FEDERAL GOVERNMENT OF SOMALIA

MINISTRY OF HEALTH

SECOND RECURRENT COST AND REFORM FINANCE (RCRF II) ADDITIONAL FINANCING

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

Final Version

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ACRONYMS AND ABBREVIATIONS

AF	Additional Financing
AoI	Area of Influence
BMP	Best Management Practices
CBO	Community-Based Organization
CIM	Capacity Injection Modality
CIP	Capacity Injection Project
DE	Directorate of Environment
DEWC	District Environment Watch Council
DLI	Disbursement Linked Indicator
DRM	Domestic Revenue Mobilization
EA	Environmental Assessment
EHS	Environmental Health and Safety
EIA	Environmental Impact Assessment
EPHS	Essential Package of Health Services
ESMF	Environment and Social Management Framework
ESMP	Environment and Social Management Plan
ESSP	Education Strategic Plan
FGS	Federal Government of Somalia
FHW	Female Health Workers
FM	Financial Management
FMoH	Federal Ministry of Health
FMS	Federal Member State
FSNAU	Food Security and Nutrition Analysis Unit
GAVI	The Vaccine Alliance
GBV	Gender-Based Violence
GFTAM	The Global Fund for HIV, TB, and Malaria
GRM	Grievance Redress Mechanism
HSSP	Health Sector Strategic Plan
ICRC	International Committee of the Red Cross
IPF	Investment Project Finance
IPF-DLI	Investment Project Finance with Disbursement Linked Indicators
JHNP	Joint Health and Nutrition Program
M&E	Monitoring and Evaluation
MDA	Ministries Departments and Agencies
MoEWT	Ministry of Environment, Wildlife and Tourism
MoF	Ministry of Finance
MoH	Ministry of Health
MS4SSA	Math and Science for Sub-Saharan Africa
MWMP	Medical Waste Management Plan
MEWC	National Environmental Watch Council
NES	Northeast Somalia
NGO	Non-Governmental Organization

NWS	Northwest Somalia
OHS	Occupational Health and Safety
OOP	Out of Pocket
OP	Operational Policy
PBC	Performance Based Contracting
PCU	Project Coordination Unit
PDO	Project Development Objective
PFM	Public Financial Management
PIM	Project Implementation Manual
PIU	Project Implementation Unit
QA	Quality Assurance
RBF	Results Based Financing
RCRF	Recurrent Cost & Reform Financing
RHT	Regional Health Team
RWC	Regional Watch Council
SCD	Systemic Country Diagnostics
SCS	South/Central Somalia
SEA	Sectoral Environmental Assessment
TA	Technical Assistance
UNICEF	United Nations Children's Fund
UNPFA	United Nations Population Fund
WB	World Bank
WHO	World Health Organization

EXECUTIVE SUMMARY

Introduction

This document presents the Environmental and Social Management Framework (ESMF) for Additional Financing of Recurrent Cost and Reform Finance (RCRF II). The ESMF ensures that the project activities are compliant with the relevant requirements of national policies, regulations and legislations as well as the World Bank Safeguards Policies and Procedures. The objective of this ESMF is to set out the principles, rules, guidelines and procedure to assess the environmental and social impacts and monitoring to ensure that environment and social aspects are duly considered.

This ESMF only applies to those activities that will be financed, either directly or indirectly, by RCRF, and not to any other activities that a supported beneficiary may be otherwise involved in; all language in this ESMF should be interpreted under this light.

Project Development Objective

The Development Objective of the Additional Financing for the Recurrent Cost and Reform Finance (RCRF II) project ("Project") is to support the government to provide credible and sustainable payroll and to establish the foundation for efficient budget execution and payment systems for the non-security sectors in the Federal Government of Somalia (FGS) and eligible federal member states (FMS).

The Project consists of four components but the ESMF is focused on activities of Component 3.3 (Health Sector Financing) which includes: provision of essential drugs, supplies and equipment; basic facility rehabilitation; monitoring and reporting of results (service quantity and quality through a quality checklist); and supportive supervision and mentorship. It may also include a targeted support for trained midwives through public facilities. The third-party agency will also help strengthen the supervisory and management capacity of regional health team.

The other components of RCRF II AF do not trigger OP 4.01, they are focused on support of key government functions through recurrent cost financing of the wage civil to support timely payment of civil servant's salaries over a period of 3 years.

Project Description

Under RCRF II AF, the project components are organized as follows: Component 1 is dedicated to financing recurrent costs and providing strengthened reform incentives at Federal level; Component 2 is financing the emerging intergovernmental fiscal framework; and Component 3 is financing recurrent costs at FMS level, including education and health service delivery.

Project Beneficiaries

The project provides predictable financing (salary payments and other recurrent costs for a given period) and strengthens core government controls for expansion of social sectors, especially education and health;

it also provides for an injection of high capacity human resources; With less fragmentation in the financial system, qualified civil servants will continue to provide quality outputs and outcomes. Through Capacity Injection more civil servant positions, awarded based on meritocracy, will attract young people with relevant qualifications to work in Somalia.

Project Environmental and Social Baseline

The specific location of all RCRF II AF related activities is not known at this time, but is expected to be in urban and rural areas of Somalia. Chapter 4 of this report describes the overall baseline condition of Somalia in terms of biophysical environment, as well as the socio-economic context. Existing environmental and socio-economic conditions will, in many cases, provide a basis for predicting impacts of the project components and sub-components. The project activities will be implemented within premises of existing health facilities, which therefore mean that they will not have any direct interactions with indigenous people lands and territories.

Policy, Legal and Institutional Frameworks

Policy and legislation with respect to the environment is currently evolving in Somalia, in terms of assessing the potential impact of such policies and regulations on the environment, and how they could contribute to environmental conservation and sustainable livelihood improvement.

Article 25 and 43 of the provisional Constitution of the Federal Government of Somalia provides guidelines on environmental and social safeguards that can be observed. However, there are no standing environmental and/or social safeguards in terms of legislated and or drafted regulations.

The country's national health planning cycle is addressed in the national health policy strategy and plan 2013–2016.The strategy is based on the six building blocks of the health system according to the needs. It prioritizes governance and leadership, followed by human resources, services delivery, health financing, pharmaceuticals and medical technology, and health intelligence and information system.

Safeguard Policies and Triggers

OP 4.01 is applicable due to the potential negative environmental impacts related to Subcomponent 3.3.2 activities, including (i) provision, storage, handling, and disposal of essential drugs, supplies and equipment; (ii) delivery of basic health services; (iii) basic facility rehabilitation and the anticipated increase in medical waste due to improved coverage and quality health services across the country. As these activities are moderate risk, the initial evaluation assigns the project as Category B - Partial Assessment for Environmental Assessment (EA) purposes.

The project is likely to have limited and reversible environmental impacts, that can readily be mitigated. There are no significant and/or irreversible adverse environmental issues anticipated from the activities to be financed under RCRF II AF. The ESMF has therefore been prepared to guide the selection and implementation of subprojects that will require precautionary measures related to EA (OP/BP 4.01). Further, the project will comply with the World Bank's safeguard policy on Environmental Assessment (OP/BP 4.01), where potential risks and impacts are anticipated. In this case, the project will implement

alternative measures to avoid, minimize, mitigate, manage or compensate adverse environmental impacts. Avoidance measures will be prioritized over mitigatory or compensatory measures. Additionally, the project will enhance positive impacts in project selection, location, planning, design, implementation and management.

Potential Environmental and Social Impacts of the Project

The main environmental issues for the project relate to the handling and disposal of supplies such as medical laboratory substances, and other medical products and waste generated during the provision of health care. It also involves construction waste generated during the rehabilitation of hospitals and health care facilities. Additional risks would include weak labor practices among health workers, or inadequate occupational health and safety (OHS) practices. Other project activities do not pose such or additional risks, since they relate to technical assistance, capacity building and training.

Monitoring and Mitigation Measures

All potential impacts are expected to be small to moderate, temporary, site-specific, and mostly reversible, and mitigation measures can readily be designed. Therefore, an Environmental and Social Management Framework (ESMF), including guidance for preparation of a Medical Waste Management Plan (MWMP), has been prepared for the AF. It is expected that provisions for ensuring environmental compliance will be integrated into Components 3.3.1 and 3.3.3.

An environmental and social screening process has been proposed under this ESMF to address the aforementioned potential adverse impacts. The ESMF will be applied in such a way as to ensure that potential negative impacts of the project are prevented and/or mitigated appropriately, and positive impacts are enhanced.

While the increase of biomedical waste is an indirect impact of the project activities, it is important to ensure that this Health Risk Waste will be properly handled, collected, transported and eliminated to avoid the spread of infectious diseases. Improper management and disposal of medical waste poses a risk to the environment and human health. Thus, it is important to develop a management plan commensurate with the amounts and risks related to the medical wastes generated by the project.

The ESMF incorporates a Medical Waste Management Plan (MWMP) that will be embedded and linked to the overall Environmental and Social Management Plan (ESMP), waste management plans and training plans. The MWMP's overall objective is to prevent and/or mitigate the negative EHS effects of medical waste. Medical Waste must be managed in a safe manner to prevent the spread of infection and reduce the exposure of health workers, patients and the public to the risks from medical waste. The plan includes advocacy for good practices in medical waste management and is to be used by health, sanitary and cleaning workers who manage medical waste.

Additionally, the World Bank's implementation support will include environmental safeguards specialists to assist by (a) providing regular implementation support, (b) carrying out reviews of safeguards implementation, and (c) monitoring safeguards implementation, based on periodic progress reports.

ESMF Implementation Arrangements

The project will be implemented by (i) The Ministry of Health (MoH), Federal Government of Somalia (FGS) in close coordination with the federal member states and regions.

The table below shows roles and responsibilities by different players in implementation of ESMF.

Actor	**Tentative Role(s) in potential RCRF health work**
Ministry of Finance	• Pay recurrent salary and non-salary costs tentatively to the FMoH, FMS, region, and the third-party agency
Ministry of Health	• Manage the third-party agency and Private provider contracts (for FMS not directly managing contracts) • Support the FMS who directly manage contracts with contract management • Provide technical oversight and policy guidance to FMS • Regulate pharmaceuticals and the health sector overall • Coordinate partners and hold them accountable for results • Provide Safeguard focal person to oversee projects safeguards implementation at state level
Federal Member States	• Provide technical oversight and support to regions • In states where state contract management is used manage the third-party agency and Private provider contracts • Provide safeguard focal person to oversee third party agency and report to FGS safeguard focal person
Regional Health Team	• Supervise public providers, private providers, and FHWs
Third-party agency	• Provide hands-on capacity development support to regional health teams working with regions to fill their roles • Manage private provider and FHW payments, maintaining regional engagement • Manage public service delivery if applicable • Manage service and transport vouchers if applicable • Paid based on performance through performance based contracting (PBC) • Must have safeguard capacity within the team to oversee community health workers and report to state level safeguard person.
Private Providers	• Deliver health services with performance-based payments through results based financing (RBF)
Public Providers	• Engaged as needed based on private providers' service delivery profiles and specific needs, with management through third-party agency
Female Health Workers	• Referrals to facilities, health education, possible delivery of a service package to be defined
External verifier	• Verifies service delivery and third-party agency in a timely manner to facilitate payments • Facilitates internal and external learning for program improvements

State-level Project Coordination Units (PCUs) will focus on quality and process oversight, financial management, procurement, reporting, contract management, monitoring and evaluation and ensuring social and environmental safeguards compliance. Safeguards arrangement for Component 3 will be implemented at the FGS and FMS levels by the safeguards Focal Point in the MoH and state-level health ministries,

respectively. With respect to component 3.3.2, the safeguard Focal Point at the state region level will use the checklist provided in annex 1 to analyze and screen sub projects, as well as to monitor activities implementation with respect to identified risks and corresponding mitigation measures.

A community health worker will be designated to be responsible for managing waste, the roles and responsibilities will be defined and designated in alignment with the overall Environmental and Social Management Plan (ESMP) and the site-specific waste management plan.

Public Consultations and Disclosure

The World Bank Safeguards Operational Policy /Bank Procedures OP/BP 4.01 Environmental Assessment requires public consultation with affected groups and other stakeholders about the project environmental/social impacts and takes their view into account.

During the project preparation process, discussions were held on July 6th, 2018 at the World Bank Nairobi office. Further engagement with other stakeholders through presentation of the draft ESMF were held in Mogadishu July 12th, 2018.

Main points arising from the discussion touched on the current situation on waste management system in Somalia, especially the hospitals and private sector and the challenges in public hospitals due to lack of proper incinerators and waste management protocols. The need for harmonized waste management plan was emphasized. Minutes of the consultations are documented in Annex 5. The ESMF report will be disclosed on the FGS Ministry of Health website as well as on the World Bank external website.

Cost Implications of the ESMF

The ESMF has assessed the implementing agencies capacities and has proposed measures to enhance safeguards capacity to improve environmental and social performance during project implementation; this will include safeguards training for PIU. The budget proposed to enhance safeguard capacity is a total of USD 500,000. The budget will provide for: building capacity of the PIU related to safeguard compliance, incorporating MWMP requirements into application; conducting third party agent review of selected sub-projects; as well as implementing the monitoring & evaluation (M&E) of the ESMF.

Grievance Redress Mechanism

The Grievance Redress Mechanism (GRM) that PIU will establish and manage to enable beneficiaries to communicate their concerns regarding the Project is provided in Section 9. More specifically, the GRM details the procedures that communities and individuals, who believe they are adversely affected by the Project or a specific subproject, can use to submit their complaints, as well as the procedures to be used by PIU and its implementing partners to systematically register, track, investigate and promptly resolve complaints.

1 INTRODUCTION AND PROJECT CONTEXT

1.1 PROJECT CONTEXT

Somalia is in urgent need of assistance due to the protracted conflict, extremely low fiscal capacity, and inequitable geographic distribution of resources. The FGS tax collection is limited to the capital of Mogadishu, whereas FMS governments concurrently collect all of the available taxes in their respective jurisdictions. This lack of clear revenue assignment leads to both huge inefficiencies in tax administration and great inequities of services from state to state, and between the federal and state levels. Furthermore, since both the federal and state budgets are under severe fiscal stress, the possibility of transferring services/functions among these different entities is severely limited, which only further entrenches the inequities

The Government of Somalia has requested additional financing of US$120 million for Additional Financing (AF) of the second Recurrent Cost and Reform Financing (RCRF II) operation to address fiscal constraints, sustain the reform effort over the next three years, and increase the emphasis on social service delivery. The proposed RCRF II AF is aimed at providing sustained incentives over the next three years for critical reforms in three main inter-related areas: (i) recurrent cost finance to reform core systems in FGS; (ii) strengthen inter-governmental fiscal relations, and; (iii) scaled-up social service delivery. Together with the proposed AF, the parent project will be restructured to: (a) reorganize the project components to provide a clearer sense of total transfers to Federal Member States (FMS) and an increased focus on social service delivery; (b) introduce Disbursement-linked indicators (DLIs), (c) revise the Results Framework to reflect the AF activities and progress to date; and (d) extend the closing date to June 30, 2021.

1.2 PROJECT DESCRIPTION AND OBJECTIVE

The proposed AF aims to provide additional incentives to sustain the reform effort in three main inter-related areas: (i) Recurrent cost finance to reform core systems in FGS; (ii) Strengthen inter-governmental fiscal relations, and; (iii) Scaled-up social service delivery at FMS level. It is also proposed that the Project Development Objective (PDO) should be changed to reflect this change of approach as follows:

- Original PDO: To support the government to provide credible and sustainable payroll and to establish the foundation for efficient budget execution and payment systems for the non-security sectors in FGS and eligible interim and emerging states.
- Revised PDO: To support the Federal Government to reform core systems, build a stronger framework for inter-governmental fiscal relations, and support Federal Member States' core functions and social service delivery

The overall approach to the RCRF II Additional Financing will seek to add to the existing input-based operation, by strengthening reform incentives through two mechanisms:

- Minimum Conditions, at both FMS and FGS level, that must be met on an annual basis in order to continue benefiting from each project sub-component (e.g. teacher payroll strengthening minimum conditions specific to that sub-component) as currently operating under the project. Because these are ‘all-or-nothing’ conditions they are not intended to be very stretching, and focus more on promoting basic disciplines of inter-governmental relations and fiscal transparency;
- Disbursement Linked Indicators (DLIs) for FGS to address binding constraints in the areas of focus of the reform benchmarks, which, if achieved, result in reimbursement of a portion of the

FGS civil service wage bill (the Eligible Expenditure Program). These are reviewed twice per year, and supported by a more detailed set of verification protocols and an implementation Action Plan. RCRF II will, as a result, transition from an Investment Project Finance (IPF) operation to an IPF-DLI operation.

1.3 PROJECT BENEFICIARIES

The project provides predictable financing (salary payments and other recurrent costs for a given period), strengthens core government controls for expansion of social sectors, especially education and health and provides for injection of high capacity human resources; With less fragmentation in the financial system, qualified civil servants will continue to provide quality outputs and outcomes. Through capacity injection more civil servant positions, awarded based on meritocracy, will attract young people with relevant qualifications to work in Somalia.

1.4 PROJECT COMPONENTS SCOPE FOR ADDITIONAL FINANCING

It is proposed that the project components under RCRF II will be reorganized, with Component 1 financing recurrent costs and providing strengthened reform incentives at Federal level; Component 2 financing the emerging intergovernmental fiscal framework, and Component 3 financing recurrent costs at FMS level, including education and health service delivery.

1.4.1 Component 1: Recurrent Cost Finance to Reform Core Systems in FGS (US$ 55.5 million)

(a) Sub-Component 1.1: Financing Eligible Civil Service Salaries in FGS (US$ 54.0 million, of which US$ 39 million DLI-based)

This sub-component will provide up to US$ 54.0 million in financing of the civil service wage bill, of which US$ 15.0 million is input-based or "baseline" financing, and US$ 39.0 million is DLI-based. It will therefore continue to provide US$ 5 million per year of input-based financing of the FGS civil service wage bill in support of the timely payment of civil service salaries over the three-year period (US$ 15 million in total) through advance-replenishment model. In addition, the FGS will be eligible to receive up to US$ 13 million per year – subject to achievement of DLIs – through reimbursement. This total financing is equivalent to around 49% of the projected civil service wage bill for 2019, declining to around 45% by 2021 based on simple extrapolation of wage bill trend growth. This is a more gradual approach to fiscal sustainability than was initially envisaged under RCRF, which initially aimed for 100% government financing of the civil service wage bill by 2020. This aggressive 'sliding scale' proved to be too ambitious in practice and is therefore being revised.

The introduction of DLIs in sub-component 1.1 aims to strengthen the reform incentives within RCRF II, building on experience with reform benchmarking under the project to date. Following the recent issuance of IPF-DLI guidance, the RCRF reform benchmark approach is to be converted into an IPF-DLI approach from 2019 onwards. It is proposed that this should cover six results areas, namely: i) revenue; ii) Public Finance Management (PFM) and payment processes; iii) public administration; iv) inter-governmental fiscal relations, v) education, and; vi) health. The identification of the DLIs is based upon clear problem definition and a feasible reform trajectory over the medium-term (i.e. the next three years). It builds on an already established client dialogue around RCRF benchmarks which have been developed for 2017 and 2018 and seeks to 'regularize' this approach through the use of the IPF-DLI approach.

The verification of the DLIs shall be reviewed and cleared by an independent verifier. This arrangement will include technical assistance twining arrangement with the Internal Auditor or Office of the Auditor General, as shall be discussed and agreed between the Bank and the Government. The aim is to build the DLI verification function within the FGS.

(b) Sub-Component 1.2: System Strengthening TA (US$ 1.5 million)

The DLIs have deliberately been selected to build upon areas where RCRF or other World Bank operations are providing support. For example, the Public Financial Management (PFM) and Domestic Revenue Mobilization (DRM) operation is supporting key reforms with respect to the payment process. Further, some DLIs do not require substantial TA or financing but rather focus on reforms that are 'hard-to-implement' for political economy reasons (e.g. prioritizing transfers to FMS more highly during cash management). However, it is envisaged that there may be some reform areas that require additional flexible support. Further, the FGS ministries of health and education are likely to need additional support to roll out the proposed social service delivery activities.

1.4.2 Component 2: Strengthen Inter-Governmental Fiscal Relations (US$ 2.3 million)

As a result of years of state collapse and resulting fragmentation of political authority, Somalia has transitioned from a unitary state to a highly autonomous and informal quasi-federal model. Fiscal federalism is the mechanism by which public sector functions and resources are allocated among different tiers of government through agreement on revenue authority, expenditure responsibility and mechanisms for resource equalization. Current inter-governmental fiscal arrangements, including tax regimes, are not sufficiently harmonized. They have evolved by default and give a significant advantage to FMS that have access to port revenues and coastline. This runs counter to the principle of fair distribution of resources established in the Provisional Constitution and raises the risk of fragmented and uneven development across Somalia that undermines state-building. This risk, which at its most extreme tends towards 'economic balkanization', is exacerbated by current tendencies of FMS to negotiate major concessions and infrastructure contracts unilaterally, without co-ordination with one another or FGS. Therefore, strengthening the fiscal federalism coordination mechanisms is also critical to mitigate the risk of political backlash.

(a) Sub-Component 2.1: Inter-governmental Forums and Secretariat (US$ 1.2 million)

This sub-component builds on the successful experience to date with the inter-governmental fiscal forum, which operates at both technical and ministerial levels. Meetings are held on a rolling basis in different regions of Somalia. A Chair and Technical Secretariat with associated ToR has been agreed to support the functioning of the Forum. It is proposed that in addition to funding these costs, additional support should be provided for the costs of running the Secretariat, which is currently comprised of civil servants from FGS and FMS. Further, the successful experience of coordination in Finance requires counterpart sector coordination forums in education and health. This support will help to formalize currently ad-hoc intergovernmental coordination activities in these sectors. In education, rolling meetings in different regions are held at present, but not all FMS are currently actively participating and the funding from the international community is provided on an incremental basis. In the health sector, since the cessation of the Joint Health and Nutrition Program (JHNP), inter-governmental coordination meetings have not been conducted on a regular structured basis. Regular education and health inter-governmental meetings are

essential to agree on clear functions assignments, a precondition for effective recurrent cost financing of social service delivery. This approach is also reinforced by the proposed minimum conditions for sub-components 3.2 and 3.3 (see below).

(b) Sub-Component 2.2: TA for Strengthened Inter-Governmental Fiscal Relations (US$ 1.1 million)

To date the inter-governmental fiscal forum has not had a dedicated source of TA to draw down upon for impartial technical advice and support on key issues. This could involve training, seminars on international experience, policy notes, and legal drafting. For example, there is currently no Policy Framework for Inter-Governmental Fiscal Transfers. This sub-component will address this through provision of TA support to the inter-governmental fiscal forum.

1.4.3 Component 3: Transfers for Core Government Functions and Social Service Delivery in Federal Member States (US$ 55.5 million)

(a) Sub-Component 3.1: Financing Core Government Functions in FMS

This sub-component will continue the financing of FMS recurrent costs: previously under Component 2, it is being moved to Component 3 to consolidate all fiscal transfers to FMS in a single Component. The sub-component through the transfer grants from FGS to FMS finances: (i) reforms to meet the minimum conditions; (ii) a pilot program of financing salaries and allowances of civil servants (excluding elected officials) in selected Ministries Departments and Agencies (MDA); salaries and allowances to government staff and young graduates recruited under the Capacity Injection Modality (CIM); (iii) systems-strengthening and the establishment of basic accountability systems; and, (iv) eligible non-salary recurrent costs for selected MDA. Initially, allocations will be based on appraised needs, within the overall project resource envelope, although this approach to allocation will be subject to review over time and would evolve towards norm-based allocations with specific and developmental objectives. All payments will be made directly into the bank accounts of the respective staff or contractors.

(b) Sub-Component 3.2: Financing Education Service Delivery (US$ 15.8 million)

According to the Education Strategic Plan (ESSP) 2018-2020 of the Federal Ministry of Education, only 38 percent of teachers nationally are qualified teachers; in South West State and Galmudug, this figure is even lower at less than 25 percent. With such large numbers of unqualified teachers in the system, the poor learning outcomes for Somali children are not surprisingly, attributed in large part, to poor teaching quality. While there is some anecdotal evidence on teachers being deficient even in basic literacy and numeracy skills, the lack of systematic teacher assessment and school supervision by education authorities has meant that the competency levels of teachers in respect of content knowledge and classroom pedagogical practices, is unknown. Nonetheless, considering that two out of three teachers currently employed by schools are unqualified, the FGS Ministry of Education must assume its regulatory role to specify the minimum competency levels for teachers and thereafter, support FMS ministries in upgrading teachers to these levels. While ministries have staff who are education quality assurance officials charged with raising the effectiveness of the teaching-learning process in schools, they are unable to carry out this function due to the lack of budgetary resources for regular school supervision visits. This component aims to improve education service delivery through two sub-components, focusing on teacher assessment and school supervision.

(i) Sub-component 3.2.1: Teacher Assessment

To establish a baseline on teacher proficiency, the FGS Ministry of Education will require all primary and secondary school teachers, beginning with those benefitting from salary payments under the RCRF II, to take a test on basic literacy, numeracy, and pedagogy. Technical assistance will be provided to the Ministry to adapt available instruments, such as the ones being used in Zanzibar and for the Math and Science for Sub-Saharan Africa (MS4SSA) initiative to the Somali context. The test will be piloted in x schools in Puntland, Banaadir, and Jubbaland before being administered to about 3,000 teachers in the Federal Member States. The Federal Ministry of Education, with the support of national experts and an international consultant, will be responsible for test development, piloting, and scaling-up. The terms of reference of the international consultant will also include capacity building of ministry staff as well as relevant faculty of teacher training institutions. Prior to developing a time-bound work plan and budget for carrying out the pilot, the Ministry will consult FMS Ministries of Education, Umbrella groups and other non-state education providers on the setting of minimum competency standards for teachers based on academic qualifications, experience and performance on the proficiency test. Teachers meeting the minimum competency standards will progress to a new pay scale comparable with what has been proposed for 300 new teachers to be recruited by the Ministry with the government's own resources. Those who do not meet the standards will continue on the current pay scale.

(ii) Sub-component 3.2.2: School Supervision

This sub-component will enable quality assurance (QA) officers from the Federal and state ministries of education, REOs and DEOs to visit schools at least two times per year to carry out inspection using the protocol and procedures established under a common framework. Given the project's focus on improving service delivery, school inspectors will pay particular attention to classroom observation and provision of feedback/support to teachers. Proof of the school visit will be submission of a report (completion of a template with a checklist) no later than two weeks after the visit by the inspector. National and international experts will be contracted to implement the stepped-up school supervision program in two phases. In the first phase, an operations manual on school supervision, drawing on existing procedures, will be finalized. Quality Assurance (QA) officers in one or two member states will be trained using this manual. It is anticipated that about 100 primary and secondary schools in two eligible FMS will be visited during the piloting of the enhanced supervision program in phase one. In parallel with school visits, technical support will be provided to the ministries of education to strengthen the accountability systems for school inspection including capacity building of accounting/financial management departments. During phase two, a full round of supervision will be carried out in eligible FMS, benefitting at least 300 primary and secondary schools. The supervision visits will be financed by the government's own budgetary resources that have been earmarked for this purpose.

(c) Sub-Component 3.3: Financing Health Service Delivery (US$ 15.8 million)

Somalia's prolonged internal conflict decimated health infrastructure and public health service delivery systems, leading to some of the worst health results in the world. In the absence of public service delivery, the private sector thrived, but weak government regulatory and oversight capacities compromise health service quality and equity. Private healthcare costs are high, with a single outpatient visit costing on average 19% of monthly household income. High private healthcare costs are driven by pharmaceutical costs, which make up nearly 30% of average outpatient visit costs. Complex demand side service barriers further limit health service delivery and are exacerbated by the virtual absence of functional community-level health systems. In light of health systems challenges, health outcomes in Somalia are among the poorest in the world.

The proposed health service delivery component of the RCRF project aims to improve access and quality of essential health services and financial protection through development of community health cadres,

results-based basic service delivery, and strengthening of government's stewardship and regulatory capacities. It will include: (i) comprehensive support to Female Health Workers to help implement the community health strategy (Sub-component 3.3.1); (ii) results-based basic health service delivery models (Sub-component 3.3.2); and (iii) strengthening Federal Ministry of Health (FMoH) and Federal Member State (FMS) capacity in stewardship, private sector contracting management, and drug regulation (Sub-component 3.3.3);

(i) Sub-component 3.3.1: Building Female Health Worker Cadres

In Somalia, where health service utilization is believed to be relatively low and women have little decision-making autonomy, Female Health Workers (FHWs) can play an important role in linking the population to health facilities and addressing demand-side health behaviors to increase health systems resilience and responsiveness. FHWs also have a critical role in increasing female autonomy and decision-making capacity, both through direct engagement of women and indirectly by increasing female participation in the public sphere. The FHW program will help implement the government's community health strategy, which aims to engage FHWs in service referrals, health education, and other tasks, aligned with the Essential Package of Health Services (EPHS). It will build on the existing training curriculum for FHWs, operational procedures, and operational lessons from the past and ongoing implementation of the FHW programs (e.g., supported by GAVI (The Vaccine Alliance), The Global Fund for HIV, TB, and Malaria (GFTAM), United Nations Children's Fund (UNICEF), GIZ). The program will also use FHWs already trained in the previous programs (e.g., over 450 FHWs trained with support from GAVI) where appropriate, while training additional FHWs. Developing strong supervisory and support structures for the FHWs, through the regional government, will be an important component of the pilot and value-addition of the Bank engagement. FHW support may include the following activities:

- Support for compensations/incentives and recurrent operational expenses including the transport cost for household visits;
- Training of FHWs based on the national curriculum;
- Support to selected regions on staffing as needed (based on capacity assessment) and supervision and M&E costs;
- Capacity development support, including job training, supervision, mentorship, to regions to manage FHW program, through a third-party agency contracted to provide management and capacity development support;
- Support to FHWs through the regions, with support from the third-party agency, including on the job training, supervision, mentorship, and other forms of support to FHWs;
- Call-center based support to FHWs, possibly through the third-party agency, with possible call-center expansion to a community information hotline, and;
- Supply of registers for reporting, transportation for supervisors, and other basic medicines and supplies to execute activities for which they have been trained.

Payments to regions will be directly from the Ministry of Finance (MoF), and the third-party agency to be embedded in the FMS or regional level will be responsible for training, payments and supplies for FHWs, including fiduciary aspects and progress and result reporting. The third-party agency could be engaged on a performance based contract.

(ii) Sub-component 3.3.2: Results-Based Basic Health Service Delivery Models

This sub-component would carry out at least one result-based service basic health delivery model to increase service access, affordability, and quality. The service delivery component will be a small, targeted

project aimed at developing effective service delivery approaches to support further future engagement. The models to be implemented could include the following:

- Management of service delivery through the third-party agency: The third-party could be contracted by the contracting unit of the FMoH or FMS and financed based on performance, to support private and public health facilities and deliver basic health services. The support by the third-party management agency would include provision of essential drugs, supplies and equipment, basic facility rehabilitation, monitoring and reporting of results (service quantity and quality through a quality checklist), and supportive supervision and mentorship. It may also include a targeted support for trained midwives through public facilities. The third-party agency will also help strengthen the supervisory and management capacity of regional health team.

- Contracting private providers through RBF: The contracting unit of the FMoH or FMS would contract select private providers or a network of providers. The providers would be financed based on improved service access and quality (to be measured through a quality checklist). The contracted third-party agency would manage payments to providers, monitor health services, manage finances, and report to the FMoH and FMS. Such a model could include support for Private providers to improve outreach to community, procurement of essential drugs, supply and equipment availability, basic facility rehabilitation, and other areas to improve basic service quantity and quality.

- Demand-side vouchers: A third-party agency contracted by the contracting unit of the FMoH or FMS will develop vouchers for key health services such as institutional delivery, antenatal and postnatal care, and family planning, as well as transport vouchers to address financial and transport barriers among the poor populations. The target population will be selected through an appropriate poverty targeting methodology. Participating health facilities and transport providers will receive funds through the third-party agency. Potential use of e-voucher and mobile payment will be explored given the high mobile phone coverage of the country.

(iii) Sub-component 3.3.3: Strengthening Government Stewardship, Contract Management, and Regulatory Capacity

To fully realize the potential of trained Female Health Workers and service providers to improve access and quality of essential health services, the government must be able to coordinate partners, track and review results, and hold contractors accountable for implementation progress and results. The first stage of this component will involve capacity assessments, conducted through RCRF and the Capacity Injection Project (CIP). At the state level, the results of the capacity assessments (tentatively to be conducted in 4-5 states) will determine, based on objective criteria (see selection section below) the one to two states in which the FHW program (component one) will be expanded and the service delivery component (two) will be implemented. States that are assessed and are not ready for further engagement will receive basic capacity development support, benefiting from CIP's work and support through this component including technical assistance and salary support.

Based on the results of capacity assessments, the project will capitalize on CIP's work to strengthen the coordinating and performance management capacity of the government at the federal level and potentially at the FMS level in some states which are positioned to directly manage contracts and in which components one and two will be implemented. This may include the establishment and strengthening of the contracting management unit(s) at the federal and/or FMS levels within the FMoH. In addition, regulating the quality of the drugs pharmacies through establishment and strengthening the drug regulatory authority can help

improve health service quality and increase the effective use of high out of pocket (OOP) expenses, thus is a top priority of the FMoH. Partner coordination is also essential to ensure consistent, high quality health services in the country. Support for partner coordination may be within the contracting unit or through another part of the FMoH such as Department of Policy and Planning.

Work to strengthen the regulatory authority, contract management capacity/unit, and partner coordination capacity at the Federal level and in States where direct management of these functions is appropriate may include:

- Support for establishing and strengthening the drug regulatory authority;
- Developing contract management capacity or a unit, and;
- Support for partner coordination capacity of the FMoH's responsible unit (e.g., Department of Policy and Planning).

Support for all three of these potential areas, as well as capacity development for states that the capacity assessment determines are not ready for components one and two as well as those states that do not manage regulatory, coordination and may include:

- Staffing support (civil service staff or equivalent contractor);
- Support for advisors and technical assistance;
- Staff training, coaching, and mentorship, including study visits of relevant countries to learn drug regulation, result-based service delivery model, etc., and;
- Support for other recurrent operational expenses including regulatory visits (to be outsourced initially), supportive supervision, and information/data management systems.

Target states will be selected based on a set of objective criteria. Initial capacity assessments at the FMS level through the Sub-component three will determine, through a set of objective criteria based on states' capacity as well as in coordination with other partners' support, the states in which support for the FHW program (Component 3.3.1) will be expanded and the service delivery component (Component 3.3.2) will be operationalized. States which do not meet the criteria for components 3.3.1 and 3.3.2 will receive capacity development support through component three with the aim of supporting these states to prepare for future health engagement.

An external verification agency will be contracted by the FMoH to assess results of the Sub-components 3.3.1 and 3.3.2 for payment to the third-party agency and providers. The external verification will include the periodic visit to health facilities and review of patient registers to verify numbers of services delivered, and the facility's quality score obtained through the quality checklist assessment. Result-based payments are an important component of the proposed work. In addition, the verification agency may have a role in gathering qualitative information on both the capacity development and pilot portions of the health work to facilitate internal and external learning.

Specific health activities will be determined through a consultative process based on the menus of options within each component outlined above and detailed in a project implementation manual. The World Bank will provide technical assistance for the assessment of activities from expected impact and feasibility, and carry out detailed fiduciary assessment when the detailed design of the approaches is developed within the first six months after the project effectiveness. The final decision of the approach(es) will be made jointly by the FMoH and the World Bank, with no objection from the Bank. These details will be defined in a Project Implementation Manual (PIM) for the health component.

The sub-components will be carefully sequenced in two phases to facilitate initial successes and foundational work on capacity development while developing the detailed design of the result-based basic health service delivery models. The first phase (Year 1) could involve a rapid roll-out of a small number of Female Health Workers and capacity development within the FMoH. The first phase would also cover the initial steps to design the service delivery component and further establishing all components. The second phase (Year 2 and 3) would fully operationalize all components and establish third-party verification.

2 SCOPE AND METHODOLOGY OF THE ESMF

2.1 ESMF OBJECTIVE

The Environmental and Social Management Framework (EMSF) suggests general policies, guidelines, codes of practice and procedures which will be implemented into the RCRF II AF supported by the Bank. The document defines the steps, processes and procedures for screening, as well as alternative analysis, assessment, monitoring and management of the environmentally-related issues. In addition, the ESMF analyzes environmental policies and legal regime of Somalia and safeguard policies of the WB; presents the institutional and capacity assessment related to the environmental management; and describes the principles, objectives and approach to be followed while designing site-specific environmental mitigation measures. The ESMF should be used as a practical tool during program formulation, design, implementation, and monitoring in the RCRF II AF.

The project implementation unit will use and refer to this ESMF during implementation of the Project. Where appropriate, ESMPs will be prepared during project implementation following guidelines in the ESMF. It remains the responsibility of the safeguards officers of the PCU to ensure that the necessary mitigation plans are developed and adhered to by the beneficiaries.

2.2 ESMF PRINCIPLE

This ESMF will guide the PCU in implementing the Project in line with World Bank and Somalia Government environmental and social management precepts.

2.3 METHODOLOGY

The ESMF was prepared through literature review and stakeholder discussions. The consultant undertook a review of the Additional financing paper for the RCRF II AF, as well as a review and analysis of relevant national legislation, policies, and guidelines, including the World Bank Operational and Safeguards Policies related to this Project.

Consultation with Key stakeholders in the application and implementation of the ESMF for the Project was conducted on July 6th, 2018. The main points outlined in the consultative meetings with key stakeholders are in chapter 5 and documentation in Annex 5.

3 POLICY, LEGISLATIVE, AND INSTITUTIONAL FRAMEWORKS

3.1 SOMALI NATIONAL LAWS AND LEGISLATIONS ON ENVIRONMENT

In all Somali territories policy and legislation with respect to the environment is evolving, in terms of assessing the potential impact of such policies on the environment, or how they could contribute to environmental conservation and sustainable livelihood improvement.

In recent years Somaliland has effected a constitution within which article 12 addresses Public Assets, Natural Resources and Indigenous Production. Although there is no Environmental Policy and Act in place, an Environmental and Social Assessment Framework has been produced through the SDF program. Protection and use of Somaliland water resources is the responsibility of the Ministry of Water Resources that has put a policy, act and regulatory framework in place. In Puntland an Environmental Policy was produced in 2014 and framework documents for Environmental Impact Assessment (EIA) guidelines and regulations put in place.

Article 45 of the of the Somali Federal Government constitution states that:

- The Federal Government shall give priority to the protection, conservation, and preservation of the environment against anything that may cause harm to natural biodiversity and the ecosystem.
- All people in the Federal Republic of Somalia have a duty to safeguard and enhance the environment and participate in the development, execution, management, conservation and protection of the natural resources and environment.
- The Federal Government and the governments of the Federal Member States affected by environmental damage shall:
    - Take urgent measures to clean up hazardous waste dumped on the land or in the waters of the Federal Republic of Somalia
    - Enact legislation and adopt necessary measures to prevent the future dumping of waste in breach of international law and the sovereignty of the Federal Republic of Somalia
    - Take necessary measures to obtain compensation from those responsible for any dumping of waste, whether they are in the Federal Republic of Somalia or elsewhere
    - Take necessary measures to reverse desertification, deforestation and environmental degradation, and to conserve the environment and prevent activities that damage the natural resources and the environment of the nation

In consultation with the Federal Member States, the Federal Government shall adopt general environmental policies for the Federal Republic of Somalia.

The Federal Government has introduced changes in the institutional set-up dealing with environment and a directorate of Environment has been formed within the Office of the Prime Minister. The Directorate of Environment (DE) is mandated to draft the National Environmental Policies and legislations including establishing of the Environmental Quality Standards, Sectoral Environmental Assessments (SEAs), Environment Impact Assessments (EIAs) and environmental Audits among other items. However necessary laws or legislations have not been formulated and no commissions or authorities have been established.

For Puntland the institutions at National, Regional and District Levels responsible for the implementation and monitoring compliance of both national and international agreements are shown below and include:

- The Minister, in consultation with the Parliamentary Environment committee and civil society organizations working in the environment shall establish Environmental Watch Councils at National level (NEWC).
- The Ministry of Environment, Wildlife and Tourism (MoEWT) in Puntland with consultation with Regional Authorities, in consultation with civil society, at the Regional level, and communities shall establish the Regional Watch Councils (REWC).
- The MOEWT in consultation with the Local Government Councils/ District Governor, local Community-Based Organizations (CBOs) and the community shall establish the District Environment Watch Council (DEWC).
- The members of the Council shall come from both genders and should be citizens in good standing in the community and are environmentally conscientious. The council shall serve five-year terms at a time and can be re-appointed.

The environmental licensing process in Puntland is regulated by the Ministries. The key principles are:

- a. The MOEWT (Puntland) or any person authorized by him/her may grant any of the licenses enumerated. Every license shall be subject to such conditions as may be specified therein.
- The Minister or any person authorized by him/her may at any time cancel or suspend any license granted by or on behalf of the Minister, the holder of which has been on reasonable grounds suspected by the Minister or such other authorized person, to have infringed any of the conditions upon or subject to which said license has been granted, and may at any time vary the conditions of any such license.
- Any person aggrieved by any order under this Article may appeal to the Minister of MOEWT for Puntland whose decision shall be final.

The scope of activities requiring licenses include charcoal production, mining and quarrying, collection of plants and grasses, collection of gums and resins, and investment projects including sectors such as waste, wastewater, roads, and energy infrastructure.

For the project implementation the E&S management will fully rely on WBG environmental and social standards.

Table 1 gives a brief overview on roles and responsibilities on environmental management.

Table 1 Institutional Arrangements in Environmental Decision Making

Institution	**Mandate**
Somali Federal Government	Signs international conventions
Council of Ministers	Approves National Strategic Climate Strategy
Parliament	Approval of environment acts and laws
Central Level MoEWT (Puntland)	• Prepares strategic climate, environment and social strategy • Environmental policies / plans • Guidelines - approves EAs • Liaison with regional-level institutions • Monitoring and Evaluation

Institution	Mandate
Regional Level: Environmental committees and pastoral associations (Puntland)	• Implement regional policies • Implement sectoral laws (national or state laws) - Approval of all development activities
Local Level: District Environmental Watch Council and Villages (DEWC)	• Implement local orders on public health, district natural resources • Implement regional laws • Approval of projects at district level • Mobilize local communities • Submit requests for development activities to REWC

3.2 SOMALIA'S HEALTH SECTOR LEGAL FRAMEWORK

A legal framework for the Health sector in Somalia is absent, but the policy environment is beginning to improve with the production of a draft National Health Policy.

Somalia's national health planning cycle is therefore addressed in the national health policy strategy and plan 2013–2016.The strategy is based on the six building blocks of the health system according to the needs. It prioritizes governance and leadership, followed by human resources, services delivery, health financing, pharmaceuticals and medical technology, and health intelligence and information system.

The Health Sector Strategic Plan (HSSP) takes a pragmatic approach to the provision of essential services across South Central Somalia recognizing the current situation of near collapse of health services in some areas coupled with humanitarian and emergency needs. The priority is to consolidate and maintain essential services in all areas where access and security permits.

This HSSP responds to the most urgent health systems development challenges; it is the first post- conflict plan to build effective health sector institutions as well as core planning and financing systems in Somalia. The plan provides a framework for future programmes to work within, expanding access to quality services, encouraging better targeting of disease specific programmes, better coordination of this work with government strategic priorities, and more effective use of external support. The Plan also acts as an overarching framework for the numerous sub-sector strategies and plans that have been, or are in the process of being, developed.

The HSSP set a target of developing and adopting the following health sector policy and legal framework by 2016:

- Public Health Act
- Drug policy
- Drug act
- Health policy document
- Health regulatory framework
- WATSAN and Environmental Health policy and strategy
- Draft C4H strategy

3.3 SOMALIA HEALTH SECTOR INSTITUTIONAL SETUP

Management and planning of the health system is poorly developed. A central ministry and eleven Regional Health Teams are responsible for the health sector. A small planning unit is tasked with system-wide development. The Directorate of Health and the eleven Regional Health Teams (RHTs) are responsible for planning and managing the public health sector

A central health ministry comprises around 90 employees (the exact figure of those actually working is not available), who are organised loosely into five directorates. There is a MOH Senior Management Team, and the departmental directors meet under the leadership of the Director General.

Nominally, the government provides health services through a four-tiered system – Regional hospitals, Referral Health Centres; Health Centres and Primary Health Units, all providing at least some elements of a package of preventive and curative services known as the EPHS. Most services comprise of basic primary health care and outpatient services, and cater to women and children. Public sector service points are often managed, financed and at least partially staffed by employees of international or national non-governmental organizations (NGOs) and CBOs.

3.4 WORLD BANK SAFEGUARDS OPERATIONAL POLICIES

Relative to World Bank environmental safeguards, under Operational Policy (OP/BP) 4.01, the Bank undertakes environmental screening and proposed projects are classified into one of four categories, depending on the type, location, sensitivity, and scale of the project and the nature and magnitude of its potential environmental impacts:

- Category A projects are likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. These impacts may affect an area broader than the sites or facilities subject to physical works.
- Category B projects may have potential adverse environmental impacts on human populations or environmentally important areas, but are less significant than those of Category A projects. These impacts are site specific; few if any of them are irreversible; and in most cases mitigation measures can be designed readily with standard methods.
- Category C projects are likely to have minimal or no adverse environmental impacts, and there are no further environmental requirements.
- Category FI projects involve investment of Bank funds through a financial intermediary, in subprojects that may result in adverse environmental impacts.

In accordance with OP/BP4.01, This ESMF sets out the principles, rules, guidelines and procedures to assess the environmental and social impacts. It contains measures and plans to reduce, mitigate and/or offset adverse impacts and enhance positive impacts, provisions for estimating and budgeting the costs of such measures, and information on the agency or agencies responsible for addressing project impacts.

For the RCRF II AF, OP 4.01 is applicable due to the potential negative environmental impacts related to Subcomponent 3.3.2 activities, including (i) provision, storage, handling, and disposal of essential drugs, supplies and equipment; (ii) delivery of basic health services; (iii) basic facility rehabilitation and the anticipated increase in medical waste due to improved coverage and quality health services across the country. These activities are low risk and the Initial evaluation assigns the project as Category B - Partial Assessment for Environmental Assessment (EA) purposes.

No related to Indigenous Peoples (OP 4.10) or Involuntary Resettlement (OP 4.12) are anticipated under any of the activities proposed for implementation under the three components of the project. Minor rehabilitation of health clinics will not involve structural rehabilitation (roofs or walls) and will not involve

new construction or extension. All rehabilitation activities will be implemented within existing facilities. This will be assured through applicable of a sub-project screening checklist.

3.5 WORLD BANK GROUP EHS GUIDELINES

The Bank has guidelines for Environment, Health and Safety (EHS) that serve as useful references for general issues as well as sector-specific activities. Projects financed by the World Bank Group are expected to comply with this guideline as required by the policies and the standards. The EHS guidelines are mainly on occupational health and safety, community health and safety as well as on construction and decommissioning. It contains guidelines cross cutting on environmental (waste management, ambient air quality, noise and water pollution), occupational health and safety issues among others, applicable to all the industry sectors.

4 PROJECT BIOPHYSICAL AND SOCIOECONOMIC SETTING

4.1 COUNTRY PROFILE

Somalia covers a surface area of 637 657 km2 and borders Djibouti, Ethiopia and Kenya, with coastline on the Gulf of Aden and the Indian Ocean.1 Its long coastline and multiple borders mean Somalia has long been an important trading zone, with cross-border trade and international import and exports through various ports.

The Somali Republic was created on 1 July 1960. Somalia is populated by a resilient and highly independent people whose nomadic heritage plays a major role in determining their collective persona. Somali culture has evolved to survive in the harsh and arid environment of the Horn of Africa. Following the civil war of 1991, the country now consists of three zones: northwest Somalia (NWS), known as Somaliland; northeast Somalia (NES), known as Puntland; and south/central Somalia (SCS). Each has its own quasi administration.

The northern part of the country is mountainous, with a coastal strip running along the Gulf of Aden. Undulating plains characterize central and southern Somalia. Rising in Ethiopia, the Juba and Shabelle are Somalia's only perennial rivers. The Somali climate is generally dry and semi-arid. The average daily temperature varies between 25 ºC and 37 ºC. In the central region it is warmer and in the south it is tropical. Average rainfall also varies: in the northwest and northeast it is around 400 mm, in the dry central region it is 100–150 mm and in the south it is 400–500 mm. There are four main seasons, dictated by shifting wind patterns, which determine pastoral and agricultural activities.

Somalia has a clan-based society, with clan membership playing an integral role within socioeconomic and political arenas. The clan is an important social unit, where collective responsibility and clan relationships form the basis for traditional agreements including dispute settlement. Major clans include Hawiye (25% of the population), Isaaq (22%), Darod (20%), Rahanweyn (17%), Dir (7%), Digil (3%), and other ethnic minorities (6%). Somali is the official language of Somalia and spoken by most people. It is also the language of instruction in schools, although Arabic, English and Italian also are used.

4.2 SOCIAL DETERMINANTS OF HEALTH

4.2.1 Education

Somalia's education system has been severely crippled by internal conflict, resulting in an increasingly unstable and insecure environment. School enrolment reached its lowest point in 1994, with most if not all schools destroyed, materials unavailable, and teachers and students abandoning the educational process. Somalia's primary education gross enrolment ratio of around 20% is arguably the lowest in Africa, easily one half the levels of Ethiopia and Sudan, and one quarter the level of Kenya. In recent years, as stability and security have increased, local communities have taken impressive steps to re-build education, drawing on the limited resources available. The international community has also begun to provide limited support for these local initiatives. Thus, over the past four years, enrolment rates have increased at an annual rate of around 20% (starting at less than 10% in 1998). The major gains are in urban areas, with a sharp drop-off in educational opportunities in rural areas, especially for the children of nomadic pastoralists. [1]There is

[1] http://applications.emro.who.int/docs/CCS_Somalia_2010_EN_14487.pdf?ua=1

a “lost” generation of adolescents who were unable to attend school as children, yet now seek academic and vocational training in order to improve their prospects for employment.

4.2.2 Water Supply

Somalia is an arid country, with severe water scarcity and a sparsely scattered population. The mean annual rainfall is 282 mm, with one of the highest inter-annual variations of rainfall of any mainland African state. The total per capita availability of water is classed as “stressed” and very little of this water is actually accessed. Most water accessed is used for agriculture and livestock, and very small quantities are for personal use (drinking and hygiene). Water quality is poor, with access to potable water limited due to high levels of turbidity, high mineral content, chemical and biological contamination.

Most of the population (pastoralists, semi-settled agro-pastoralists and some permanent village dwellers) lives in rural areas. Water demands are met by rivers (seasonal in NES and NWS), springs, rainwater harvesting facilities, shallow wells and deep boreholes. Water shortages usually occur during the long dry season (jilaal) when the population can only rely on the two permanent rivers and groundwater supplies. A 2006 survey found that only 29% of the population used an improved source of drinking water (58% in urban areas, 14% in rural areas, 4% in nomadic groups). Water collection is a significant burden and source of tension leading to outbreaks of violence and disputes.

Around 65% of the population does not have reliable access to safe water throughout the year. Most people with access to safe drinking-water and adequate sanitary disposal reside in urban areas. Access to potable water and sanitation is severely restricted in many rural areas, particularly for nomadic populations. Most people without access reside in SCS. However, the numbers of people without access in NWS and NES are significant in their own right. Drought and internal displacement severely constrain access to water, with supply needs often met through costly trucking of water to water storage facilities in permanent settlements or directly to grazing areas.

4.2.3 Sanitation and Hygiene

Less than half the population live in households with the sanitary means of excreta disposal. The lack of clean water contributes significantly to high rates of illness and death. The impact of poor environmental sanitation is particularly felt in cities, towns, large villages or other places where people live in close proximity. Defecation is generally close to dwellings and water resources, and lack of refuse collection affects the urban environment and water sources. Poor hygiene and environmental sanitation are major causes of diseases such as cholera among children and women. Cholera is endemic and claims hundreds of lives annually, particularly in densely populated areas. Access to clean water is essential to prevent diarrhoeal diseases and cholera.

4.2.4 Nutrition

Somalia’s rates of malnutrition rank among some of the worst in the world and saw marked deterioration during 2009. Malnutrition is widespread due to a range of factors including food insecurity, low purchasing power, unhealthy feeding practices and lack of access to safe water and sanitation. The proportion of children who are acutely malnourished rose from one in six in January 2009 to one in five by end September 2009. One in 20 children is severely malnourished, placing several geographical areas firmly above internationally-recognized emergency nutrition levels. The Food Security and Nutrition Analysis Unit (FSNAU) estimates that 285 000 children under 5 years of age are acutely malnourished, out of which 70000 are severely malnourished and are at risk of death without appropriate specialist care.

4.2.5 Environmental Concerns

Insecticides are widely used in farming, including in the cultivation of khat leaves (in Kenya), fruit and vegetables. There are problems of rangeland degradation, deforestation, coastal desertification, sand dune encroachment and depletion of wildlife. Natural environments are degrading owing to the clearing of forests and bushland in rangelands to make charcoal for export. Suspected dumping of highly toxic waste along the Somali coastline by ships from outside the country represents a serious environmental health issue requiring urgent attention and action by the international community.

4.2.6 Gender and Equality

Gender segregation is deeply rooted in traditional Somali socio-cultural structures, and remains a formidable barrier to women's participation in decision-making processes and access to – and control of – resources. Female marginalization is also a result of lack of education and self-reliance. Women's participation in governance and respect for human rights in Somalia fall short of those expressed in internationally-recognized instruments such as the Convention on the Elimination of all Forms of Discrimination Against Women and the Beijing Declaration and Platform for Action. Gender-related disparities remain an area of major concern, especially in the field of education. More boys than girls are enrolled in primary, secondary and tertiary education. Moreover, there is a higher dropout rate for girls. Despite recent successes, the representation of women in parliament remains low.[2]

[2] http://applications.emro.who.int/docs/CCS_Somalia_2010_EN_14487.pdf?ua=1

5 KEY RISKS AND IMPACT MITIGATIONS

5.1 INTRODUCTION

The interventions under the project involve improvement in provision of health services, handling of medical products. Generally, these activities may result in positive and negative potential impacts as discussed in this chapter. Potential environmental and social impacts can be adequately managed by integrating environmental and social due diligence into the sub-project cycle. The identification of potential impacts together with the guidance notes forms the ESMF. The ESMF will guide handling of project environmental and social aspects during implementation specifically the identification of potential projects impacts.

In addition, a sample of MWMP has been provided in Annex 6 for use under this ESMF. Functionality and capacity of MoH to handle environmental and social safeguards requirements has been assessed during preparation of the ESMF and measures suggested to address gaps identified.

The table below shows specific RCRF II AF project components with environmental safeguards implications.

RCRF II AF Project Subcomponents Sub Component	**Description of Activities**	**O.P 4.01 Environmental Safeguard Implication**
Component 1: Recurrent cost finance to reform core systems in FGS (US$ 55.5 million)		
Sub-Component 1.1	Financing eligible civil service salaries in FGS (US$ 54.0 million, of which US$ 39 million DLI-based)	None
Sub-Component 1.2	Support to strengthening of payment process Additional support to roll out the proposed social service delivery activities.	None
Component 2: Strengthen inter-governmental fiscal relations (US$ 2.3 million)		
Sub-Component 2.1	Support functioning of intergovernmental fiscal forums and secretariat Secretariat support	None
Sub-Component 2.2	Technical Assistance for strengthened inter-governmental fiscal relations	None
Component 3: Transfers for core government functions and social service delivery in Federal Member States (US$ 55.5 million)		
Sub-Component 3.1	Financing core government functions in FMS	None
Sub-Component 3.2 (3.2.1 and 3.2.2)	Financing Education Service Delivery Teacher assessment School supervision	None
Sub-Component 3.3 (3.3.1 and 3.3.2)	Comprehensive support to Female Health Workers to help implement the community health strategy Results-based basic health service delivery models Strengthening Federal Ministry of Health (FMoH) and Federal Member State (FMS) capacity in stewardship, private sector contracting management, and drug regulation FHW program	Provision, storage, handling, and disposal of essential drugs, supplies and equipment Basic facility rehabilitation Worker health and safety; patient health and safety

5.2 POSITIVE IMPACTS

There are several potential positive impacts of the project and associated works. The most obvious positive impact is the improvement of access to health services, and the reduction of the vulnerability to disease. Other positive benefits include the creation of employment and income generation during the operations phase.

5.3 RISKS ASSOCIATED WITH BASIC FACILITY REHABILITATION

Subcomponent 3.3.2 involves rehabilitation of existing health infrastructure facilities. Refurbishments at selected health facilities presents risks typical for small civil works, such as occupational health and safety, heavy equipment and increased traffic, dust and noise, storm water runoff from disturbed areas or concrete mixing areas, inadequate debris disposal, poor sanitary facilities, and others.

Upgrading of facilities should also include adequate treatment of wastewater. Diesel generators may also be used for emergency power back-up, requiring adequate ventilation, fuel storage, and safety measures. During operations, these systems must be maintained adequately to minimize potential releases to the environment.

Refurbishments at selected health facilities could create sources of medical waste, equipment or supplies needing proper management and disposal. Other hazardous materials may also be discovered during demolition, repairs, or refurbishment.

5.4 RISKS ARISING FROM MEDICAL WASTE

The International Committee of the Red Cross (ICRC) Medical Waste Management Plan, provided here as an example, defines medical risk exposure as entailing all persons who are in contact with hazardous medical waste are potentially exposed to the various risks it entails: persons inside the establishment generating the waste, those who handle it, and persons outside the facility who may be in contact with hazardous wastes or their by-products, if there is no medical waste management or if that management is inadequate.[3]

The following groups of persons are potentially exposed:

- Inside the hospital: care staff (doctors, nursing staff, auxiliaries), stretcher-bearers, scientific, technical and logistic personnel (cleaners, laundry staff, waste managers, carriers, maintenance personnel, pharmacists, laboratory technicians, patients, families and visitors).
- Outside the hospital: off-site transport personnel, personnel employed in processing or disposal infrastructures, the general population (including adults or children who salvage objects found around the hospital or in open dumps).

The health risks associated with hazardous medical waste can be divided into five categories:

- risk of trauma
- risk of infection

[3] https://www.icrc.org/en/publication/4032-medical-waste-management

- chemical risk
- risk of fire or explosion
- risk of radioactivity

5.5 CLASSIFICATION OF HAZARDOUS MEDICAL WASTE

Category	Classification	Description
1	Sharps	Waste entailing risk of injury
2	Waste entailing risk of contamination Anatomical waste Infectious waste	Waste containing blood, secretions or excreta entailing a risk of contamination. Body parts, tissue entailing a risk of contamination Waste containing large quantities of material, substances or cultures entailing the risk of propagating infectious agents (cultures of infectious agents, waste from infectious patients placed in isolation wards).
3	Pharmaceutical waste Cytotoxic waste Waste containing heavy metals Chemical waste	Spilled/unused medicines, expired drugs and used medication receptacles. Expired or leftover cytotoxic drugs, equipment contaminated with cytotoxic substances. Batteries, mercury waste (broken thermometers or manometers, fluorescent or compact fluorescent light tubes). Waste containing chemical substances: leftover laboratory solvents, disinfectants, photographic developers and fixers
4	Pressurized containers	Gas cylinders, aerosol cans
5	Radioactive waste	Waste containing radioactive substances: radionuclides used in laboratories or nuclear medicine, urine or excreta of patients treated.

Table 2 summarizes potential negative E&S impacts for RCRF component 3.

Table 2 Potential E&S risks and impacts

Risk Aspect	Description	Evaluation	Impact
Occupational health safety (OHS) Risks	Medical facilities are a potential source of infectious waste in gaseous, liquid or solid forms. These could pose unsafe conditions for healthcare staff. Of particular concern are janitors handling infectious waste (including sharps) without adequate protective gear, storage of sharps in containers that are not puncture-proof and management of radioactive waste at healthcare facilities where x-ray equipment will be installed. While some OHS risks will be new borne by equipment or services introduced after renovation or upgrade of facilities, most other effects are existing (hence cumulative) and would only be exacerbated by increased scale of healthcare services	All persons who are in contact with hazardous medical waste are potentially exposed to the various risks it entails	High
Injury to patients or healthcare staff by construction activities	Demography of community in the Project‘s area of influence (AoI	Changes in demography, gender ratio, age distribution, socio-economic structure, etc. of the local community	Low

Risk Aspect	Description	Evaluation	Impact
Utilities	The existing utilities (e.g. power supply.) in the Project‘s AoI	Changes in existing utilities	Moderate
Infrastructure	The existing infrastructure such as road, waste handling facilities, etc. within the Project‘s AoI	Potential damage to road infrastructure; road traffic and accidents; increased pressure on waste management facilities	Moderate
Employment/income	The employment situation in the Project‘s AoI	Opportunities for local employment; changes in income level	Moderate
General public/ project communities	Labor influx and Gender-Based Violence (GBV)	Increase in the demand for basic services due to temporary influx of workers. Increased crime (including prostitution, theft and substance abuse) to increase in proposed sub project areas as influx of people increases Increased risk of communicable diseases (including STI/ HIV/AIDS)	low
Construction workers safety and workplace health and safety	Health and safety of contractor company employees.	Accident, injury, fatality, exposure to nuisance (dust, noise), fire, etc.	medium
General public / communities	Health and safety of the general public	Accident, fire, explosion	low

5.6 HEALTH CARE WASTE GUIDELINES

The O.P 4.01 environmental safeguard implications identified under sub component 3.3.2 requires preparation of a medical waste management guideline to address addresses aspects such as regulatory framework, planning issues, waste minimization and recycling, handling, storage and transportation, treatment and disposal options, and training.

Somalia lacks appropriate medical waste management regulations. The ESMF therefore includes;

- Special Condition - Management of Medical Wastes During Refurbishment Works in Annex 1
- Sample Medical Waste Management Monitoring Questionnaire in Annex 2
- Treatment and Disposal Methods for Categories of Health Care Waste in Annex 3
- the KFW Health Care Waste Guidelines in annex 6 for preparation of a MWMP. The document is aimed at managers of hospitals and other health-care facilities, policy makers, public health professionals and managers involved in waste management.

World Health Organization (WHO) has also a developed a global and comprehensive guidance document, “Safe management of wastes from health-care activities”, now in its second edition.

In collaboration with other partners, WHO also developed a series of training modules on good practices in health-care waste management covering all aspects of waste management activities from identification

and classification of wastes to considerations guiding their safe disposal using both non-incineration or incineration strategies.

WHO guidance documents on health-care waste are also available including:

- a monitoring tool;
- a cost assessment tool;
- a rapid assessment tool;
- a policy paper;
- guidance to develop national plans;
- management of waste from injection activities;
- management of waste at primary health care centers;
- management of waste from mass immunization activities; and
- management of waste in emergencies.

In addition, WHO and UNICEF, together with partners in 2015, launched a global initiative to ensure that all health care facilities have adequate water, sanitation and hygiene services. This includes addressing health care waste.

Guidance on medical waste management by WHO is provided in the following document (http://apps.who.int/iris/bitstream/10665/85349/1/9789241548564_eng.pdf)

6 ROLES AND RESPONSIBILITIES OF IMPLEMENTING ENTITIES

The successful implementation of the ESMF depends on the commitment of PIUS, the related institutions, and the capacity within the institutions to apply or use the ESMF effectively, and the appropriate and functional institutional arrangements, among others. The sections below describe the detailed roles and responsibilities of the key institutions involved in the implementation of the ESMF by project components.

The project will be implemented by (i) The Ministry of Health (MoH), Federal Government of Somalia (FGS) in close coordination with the federal member states and regions.

Project Steering Committee comprised of Ministry of Finance and Ministry of Health will oversee Project implementation. Project implementation will be mainstreamed within the operations of the MoH. Where necessary, consultants financed by the Project, will be recruited to support implementation of Project activities components.

State-level Project Coordination Units (PCUs) will focus on quality and process oversight, financial management, procurement, reporting, contract management, monitoring and evaluation and ensuring social and environmental safeguards compliance. Safeguard arrangements for Component 3 will be implemented at the federal by the safeguard focal person in the Ministry of health and the state regional level by the safeguard in the respective state level health ministries.

At Federal Level, MoH will assign an officer to be the safeguard focal person as part of the project support team who will take lead in guiding and implementing environmental requirements of the project, working in close collaboration with the respective state level safeguard focal persons. At state level the safeguard focal person from state health ministry will be the key personnel responsible for monitoring the environmental and social impacts of the project.

The safeguard focal persons at state and federal level indicated to have the requisite training and expertise to undertake necessary monitoring. However, their technical capacity will be enhanced by induction training at the beginning of project implementation. This will facilitate a better understanding and appreciation of safeguard requirements through discussion of modalities for implementation of the project ESMF provisions. Financial facilitation would however be
necessary for their effective participation.

Figure 1 and table 3 shows indicative arrangement and roles and responsibilities for the different players in the implementation of the RCRF II AF.

Figure 1: Indicative roles and responsibilities arrangements

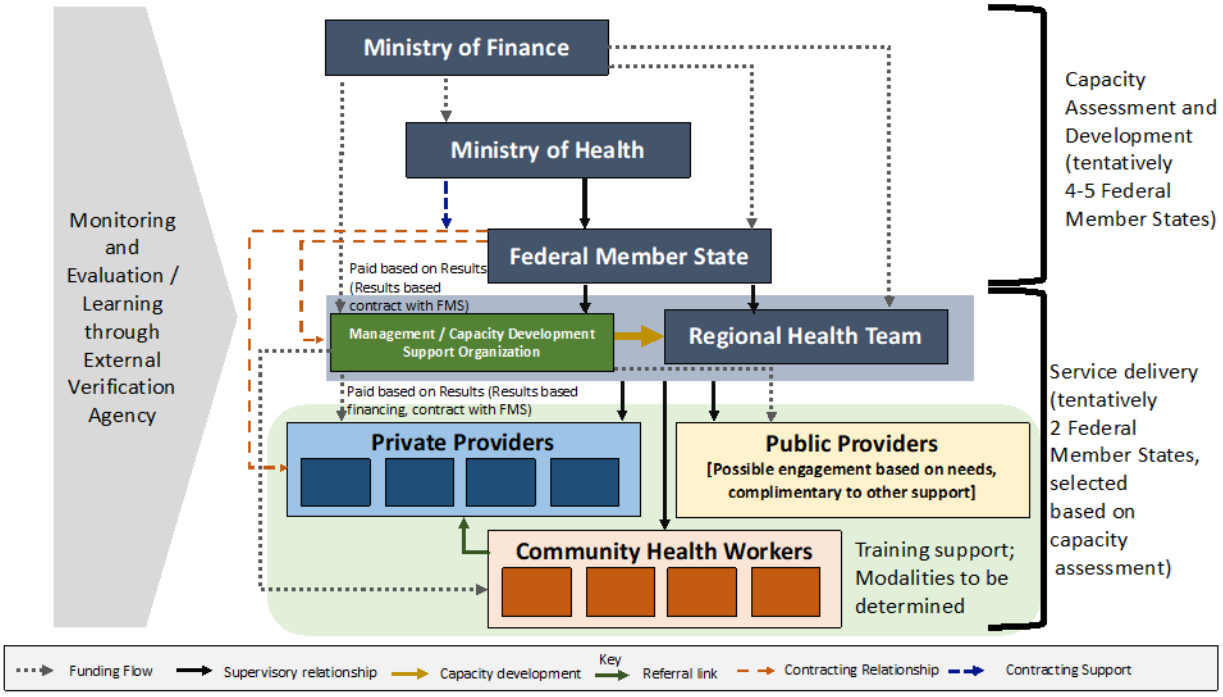

Table 3: Tentative Roles in Potential RCRF Health Work

Actor	Tentative Role(s) in potential RCRF health work
Ministry of Finance	• Pay recurrent salary and non-salary costs tentatively to the FMoH, FMS, region, and the third-party agency
Ministry of Health	• Manage the third-party agency and Private provider contracts (for FMS not directly managing contracts) • Support the FMS who directly manage contracts with contract management • Provide technical oversight and policy guidance to FMS • Regulate pharmaceuticals and the health sector overall • Coordinate partners and hold them accountable for results • Provide Safeguard focal person to oversee projects safeguards implementation at state level
Federal Member States	• Provide technical oversight and support to regions • In states where state contract management is used manage the third-party agency and Private provider contracts • Provide safeguard focal person to oversee third party agency and report to FGS safeguard focal person
Regional Health Team	• Supervise public providers, private providers, and FHWs
Third-party agency	• Provide hands-on capacity development support to regional health teams working with regions to fill their roles • Manage private provider and FHW payments, maintaining regional engagement • Manage public service delivery if applicable

Actor	Tentative Role(s) in potential RCRF health work
	• Manage service and transport vouchers if applicable • Paid based on performance through performance based contracting (PBC) • Must have safeguard capacity within the team to oversee community health workers and report to state level safeguard person.
Private Providers	• Deliver health services with performance-based payments through results based financing (RBF)
Public Providers	• Engaged as needed based on private providers' service delivery profiles and specific needs, with management through third-party agency
Female Health Workers	• Referrals to facilities, health education, possible delivery of a service package to be defined
External verifier	• Verifies service delivery and third-party agency in a timely manner to facilitate payments • Facilitates internal and external learning for program improvements

6.1 PROJECT IMPLEMENTATION UNIT

A Project Implementation Unit (PIU) will be established within the Ministries of Health in Mogadishu. The PIU will have the overall responsibility for project management, coordinating project implementation, monitoring and evaluation, and reporting of results to stakeholders and developing environment and social safeguards frameworks and plans.

The PIU will also provide overall responsibility for safeguards due diligence, and compliance monitoring. Further, the PIU will be responsible for the overall coordination of the project implementation and oversight across the project components.

6.2 ROLE OF THE WORLD BANK

World Bank will lay the benchmarks for all environmental and social safeguard issues concerned with the development and implementation of RCRP II AF. It will provide overall supervision, facilitation and co-ordination of RCRP II AF. It will also monitor funds and funds allocations; and project performance indicators. The World Bank will assess the implementation of the ESMF and recommend additional measures for strengthening the management framework and implementation performance, where need be. The reporting framework, screening procedures and preparation of management and mitigation plans shall be discussed and agreed by the Bank team and PIU during the early part of project implementation.

7 SUB PROJECT SCREENING

The potential negative impacts can be grouped into two categories: those associated with typical small civil works during refurbishment, and those associated with medical waste management during operation. The former is addressed within the ESMF by the provision of a generic Environmental and Social Management Plan (ESMP) with Best Management Practices (BMPs) and standard contract clauses for small civil works, and a pre-design screening to identify any special conditions requiring additional mitigation measures. The latter are addressed by provision of a Medical Waste Management Plan (MWMP) during the early stages of implementation. All sub project involving at the operational phase production of biomedical waste will is classified under B category. Main recommendations related to biomedical waste management are outlined in the MWMP for in Annex 6 and summarized in the mitigation measures section 5 of the ESMF.

A designated PIU officer with civil engineering qualification within Ministry of Health at the state regional level with will screen all subproject proposals to determine the environmental and social issues that might be triggered by the subproject, and to decide what type and level of assessment is needed.

7.1 PRE-DESIGN PHASE

It is understood that all the health care facilities refurbishment works will be carried out within the existing foot print area of the health facility and in areas that are clear, fenced, safe, and unoccupied. However, it is possible that conditions have changed, that locations might be better suited for improvements, or that needs may evolve over the course of the project. In addition, the specific details of the health care facilities where improvements and refurbishments will be done are not yet known, and will not be known until a survey is performed during the early stages of project implementation. Therefore, it will be necessary to conduct a screening process and verify that the expected works are in line with those envisioned in the ESMF, and that there are no new, unexpected, or unacceptable environmental and social risks that have not been taken into account in the ESMF.

During the pre-design phase, the PIU officer uses his/her training and experience to make a determination based on the degree of impact likely to be caused by the project due to its size, proximity to a coastal area, marine or terrestrial reserve and the existing topography that may be disturbed. Other environmental and social risks or potential impacts should be kept in mind during the pre-design screening process, such as infringement on lands (whether legally occupied or not), presence of vulnerable persons, existence of hazardous materials or conditions, etc. In the pre-design phase the questions in the following Table should be reviewed, addressed, and recorded:

Table 4: Pre-Design (Screening) Questions for Health Facility Refurbishments

No	Characteristic of Sub-project or Activity:	Yes/No	Observations
1	Does the facility have good access, a functional entry, and a road that does not need major repairs or extensions?		
2	Is the work site flat, clear, and level, and not require cutting of slopes or major earth movement, except small amounts?		
3	Is the work site outside a flood zone, wetland, river or coastal flood plain, an area with high water table, or a poor drainage zone?		

4	Does the project involve hazardous materials management and disposal (e.g. asbestos, medical or infectious waste, solvents or gasoline) excepting small amounts?		
5	Does the refurbishment impact on structural integrity of the existing facility		
6	Could the project activities affect any natural or protected areas, Parks, natural areas, or Forest Reserves within 1 km of the Project?		
7	Could the works adversely affect cultural property, including archaeological sites or historic buildings, artwork, visual aesthetics, or other physical cultural resources?		
8	Does the activity or project involve the use of pesticides, herbicides, or other agents to destroy pests or control vectors?*		
9	Will the work activities require temporary or permanent land acquisition (other than willing buyer-seller at market price), reduce other people's access to economic resources (land, water, pasture, crops) upon which they rely, require taking of crops or temporary occupation of lands, or evict squatters?		
10	Might the work activities adversely affect vulnerable people and underserved groups (e.g., elderly poor pensioners, physically challenged, women, particularly head of households or widows, etc.) living in the area?		

Note that activities or projects involving the following activities are not eligible for funding;

- water and sanitation facilities within clinics
- Installation of new medical waste burial/dump site or installation of incinerators outside the clinic footprint.

Also, if any of the screening questions identify situations where less than optimum conditions occur (i.e. negative responses to questions 1, 2, 3, and 8, or positive responses to questions 4, 5,6,7,9 and 10), then the site may not be suitable for refurbishment. In particular, if the project works meet the provisions of WBG Policies as regards alteration of natural habitat, change of use in forested land, damage or destruction of physical cultural resources, significant pest management issues, or involuntary resettlement, then the activity must be rejected and excluded because it would cause the triggering of the policy in question.

7.2 DESIGN PHASE

It is expected that the projects would receive adequate technical review by qualified technical professionals to ensure their technical and environmental soundness. Engineering review for all plan details and designs would be integral in this process.

7.3 IMPLEMENTATION PHASE

A number of general impacts typical of small civil works have been identified in Section 5 of this ESMF. Community engagement during the implementation of works is required in order to minimize social risk and ensure orderly and transparent execution of project activities. Communities also serve an important monitoring function and provide valuable feedback on contractor performance, design, and operation. The

PIU will be required to provide information to communities on a regular basis throughout the works. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service using the procedure provided in section 8 of the ESMF.

The standard environmental and social related clauses that should be appended to or incorporated into the contracts for the small civil works. Specifically, the contractor clause should have the Special Condition - Management of Medical Wastes during refurbishment works provided in Annex 1.

7.4 OPERATIONS PHASE

The chief environmental risk during the operation of the health facilities relates to the management of medical waste. During operation of the health care facilities, including times of emergency response or epidemics, medical waste will require proper treatment and disposal, as there may be potential negative effects on health care workers and to the public. To minimize these risks, the ESMF has provided guidance for preparation of MWMP in Annex 6, the Medical Waste Management Monitoring Questionnaire provided in Annex 2 and the treatment and disposal methods for categories of health waste in Annex 3.

8 GRIEVANCE REDRESS MECHANISM

This chapter describes the Grievance Redress Mechanism (GRM) that the PIU will establish and manage to enable beneficiaries to communicate their concerns regarding the Project. More specifically, the GRM details the procedures that communities and individuals, who believe they are adversely affected by the Project or a specific subproject, can use to submit their complaints, as well as the procedures to systematically register, track, investigate and promptly resolve complaints.

The PIU will have the overall responsibility to address Project activity-related complaints from Project affected communities or individuals regarding any environmental or social impacts due to subproject activities. PIU will assign a dedicated focal point in its Office to handle Project activity-related complaints. Each of the Implementing Partners will also designate a GRM focal point.

8.1 PROCEDURES FOR COMPLAINTS

8.1.1 Registering Complaints

Access points for GRM focal point for beneficiaries to voice their concerns will be provided at the project office. These access points will be advertised at subproject level, and include: complaint box with mail, telephone, email and website

Grievances can be brought up by affected people in case of: (i) non-fulfillment of contracts or agreements; (ii) compensation entitlements; (iii) types and levels of compensation; (iv) disputes related to destruction of assets or livelihoods; (v) disturbances caused by construction activities, such as noise, vibration, dust or smell. Anonymous complaints will be admissible.

The Implementing Partners and Project contractors will also keep a log of issues brought directly to their attention verbally or in writing by Project affected communities or individuals, and relay these concerns in writing to the PIU on a next day basis. The PIU will determine if these concerns rise to the level of a complaint.

The PIU will register the complaint in a dedicated log, including a copy of the complaint and supporting documents. A draft template for registering grievances is found in Annex 5. The PIU will record and document complaints received in the subproject file and the subproject progress reports, including the number and type of complaints and the results of their resolution.

8.1.2 Tracking, Investigating and Resolving Complaints

The GRM log maintained by PIU will track the date the complaint was received, date responded to, the type of response, and if the complaint was resolved to the satisfaction of the plaintiff.
The GRM Focal Point will coordinate with implementing partners, local field staff and local government officials to ensure prompt follow up action in response to each complaint. More specifically, the GRM focal point will for named complaints:

i. inform the plaintiff if the complaint is accepted or rejected within one week of receiving the complaint; any technical input from Project engineers; if necessary the response will require input from Project engineers
ii. if the complaint is accepted, send the plaintiff an officially stamped review card indicating:
    - plaintiff name or legal representative
    - plaintiff address

- complaint title
- review date
- list of annexes submitted with the complaint

iii. work with implementing partners, and contractors to resolve the complaint within 28 days of its submission

PIU will include the log of complaints to the World Bank as part of PIU quarterly reporting to the World Bank.

8.1.3 Gender Sensitivity

PIU will make the GRM gender sensitive by recruiting female staff to:

- inform women about the Project and its possible benefits to women, in a culturally sensitive manner
- inform women of the Project's GRM and its procedures
- receive any project-related complaints from women

8.1.4 Activating the GRM mechanism

PIU will conduct a kick off workshop involving the implementing partners and beneficiary representatives to inform them on GRM procedures.

8.2 GRIEVANCE REDRESS SERVICE

http://pubdocs.worldbank.org/en/440501429013195875/GRS-2015-BrochureDec.pdf

The World Bank's Grievance Redress Service (GRS) provides an additional, accessible way for individuals and communities to complain directly to the World Bank if they believe that a World Bank-financed project had or is likely to have adverse effects on them or their community. The GRS enhances the World Bank's responsiveness and accountability by ensuring that grievances are promptly reviewed and responded to, and problems and solutions are identified by working together.

The GRS accepts complaints in English or the official language of the country of the person submitting the complaint. Submissions to the GRS may be sent by:

Email: grievances@worldbank.org
Fax: +1-202-614-7313
Letter: The World Bank
Grievance Redress Service (GRS)
MSN MC 10-1018
1818 H St NW
Washington, DC 20433, USA

8.3 WORLD BANK INSPECTION PANEL

http://ewebapps.worldbank.org/apps/ip/Documents/Guidelines_How%20to%20File_for_web.pdf
The Inspection Panel is an independent complaints mechanism for people and communities who believe that they have been, or are likely to be, adversely affected by a World Bank-funded project. The Board of Executive Directors created the Inspection Panel in 1993 to ensure that people have access to an independent body to express their concerns and seek recourse. The Panel assesses allegations of harm to people or the environment and reviews whether the Bank followed its operational policies and procedures.

The Panel has authority to receive Requests for Inspection, which raise issues of harm as a result of a violation of the Bank's policies and procedures from:

- Any group of two or more people in the country where the Bank financed project is located who believe that, as a result of the Bank's violation of its policies and procedures, their rights or interests have been, or are likely to be adversely affected in a direct and material way. They may be an organization, association, society or other group of individuals;
- A duly appointed local representative acting on explicit instructions as the agent of adversely affected people;
- In exceptional cases, a foreign representative acting as the agent of adversely affected people;
- An Executive Director of the Bank in special cases of serious alleged violations of the Bank's policies and procedures.

The Panel may be contacted by:

email at ipanel@worldbank.org
phone at +1-202-458-5200
fax at +1 202-522-0916 (Washington, D.C.)
mail at: Inspection Panel, Mail Stop MC 10-1007, 1818 H Street, N.W., Washington, D.C. 20433, U.S.A.

8.4 GRIEVANCE MECHANISM FOR WORKERS

The contractor company as part of their ESMF will put in place a Grievance Mechanism for their workers that is proportionate to their workforce, according to the following principles:

Provision of information. All workers should be informed about the grievance mechanism at the time they are hired, and details about how it operates should be easily available, for example, included in worker documentation or on notice boards.

Transparency of the process. Workers must know to whom they can turn in the event of a grievance and the support and sources of advice that are available to them. All line and senior managers must be familiar with their organization's grievance procedure.

Keeping it up to date. The process should be regularly reviewed and kept up to date, for example, by referencing any new statutory guidelines, changes in contracts or representation.

Confidentiality. The process should ensure that a complaint is dealt with confidentially. While procedures may specify that complaints should first be made to the workers' line manager, there should also be the option of raising a grievance first with an alternative manager, for example, a human resource (personnel) manager.

Non-retribution. Procedures should guarantee that any worker raising a complaint will not be subject to any reprisal.

Reasonable timescales. Procedures should allow for time to investigate grievances fully, but should aim for swift resolutions. The longer a grievance is allowed to continue, the harder it can be for both sides to get back to normal afterwards. Time limits should be set for each stage of the

process, for example, a maximum time between a grievance being raised and the setting up of a meeting to investigate it.

Right of appeal. A worker should have the right to appeal to PIU or national courts if he or she is not happy with the initial finding.

Right to be accompanied. In any meetings or hearings, the worker should have the right to be accompanied by a colleague, friend or union representative.

Keeping records. Written records should be kept at all stages. The initial complaint should be in writing if possible, along with the response, notes of any meetings and the findings and the reasons for the findings.

Relationship with collective agreements. Grievance procedures should be consistent with any collective agreements.

Relationship with regulation. Grievance processes should be compliant with the national employment code.

9 MONITORING AND REPORTING

The safeguard focal person at the state level will monitor the overall implementation of the ESMF by MOH and its implementing partners, most particularly the:

i. timely preparation of environmental and social screening forms for all subprojects (list of subprojects by risk category by date)
ii. monitoring of MWMP implementation, including monitoring of mitigation measures and monitoring of contractors environmental and social performance (indicators)
iii. training of project staff, implementing partners, and contractors (list of persons, dates and places)

The safeguard focal person will prepare:

i. quarterly reports summarizing monitoring results, to be included in the Project's Quarterly Reports to the World Bank
ii. reports that aggregate and analyse monitoring results ahead of regular "reverse" World Bank implementation support missions
iii. an annual evaluation of all environmental and social monitoring activities, which will be submitted to the World Bank as part of overall project implementation reporting

9.1 SUBPROJECT ENVIRONMENTAL AND SOCIAL DATABASE

1. The safeguard focal person will establish, maintain, and update a database of subprojects that will be shared with the implementing partners. The database will include for each subproject:

i. type of subproject, name of subproject, implementing partner
ii. safeguards risk level
iii. timeline (clearance of screening form, clearance of safeguard instruments)
iv. supervision reports during implementation
v. contractor reports
vi. noncompliance by contractors
vii. cross references to the Grievance Redress Mechanism's log of complaints.

10 ESMF CAPACITY BUILDING AND TRAINING

The counterpart's capacity in planning, implementing and supervising any due diligence measures (environmental, social, technical and overall quality) is currently deemed low. There is very limited capacity in terms of staffing, financial resources and skills on the World Bank's safeguard policies. The MOH at federal at state level has an environmental section with staffing knowledgeable about environmental and social safeguards and international standards, and could provide a focal point for beginning to develop PIU or in-house safeguards capability, given some capacity building and other project support. Under Component 3, additional capacity building for safeguard focal points and implementing agencies technical staff could also serve as the base for strengthening their safeguards oversight capacity for possible future larger power projects. The frameworks will assess in more detail the staffing and capacity of the implementing agencies and propose a course of action to fill the staffing and capacity gaps during implementation.

The ESMF has assessed the implementing agencies capacity and has proposed measures to enhance safeguards capacity to improve environmental and social performance during project implementation; this will include safeguards training for MoH both at federal and state level. The budget proposed to enhance safeguard capacity is a total of USD 500,000.

The budget will cater for Capacity building of the PIU related to safeguard compliance, strengthening E&S capacity, community engagement and sensitization, gender action implementation, medical waste management plan and Implementation of ESMF.

The budget remains open for revision and improvement as and when needed and a breakdown is provided in table 5.

Table 5 Estimated budget for technical assistance & implementation of ESMF

Activity	**Estimated Budget (USD)**
Strengthening PIU Safeguard capacity	100,000
Waste management, and more specifically, medical waste management plan	100,000
Community engagement and sensitization campaigns	200,000
Gender actions implementation. Implementing gender strategy for the project by taking action for women to be seen and engaged as valuable partners along the entire value chain—in the design, marketing, sales, and after-sale services	100,000

11 CONSULTATION AND PUBLIC DISCLOSURE

The World Bank Safeguards Operational Policy /Bank Procedures (OP/BP 4.01 on Environmental Assessment requires public consultation with relevant stakeholders (potential project beneficiaries, affected groups and local non-governmental organizations (NGOs) about the project environmental/social impacts and take their view into account. Below is the process followed in stakeholder engagement and disclosure plans.

Stakeholder engagement is important because it will give the project stakeholders and the potentially Project Affected Person(s) the opportunity to contribute input and feedback information, aimed at strengthening the development process and avoiding negative impacts or mitigating them where they cannot be avoided. Effective and close consultation with them is a pre-requisite for the successful running and execution of RCRF II AF.

The PMU will establish a grievance redress mechanisms (GRM) that will allow general public in the project area, affected communities or individuals to file complaints and to receive responses in a timely manner. The system will also record and consolidate complaints and their follow-up. This system will, be designed for handling complaints perceived to be generated by the project or its personnel. It may also include disagreements about compensation and other related matters.

Stakeholders engagement and public consultation would be an on-going activity taking place throughout the entire project process. Public participation and consultation would take place through meetings, radio programs, requests for written proposals/comments, filling in of questionnaires, explanations of project to the locals, making public documents available at the federal, state and local levels.

During the project preparation process, discussions were held on July 6th, 2018 at the World Bank Nairobi office; further engagement with other stakeholders through presentation of the draft ESMF was held in Mogadishu on July 12th, 2018.

Main points arising from the discussion touched on the current situation on waste management system in Somalia, especially the hospitals and private sector and the challenges in public hospitals due to lack of proper incinerators and waste management protocols. The need for harmonized waste management plan was emphasized.

Minutes of the stakeholders' consultations are documented Annex 4.

Consultations with stakeholders will be held continuously with the beneficiaries throughout the course of project implementation.

11.1 ESMF DISCLOSURE

The ESMF will be disclosed in-country and on the World Bank's external website. The Ministry of Health (MoH) of Federal Government of Somalia (FGS) conducted meetings at federal level and regional state level with key stakeholders, Implementing partner representatives (UNICEF, UNFPA), female health worker representatives, NGO representatives, religious leaders, and the communities. The objective of the meetings was to identify key issues and determine how concerns of all parties will be addressed. The ESMF will be disclosed in-country (in the appropriate communication channels such as on the website of the implementing agency and/or as hard-copies in a location and format easily accessible to public, and other public places of project intervention areas) as well as at the World Bank external website.

12 ANNEXES

ANNEX 1: CONTRACT CLAUSES FOR SMALL CIVIL WORKS

The following are standard environmental and social related clauses that should be appended to or incorporated into the contracts for the small civil works. These mitigation measures are the core of a generic, standardized ESMP (Environmental and Social Management Plan) for these types of small works and the typical associated minor impacts which can be routinely addressed with Best Management Practice (BMPs). These clauses are general and may be modified to conform to applicable Somali laws, regulations and contract procedures for such works. These are the mitigation measures which are expected of all professional contractors who are performing civil works, and represent the minimum standard of execution for environmental protection during the execution of such works. (Additional, specific requirements or recommendations may also be forthcoming from statutory permitting agencies such as the Federal MoH, and these can be included as contract clauses as well; and, if an EIA has been conducted for a particular sub-project due to its environmentally sensitive or complex nature, then the specific recommendations for mitigation measures in that EIA should also be included as contractual requirements.)

1. Permits and Approvals

The contractor shall be responsible for ensuring that he or she has all relevant legal approvals and permits required to commence works.

2. Site Security

The contractor shall be responsible for maintaining security over the work site including the protection of stored materials and equipment. In the event of severe weather, the contractor shall secure the work site and associated equipment in such a manner as to protect the site and adjacent areas from consequential damages. This includes the management of stored materials, sanitary wastes, additional strengthening of erosion control and soil stabilization systems and other conditions resulting from contractor activities which may increase the potential for damages.

3. Discovery of Antiquities

If, during the execution of the activities contained in this contract, any material is discovered onsite which may be considered of historical or cultural interest, such as evidence of prior settlements, native or historical activities, evidence of any existence on a site which may be of cultural significance, all work shall stop and the supervising contracting officer shall be notified immediately. The area in which the material was discovered shall be secured, cordoned off, marked, and the evidence preserved for examination by the local archaeological or cultural

authority. No item believed to be an artifact must be removed or disturbed by any of the workers. Work may resume, without penalty of prejudice to the contractor upon permission from the contracting officer with any restrictions offered to protect the site.

4. Worker Occupational Health and Safety

The contractor shall ensure that all workers operate within a safe environment. Sanitation facilities shall be provided for all site workers. All sanitary wastes generated as a result of project activities shall be managed in a manner approved by the contracting officer and the local authority responsible for public health. The contractor shall ensure that there are basic medical facilities on site and that there are staff trained in basic first aid. Workers must be provided with the necessary protective gear as per their specific tasks such as hard hats, overalls, gloves, goggles, boots, etc. The contractor shall provide the contracting officer with an occupational health and safety plan for approval by the local health authority prior to the commencement of site activities.

The contractor must ensure that all workers operate within a safe environment. All relevant Labour and Occupational Health and Safety regulations must be adhered to ensure worker safety. Sanitary facilities must be provided for all workers on site. Appropriate posting of information within the site must be done to inform workers of key rules and regulations to follow.

5. Noise Control

The contractor shall control noise emissions generated as a result of contracting activities to the extent possible. In the case of site locations where noise disturbance will be a concern, the contractor shall ensure that the equipment is in good working order with manufacturer supplied noise suppression (mufflers etc.) systems functioning and in good repair. Where noise management is a concern, the contractor shall make reasonable efforts to schedule activities during normal working hours (between 8 am and 5 pm). Where noise is likely to pose a risk to the surrounding community either by normal works or working outside of normal working hours or on weekends, the contractor shall inform the contracting officer and shall develop a public notification and noise management plan for approval by the contracting officer.

Specific elements of the noise control activities by the contractor shall include: work activities will occur within specified daylight hours e.g. 8:00 am to 4:00pm; community / public to be informed in advance of any work activities to occur outside of normal working hours or on weekends; sites should be hoarded wherever possible; during operations, the engine covers of generators, air compressors and other powered mechanical equipment shall be closed, and equipment placed as far away from residential areas as possible; there will be no excessive idling of vehicles at sites; noise suppression equipment or systems supplied by manufacture will be utilized; ensure all vehicles and equipment are properly serviced; the contractor must develop and implement a public notification and noise management plan.

6. Use and Management of Hazardous Materials, fuels, solvents and petroleum products

The use of any hazardous materials including pesticides, oils, fuels and petroleum products shall conform to the proper use recommendations of the product. Waste hazardous materials and their containers shall be disposed of in a manner approved by the contracting officer. A site management plan will be developed by the contractor if the operation involves the use of these materials to include estimated quantities to be consumed in the process, storage plans, spill control plans, and waste disposal practices to be followed. This plan and the manner of management are subject to the approval of local authority responsible for safety, and waste management, and the contracting officer.

Elements of the hazardous materials management shall include: contractor must provide temporary storage on site of all hazardous or toxic substances in safe containers labeled with details of composition, properties and handling information; the containers of hazardous substances shall be placed in an leak-proof container to prevent spillage and leaching; the wastes shall be transported by specially licensed carriers and disposed in a licensed facility; paints with toxic ingredients or solvents or lead-based paints will not be used; banned chemicals will not be used on any project.

7. Use and Management of Pesticides

The project will not fund activities that involve the purchase or use of significant quantities of pesticides. For incidental, minor use of pesticides, the use of pesticides shall be approved by the contracting officer and shall conform to the manufacturers' recommendations for use and application. Any person using pesticides shall demonstrate that they have read and understood these requirements and are capable of complying with the usage recommendations to the satisfaction of the contracting officer. All pesticides to be used shall conform to the list of acceptable pesticides that are not banned by the relevant local authority.

If termite treatment is to be utilized, ensure appropriate chemical management measures are implemented to prevent contamination of surrounding areas, and use only licensed and registered pest control professionals with training and knowledge of proper application methods and techniques.

8. Use of Preservatives and Paint Substances

All paints and preservatives shall only be used with the approval of the contracting officer. Information shall be provided to the contracting officer who describes the essential components of the materials to be used so that an informed determination can be made as to the potential for environmental effects and suitability can be made. Storage, use, and disposal of excess paints and preservatives shall be managed in conformance with the manufacturers' recommendations and as approved by the contracting officer. The contractor shall provide the contracting officer with a list of materials and estimated quantities to be used, storage, spill control and waste disposal plans to be observed during the execution of the contract. This plan is subject to the approval of the contracting officer.

9. Site Stabilization and Erosion Control

The Contractor shall implement measures at the site of operations to manage soil erosion through minimization of excavated area and time of exposure of excavated areas, preservation of existing ground cover to the extent possible, provision of approved ground cover. Where excavations are made, contractor shall implement appropriate stabilizing techniques to prevent cave-in or landslide. Measures shall be approved by the contracting officer.
The contractor must ensure that appropriate erosion control measures such as silt fences are installed. Proper site drainage must be implemented. Any drain clogged by material or sediment must be unclogged as soon as possible to prevent overflow and flooding. The use of retaining structures and planting with deep rooted grasses to retain soil during and after works must be considered. The use of bio-engineering methods must be considered as a measure to reduce erosion and land slippage. Keep angle of slopes within limits of soil type. Balance cut and fill to limit steepness of slopes. All slopes and excavated areas must be monitored for movement.
All materials, including chemicals, must be properly stored. The contractor will establish appropriate erosion and sediment control measures such as hay bales, sedimentation basins, and / or silt fences and traps to prevent sediment from moving off site and causing excessive turbidity in nearby streams, rivers, wetlands, and coastal waters.
An erosion management plan will be required where the potential exists for significant sediment quantities to accumulate in wetlands, lakes, rivers and nearshore marine systems. This plan shall include a description of the potential threat, mitigation measures to be applied, and consideration for the effects of severe weather and an emergency response plan.

If works are along coastal marine areas or near major steams and river, water quality monitoring must be done before works begin, and at regular intervals to determine turbidity levels and other quality parameters. Vehicles and machinery will be washed only in designated areas where runoff will not pollute natural surface water bodies.

10. Air Quality

The following conditions apply to work sites for the control of air quality including dust control:

- Materials such as sand, cement, or other fines should be kept properly covered.
- Cement should be kept stored within a shed or container.
- The sand and fines can be moistened with sprays of water. Unpaved, dusty roads should compacted and then wet periodically.
- During interior demolition debris-chutes shall be used above the first floor.
- Demolition debris shall be kept in controlled area and sprayed with water mist to reduce debris dust.
- During pneumatic drilling/wall destruction dust shall be suppressed by ongoing water spraying and/or installing dust screen enclosures at site
- The surrounding environment (sidewalks, roads) shall be kept free of debris to minimize dust.
- There will be no open burning of debris / waste material at the site.
- There will be no excessive idling of vehicles at work sites.
- The bins of all haulage vehicles transporting aggregate or building materials must be covered on all public roads.

11. Traffic Management

In the event that refurbishment activities should result in the disruption of area transportation services, including temporary loss of roadways, blockages due to deliveries and site related activities, the contractor shall provide the contracting officer with a traffic management plan including a description of the anticipated service disruptions, community information plan, and traffic control strategy to be implemented so as to minimize the impact to the surrounding community. This plan shall consider time of day for planned disruptions, and shall include consideration for alternative access routes, access to essential services such as medical, disaster evacuation, and other critical services. The plan shall be approved by relevant local authority and the contracting officer.
Elements of the traffic management plan to be developed and implemented by contractor shall include: alternative routes to be identified in the instance of extended road works or road blockages; the public to be notified of all disturbance to their normal routes; signposting, Page **49** of **57**

warning signs, barriers and traffic diversions must be clearly visible and the public warned of all potential hazards; provision must be made for the safe passages and crossings for all pedestrians where work-related traffic interferes with their normal route; there must be active traffic management by trained and visible staff at the site or along roadways as required to ensure safe and convenient passage for the vehicular and pedestrian public; Adjustment of working hours to local traffic patterns, e.g. avoiding major transport activities during rush hours or times of livestock movement.

12. Management of Standing Water

Under no circumstances shall the contractor permit the collection of standing water as a consequence of contractor activities without the approval of the contracting officer and consultation with the relevant local environmental health authority. Recommendations from that local authority on how to manage and treat the standing water must be implemented. The condition of the standing water must be monitored by the contractor to ensure that it does not present itself as a breeding ground for any pests such as mosquitoes.

13. Management of Solid Wastes -trash and debris

The contractor shall provide the contracting officer with a solid waste management plan as part of a site waste management plan that conforms to the solid waste management policies and regulations of the relevant Saint Lucia authority. Under no circumstances shall the contractor allow wastes to accumulate so as to cause a nuisance or health risk due to the propagation of pests and disease vectors. The site waste management plan shall include a description of how wastes will be stored, collected and disposed of in accordance with current law Additionally the contractor shall provide for the regular removal and disposal of all site wastes and provide the contracting officer with a schedule for such removal.

14. Management of Liquid Wastes

The contractor shall provide the contracting officer with a liquid waste management plan as part of a site waste management plan that conforms to the waste management policies and regulations of the relevant Saint Lucia authority. Under no circumstances shall the contractor allow liquid wastes to accumulate on or off the site, or to flow over or from the site in an uncontrolled manner or to cause a nuisance or health risk due to its content. The site waste management plan shall include a description of how these wastes will be stored, collected and disposed of in accordance with current law. Additionally the contractor shall provide for the regular removal and disposal of all site wastes and provide the contracting officer with a schedule for such removal. Page **50** of **57**

Specific elements of the contractor's liquid waste management plan shall include: contractor to abide by all pertinent waste management and public health laws; waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and refurbishment activities; debris and demolition wastes will be stored in appropriate bins; liquid and chemical wastes will be stored in appropriate containers separated from the general refuse; all waste will be collected and disposed of properly in approved landfills by licensed collectors; the records of waste disposal will be maintained as proof for proper management as designed; whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos); liquid wastes must not be allowed to accumulate on or off the site, or to flow over or from the site in an uncontrolled manner or to cause a nuisance or health risk due to its contents.

15. Special Condition - Management of Medical Wastes during refurbishment works

In the event that the contractor discovers medical wastes, the contractor shall provide the contracting officer with a medical waste management plan as part of a site waste management plan that conforms to the waste management policies and regulations of the relevant Saint Lucia authorities. The plan shall include a description of how these wastes will be stored, collected and disposed of in accordance with current law. The contractor must ensure that all persons handling medical wastes are provided with proper protective clothing. All medical wastes must be secured in specially labelled and sealed containers, and disposed of according to relevant local legislation at specified disposal sites. Medical wastes must be kept separate from the other waste streams on site.
The waste management plan provided by the contractor must ensure that all persons handling medical wastes are provided with proper protective clothing. All medical wastes must be treated as hazardous. All medical wastes must be secured in specially labeled and sealed containers separate from other wastes streams. All medical wastes must be disposed of according to relevant local legislation at specified disposal sites.

16. Special Condition - Management of Asbestos during refurbishment works

In the event that during the course of work activities the contractor discovers asbestos as part of the existing site that requires stabilization and removal, the contractor shall contact the relevant local authorities and the contracting officer immediately. If work has already commenced, all work in the area must stop immediately. An asbestos management plan must be prepared by the contractor and approved by the relevant local health and waste management authorities and the

contracting officer describing how this material will be stored, collected and disposed of in accordance with current law, and identifying the approved experienced professional who will undertake this work. The plan must include:

- Description of the issue and extent of contamination
- Site safety measures
- Stabilization techniques to be employed
- Storage and transport plan
- Approved disposal procedure
- Worker awareness and training

In preparing the plan, the contractor should liaise with the relevant local health and waste management agencies to ensure that the adequacy of the measurements being proposed.

Site management shall consist of enclosing relevant sections of the site with appropriate material by the contractor. Where possible the asbestos and its location must be appropriately contained and sealed to minimize exposure, and any asbestos shall be marked clearly as a hazardous material. Stabilizing friable asbestos will be done prior to removal (if removal is necessary) and it will be treated with a wetting agent to minimize asbestos dust. Asbestos will be handled and disposed by skilled & experienced professionals using appropriate PPE (personal protective equipment) such as respirators and tyvec suites which will be provisioned to workers to protect them and prevent contamination with asbestos fibres. Respiratory protection together with measures to prevent the contamination of clothing and inadvertent transport of asbestos fiber off-site shall be provided to all exposed workers. If asbestos material is to be stored temporarily, the wastes should be securely enclosed inside closed containments and marked appropriately. Security measures must be implemented against unauthorized removal of asbestos from the site. No removed asbestos will be reused.

ANNEX 2: SAMPLE MEDICAL WASTE MANAGEMENT MONITORING QUESTIONNAIRE

Health Facility (name, location): _____

_____

_____

Type/Category of Health Facility (tick one):

☐ Tertiary: Specialist, National, Teaching Hospitals

☐ Secondary: Governorate Gen. Hospitals, Sub-HCF Hospital, Private Hospitals

☐ Primary; Health Centre, Dispensary

☐ Mobile health care unit

No. of inpatients: _____ /day

No. of outpatients: _____ /day

No. of beds (total): _____ /day

Type of solid waste produced and estimated quantity

(Consult classification and mark X where waste is produced)

Type	Estimated Quantity
Sharps	
Pathological waste	
Infectious waste	
Pharmaceutical waste	
Pressurized containers	

Waste segregation, collection, storage, and handling

Describe briefly what happens between segregation (if any) and final disposal of:

Sharps _____

Pathological waste _____

Infectious waste _____

Pharmaceutical waste _____

Pressurized containers _____

Waste segregation, collection, labelling, transport, and disposal

1. Handling of segregated waste	Sharps	Pathological waste	Infectious waste	Pharmaceutical waste	Pressurized containers
Indicate by X the type of waste (if any) that is segregated from general waste stream.					
Where is the segregation taking place (i.e. operating room, laboratory, among others)?					
What type of containers/bags (primary containment vessels) are used to segregate waste (bags, cardboard boxes, plastic containers, metal containers, among others)? describe accurately.					
What type of labelling, colour-coding (if any) is used for marking segregated waste? Describe					
i. Who handles (removes) the segregated waste (designation of the hospital staff member)? ii. Is the waste handler using any protective clothing (gloves, among others) during waste handling? Yes/No.					
What type of containers (plastic bins, bags, cardboard boxes, trolleys, wheelbarrows, safe boxes, metal containers, among others) are used for collection and internal transport of the waste? Describe.					
Where is the segregated waste stored while awaiting removal from the hospital for disposal? Describe.					
Describe briefly the final disposal of segregated waste (taken to municipal landfill, buried on hospital grounds, incinerated (external incinerator, own incinerator), open burned, removed from premises, among others)					
If removed from premises; who is responsible for removal? Health facility/self, private collector, State Environmental protection Agency					
If removed from premises; what form of transport is used? Enclosed waste track, open waste track, open pick-up, among others					
How often is the waste removed from site?					
Daily					

3 – 4 times per week					
1 – 2 times per week					
Once a week					
Every two weeks					
Once a month					
Less often					

Is safety clothing issued to staff involved in medical waste collection, i.e. gloves, aprons, among others? ☐ Yes ☐ No

If yes, please list the safety clothing/items issued to medical waste collectors and the frequency of issue:

Items issued	**Daily**	**Weekly**	**Monthly**	**As Needed**
Aprons				
Gloves				
Safety shoes				
Overhauls				
Others (specify)				

Which of these waste collection, handling, transport and disposal activities are undertaken by Health-care staff and which are outsourced? List the party responsible for that activity, where the activity is outsourced and the start and end dates of the contract entered into:

ACTIVITY	**RESPONSIBLE PARTY (self/facility, Environmental Protection Agency, Private collector, among others)**	**NAME OF THE RESPONSIBLE PARTY/PRIVATE COLLECTOR**
Collection		
Handling		
Transport		

Incineration		
Disposal		

Personnel involved in the management of Health-Care Waste

1. (a) Designation of person(s) responsible for organization and management of waste collection, handling, storage, and disposal at the hospital administration level.

_____

_____

(c) Has he/she received any training on hospital waste management? Yes ☐ No ☐

If yes, what type of training and of what duration?

_____

_____

ANNEX 3: TREATMENT AND DISPOSAL METHODS FOR CATEGORIES OF HEALTH CARE WASTE

Type of waste	Summary of treatment and disposal options / notes
Infectious waste: Includes waste suspected to contain pathogens (e.g. bacteria, viruses, parasites, or fungi) in sufficient concentration or quantity to cause disease in susceptible hosts. Includes pathological and anatomical material (e.g. tissues, organs, body parts, human fetuses, animal carcasses, blood, and other body fluids), clothes, dressings, equipment / instruments, and other items that may have come into contact with infectious materials.	**Waste Segregation Strategy**: Yellow or red colored bag / container, marked "infectious" with international infectious symbol. Strong, leak proof plastic bag, or container capable of being autoclaved. **Treatment**: Chemical disinfection; Wet thermal treatment; Microwave irradiation; Safe burial on hospital premises; Sanitary landfill; Incineration (Rotary kiln; pyrolytic incinerator; single-chamber incinerator; drum or brick incinerator)[e] □ Highly infectious waste, such as cultures from lab work, should be sterilized using wet thermal treatment, such as autoclaving. □ **Anatomical waste** should be treated using Incineration (Rotary kiln; pyrolytic incinerator; single-chamber incinerator; drum or brick incinerator[e]).
Sharps: Includes needles, scalpels, blades, knives, infusion sets, saws, broken glass, and nails etc.	**Waste Segregation Strategy**: Yellow or red color code, marked "Sharps". Rigid, impermeable, puncture-proof container (e.g. steel or hard plastic) with cover. Sharps containers should be placed in a sealed, yellow bag labeled "infectious waste". **Treatment**: Chemical disinfection; Wet thermal treatment; Microwave irradiation; Encapsulation; Safe burial on hospital premises; Incineration (Rotary kiln; pyrolytic incinerator; single-chamber incinerator; drum or brick incinerator)[e] □ Following incineration, residues should be landfilled. □ Sharps disinfected with chlorinated solutions should not be incinerated due to risk of generating POPs. □ Needles and syringes should undergo mechanical mutilation (e.g. milling or crushing) prior to wet thermal treatment
Pharmaceutical waste: Includes expired, unused, spoiled, and contaminated pharmaceutical products, drugs, vaccines, and sera that are no longer needed, including containers and other potentially	**Waste Segregation Strategy**: Brown bag / container. Leak-proof plastic bag or container. **Treatment**: Sanitary landfill[a]; Encapsulation[a]; Discharge to sewer [a]; Return expired drugs to supplier; Incineration (Rotary kiln; pyrolytic incinerator [a]);

Type of waste	Summary of treatment and disposal options / notes
contaminated materials (e.g. drug bottles vials, tubing etc.).	Safe burial on hospital premises[a] as a last resort. Small quantities: Landfill disposal acceptable, however cytotoxic and narcotic drugs should not be landfilled. Discharge to sewer only for mild, liquid pharmaceuticals, not antibiotics or cytotoxic drugs, and into a large water flow. Incineration acceptable in pyrolytic or rotary kiln incinerators, provided pharmaceuticals do not exceed 1 percent of total waste to avoid hazardous air emissions. Intravenous fluids (e.g. salts, amino acids) should be landfilled or discharged to sewer. Ampoules should be crushed and disposed of with sharps. Large quantities: Incineration at temperatures exceeding 1200 □C. Encapsulation in metal drums. Landfilling not recommended unless encapsulated in metal drums and groundwater contamination risk is minimal.
Genotoxic / cytotoxic waste: Genotoxic waste may have mutagenic, teratogenic, or carcinogenic properties, and typically arises from the feces, urine, and vomit of patients receiving cytostatic drugs, and from treatment with chemicals and radioactive materials. Cytotoxic drugs are commonly used in oncology and radiology departments as part of cancer treatments.	**Waste Segregation Strategy:** See above for "infectious waste". Cytotoxic waste should be labeled "Cytotoxic waste". **Treatment**: Return expired drugs to supplier; Chemical degradation; Encapsulation[a]; Inertization; Incineration (Rotary kiln, pyrolytic incinerator); □ Cytotoxic waste should not be landfilled or discharged to sewer systems. □ Incineration is preferred disposal option. Waste should be returned to supplier where incineration is not an option. Incineration should be undertaken at specific temperatures and time specifications for particular drugs. Most municipal or single chamber incinerators are not adequate for cytotoxic waste disposal. Open burning of waste is not acceptable. □ Chemical degradation may be used for certain cytotoxic drugs – See Pruss et al. (1999) Annex 2 for details. □ Encapsulation and inertization should be a last resort waste disposal option.
Chemical waste: Waste may be hazardous depending on the toxic,	**Waste Segregation Strategy**: Brown bag / container. Leak-proof plastic bag or container resistant to chemical corrosion effects.

Type of waste	Summary of treatment and disposal options / notes
corrosive, flammable, reactive, and genotoxic properties. Chemical waste may be in solid, liquid, or gaseous form and is generated through use of chemicals during diagnostic / experimental work, cleaning, housekeeping, and disinfection. Chemicals typically include formaldehyde, photographic chemicals, halogenated and nonhalogenated solvents[d], organic chemicals for cleaning / disinfecting, and various inorganic chemicals (e.g. acids and alkalis).	**Treatment**: Return unused chemicals to supplier; Encapsulation[a]; Safe burial on hospital premises[a]; Incineration (Pyrolytic incinerator[a]; □ Facilities should have permits for disposal of general chemical waste (e.g. sugars, amino acids, salts) to sewer systems. □ Small hazardous quantities: Pyrolytic incineration, encapsulation, or landfilling. □ Large hazardous quantities: Transported to appropriate facilities for disposal, or returned to the original supplier using shipping arrangements that abide by the Basel Convention. Large quantities of chemical waste should not be encapsulated or landfilled.
Radioactive waste: Includes solid, liquid, and gaseous materials that have been contaminated with radionuclides. Radioactive waste originates from activities such as organ imaging, tumor localization, radiotherapy, and research / clinical laboratory procedures, among others, and may include glassware, syringes, solutions, and excreta from treated patients.	**Waste Segregation Strategy:** Lead box, labeled with the radioactive symbol. **Treatment**: Radioactive waste should be managed according to national requirements and current guidelines from the International Atomic Energy Agency. IAEA (2003). Management of Waste from the Use of Radioactive Materials in Medicine, Industry and Research. IAEA Draft Safety Guide DS 160, 7 February 2003.
Waste with high content of heavy metals: Batteries, broken thermometers, blood pressure gauges, (e.g. mercury and cadmium content).	**Waste Segregation Strategy:** Waste containing heavy metals should be separated from general health care waste. **Treatment**: Safe storage site designed for final disposal of hazardous waste. □ Waste should not be burned, incinerated, or landfilled. Transport to specialized facilities for metal recovery.
Pressurized containers: Includes containers / cartridges / cylinders for nitrous oxide, ethylene oxide, oxygen, nitrogen, carbon dioxide,	**Waste Segregation Strategy:** Pressurized containers should be separated from general health care waste. **Treatment:** Recycling and reuse; Crushing followed by landfill; Incineration is not an option due to explosion risks; Halogenated agents in liquid form should be disposed of as chemical waste, as above.

Type of waste	Summary of treatment and disposal options / notes
compressed air and other gases.	
General health care waste (including food waste and paper, plastics, cardboard)**:**	**Waste Segregation Strategy**: Black bag / container. Halogenated plastics such as PVC should be separated from general health care facility waste to avoid disposal through incineration and associated hazardous air emissions from exhaust gases (e.g. hydrochloric acids and dioxins). **Treatment:** Disposal as part of domestic waste. Food waste should be segregated and composted. Component wastes (e.g. paper, cardboard, recyclable plastics [PET, PE, PP], glass) should be segregated and sent for recycling.

ANNEX 4: STAKEHOLDER CONSULTATIONS

MINISTRY OF HEALTH AND HUMAN SERVICES
FEDERAL REPUBLIC OF SOMALIA
MINUTES OF ESMF CONSULTATION MEETING FOR RCRF

Date: July 12th, 2018	**Venue:** MOH Conference Hall

AGENDA

1. Opening Remarks, Registration of participants
2. An Overview of the Recurrent Cost and Reform Finance Project (RCRF II) Additional Financing and the importance of the Consultative forum in Mogadishu Somalia
3. Presentation of the Environmental and Social Management Framework (ESMF) by the director of Public Health.
4. Stakeholders' Input – Participants feedback: Concerns and Questions on the procedures/policies proposed in the ESMF

Item No.	**Description**
1. Opening and Speech Remarks	His Excellency Dr. Abdullahi Hashi, General Director of Federal Ministry of Health delivered a speech remarks to the participants. Dr. Abdullahi appreciated among the participants for their cooperation and emphasized the importance of the Environmental and Social Management Framework in public health through collaboration between World Bank and Ministry of Health. He also stated key objective for ESMF which is the second Recurrent Cost and Reform Finance (RCRF II) project is to support the government to provide credible and sustainable payroll and to establish the foundation for efficient budget execution and payment systems for the non-security sectors in the Federal Government of Somalia (FGS) and eligible federal member states (FMS), including ministry of health and social services. Finally, he noted that the ministry of health is committed the implementation of the ESMF project in every eligible state in Somalia through this framework and safeguards policies.
2. An Overview of the Recurrent Cost And Reform Finance Project (RCRF II)	The meeting was chaired by Ahmed Adam, the director of public health department in the ministry of health, and his gratitude acknowledged the participants for their time and inputs for the development of Environmental and Social Management Framework. Ahmed he briefed the prior meeting in Nairobi with World Bank and for their requirements to slot in the implementation of ESMF project. He also explained the Recurrent Cost and Reform Finance Project (RCRF II) system and how the ministry of health can be achieved. Director of Human Resource Department Mr. Ibrahim M. Nur also provides an update on the key components interested by World Bank to support the ministry of health through (RCRF II) Project, they are four components: A. Community level B. Capacity building C. Legislative and policies D. Service delivery

	-
3. Presentation of the Environmental and Social Management Framework (ESMF)	- The director of public health presented the Environmental and Social Management Framework (ESMF) for the second Recurrent Cost and Reform Finance (RCRF II). The ESMF ensures that the project activities are compliant with the relevant requirements of national policies, regulations and legislations as well as the World Bank Safeguards Policies and Procedures. The objective of this ESMF is to set out the principles, rules, guidelines and procedure to assess the environmental and social impacts and monitoring to ensure that environment and social aspects are duly considered. - This ESMF only applies to those activities that will be financed, either directly or indirectly, by RCRF, and not to any other activities that a supported beneficiary may be otherwise involved in; all language in this ESMF should be interpreted under this light.
4. Stakeholders' Input – Participants 'feedback: Concerns and Questions on the procedures/policies proposed in the ESMF.	- Concerns /Issues from participants were based in the context of Somalia, and aligned health policy priority directions together with the health sector strategy plan for 2017-2022. - Dr. Abdi Awad suggested to have concrete preparation for Environmental and Social Management Framework, and thanked the support of World Bank. He further suggested developing the safeguard policies and sub-project legislatives, to move forward the implementation of priority components from World Bank as early as possible. - Abdirizak Mohamud, informed that since central government collapsed in 1991, there has been changed the infection control and prevention of communicable disease in health facilities, and there is no proper waste segregation and transportation in health centres t to the landfills which is not apply the stand procedures. This has a vast impact on the environment. - Dr. Abdikadir Wehliye presented that the fulfilment of the ESMF requirements has need more government commitment and holistic approach to maximize the feel good environment. - Director of Medical Services Department Dr. Abdirizak informed the current situation on waste management system in Somalia, especially the hospitals and private sector is worse and needs urgent response with harmonized waste management plan. - Diis Hassan from PAH, presented how the implementing partners ready to follow the safeguards policies and to protection our environment with close collaboration the environmental health unit. - Ahmed Moallim presented that most challenges in the public hospitals due to lack of proper incinerators and waste management protocols. -

Action Points Arising from the Stakeholders Consultation:

- Finalization of ESMF to adopt the safeguards policies, thought screening and category classification.
- Conduct initial assessment and mapping or desk review for the target health facilities.
- Develop the waste management plan.
- Organize cleaning campaigns on environment.
- Develop environmental and waste management policy.
- Every project for ESMF should be approach community engagement and ownership.


FEDERAL REPUBLIC OF SOMALIA
Federal Ministry of Health (FMOH)
Neglected Tropical Disease (NTD UNIT)
Review meeting for special
projects as a part of global leprosy control
NEW DELHI 18 - 20 JUNE 2018
Political Commitment and Advocacy
Community Awareness

Minutes Prepared by: **Abdirizak Mohamud Yusuf**

Position: **Head of the Environmental Health Unit**

Minutes Confirmed by: **Ahmed Adam Deerow**

Position: **Director of Public Health Department**

ANNEX 5: GRIEVANCE AND RESOLUTION FORM

SAMPLE GRIEVANCE AND RESOLUTION FORM

Name (Filer of Complaint): _____
ID Number: _____ (PAPs ID number)
Contact Information: _____District/Community mobile phone)

Nature of Grievance or Complaint:

_____
_____

Date **Individuals Contacted** **Summary of Discussion**

_____ _____ _____

Signature_____ Date: _____

Signed (Filer of Complaint): _____
Name of Person Filing Complaint: _____ (if different from Filer)
Position or Relationship to Filer: _____

Review/Resolution
Date of Conciliation Session: _____
Was Filer Present? Yes No
Was field verification of complaint conducted? Yes No
Findings of field investigation:

_____
_____

Summary of Conciliation Session Discussion:

_____
_____

Issues:

_____

Was agreement reached on the issues? Yes No
If agreement was reached, detail the agreement below:
If agreement was not reached, specify the points of disagreement below:

Signed (Conciliator): _____ Signed (Filer): _____

Signed: _____
Independent Observer

Date: _____

ANNEX 6: SAMPLE KFW MEDICAL WASTE MANAGEMENT PLAN

Medical Waste Management Plan (MWMP) Guidance

Improper management and disposal of medical waste poses a risk to the environment and human health. Thus it is important to develop a management plan commensurate with the amounts and risks related to the medical wastes generated at the Project site.

The Medical Waste Management Plan (MWMP) shall be embedded and linked to the overall Environmental and Social Management Plan, waste management plans and training plans, if existent.

The text in *italics and grey* highlighted include instructions for the authors of the MWMP (Project Implementing Agency - PIA).

The Template for the Medical Waste Management Plan, subject to amendment for each project, is provided below. The document is quite detailed on the various options of waste handling. Those headings that are not relevant may be deleted (e.g if no on-site disposal is planned, delete Chapter 2.5.5 or if no incineration is planned, delete Chapter 2.7.)

Further guidance on medical waste handling is provided by the World Health Organization (WHO) in the following document:

- *WHO (1999): Safe management of wastes from health-care activities, 2nd edition (http://apps.who.int/iris/bitstream/10665/85349/1/9789241548564_eng.pdf)*

and under the following Weblink:

- *https://www.healthcare-waste.org/*

Medical Waste Management Plan (MWMP)

<Project Name/ Location>

<Author>

<Date/ Version>

1. INTRODUCTION

The Project Implementing Agency (PIA) *<Name of the PIA>* is planning to operate a *<Name intervention, e.g. XYZ health facility in XYZ town>* ("the Project"). The Project is located in *<Name of location/ village/ country>*.

This document represents the Medical Waste Management Plan (MWMP) for the Project.

1.1 BACKGROUND AND OBJECTIVE OF THIS MWMP

Improper management of medical waste poses a significant risk to patients, health-care workers, the community and the environment. Thus proper management of medical waste is an important part of the overall management of Environmental, Health and Safety (EHS) risks and impacts of the Project.

According to the World Health Organization (WHO) medical waste refers to the entirety of waste generated by health care and medical research facilities and laboratories (see also Appendix I). According to this definition medical waste includes but is not limited to:

- **infectious waste:** waste contaminated with blood and other bodily fluids (e.g. from discarded diagnostic samples),cultures and stocks of infectious agents from laboratory work (e.g. waste from autopsies and infected animals from laboratories), or waste from patients in isolation wardsand equipment (e.g. swabs, bandages and disposable medical devices);
- **pathological waste:** human tissues, organs or fluids, body parts and contaminated animal carcasses;
- **sharps:** syringes, needles, disposable scalpels and blades, etc.;
- **chemicals:** for example solvents used for laboratory preparations, disinfectants, and heavy metals contained in medical devices (e.g. mercury in broken thermometers) and batteries;
- **pharmaceuticals:** expired, unused and contaminated drugs and vaccines;
- **genotoxicwaste:** highly hazardous, mutagenic, teratogenic1 or carcinogenic, such as cytotoxic drugs used in cancer treatment and their metabolites;
- **radioactive waste:** such as products contaminated by radionuclides including radioactive diagnostic material or radiotherapeutic materials; and
- **non-hazardous or general waste:** waste that does not pose any particular biological, chemical, radioactive or physical hazard.

Kitchen waste and general waste from patients and visitors is not classified as medical waste.

This MWMP's overall objective is to prevent and/or mitigate the negative EHS effects of medical waste. Medical Waste must be managed in a safe manner to prevent the spread of infection and reduce the exposure of health

workers, patients and the public to the risks from medical waste. The plan includes advocacy for good practices in medical waste management and is to be used by health, sanitary and cleaning workers who manage medical waste.

1.2 PROJECT DESCRIPTION

Include a short Project description based on available documentation and site observations (in alignment with the overall Project Environmental and Social Management Plan (ESMP), if existent) including Project Context and Project Activities of the Health Facility.

2. MEDICAL WASTE MANAGEMENT PLAN

2.1 WASTE MINIMIZATION, REUSE, AND RECYCLING

Waste reduction, reuse and recycling are the first steps that should always be considered as a first step. Facilities should consider practices and procedures to minimize waste generation, without sacrificing patient hygiene and safety considerations, including:

- Source reduction measures:
  - Consider options for product / material substitution to avoid products containing hazardous materials that require the product to be disposed as hazardous or special waste (e.g. mercury or aerosol cans), and preferring products with less packaging or products that weigh less than comparable products that perform the same function
  - Use of physical rather than chemical cleaning practices (e.g. using microfiber mops and cloths), where such practices do not affect disinfection and meet relevant standards for hygiene and patient safety.
- Waste toxicity reduction measures:
  - Consider options for product / material substitution for equipment containing mercury or other hazardous chemicals; products that may become hazardous waste when disposed; products made of polyvinyl chloride (PVC6); halogenated compounds; products that off-gas volatile organic compounds (VOCs), or products that contain persistent, bioaccumulative and
  - toxic (PBT) compounds; products that contain substances which are carcinogenic, mutagenic or reproductive toxins (CMR)
  - Use of efficient stock management practices and monitoring (e.g. for chemical and pharmaceutical stocks), including:
  - Small / frequent orders for products that spoil quickly and strict monitoring of expiry dates
  - Complete use of old product before new stock is used
- Reuse of equipment following sterilization and disinfection

2.2 STORAGE OF CONSUMABLE MATERIALS AND VACCINATIONS

- Delete this Chapter if not applicable -

Medical products need storage in an access-controlled environment. It is important to identify products that are at risk of theft or abuse or have the potential for addiction, and to provide increased security for those items. This includes products that are in high demand or have the potential for resale (black market value).

2.2.1 Vaccine Storage and Handling

Exposure of vaccines to temperatures outside the recommended ranges can decrease their potency and reduce the effectiveness and protection they provide. Storage and handling errors can cost thousands of dollars in wasted vaccine and revaccination, and create medical waste. Vaccine management, including proper storage and handling procedures, is the basis on which good immunization practices are built. Vaccines must be stored properly from the time they are manufactured until they are administered. Assuring vaccine quality and maintaining the cold chain is a

shared responsibility among manufacturers, distributors, public health staff, and health-care providers. A proper cold chain is a temperature-controlled supply chain that includes all equipment and procedures used in the transport and storage and handling of vaccines from the time of manufacture to administration of the vaccine. By following a few simple steps and implementing best storage and handling practices, providers can ensure that patients will get the full benefit of vaccines they receive.

2.2.2 Storage and Handling Plans

Every facility should have detailed written protocols for routine and emergency vaccine storage and handling and they should be updated annually. These policies and procedures should be available in writing as a reference for all staff members and easily accessible. A routine storage and handling plan provides guidelines for daily activities, such as:

- Ordering and accepting vaccine deliveries
- Storing and handling vaccines
- Managing inventory
- Managing potentially compromised vaccines

Every facility should also have an emergency vaccine retrieval and storage plan. The plan should identify a back-up location where the vaccines can be stored. Considerations when choosing this site include appropriate storage units, temperature monitoring capability, and a back-up generator that can maintain power to the vaccine storage units. Potential back-up locations might include a local hospital, pharmacy, long-term care facility, or the Red Cross. There should be an adequate supply of packing materials and portable refrigerators and freezers or qualified containers and packouts on hand. Power outages or natural disasters are not the only events that can compromise vaccine. Forgotten vials of vaccine left out on the counter or doses of vaccine stored at improper temperatures due to a storage unit failure are other examples of how vaccines can be potentially compromised. Contact the local or state health department immunization program, vaccine manufacturer(s), or both for appropriate actions or guidelines that should be followed for all potentially compromised vaccines. Do not discard vaccines unless directed to by the immunization program and/or the manufacturer.

2.3 MEASURES TO PREVENT / REDUCE EXPOSURE TO INFECTIONS / DISEASES

Health care providers and personnel may be exposed to general infections, blood-borne pathogens, and other potential infectious materials (OPIM) during care and treatment, as well as during collection, handling, treatment, and disposal of health care waste. The following measures are recommended to reduce the risk of transferring infectious diseases to health care providers:

- Formulate an exposure control plan for blood-borne pathogens;
- Provide staff members and visitors with information on infection control policies and procedures;
- Establish Universal / Standard Precautions to treat all blood and other potentially infectious materials with appropriate precautions, including:
    - Immunization for staff members as necessary (e.g. vaccination for hepatitis B virus)
    - Use of gloves, masks, and gowns
    - Adequate facilities for hand washing. Hand washing is the single most important procedure for preventing infections (e.g. nosocomial and community). Hand washing should involve use of soap / detergent, rubbing to cause friction, and placing hands under running water. Washings of hands should be undertaken before and after direct patient contacts and contact with patient blood, body fluids, secretions, excretions, or contact with equipment or articles contaminated by patients. Washing of hands should also be undertaken before and after work shifts; eating; smoking; use of personal protective equipment (PPE); and use of bathrooms. If hand washing is not possible, appropriate antiseptic hand cleanser and clean cloths / antiseptic towelettes should be provided. Hands should then be washed with soap and running water as soon as practical o Procedures and facilities for handling dirty linen and contaminated clothing, and preparing and handling food

    - Appropriate cleaning and waste disposal practices for the health care workplace
- The following recommendations should be implemented when using and handling of needles / sharps:
    - Use safer needle devices and needleless devices to decrease needle stick or other sharps exposures.
    - Do not bend, recap, or remove contaminated needles and other sharps unless such an act is required by a specific procedure or has no feasible alternative
    - Do not shear or break contaminated sharps
    - Have needle containers available near areas where needles may be found
    - Discard contaminated sharps immediately or as soon as feasible into appropriate containers
    - Used disposable razors should be considered contaminated waste and disposed of in appropriate sharps containers
- Establish policies to exclude animals from facility property.

2.4 GENERAL WASTE MANAGEMENT

2.4.1 Waste Segregation Strategies

At the point of generation, waste should be identified and segregated (*refer to general Waste Management Plan for the Project if available*). Non-hazardous waste, such as paper and cardboard, glass, aluminum and plastic, should be collected separately and recycled. Food waste should be segregated and composted. Infectious and / or hazardous wastes should be identified and segregated according to its category using a color-coded system. If different types of waste are mixed accidentally, waste should be treated as hazardous. Other segregation considerations include the following:

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

2.4.2 On-site Handling, Collection, Transport and Storage

Dealing and handling waste on the Project site should follow the following considerations:

- Seal and replace waste bags and containers when they are approximately three quarters
- Full bags and containers should be replaced immediately;
- Identify and label waste bags and containers properly prior to removal;
- Transport waste to storage areas on designated trolleys / carts, which should be cleaned and disinfected regularly;
- Waste storage areas should be located within the facility and sized to the quantities of waste generated, with the following design considerations:
    - Hard, impermeable floor with drainage, and designed for cleaning / disinfection with available water supply
    - Secured by locks with restricted access
    - Designed for access and regular cleaning by authorized cleaning staff and vehicles

  - Protected from sun, and inaccessible to animals / rodents
  - Equipped with appropriate lighting and ventilation
  - Segregated from food supplies and preparation areas
  - Equipped with supplies of protective clothing, and spare bags / containers
- Store mercury separately in sealed and impermeable containers in a secure location;
- Store cytotoxic waste separately from other waste in a secure location;
- Store radioactive waste in containers to limit dispersion, and secure behind lead shields.

2.5 SPECIAL CONSIDERATIONS FOR MEDICAL WASTE

Medical waste poses a special risk to the personnel handling it. Thus special considerations need to be taken into account. An overview of medical waste types and handling and disposing rules are provided in Appendix II.

2.5.1 Handling Safety Measures

Personnel handling waste will follow the following safety measures:

- Never use hands to compress waste into containers
- Hold plastic bags at the top
- Keep bags from touching or brushing against the body while lifting or during transport
- All personnel handling infectious medical waste shall wear gloves and additional protective medical clothing and personal protective equipment (PPE) appropriate to the level of risk they encounter and shall remove any protective medical clothing used prior to leaving the work area and to place it in a designated area or container.
- Wear heavy-duty or utility gloves when handling and transporting solid wastes.
- Wearing glasses if you are working with material that may splash into your face or eyes
- When performing procedures where splashing is not expected, gloves are the minimum PPE that may be worn;
- Dispose of solid wastes by placing them in a plastic or galvanized metal container with a tight-fitting cover. Never recap needles after use.
- Collect the waste containers on a regular basis and transport the burnable ones to the incinerator or area for burning.
- If incineration is not available or waste is non burnable, bury it.
- Remove utility gloves (wash daily or when visibly soiled and dry).
- Wash and dry hands or use an antiseptic hand rub as described above.
- Disposing of waste into designated containers as soon as it is generated
- Wearing boots, overalls, glasses and gloves when disposing of waste
- Using adequate tools to avoid contact with waste (brush, shovel)
- Do not submit protective medical clothing and PPE for laundering unless sterilized;

2.5.2 Segregation, Collection, and Transport

A programmed routine for biomedical waste collection should be established as part of the medical waste management plan. Waste should be separated into categories and placed in designated containers (i.e., covered buckets) as soon as it is generated in the treatment room or department. Health care workers are responsible for appropriately disposing of the waste. The number of places where patients and visitors can dispose of waste should be minimized (e.g. using designated containers in communal areas). WHO recommends that small amounts of chemicals can be collected with infectious waste.

Large amounts of hazardous chemicals should be packed in chemical resistant containers and be sent to specialized treatment facilities (if available).

Waste buckets should be transported with their lids securely in place to prevent spillage. When many containers need to be transported, a cart or trolley should be used to prevent back injury.

2.5.3 Storage and Packaging

The following general guidelines apply to typical medical waste storage, transfer, and collection areas:

- A temporary waste storage area, inside the waste zone, should be set aside to store soft waste until it can be picked-up or treated. Storage of medical waste should be for the minimum possible time, 24-48 hours in hot countries, 48-72 hours for cold countries (WHO).
- Areas used to store medical/infectious waste should be durable, easily cleanable, impermeable to liquids, and protected from vermin and other potential mechanisms that might spread infectious agents.Biomedical waste other than sharps and bulk liquids must be packaged in sealed in bags which are leak-proof and rip-resistant.
- Sharps shall be placed in rigid leak and puncture resistant containers.
- Bulk liquids to be transported off-site shall, in addition to the above requirements, be placed in rigid containers.
- The manner of storage should maintain the integrity of the containers, prevent leakage of waste from the container, provide protection from the weather, and maintain the waste in a non-putrescent, odorless state (this may require refrigeration).
- Storage areas should have adequate ventilation systems.
- Pathological waste, stored anywhere for more than 24 hours must be refrigerated. Storage of biomedical wastes may need to be stored at the facility of origin until a large enough quantity is accumulated to warrant on-site treatment, or until transport to an offsite treatment facility is scheduled.
- Access to the storage facility should be securely controlled and limited. Due to the hazardous nature of some medical wastes, appropriate methods of storing waste will help to prevent accidents and infections. Storage locations should be accessible, exclusive, secure, hygienic and sanitary, located as far as possible from patient treatment areas. Storage locations should be integrated with the physical and architectural infrastructure of the healthcare facility.

2.5.4 Transport and Disposal to External Facilities

Offsite transport of hazardous waste should be subject to national regulations. If there are none, then the 'Recommendations on the transport of dangerous goods' published by the UN[4] may be referred to. Certain recommendations should be followed by the sanitary workers and cleaners:

- Collection of medical waste should be from key sites (e.g. within nursing stations, mobile and fixed units), followed by transfer to the designated point(s) for segregation and/or treatment
- Waste should be collected daily at the same time (or as frequently as required) and transported to the designated central storage/treatment site.
- No bags should be removed unless they are labelled with their point of production (health unit/center) and contents.
- Bags or containers should be replaced immediately with new ones of the same type.
- There should be enough buckets provided to ensure an appropriate number of clean buckets in rotation. Buckets should be washed and disinfected before reuse.
- The waste should be placed in rigid or semi-rigid and leak-proof containers.
- Transport waste destined for off-site facilities according to the guidelines for transport of hazardous wastes / dangerous goods in the World Bank/ IFC General EHS Guidelines[5]; Accordingly the following considerations shall be followed:
    - Proper labeling of containers, including the identify and quantity of the contents, hazards, and

[4] https://www.unece.org/trans/danger/publi/unrec/rev19/19files_e.html

[5] http://www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/ehs-guidelines

shipper contact information
    - Providing a shipping document (e.g. shipping manifest) that describes the contents of the load and its associated hazards in addition to the labeling of the containers. The shipping document should establish a chain-of-custody using multiple signed copies to show that the waste was properly shipped, transported and received by the recycling or treatment/disposal facility
    - Ensuring that the volume, nature, integrity and protection of packaging and containers used for
    - transport are appropriate for the type and quantity of hazardous material and modes of transport involved
    - Ensuring adequate transport vehicle specifications
    - Training employees involved in the transportation of hazardous materials regarding proper shipping procedures and emergency procedures
    - Using labeling and placarding (external signs on transport vehicles), as required
    - Providing the necessary means for emergency response on call 24 hours/day
- Transport packaging for infectious waste should include an inner, watertight layer of metal or plastic with a leak-proof seal. Outer packaging should be of adequate strength and capacity for the specific type and volume of waste;
- Packaging containers for sharps should be puncture-proof;
- Transport vehicles should be dedicated to waste and the vehicle compartments carrying waste sealed.

2.5.5 On-Site Disposal

- Delete this Chapter if not applicable -

In facilities that have a waste zone, this is the final disposal site of the medical waste. A fully functional waste zone should have the following components:

- An incinerator or burner for treatment of soft waste.
- An ash pit for disposal of residues from the incinerator or burner and a covered pit with a hatch lid.
- A sharps pit for disposal of sharps containers. A sealed, covered pit with a 1m length of pipe incorporated in the top to prevent access to the contents.
- An organics pit for disposal of human tissue and other biological waste.
- An infiltration facility or sewer for the disposal of liquids.

The waste zone should be kept locked at all times. The waste manager has the responsibility for its correct management.

It should be mentioned that properly designed and operated sanitary landfills will protect against air and groundwater contamination. Disposal of waste into open dumps is not considered good practice and should be avoided. Pre-treatment of waste prior to land disposal may involve encapsulation (filling containers with waste and an immobilizing material and sealing the containers).

2.6 SPECIAL CONSIDERATIONS FOR LIQUID CONTAMINATED WASTES

Liquid contaminated waste (e.g. human tissue, blood, feces, urine and other body fluids) requires special handling, as it may pose an infectious risk to healthcare workers with contact or handle the waste. Steps for the disposal of liquid contaminated wastes are the following:

- Wear PPE (utility gloves, protective eyewear and plastic apron)
- Carefully pour wastes down a utility sink drain or into a flushable toilet and rinse the toilet or sink carefully and thoroughly with water to remove residual wastes. Avoid splashing.
- If a sewage system doesn't exist, dispose of liquids in a deep, covered hole, not into open drains. This should be located at a safe distance from water sources.
- Decontaminate specimen containers by placing them in a 0.5% chlorine solution for 10 minutes before washing them.
- Remove utility gloves (wash daily or when visibly soiled and dry).
- Wash and dry hands or use an antiseptic hand rub as described above.

Acids and alkalis should be diluted; pH neutralized and disposed of to the sewer with water. Neutralization can be done with lime, which is cheap and effective.

In cases where wastewater is not discharged to sanitary sewage systems, HCF operators should ensure that wastewater receives on-site primary and secondary treatment, in addition to chlorine disinfection. Techniques for treating wastewater in this sector include source segregation and pretreatment for removal / recovery of specific contaminants such as radio isotopes, mercury, etc.; skimmers or oil water separators for separation of floatable solids; filtration for separation of filterable solids; flow and load equalization; sedimentation for suspended solids reduction using clarifiers; biological treatment, typically aerobic treatment, for reduction of soluble organic matter (BOD); biological or chemical nutrient removal for reduction in nitrogen and phosphorus; chlorination of effluent when disinfection is required; dewatering and disposal of residuals as hazardous medical / infectious waste.

Additional engineering controls may be required for (i) removal of active ingredients (antibiotics and miscellaneous pharmaceutical products, among other hazardous constituents), and (ii) containment and treatment of volatile constituents and aerosols stripped from various unit operations in the wastewater treatment system.

Wastewater generated from use of wet scrubbers to treat air emissions should be treated through chemical neutralization, flocculation, and sludge settling. Sludge should be considered hazardous, and may be treated off-site in a hazardous waste facility, or encapsulated in drums with mortar and landfilled. Sludge treatment should include anaerobic digestion to ensure destruction of helminthes and pathogens. Alternatively, it can be dried in drying beds before incineration with solid infectious wastes.

Cholera Epidemic**:** In case of a cholera epidemic, hospital sewage must also be treated and disinfected. *Vibrio cholerae*, the causative agent of cholera, is easily killed and does not require use of strong disinfectants. Buckets containing stools from patients with acute diarrhea may be disinfected by the addition of chlorine oxide powder or dehydrated lime oxide (WHO 1999).

The most contaminated waste water will come from the mortuary, showers, laundry, and kitchen washing area. Waste water from this area must, therefore, be disposed of in soak pits possibly after first going through grease traps (so that the soak pit does not become clogged). Soakaways must be located at least 30 meters from any groundwater source and the bottom of any soakaway pit is at least 1.5 meters above the water tables.

2.7 INCINERATION

- Delete this Chapter if not applicable -

Incineration is a high-temperature process that reduces the volume and weight of waste. This process is usually selected to treat waste that cannot be recycled, reused or disposed of in a sanitary landfill or dumpsite. Medical waste produced under this project will be incinerated at health facilities that are equipped with incinerators. In facilities with no incinerators, wastes will be properly collected and safely transported to bigger facilities with incinerators.

2.7.1 Types of Incinerators

Incinerators can range from extremely sophisticated, high-temperature ones to very basic units that operate at much lower temperatures. All types of incinerators, if operated properly, eliminate micro-organisms from waste and reduce the waste to ashes. Four basic types of incinerators are used for treating waste:

a) Double-chamber, high-temperature incinerators are designed to burn infectious waste.
b) Single-chamber, high-temperature incinerators are less expensive and are used when double chamber incinerators are not affordable.
c) Rotary kilns operate at high temperatures and are used for destroying cytotoxic substances and heat-resistant chemicals.
d) Drum or brick (clay) incinerators operate at lower temperatures and are less effective, but can be made locally using readily available materials.

2.7.2 Simple Drum Incinerator for Waste Disposal[6]

Simple drum incinerator is the best practice for biomedical waste treatment for healthcare facilities with limited resources and where high-temperature incinerators are not affordable, waste may be incinerated in a drum incinerator, a drum incinerator is the simplest form of single chamber incinerator. It can be made inexpensively and is better than open burning.

Steps for building & using simple drum incinerator are the following:

- Where possible, select a site downwind from the clinic.
- Build a simple incinerator using local materials (mud or stone) or a used oil drum (e.g. a 55-gallon drum). The size depends on the amount of daily waste collected.
- Collect all waste containers and locate them next to the incinerator for easy handing during operation.
- Make sure the incinerator has:
    - Sufficient air inlets underneath for good combustion
    - Loosely placed fire bars to allow for expansion
    - An adequate opening for adding fresh refuse and for removal of ashes
    - A long enough chimney to allow for a good draft and evacuation of smoke
- Place the drum on hardened earth or a concrete base.
- Burn all combustible waste, such as paper and cardboard, as well as used dressings and other contaminated wastes. If the waste or refuse is wet, add kerosene so that a hot fire burns all the waste. Ash from incinerated material can be treated as non-contaminated waste.
- Ashes should always be removed from the incinerator PRIOR to operation; otherwise the efficiency of combustion will be compromised.
- It is recommended to install an ashtray under the grate to catch the ashes.
- Pull out the ashtray and grate out and carefully clean with the brush and ash shovel.
- Dispose of the ash directly to the ash pit.
- Any remaining ashes inside the chambers should be removed with a small, long handled brush and the ash shovel, transferred to a bucket and disposed of in the ash pit.

2.7.3 Open Burning

Open is not recommended because it is dangerous, unsightly and the wind will scatter the waste. If open burning must be done, burn in a small, designated area, transport waste to the site just before burning and remain with the fire until it is out.

2.7.4 Types of Waste That Should Not Be Incinerated

While it is possible to incinerate soft waste, the below items SHOULD NOT be incinerated:

- Pressurized gas containers (aerosol cans)
- Large amounts of reactive chemical waste
- Silver salts and photographic or radiographic wastes
- Plastic containing polyvinyl chloride (blood bags, IV tubing or disposable syringes)
- Waste with high mercury or cadmium content, such as broken thermometers, used batteries and lead-lined wooden panels
- Ampoules or vials, as molten glass will cause the grate to block up and vials can explode.
- Bottles of chemicals and reagents due to risk of explosion and formation of toxic gases.

[6] See also Guidelines on How to Construct, Use, and Maintain a Waste Disposal Unit. WHO, 2005, and De Montfort Medical Waste Incinerator at http://www.who.int/management/quality/Waste/en/index2.html

- Needles due to the risk of needle stick injury from the metal ash.
- Expired drugs.
- Kitchen waste as this is wet, does not burn and will lower the efficiency.

Solid wastes that should not be incinerated will be packaged, transported to and disposed of in Government recognized landfill.

2.8 BURYING WASTE

- Delete this Chapter if not applicable -

Only contaminated and hazardous waste needs to be buried. In healthcare facilities with limited resources, safe burial of wastes on or near the facility may be the only option available for waste disposal. To limit health risks and environmental pollution, some basic rules are:

- Access to the disposal site should be restricted (Build a fence around the site to keep animals and children away).
- The burial site should be lined with a material of low permeability (e.g. clay), if available.
- Select a site at least 50 meters (164 feet) away from any water source to prevent contamination of the water table. The site should have proper drainage, be located downhill from any wells, free of standing water and not in an area that flood.
- Large quantities (over 1 kg) of chemical (liquid) wastes should not be buried at the same time; burial should be spread over several days. Safe on-site burial is practical for only limited periods of time (1–2 years), and for relatively small quantities of waste. During the interval, staff should continue to look for a better, permanent method for waste disposal.

The following are the key steps for burying waste.

- Find an appropriate location.
- Dig a pit 1 meter (3 feet) square and 2 meters (6 feet) deep. The bottom of the pit should be 2 meters (6 feet) above the water table.
- Dispose of the contaminated waste in the pit and cover the waste with 10–15 cm (4–6 inches) of dirt each day. The final layer of dirt should be 50–60 cm (20–24 inches) and compacted to prevent odors and attraction of insects, and to keep animals from digging up the buried waste. Depending on the volume of waste, this pit should last 30 to 60 days.

3. ROLES AND RESPONSIBILITIES

Even though all staff is responsible for managing waste, to ensure optimal waste management, the following roles and responsibilities are defined and designated in alignment with the overall Environmental and Social Management Plan (ESMP) and the site specific waste management plan if available.

- A lead responsible person for handling medical waste is being designated (the “Medical Waste Manager”). This person has the overall oversight and responsibility for the medical waste handling at site. He/she will lead on the delivery of training to the staff and the monitoring activities. He/she will be supported by the overall health facility management.
- In addition, there will be key personnel engaged in waste management activities are defined during all phases (i.e. Segregation, Storage and Packaging, Transportation and disposal).

<Please include names and positions in this section of the designated personnel.>

4. AWARENESS RAISING & CAPACITY BUILDING

Health care staff should be trained and aware of good practices and procedures of waste management under this plan. Such practices and procedures should be disseminated to the health care units/facilities through the following activities:

- The Medical Waste Manager will be responsible to train other health care staff on the management of generated waste on a regular basis. A training schedule will be developed and shared with the relevant personnel.
- Printing leaflets and booklets of good practices/procedures for waste management and disseminate these materials to the health units/facilities with medicine and vaccination.
- If needed, recruiting staff/consultants whose task is to train health care staff on managing wastes generated from facilities and units supported under this project.

<Make reference to overall training plan if existent.>

5. MONITORING

Monitoring is required to follow-up on decisions made to intervene in various activities of medical waste management in order to protect human health and the environment. This can be achieved through periodic internal and external processes of monitoring and evaluation on a continuous basis, at all institutional levels.

5.1 MONITORING OBJECTIVES

The objective of the monitoring is to establish appropriate criteria to address potential negative impacts of MWM and to ensure that unforeseen impacts are detected and the mitigation measures implemented at an early stage. Specific objectives of the monitoring plan are to:

- ensure that any additional impacts are addressed appropriately;
- check the effectiveness of the recommended mitigation measures;
- ensure that the proposed mitigation measures are appropriate;
- demonstrate that medical waste management is being implemented according to plan and existing regulatory procedures; and
- provide feedback to implementing agencies in order to make modifications to the operational activities where necessary.

5.2 MONITORING ARRANGEMENTS

<Provide further details on how and through which channels monitoring will be conducted on medical waste handling.>

5.3 MONITORING INDICATORS

Considering the type of interventions implemented by this projects which are anticipated to have limited, site specific impacts, the following will be used to monitor progress in implementing the medical waste management plan:

- Roles, Responsibilities and Resources
- Existence of records on waste generation; and
- Existence of mechanisms for proper and safe medical waste management & disposal.