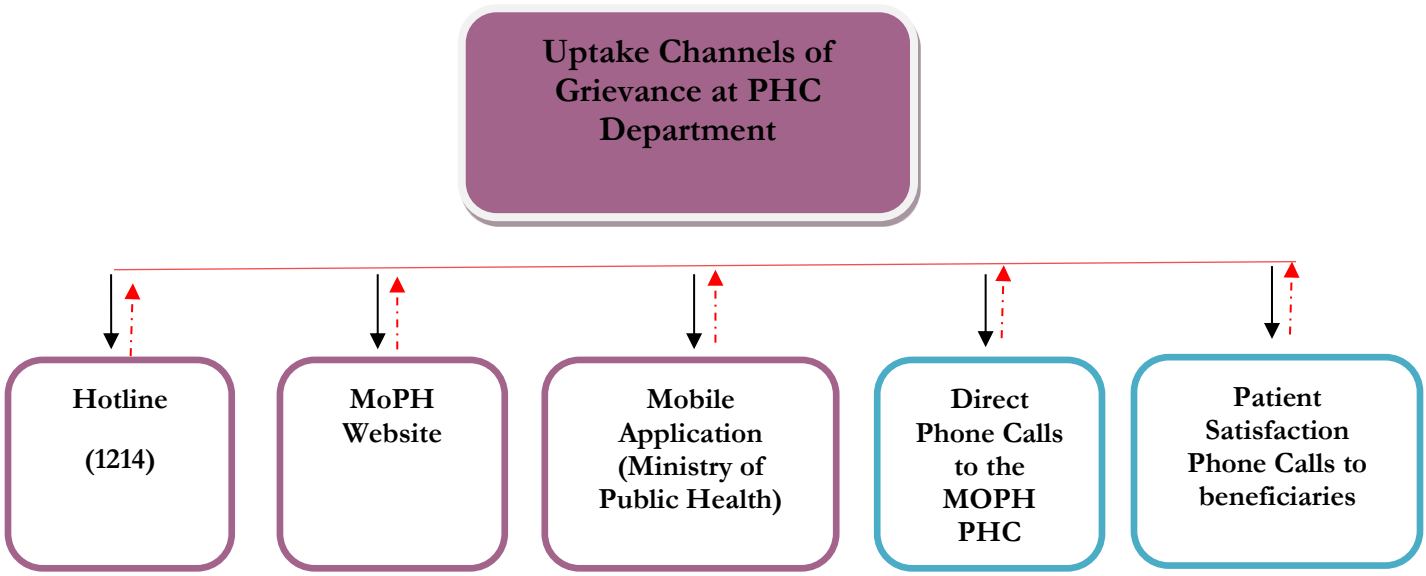
The uptake channels of grievances at the level of MoPH are designed to be accessible by everyone, through which every person could choose the channel that is more convenient for him/her.

Four Main Uptake Channels for Grievance at the level of MoPH:



The MOPH PHC department has developed an additional grievance uptake channel which is the patient satisfaction phone calls. The PHC department under the EPHRP project conducts patient satisfaction phone calls to 300 random beneficiaries of the EPHRP project every 3 months and administer a patient satisfaction questionnaire. Through the questionnaire the beneficiaries sometimes submit grievances orally over the phone. As such, the grievances are logged, registered and followed up on. This uptake channel differs from the above in that it is active rather than passive and actively seeks to capture beneficiary grievances.

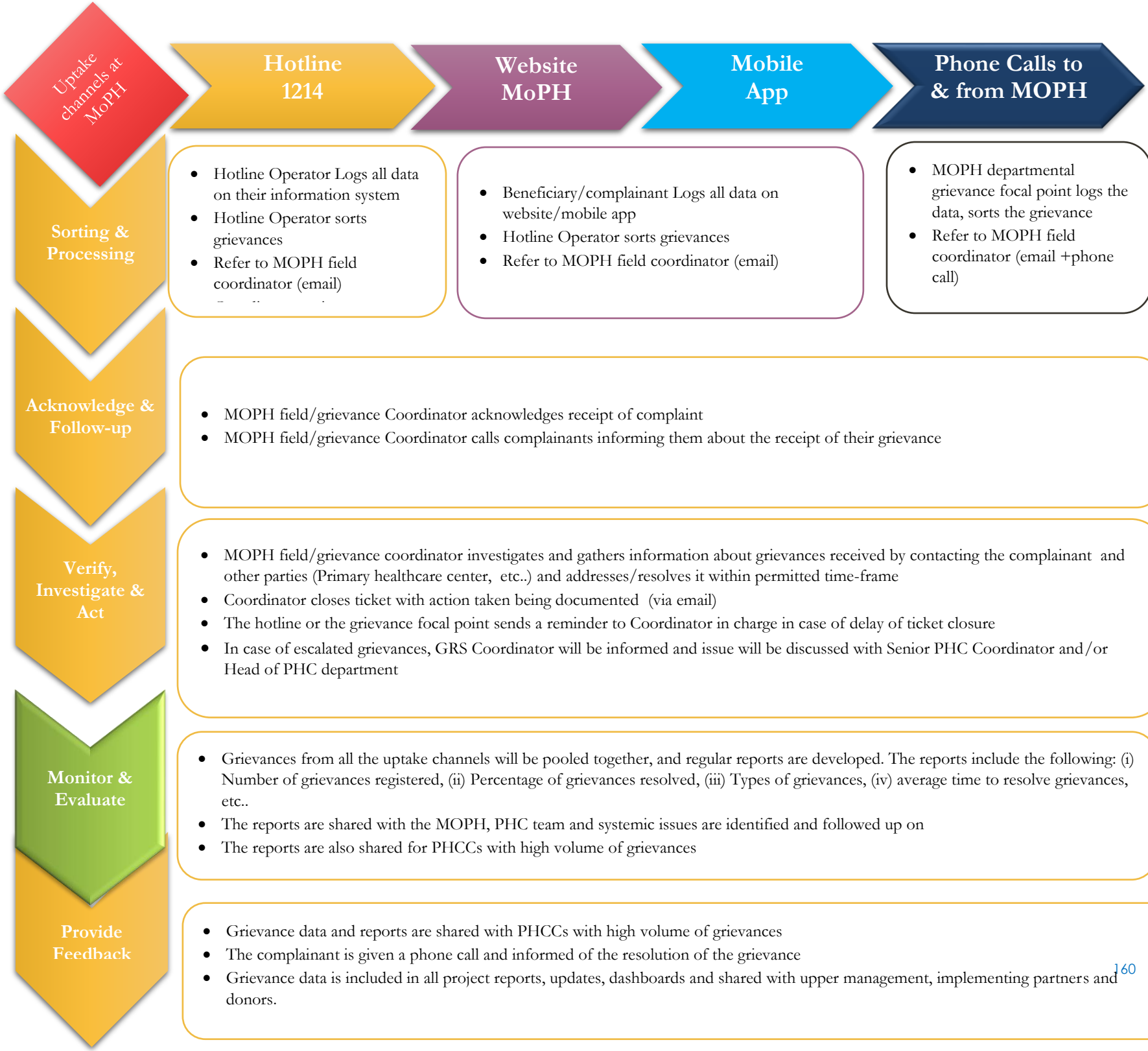
As such for the PHC department specifically the grievance uptake channels are as follows:



In addition to the grievances registered through the above five main channels, the EPHRP PHCCs started sending monthly grievance reports and registries in May 2017. The grievances registered through the PHCCs is added to the number of grievances registered at the PHCC level.

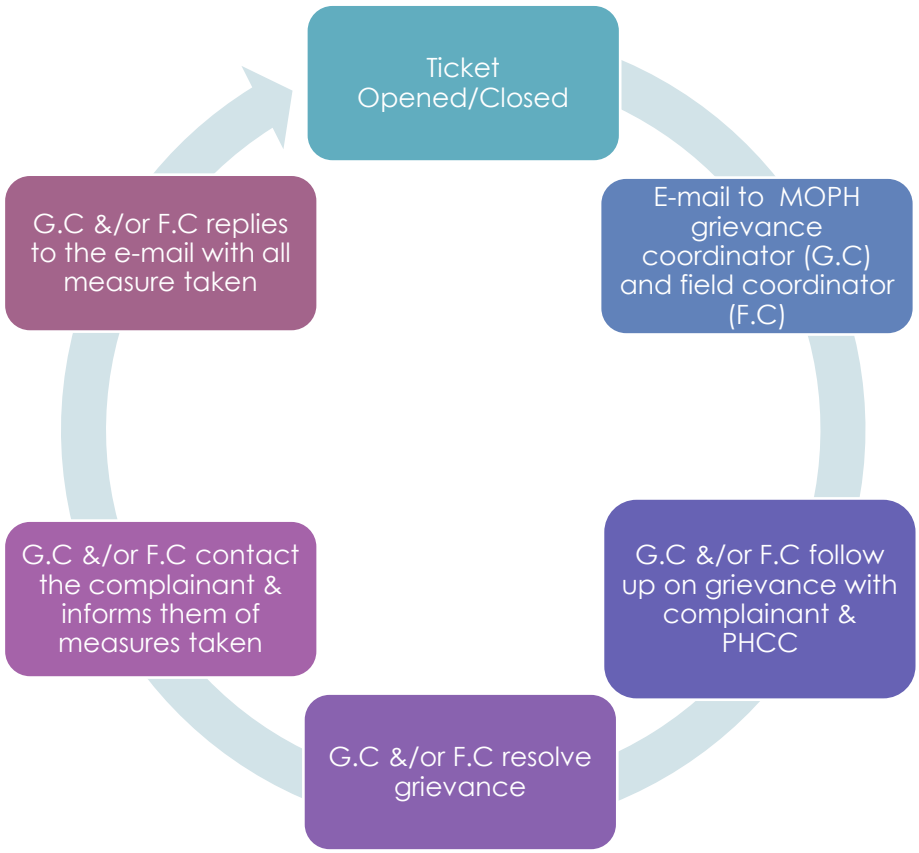
(Annex 8.4 Monthly Registry of Grievances Registered at PHCCs and Annex 8.5 Monthly report of Grievances Registered at PHCCs)

8.2.5 Grievance Handling Process


Uptake channels at MoPH
Hotline 1214
Website MoPH
Mobile App
Phone Calls to & from MOPH
Sorting & Processing
Hotline Operator Logs all data on their information system
Hotline Operator sorts grievances
Refer to MOPH field coordinator (email)
Beneficiary/complainant Logs all data on website/mobile app
Hotline Operator sorts grievances
Refer to MOPH field coordinator (email)
MOPH departmental grievance focal point logs the data, sorts the grievance
Refer to MOPH field coordinator (email +phone call)
Acknowledge & Follow-up
MOPH field/grievance Coordinator acknowledges receipt of complaint
MOPH field/grievance Coordinator calls complainants informing them about the receipt of their grievance
Verify, Investigate & Act
MOPH field/grievance coordinator investigates and gathers information about grievances received by contacting the complainant and other parties (Primary healthcare center, etc..) and addresses/resolves it within permitted time-frame
Coordinator closes ticket with action taken being documented (via email)
The hotline or the grievance focal point sends a reminder to Coordinator in charge in case of delay of ticket closure
In case of escalated grievances, GRS Coordinator will be informed and issue will be discussed with Senior PHC Coordinator and/or Head of PHC department
Monitor & Evaluate
Grievances from all the uptake channels will be pooled together, and regular reports are developed. The reports include the following: (i) Number of grievances registered, (ii) Percentage of grievances resolved, (iii) Types of grievances, (iv) average time to resolve grievances, etc..
The reports are shared with the MOPH, PHC team and systemic issues are identified and followed up on
The reports are also shared for PHCCs with high volume of grievances
Provide Feedback
Grievance data and reports are shared with PHCCs with high volume of grievances
The complainant is given a phone call and informed of the resolution of the grievance
Grievance data is included in all project reports, updates, dashboards and shared with upper management, implementing partners and donors.

The below Figure shows the grievance handling process at the PHC department regardless of the source of the grievance. The grievance focal point follows up on this whole process.

Annex 8.3 Grievance Journey shows the process in details



8.2.6 Monitoring and Evaluation of Grievance Handling Mechanism

The monitoring and evaluation of the GRM system is integrated within the general monitoring framework of the project. As such, find below the monitoring activities conducted by the project and how they link with the GRM system.

Monthly Grievance Report

All grievances received from the different uptake channels are monitored through a "Monthly Grievance Report"(Annex 8.2 Monthly Report for Summary of Grievances for PHC Department-MoPH) prepared by the grievance focal point on a monthly basis. The report includes the following data

- ✓ Number of complaints/ grievances registered
- ✓ Percentage of grievances resolved
- ✓ Percentage of grievances redressed within stipulated time period; or time required to resolve complaints
- ✓ Percentage of grievances still pending; and reason
- ✓ Percentage of grievances received from each uptake channel
- ✓ Type of grievances received

Accordingly, the report is analyzed, unresolved issues addressed, and action taken based on the results of the data retrieved.

Quarterly Progress Reports- Grievance section

The project produces a quarterly progress report, in addition to an annual and semi-annual report. The report includes a grievance section with all the grievance data and reflects on the grievances received in the past quarter. In addition to the following revised indicators:

Indicator	*Type*	*Frequency of reporting*	*Source*
Intermediate Result indicator Eight: Grievances registered related to delivery of project benefits	*Number*	*Quarterly*	*Number of grievances registered through the call center (which includes the 1214 hotline, the website, the mobile app) plus patient satisfaction phone calls plus at PHCCs*
Intermediate Result indicator Nine: Grievances registered related to delivery of project benefits addressed	*Percent*	*Quarterly*	*Numerator: Number of grievances registered through the call center (which includes the 1214 hotline, the website, the mobile app) or patient satisfaction phone calls that are addresse*d within 3 days Denominator: Number of grievances registered through the 1214 hotline or patient satisfaction phone calls

Quarterly Field Visits

The project conducts verification of quality of services at the PHCC through field visits performed by the field coordinators where a quality checklist is administered and a quality score is computed. Part of the quality checklist is a brief assessment of the grievance handling mechanism at the PHCC.

Field Visits and follow-up by the Grievance coordinator:

Field visits are conducted on regular basis to assess the status of the grievance redress mechanism at the PHCC using the "Grievance Status Assessment Checklist" Annex 8.6 And pre-post analysis is done after the visits.

Patient Satisfaction Questionnaire

Patient Satisfaction Questionnaire is administered every 3 months to 300 EPHRP beneficiaries. The questionnaire aims to verify that the beneficiaries have received the services and evaluate the satisfaction of the beneficiaries. Measuring user satisfaction on a regular basis helps identify whether the project is able to respond to beneficiary needs and deliver quality services. The questionnaires also serves as a way to:

(i) Assess the preferred means for registering grievances
(ii) Assess the beneficiary knowledge of the MOPH hotline
(iii) Help beneficiaries register grievances
(iv) Inform beneficiaries about the grievance redress system at the MOPH and the different uptake channels available

Regarding Evaluation, an external evaluator has been contracted and part of the evaluation will include an overall evaluation of the GRM mechanism at the EPHRP project.

8.3 Grievance Redress Mechanism at PHCCs

8.3.1 Goals & Objectives for developing the Grievance Redress System-PHCC level

- ✓ **Goals:**
  The goal of the PHC department at MoPH is to value complaints and complainants and to assure to citizens and beneficiaries that the government is committed to acknowledging their complaints and suggestions and to resolving them. From this starting point, and since PHC centers are implementing partners in this project, the same goal applies to PHCCs in respecting, acknowledging, and resolving grievances received at their centers.

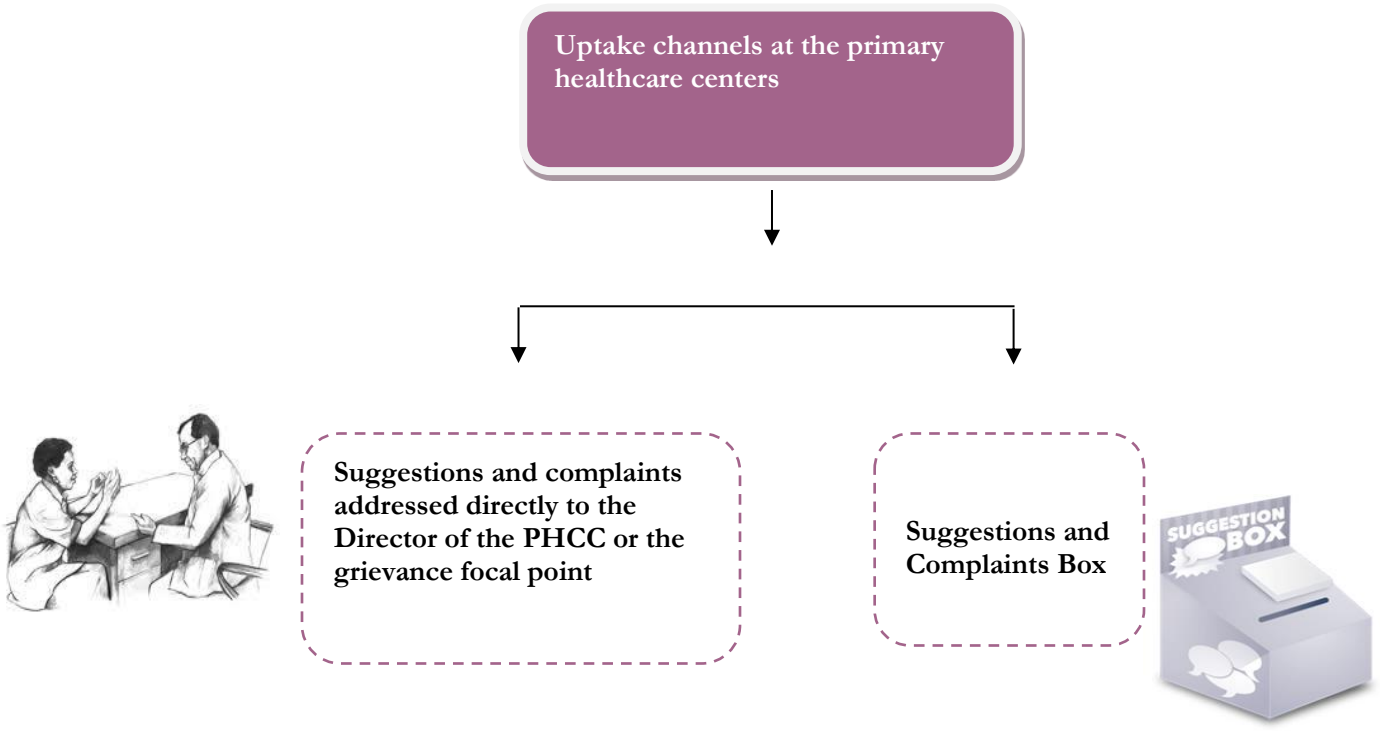
- ✓ **Objectives:**
  - Develop an effective GRS that will collect beneficiaries' complaints, suggestions, and inquiries registered through the different complaint handling mechanisms available at the center and respond to them within a time-frame.
  - Ensure and secure beneficiaries' right in filing their concerns and complaints
  - Ensure and secure beneficiaries' right in receiving a response
  - Develop a transparent and accountable system
  - Improve accessibility and visibility of the CHMs at the PHC centers
  - Improve responsiveness and efficiency of complaint handling and response
  - Capacity building of staff who handle grievances

8.3.2 Uptake Channels of Grievances-PHCCs

The uptake channels of grievances at the level of the PHC centers are designed to be accessible by everyone, through which every person could choose the channel that is more convenient for him/her.

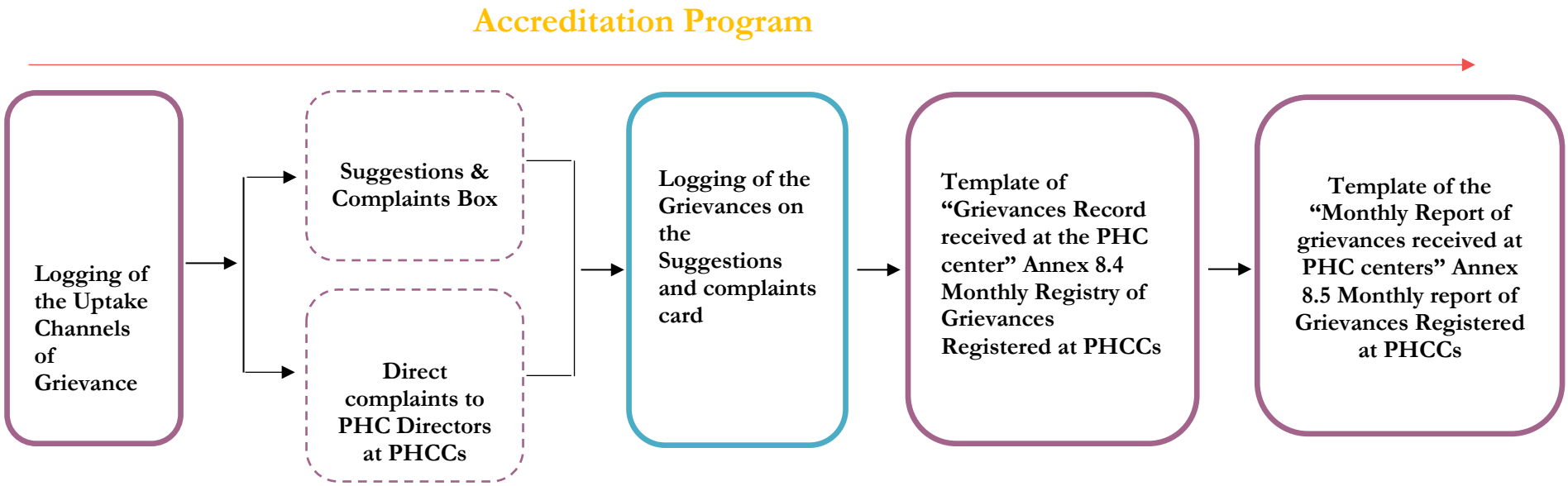
As shown below, there are two major uptake channels for grievances at the level of the PHCCs

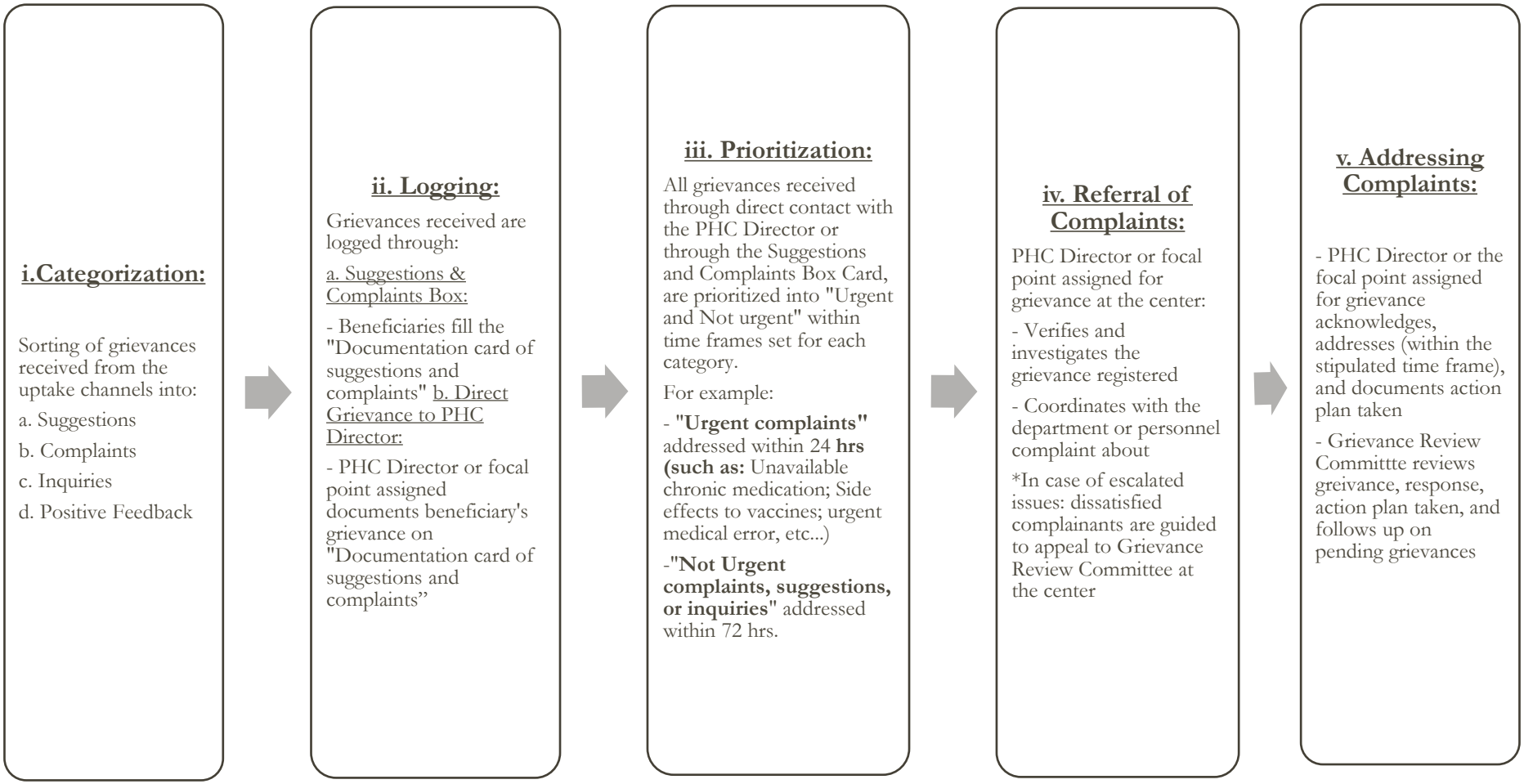
(i) Suggestions and complaints addressed directly to the Director of the PHCC or the grievance focal point
(ii) Suggestions and Complaints Box



8.3.3 Locations for the Logging of Complaints (Logging, Sorting & Processing)

All grievances received from the two uptake channels at the PHC centers and entered into the Grievance Module on HIS are sorted and processed accordingly. :




i.Categorization:
Sorting of grievances received from the uptake channels into:
a. Suggestions
b. Complaints
c. Inquiries
d. Positive Feedback
ii. Logging:
Grievances received are logged through:
a. Suggestions & Complaints Box:
- Beneficiaries fill the "Documentation card of suggestions and complaints" b. Direct Grievance to PHC Director:
- PHC Director or focal point assigned documents beneficiary's grievance on "Documentation card of suggestions and complaints"
iii. Prioritization:
All grievances received through direct contact with the PHC Director or through the Suggestions and Complaints Box Card, are prioritized into "Urgent and Not urgent" within time frames set for each category.
For example:
- "Urgent complaints" addressed within 24 hrs (such as: Unavailable chronic medication; Side effects to vaccines; urgent medical error, etc...)
-"Not Urgent complaints, suggestions, or inquiries" addressed within 72 hrs.
iv. Referral of Complaints:
PHC Director or focal point assigned for grievance at the center:
- Verifies and investigates the grievance registered
- Coordinates with the department or personnel complaint about
*In case of escalated issues: dissatisfied complainants are guided to appeal to Grievance Review Committee at the center
v. Addressing Complaints:
- PHC Director or the focal point assigned for grievance acknowledges, addresses (within the stipulated time frame), and documents action plan taken
- Grievance Review Committte reviews greivance, response, action plan taken, and follows up on pending grievances

8.3.4 Grievance Handling Process

Suggestions & Complaints Box

+

Direct Complaints to PHC Directors

*PHC Director or focal point assigned for grievance:

- Opens up the Suggestions and Complaints Box once to twice weekly (and keeps box locked all the times).

- Sorts grievances received as per diagram 6.b.i- 6.b.iii; handles and resolves grievances received within permitted time frame.

* Upon opening Suggestions and Complaints Box, the PHC Director or the focal point assigned for grievance:

- Meets /Calls the beneficiary and informs him/her about receipt of grievance

- Acknowledges all grievances received (suggestions, complaints, inquiries, positive feedback) once the contact number is added on the card for follow up

- Documents the grievance on the "Documentation card of suggestions and complaints"
- Coordinates with the responsible department or personnel and follows up with beneficiary as per 6.b.iv.

*PHC Director or focal point assigned for grievance:

-Investigates and gathers information about grievances received by contacting complainant

- Addresses/resolves complaint permitted within time-frame

- Documents response and/or action plan taken to address the grievance received

* In case of escalated grievances, the dissatisfied complainant is guided to contact the Grievance Review

*The Grievance Committee reviews the registered grievances, resolution, action plan taken, and follows up on pending grievances, once weekly

* PHC Director or focal point assigned for grievance documents grievances received on "Grievances Registry received at the PHC center" and onto the "Monthly Report of Summary of Complaints" (Annex B).

*Monthly report is analyzed for improvement purposes and to prevent grievances from recurring.

*The complainants are called and thanked for their positive feedback/ suggestions/ inquiries and answered according to their complaint.

*Through the PHC centers' website, annual reports, and/or bulletin material: the beneficiaries and visitors are informed about the statistics of GRS outcomes and the improvements made in PHC centers as a result of the action taken in response to the grievances received.

8.3.5. Monitoring and Evaluation of Grievances

All grievances received from the two CHMs found at the PHC center are monitored through the Monthly Registry of Grievances Registered at PHCCs Annex 8.4 and the Monthly report of Grievances Registered at PHCCs Annex 8.5

The report and the registry include data of the following:

- ✓ Number of grievances registered
- ✓ Percentage of grievances resolved
- ✓ Percentage of grievances redressed within stipulated time period
- ✓ Number of grievances still pending; and reason
- ✓ Number of grievances received from each uptake channel

Accordingly, the report is analyzed, unresolved issues addressed, and action taken based on the results of the data retrieved.

In addition to the monthly reports generated, evaluation is performed on a 6-month and yearly basis. The nature of grievances, frequently asked inquiries, repeated complaints/mistakes, and service failings are identified, analyzed and addressed by management. Resulting in an improvement plan on systemic issues that can be addressed at the central level's projects/programs' implementation, planning, and/or performance.

Regular visits by PHC Coordinators are performed to the PHC centers to monitor implementation and management of CHMs at the PHC centers, and audit the monitoring tools that are being used.