Public Disclosure Authorized

Public Disclosure Authorized

ENVIRONMENTAL AND SOCIAL SYSTEMS ASSESSMENT (ESSA)

FOR THE

MALAWI FISCAL GOVERNANCE PROGRAM FOR RESULTS (P181371)

PREPARED BY THE WORLD BANK

15th February 2024

ACRONYMS	
CCDR	Climate Change Development Report
CPF	Country Partnership Framework
DLI	Disbursement Linked Indicator
DLR	Disbursement Linked Result
DPF	Development Policy Financing
DRM	Domestic Resource Mobilization
ECF	Extended Credit Facility
e-GA	Malawi Electronic Government Department
e-GP	Electronic Government Procurement
e-waste	Electronic Waste
EEEs	Electrical and Electronic Equipment
E&S	Environment and Social
ESSA	Environmental and Social Management Systems Assessment
FSA	Fiduciary Systems Assessment
FY	Fiscal Year
GDP	Gross Domestic Product
GESD	Governance to Enable Service Delivery
GIIP	Good International Industry Practice
GoM	Government of Malawi
IDA	International Development Association
IFMIS	Integrated Financial Management Information SysteM
e-GP	Electronic Government Procurement
IMF	International Monetary Fund
IPF	Investment Project Financing
IVA	Independent Verification Agent
KRA	Key Results Area
MAPS	Methodology for Assessing Procurement Systems
MCERT	Malawi Computer Emergency Response Team
MDAs	Ministries, Departments and Agencies
MDTF	Multi-Donor Trust Fund
MEPA	Malawi Environmental Protection Authority
MoFEA	Ministry of Finance and Economic Affair
MRA	Malawi Revenue Authority
NAO	National Audit Office
OCDS	Open Contracting Data Standard
OGP	Open Government Partnership
PBCs	Performance Based Conditions
PBG	Performance Based Grant
PFM	Public Financial Management
PFM-SC	Public Financial Management Steering Committee
PFM-TC	Public Financial Management Technical Committee
PforR	Program for Results
PIM	Public Investment Management
PPDA	Public Procurement and Disposal of Assets Authority

PSIP	Public Sector Investment Plan
SME	Small and Medium Enterprise
SOE	State-Owned Enterprises
SWOT	Strengths-Weaknesses-Opportunities-and-Threats
VAT	Value-Added Tax

TABLE OF CONTENTS

ACRONYMS i
TABLE OF CONTENTS iii
LIST OF FIGURES vi
LIST OF TABLES vi
EXECUTIVE SUMMARY vii
1. INTRODUCTION 1
2. PROGRAM DESCRIPTION AND OBJECTIVE 3
2.1. Country Context 3
2.2. Program Development Objectives 3
2.3. Program Scope 3
2.3.1. Key Result Areas (KRAs) 4
2.3.2. Proposed Disbursement-Linked Indicators 5
2.4. Malawi Fiscal Governance Program for Results Oversight and Implementing Arrangement 6
3. ESSA SCOPE AND METHODOLOGY 8
3.1. ESSA Scope 8
3.2. ESSA Approach and Methodology 8
3.3. Systems Analysis Approach 8
4. ENVIRONMENT AND SOCIAL POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK RELEVANT TO MALAWI FISCAL GOVERNMENT PROGRAM FOR RESULTS ESSA 10
4.1. Legislative Framework 10
4.1.1. National Environmental Policy (NEP) 2005 10
4.1.2. The Environmental Management Act (EMA), 2017 11
4.1.3. Environment Management (Chemical and Toxic Substances Management) Regulations, 2008 12
4.1.4. National Waste Management Strategy 2019 -2023 12
4.1.5. Public Procurement and Disposal of Public Assets Act (2017) 13
4.1.6. Malawi Revenue Authority Act (2017) 14
4.1.7. The Malawi Information and Communication Technology (ICT) Policy (2013) 14
4.1.8. The Electronic Transactions and Cyber Security Act (2016) 14
4.1.9. The Communications Act, 2016 15
4.2. Institutional Framework for Malawi Fiscal Government Program for Results, Environmental and Social Matters 16

4.2.1 Program Environment and Social Responsibility of the Ministry of Finance and Economic Affairs, Environmental (MoFEA) 16
4.2.2 Ministry of Natural Resources, Energy and Environment 16
4.2.3 The Malawi Environment Protection Authority (MEPA) 17
4.2.4 Malawi e-Government and Data Protection 17
5 ESSA FINDINGS AND POTENTIAL ENVIRONMENTAL AND SOCIAL EFFECTS OF THE PROGRAM 19
5.1 Potential Environmental and Social Benefits 19
5.2 Potential Social Risks and Impacts 19
5.2.1 Likelihood of Exclusion and Discrimination of Vulnerable Individuals from Program Benefits 19
5.2.2 Increased risk of Sexual Exploitation and Abuse/ Sexual Harassment (SEA/SH) and associated transmission of Sexually Transmitted Diseases (STDs). 19
5.3 Environmental and Health Risks and Impacts associated with Electronic Waste 20
5.3.1 Predicted Environmental and Health Risk and Impacts of e-waste 20
5.3.2 E –waste Management Situation in the Malawi 23
5.3.3 Tools to Manage E-Waste 23
5.3.4 Good International Industry Practice (GIIP) of Electronic Waste 24
5.3.5 Capacity of Implementing Agencies to Manage E-waste 25
5.4 Data Protection and Cyber Security Procedure within Program's Implementing Institutions 25
5.5 The Grievance/Complaint Redress Mechanism 29
5.5.1 Grievance Redress Mechanisms for the Program's Benefiting Institutions 29
5.5.2 Grievance Redress Mechanisms with Suppliers 29
5.5.3 World Bank Procedure to Handle Community' Grievances 29
5.6 Exclusion Criteria 29
6. OPERATIONAL PERFORMANCE AND INSTITUTIONAL CAPACITY ASSESSMENT 31
6.1 Introduction 31
6.2 Core Principle 1: General Principle of Environmental and Social Management 32
6.3 Core Principle 2: Natural Habitats and Physical Cultural Resources 33
6.4 Core Principle 3: Public and Worker Safety 33
6.5 Core Principle 4: Land Acquisition 33
6.6 Core Principle 5: Indigenous Peoples and Vulnerable Groups 33
6.7 Core Principle 6: Social Conflict 33
6.8 Integrated Risk Assessment 33
7. STAKEHOLDERS CONSULTATIONS 39
8. REFERENCES 43

9. APPENDICES 44
Appendix 1: Institutional Mandates 44
Appendix 2: Potential Types of ICT and Infrastructure to be Procured and Disposed Following Implementation of Malawi Fiscal Governance Program for Results 46
Appendix 3: Environmental and Social System and Institutional Capacity Assessment 48
Appendix 4: List of People Consulted during Capacity Assessment and Multi-stakeholders Consultation Meetings 53

LIST OF FIGURES

Figure 2.1 Theory of Change 4
Figure 2.2: Malawi Fiscal Governance PforR KRAs and Enablers 5
Figure 2.3: Program Implementation Arrangements 7

LIST OF TABLES

Table 2.1: Key Results Areas and Disbursed Linked Indicators 5
Table 5.1: Toxic Substances in E-waste and Associated Health Implications 21
Table 5.2: Summary of Institutions' Capacity and Readiness for Data Protection and fight against Cyber Security Threats 28
Table 6.1: Measures to Strengthen System Performance for Environmental and Social Management 35
Table 7.1: Multi-stakeholders Views, Comments, Concerns and Suggestion, 12th February 2024 40

EXECUTIVE SUMMARY

Malawi Fiscal Governance Program for Results (PforR) is a four-year Program (2024 –2028) designed to improve the effectiveness of resource mobilization, budget execution, and transparency in the management and use of public funds in Malawi. The Program is funded by the World Bank (WB) and has a total budget of USD80 million. The Program will support the implementation of the Malawi Public Finance Management (PFM) Strategy. Six institutions (referred to as the implementing institutions) namely the Ministry of Finance and Economic Affairs (MoFEA); the Public Procurement and Disposal of Assets Authority (PDDA); the Malawi Revenue Authority (MRA); the National Audit Office (NAO); the Public Sector Investment Program (PSIP); and the Department of the Registrar General (DRG) will jointly implement the Program.

To guide the preparation and implementation of the PforR operation, the WB prepared this Environmental and Social Systems Assessment (ESSA). The ESSA's was aimed to assess the national Environmental and Social (E&S) systems. The WB has assessed at the Program's level potential E&S effects, the borrower's capacity to manage those effects, and the likelihood that the proposed operation will achieve its E&S objectives. The ESSA has found that the proposed Program will have E&S benefits but it is likely to cause some E&S risks and impacts as detailed below:

Potential Environmental and Social Benefits of the Program

Social Benefits: The Program will enhance public resource mobilization; strengthen resource allocation and prioritization; as well as improving budget execution and accountability. The Program will roll out electronic government procurement and market systems to Ministries, Departments and Agencies (MDAs); and enable interoperability of GovTech systems, leading to an Integrated Financial Management Information System (IFMIS). These initiatives will enhance transparency and improve efficiency in the entire cycle of PFM.

Environmental Benefits: The Program Action Plan (PAP), will support the implementing institutions in capacity-building interventions specifically, (i) to advance awareness and capacity to manage e-waste which include hazardous substances; and (ii) promote and advance green and sustainable procurement. Overall, this will minimize impacts on the environment and reduce the carbon footprint of the Program.

Potential Environmental and Social Risks and Impacts Associated with the Program

Social Risks and Impacts: The potential social risks are related to data protection and cyber-security threats. These might arise due to the interoperability of GovTech systems which could compromise the security of data and information leading to impairment of institutions reputations.

***Likelihood of Exclusion and Discrimination of Vulnerable Individuals from Program Benefits*:** Implementing institutions will devise mechanisms that will enhance the equitable allocation of program benefits to individuals within the implementing institutions. The Program Implementing Committee (PIC) should ensure that vulnerable individuals receive Program capacity building and assistive devises to meet their needs as relevant.

Increased risk of Sexual Exploitation and Abuse/ Sexual Harassment (SEA/SH) and associated transmission of Sexually Transmitted Diseases (STDs). Capacity building trainings will increase engagement and interactions among the participating institutions staff and external experts. This might expose participants to SEA/SH risks and associated risks of STDs including HIV/AIDS. The PIC will ensure social issues including gender, SEA/SH, health, human rights, disability, HIV/AIDS and are mainstreamed in the Program's intervention measures.

Environmental and Health Risks and Impacts Associated with Program

The Program will not involve major construction that could pose incidents and accidents. However, it will involve installation of ICT equipment which will be addressed through devising site specific environmental management plan. Major environmental risks are related to procurement of electronic equipment such as laptops, printers, servers, backup power equipment such as Uninterruptible Power Supply (UPS) batteries, physical security tools and services, etc to be undertaken by Program participating institutions. Likewise, institutions are likely to dispose of electronic equipment, leading to an increase in e-waste generation which includes hazardous materials such as lead, nickel-cadmium or acid batteries. Improper disposal of electrical waste can lead to environmental and health impacts due to the hazardous materials contained in them. Poor disposal of e-waste is also likely in the absence of recycling options and general lack of e-waste regulations in Malawi. Risks include release of toxins from burning e-waste; heavy metals and flame retardants, leaching from e-waste into the soil and contaminating groundwater and crops; or release of toxic chemicals used to extract materials from e-waste.

E-waste handling and disposal may also expose people to non-dioxin-like polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH), polychlorinated dibenzo-p-dioxins (PCDD), polychlorinated dibenzofurans (PCDF) and dioxin-like polychlorinated biphenyls (DL-PCB) that are neuro and immune toxic. Similarly, E-waste is resistant to biodegradation and leached hazardous chemicals may bio-accumulate in agricultural lands and be available for uptake by grazing livestock and leaching into groundwater contaminating borehole water for drinking or irrigation.

Capacity of Implementing Institutions to Integrate E&S Issues Related to the Program: The ESSA has identified gaps in Malawi's E&S systems that guide environmental and social management especially with regards to e-waste. Currently, Malawi has no specific policy, law or regulations that govern e-waste management. Malawi's National Environment Policy (2005), Environmental Act (2017), and Environment Management (Chemical and Toxic Substances Management) Regulations of 2008, do not emphasize e-waste management. Likewise, the implementing agencies do not have the capacity to manage e-waste as their organizational structures have no departments or units or Environmental Experts to deal with environmental issues.

Disposal mechanisms of e-waste commonly used in Malawi have limitations*:* The disposal of electronic equipment is usually done through off boarding of the recycled items and donations to other institutions. Non-recyclable items are often piled up in a room. Old or used electronic equipment is also auctioned meaning institutions are not concerned with its end of life. The prevailing disposal mechanisms may compound risks of poor management of e-waste.

To remove this 'business as usual' approach, the implementing institutions will develop Electronic Waste Management Plan (E-WMP) and develop a National Strategy and Action Plan.

Opportunities to manage e-waste in Malawi*:* The implementing institutions are aware that the proposed activities are likely to generate e-waste and see the need to devise proper mechanisms to address the specified gaps. In addition, the recent National Waste Management Strategy (2019 - 2023) has recognized the need for policies and regulations to manage e-waste.

Capacity of the Implementing Institutions in Data Protection and Cybersecurity Threats**:** The ESSA has found mixed results on the capacities of the implementing institutions related to data protection and cybersecurity threats. The implementing institutions have ICT Departments including personnel with some expertise in data protection and cybersecurity. However, none of the assessed institutions had a Cybersecurity Policy. The MRA and NAO are currently developing cybersecurity policies but they are yet to be approved and operationalized.

The Malawian legal framework provides a basis for addressing risks related to data protection and cybersecurity threats. The Electronic Government Department (e-Government) under the Ministry of Information and Digitalization has a relevant capacity to assist the implementing institutions in data protection. Similarly, there are other relevant institutions which are central to data protection and communication including the Malawi Communications Regulatory Authority (MCRA) and the Malawi Computer Emergency Response Team (MCERT). The Program can benefit from the services offered by these institutions related to data protection. Challenges that may arise are associated with the lack of compliance with the regulatory framework, inadequate human resources and budget for some of the implementing institutions.

Despite the specified strengths, it is worth noting that all the implementing institutions will be required to strengthen their capacities in data protection. To effectively develop capacity for data protection and cybersecurity threats, the program's implementing agencies will have to develop a Cybersecurity Policies and operationalize them. In addition, the agencies will have to ensure conformity to international standards of data protection and cyber-security and develop manuals and procedures for the same. The Cybersecurity Policy to be developed shall be preceded by a Cybersecurity Audit that will be undertaken by each institution in collaboration with eGovernment Department. The audit will help to determine whether the institution has a proper cybersecurity mechanism and complies with relevant regulations.

E&S Risks

The overall E&S risks of the Program are considered low. The proposed activities are expected to have a low chance of adverse effects on the environment, human health, and safety. Provided mitigation measures are implemented, residual risks are expected to be site-specific, predictable, and mitigatable through adherence to the existing national laws, regulations, and standards. Material threat to the natural habitats, biodiversity, ecosystem and natural resources such as fisheries and water might occur only if e-waste will be mishandled. Equally, there will be no land acquisition that might cause physical or economic displacement. Likewise, the Program will not exacerbate social conflicts or violate the rights of vulnerable groups.

To address the shortcomings, the following measures to strengthen system performance for E&S management are proposed:

- The MoFEA shall hire and or second E&S specialist with hazardous substances management experience and integrate him/her to the PIC at the MoFEA for overseeing E&S issues.
- Develop Implementing Agencies respective Electronic Waste Management Plan and National Strategy and Action Plan for all levels of Government to address E-Waste.
- Program benefiting institutions to conduct capacity-building awareness to their staff on e-waste to improve the level of knowledge, attitude, and practice associated with e-waste management.
- Each Program implementing institution to undertake Cybersecurity Audit to determine whether it has a proper cybersecurity mechanism and complies with relevant regulations. The audit to be done in collaboration with eGovernment Department.
- Each Program implementing institutions to devise and operationalize Cybersecurity Policies that align with national and international standards. Such policies to be preceded with Cybersecurity Audit.
- Program implementing institutions to plan for routine capacity building in data protection and cybersecurity to address the deficiency of cybersecurity skills among the implementing institutions.
- MoFEA to work with other agencies to devise and implement mechanisms that will enhance equitable allocation of Program benefits to all individuals within the implementing institutions.
- Mainstream GBV and HIV awareness programs during implementation of Program activities and put in place a functional GRM for both GBV and other project grievances.
- Program implementing institutions to devise mechanisms that will enhance equitable allocation of Program benefits to all individuals within the implementing institutions. In this regards, Vulnerable individuals including PLWD within the implementing institutions should accrued project benefits related to Program capacity building as well as ICT equipment with required assistive devises where possible.

1. INTRODUCTION

The ***Malawi Fiscal Governance Program for Results*** (MFGP4Rs) is a four year Program (2024-2028) funded by the World Bank (WB) with a total budget of US$80Million, equivalent to (136 Billion Malawian Kwacha)[1]. The primary objective (s) of the Program is to improve the effectiveness of resource mobilization, budget execution, and transparency of public finances. The proposed Programs is set to respond and support the implementation of the *Malawi Public Finance Management (PFM) Strategy 2023 – 2028*. The strategy's overarching objective is to help Malawi attain sound financial management and discipline in public service delivery for sustainable development. To address some identified capacity gap, the Program will also involve a small and prioritized IPF component (PforR US$75 million, IPF US$5 million). This would allow targeted capacity building to be supplemented with the financial incentives for the PforR for the achievement of clearly defined results.

Six institutions namely the Ministry of Finance and Economic Affairs (MoFEA); Public Procurement and Disposal of Assets Authority (PDDA); Malawi Revenue Authority (MRA); National Audit Office (NAO); Public Sector Investment Program (PSIP); and Department of the Registrar General (DRG) will jointly implement the Program. Their institutional mandates are indicated in *Annex 1*.

To prepare and implement the PforR operation, the WB prepares an Environmental and Social Systems Assessment (ESSA). An ESSA assesses the potential Environmental and Social E&S effects of the PforR Program operation (including direct, indirect, induced, and cumulative effects as relevant); the Malawian E&S systems capacity (legal framework, regulatory authority, organizational capacity, and performance) to manage anticipated Program's risks and impacts; and the likelihood that the proposed operation will achieve its E&S objectives. Finally, the ESSA proposes a set of actions in the forms of Program Action Plan (PAP) that address the major gaps in the systems as identified in the ESSA report.

In preparing the ESSA, reference was made to the WB Policy: Program-for-Results Financing and the Bank Directive: Program-for-Results (Directive) and in line with WB Guidance on Program-for-Results Financing on Environmental and Social Systems Assessment (2020). The six Core Principles of E&S management and assessment include:

Core Principle 1: General Principle of Environmental and Social Assessment: E&S management procedures and processes are designed to (a) promote E&S sustainability in the program design; (b) avoid, minimize, or mitigate against adverse impacts; and (c) promote informed decision-making on a program's E&S effects.

Core Principle 2: Natural Habitats and Physical Cultural Resources. E&S management procedures and processes are designed to avoid, minimize, and mitigate adverse impacts on natural habitats and physical cultural resources resulting from the program.

Core Principle 3: Public and Worker Safety. E&S management procedures and processes are designed to protect the public and worker from the potential risks associated with (a)

[1] Based on 1700/1$ exchange rate.

construction and/or operations of facilities or other operational practices developed or promoted under the program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Core Principle 4: Land Acquisition. Land acquisition and loss of access to natural resources are managed in a way that avoids or minimizes displacement, and the affected people are assisted in improving, or at least restoring their livelihoods and living standards.

Core Principle 5: Indigenous Peoples and Vulnerable Groups. Due consideration is given to cultural appropriateness of, and equitable access to, program benefits giving special attention to rights and interests of Indigenous Peoples and to the needs or concerns of vulnerable groups; and

Core Principle 6: Social conflict. Avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas that are subject to territorial disputes.

Overall, the ESSA is intended to ensure that the program is implemented in a manner that maximizes potential E&S benefits and avoids, minimizes, or mitigates anticipated adverse E&S impacts and risks. More specifically, it presents the government's regulatory and administrative framework and the capacity of the relevant implementing agencies[2]. The assessment involved data collection, literature review and extensive consultation with implementing agencies as well as other stakeholders. Based on the findings of the analysis, the ESSA presents a set of actions to strengthen the existing system proposed for inclusion in the PAP to contribute to the Program's anticipated results to enhance institutional performance.

2 The Public Procurement and Disposal of Assets Authority; the Malawi Revenue Authority; the National Audit Office (NAO); Public Sector Investment Program (PSIP); and Department of the Registrar General.

2. PROGRAM DESCRIPTION AND OBJECTIVE

2.1. Country Context

Malawi's public finances remain significantly weakened by a series of exogenous shocks and persistent macro-fiscal imbalances, which have pushed the economy into crisis. Economic growth has remained below 2 percent of GDP per year in both 2022 and 2023, translating to a real per capita contraction, and poverty has stagnated at above 70 percent (US$ 2.15 per day) in the same time period. Persistent climate volatility disrupting the production process, longstanding macroeconomic imbalances emanating from sustained high fiscal and external deficits, and a series of exogenous shocks (such as Covid 19 and tropical cyclones) have contributed to this trajectory. Continued implementation of expansionary fiscal policy amidst a shrinking resource envelope, combined with weak PFM systems, have weakened the fiscal position and resulted in deficits beyond 10 percent of GDP. Growing import demand against weakened export performance has resulted in a worsening external sector position. The subsequent depletion of foreign exchange buffers has pushed the government to contract foreign exchange swaps to support the fixed exchange rate. The combined effect of these factors has pushed public debt into distress.

However, there are ongoing efforts to strengthen debt management and restore debt sustainability, undertake fiscal consolidation and increase budget discipline, and reforms to increase the flexibility of the exchange rate and increase foreign exchange liquidity. Growth is projected to increase to 3.3 percent in 2024, mainly driven by a slight easing of global commodity prices, a moderate improvement in agricultural production, and increased output supported by improved foreign exchange inflows. The Government of Malawi (GoM) launched the Malawi Public Finance Management (PFM) Strategy 2023 – 2028 with the overarching objective of attaining sound financial management and discipline in public service delivery for sustainable development. This Program will support the GoM in the delivery of results under the program.

2.2. Program Development Objectives

The Program Development Objective is "to improve the effectiveness of resource mobilization, budget execution, and transparency of public finances in Malawi."
PDO-level results indicators to reflect progress towards the different elements of the PDO are:

- PDO Indicator #1: % increase in real, domestic value-added tax (VAT) revenue collection;
- PDO Indicator #2: % decrease variance between approved budget and expenditure outturn;
- PDO Indicator #3: % increase of contract data accessible by citizens (including beneficial ownership) published following the Open Contracting Data Standard (OCDS).

2.3. Program Scope

The program scope is countrywide and is designed to support the whole GoM – Public Financial Management Strategy 2023 – 2028. It will facilitate the attainment of sound financial management and discipline in public service delivery for sustainable development. Therefore, the present PforR Program will support the goals and objectives of the PFM Strategy namely (1) Increase the revenue to GDP ratio; (2) Management of Fiscal Risks, Debt and Cash; (3) Allocate resources consistent with national priorities; (4) Budget execution; (5) Accountability and

Budget Transparency; (6) Enabling environment for PFM outcomes; (7) Effective governance systems and institutions.

The operation will provide a combination of support for strategic activities, targeted technical assistance, and fiscal incentives for implementation that will enhance the capacity of GoM to progressively strengthen its fiscal governance.

The Theory of Change is presented in figure 2.1 below.

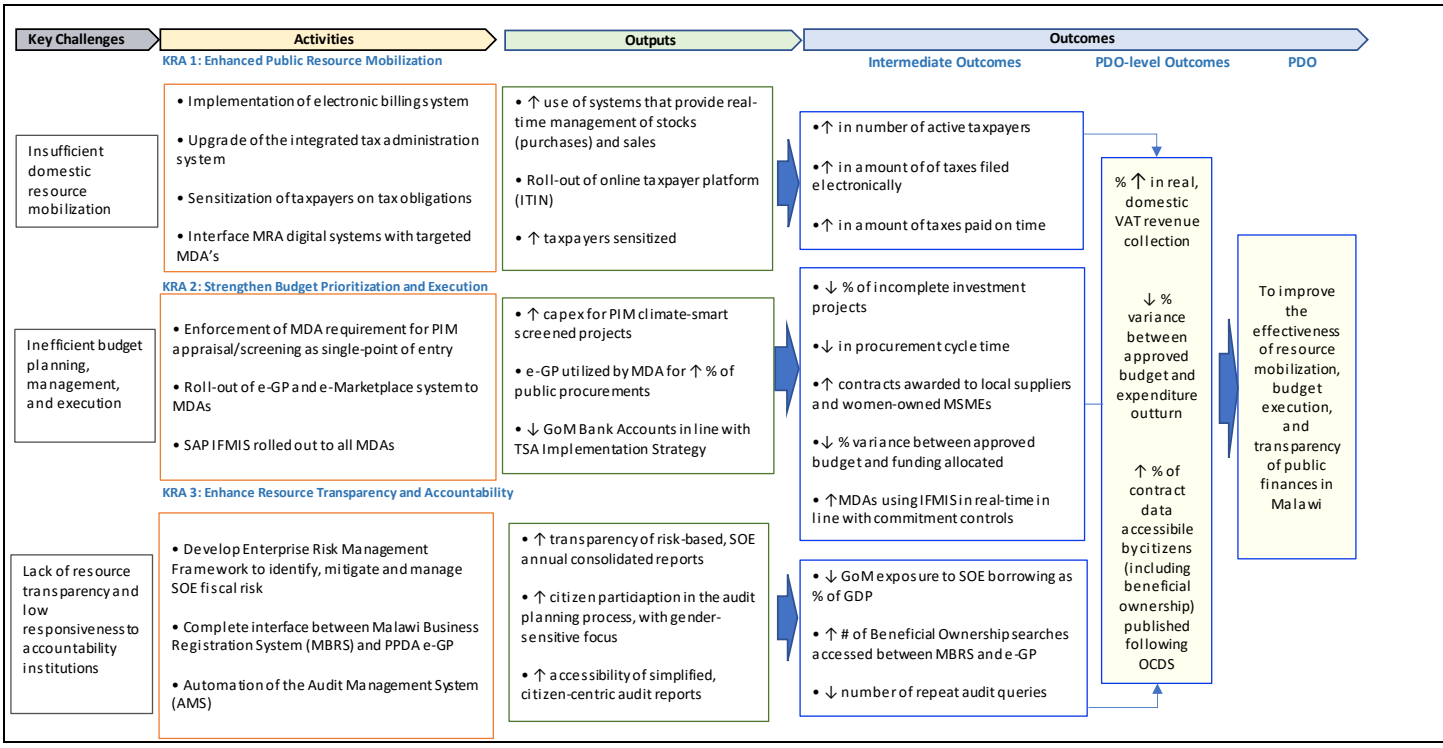

Figure 2.1 Theory of Change

2.3.1. Key Result Areas (KRAs)

The PforR Program includes DLIs covering the main aspects of the PFM Strategy grouped into three Key Results Areas: (i) Enhancing public resource mobilization; (ii) Strengthening resource allocation and prioritization; and (iii) Improving budget execution and accountability. The achievement of these results is supported by the three key enablers of *(i) Interoperability of GovTech systems for public resource management*[3]*; (ii) Climate responsiveness and sustainability; and (iii) fiscal transparency and citizen engagement* (Figure 2.2, below).

[3] Interoperability of GovTech systems entails integration of multiple organizations (systems) in Malawi to allow them work together and exchange information. In other words, interfaces between organizations and systems will be linked to allow for information exchange.

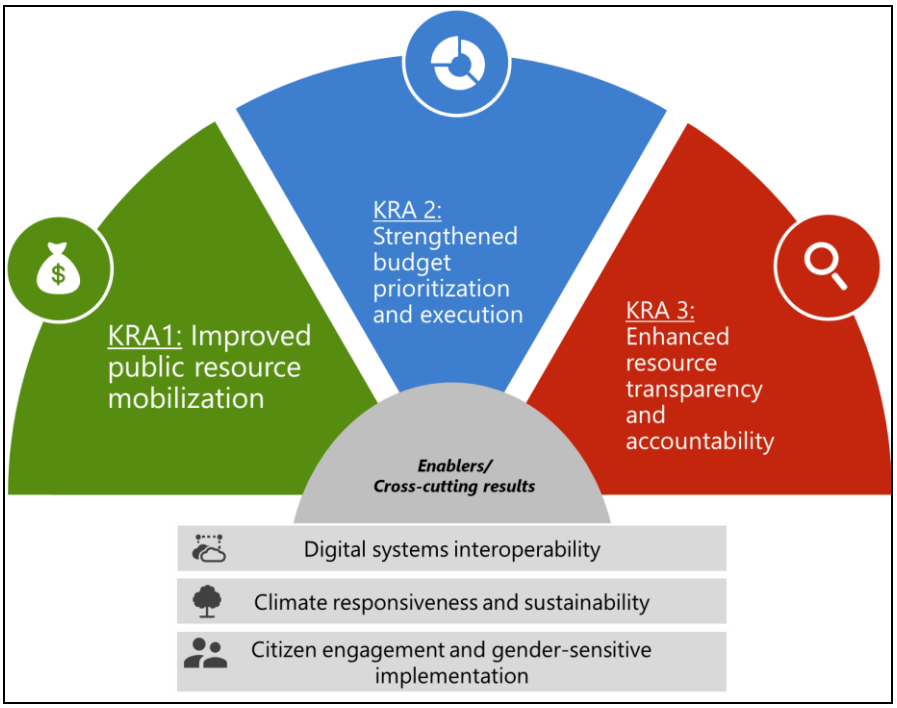

Figure 2.2: Malawi Fiscal Governance PforR KRAs and Enablers

2.3.2. Proposed Disbursement-Linked Indicators

Disbursement will be made based on the achievement of verified results measured by Disbursement Linked Indicators (DLIs). Achievement of the results will be assessed by an Independent Verification Agent (IVA) hired by PFM Technical Committee. The Program's key results areas and the subsequent Disbursed Linked Indicators (DLIs) are summarized in the Table 2.1 below.

Table 2.1: Key Results Areas and Disbursed Linked Indicators

KRA 1: Improve Public Resource Mobilization	
Disbursement Linked Indicator	***Disbursement Linked Sub-Indicator***
• DLI 1: Increase in domestic VAT revenue collection	
• DLI 2: Increase in voluntary tax compliance (returns filed electronically and on-time)	
KRA 2: Strengthen Budget Prioritization and Execution	
Disbursement Linked Indicator	***Disbursement Linked Sub-Indicator***
• DLI 3: Increase in relevance, completion, and sustainability of public capital investments	
• DLI 4: Enhanced procurement efficiency and sustainability	• DLSI 4.1: Increased utilization of e-GP and reduction in procurement cycle time • DLSI 4.2: Increased sustainability and inclusion of procurement systems
• DLI 5: Strengthen budget management and	• DLSI 5.1: Reduction in variance between approved

execution	budget and funding released • DLSI 5.2: Improvement in cash management forecasting and predictability of allotments/funding • DLSI 5.3: Strengthened controls for budget execution
KRA 3: Enhance Resource Transparency and Accountability	
Disbursement Linked Indicator	***Disbursement Linked Sub-Indicator***
• DLI 6: Increased SOEs Efficiency and Transparency	
• DLI 7: Increased procurement and beneficial ownership transparency	
• DLI 8: Enhanced citizen engagement, transparency and responsiveness of the audit process	

2.4. Malawi Fiscal Governance Program for Results Oversight and Implementing Arrangement

The Ministry of Finance and Economy Affairs (MoFEA) is the lead implementing agency. The Public Finance Management System Division (PFMSD) will serve as the coordination unit for the Program within MoFEA. The other key implementing MDAs are: (i) Accountant General Department (AGD); (ii) Budget Division – MoFEA; (iii) Cash Management Unit – MoFEA; (iv) Department of Registrar General (DRG); (v) Malawi Revenue Authority (MRA); (vi) National Audit Office (NAO); (vii) Public Procurement and Disposal of Assets Authority (PPDA); and (viii) Public Sector Investment Plan (PSIP) Unit.

Implementation of the Program will leverage the implementation arrangements already established for the PFM Strategy 2023 – 2028. The institutional mandates, roles and responsibilities for the management of the PFM Strategy 2023 – 2028 have been clearly defined. The PFM Steering Committee (PFM-SC) is chaired by the Secretary to Treasury and has the responsibility of providing strategic oversight and coordinating direct engagement with designated core PFM stakeholders, including at the ministerial level and with donor partners. The PFM-SC also comprises of leadership from key implementing agencies outside of the MoFEA – most notably the Commissioner General of the MRA and Director General of the PPDA. The PFM Technical Committee (PFM-TC) is chaired by the Accountant General and is tasked with reviewing progress against objectives and expected outputs in the Strategy. The PFM-TC will be represented by Director-level management from the implementing agencies, with the overall responsibility of managing progress and reporting on the achievement of DLIs under the PforR. A Program Implementation Committee (PIC) will comprise of the Focal Points from each of the implementing agencies within the Program and be chaired by the Director of PFM Systems. Within the PIC, Technical Working Groups (TWGs) will be established for each of the DLIs and will be responsible for the coordination of achievement of results within each chain. The implementation arrangements are presented in the figure 2.3 below.

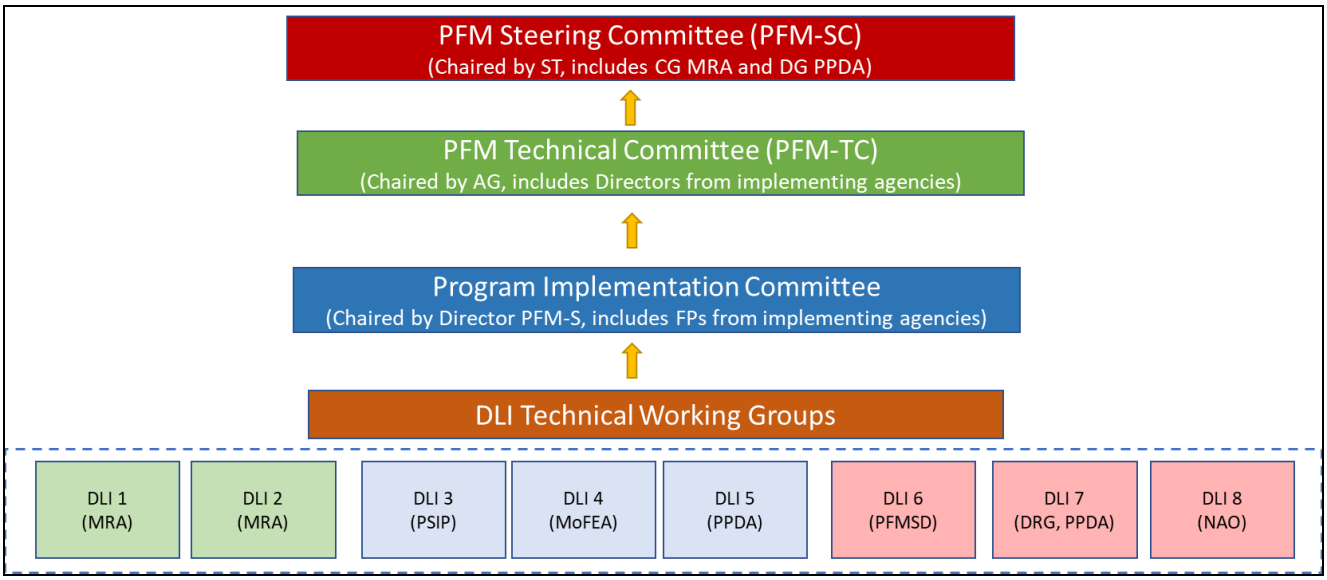

Figure 2.3: Program Implementation Arrangements:

3. ESSA SCOPE AND METHODOLOGY

3.1. ESSA Scope

This ESSA focuses on (i) identifying potential E&S impacts/risks applicable to the program interventions; (ii) reviewing the country's policy and legal frameworks related to the management of E&S impacts of Program interventions; (iii) assessing the capacities of the implementing institutions for the E&S impact management within the Program system; (iv) assessing the consistency of the client's systems with the six core principles and attributes defined by the Bank's Policy PfoR Financing[4], including assessment of monitoring and evaluation systems for E&S issues; and (v) describing actions to fill the gaps as an input into the PAP to strengthen the project's performance.

3.2. ESSA Approach and Methodology

To assess adequacy of existing systems to integrate E&S issues, a range of data was collected:

1) ***Desk Review of Policies, Legal Framework and Program Documents:*** Review of policy and legal requirements related to E&S management as well as PFM and procurement systems.

2) ***Institutional Analysis:*** A detailed analysis was carried out to identify the responsibilities, and structures of the relevant institutions responsible for implementing MFGP4Rs activities.

3) ***Interviews and Consultation with Implementing and Regulatory Authorities:*** The E&S Team held interviews and discussions with staff from the PPDA; MRA; PSIP; NAO: and DRG. For the case of regulatory authorities, a discussion was held with the eGovernment Department and the Malawi Environment Protection Authority (MEPA).

4) ***Multi-stakeholders Consultation Meetings.*** To ensure that ESSA is complete and meets Program-for-Results policy and guidance and aligns with World Bank's access to information policy, the ESSA process included stakeholder consultations and disclosure of the ESSA report. The overall objective was to solicit stakeholders' opinions on the Program including on how the Program can be implemented sustainably. Stakeholders' perception of the Program; E&S issues relevant to the Program; potential threats/risks associated with the program; as well as required measures to address them were sought.

3.3. Systems Analysis Approach

The ***Strengths-Weaknesses-Opportunities-and-Threats (SWOT)*** approach was employed to undertake Systems analysis to inform the ESSA. The analysis focused on the strengths, gaps, potential actions, and risks associated with the systems that are currently in use in the Financial and Procurement subsector to address the E&S effects commensurate with the nature, scale, and scope of Program operations. This was structured to examine the arrangements for managing the environmental and social effects (i.e., benefits, impacts and risks) of the Program. In addition, the analysis examined the effectiveness of institutional capacity to implement the E&S systems.

4 The World Bank's Operational Policy Directives as revised in 2022 - Program-for-Results Financing.

It examined the questions on whether the current system: (i) performs effectively in identifying and addressing E&S risks; (ii) mitigates adverse impacts; and (iii) provides transparency and accountability.

The overarching objectives are to ensure that the risks and impacts of the MFGP4Rs Program are identified and mitigated and to strengthen the system and build its capacity to deliver the Program sustainably. This ESSA also proposes measures to strengthen the system to fill the identified gaps.

4. ENVIRONMENT AND SOCIAL POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK RELEVANT TO MALAWI FISCAL GOVERNMENT PROGRAM FOR RESULTS ESSA

This section presents Malawi's policy, laws and regulations for environmental and social risk management relevant for Malawi Fiscal Government Program for Results.

4.1. Legislative Framework

4.1.1. National Environmental Policy (NEP) 2005

The NEP provides the framework for integrating environmental and social considerations into the decision-making processes. Through NEP (2005), GoM demonstrates a commitment to protect environment and natural resources for sustainable development. This commitment is embedded within the Malawi Constitution, 1995. For instance, Section 13 (d) provides the principles of national policy and states the environment principles as follows; "*To manage the environment responsibly to: - (a) prevent the degradation of the environment; (b) provide a healthy living and working environment for the people of Malawi; (c) accord full recognition to the rights of future generations using environmental protection; (d) conserve and enhance the biological diversity of Malawi.*".

Its overall goal is promotion of sustainable social and economic development through the sound management of the environment and natural resources. The specific goals of NEP (2005) are:

a) Secure for all persons, now and in the future, an environment suitable for their health and wellbeing.
b) Promote sustainable utilization and management of the country's natural resources and encourage, where appropriate, long-term self-sufficiency in food, fuel wood and other energy requirements.
c) Facilitate the restoration, maintenance and enhancement of the ecosystems and ecological processes essential for the functioning of the biosphere and prudent use of renewable resources.
d) Promote the ecosystems management approach to ensure that sectoral mandates and responsibilities are fully and effectively channeled towards sustainable environment and natural resources management.
e) Enhance public education and awareness of various environmental issues and public participation in addressing them.
f) Integrate sustainable environment and natural resources management into the decentralized governance systems and ensure that the institutional framework for the management of the environment and natural resources supports environmental governance in local government authorities.
g) Promote local community, Non-Governmental Organizations (NGO) and private sector participation in environment and natural resources management.
h) Promote the use and application of local knowledge and norms that facilitate sustainable environment and natural resources management.
i) Promote cooperation with other Governments and relevant regional and international organizations in the management and conservation of the environment.
j) Develop and regularly update environmental information systems to facilitate planning and decision-making at local, national and international levels.

k) Facilitate development and regular review of policies and legislation to promote sustainable management of the environment and natural resources.
l) Facilitate development of mechanisms for the management of conflicts in the environment and natural resources sector.

This ESSA recognizes that although the Malawi Fiscal Governance Program for Results does not involve physical activities that have potential adverse effects on people and the environment, the proposed activities include procurement of electronic equipment which are likely to generate e-waste[5]. While the generated e-waste might not require environmental assessment, their disposal must be considered and dealt with accordingly. Inadequacies/limitations in recycling and disposal of electrical and electronic waste (e-waste), which include toxic substances, can cause health and environmental pollution issues.

4.1.2. The Environmental Management Act (EMA), 2017

This Act is a principal legislation that governs environment and natural resource management. It provides provisions and directives on how to operationalize the NEP 2005. The Act states that the Malawi Environment Protection Authority (MEPA) is responsible for all matters related to the environment. The act clearly defines institutional arrangements for environment and natural resource management. It further clarifies the functions of different actors: Line ministries, Lead Agencies; Advisory Committees; District Environment Sub-Committees; and Local Environment and Natural Resources Committees constitute in managing environment and natural resources. The law also proposes environmental management instruments, and requires application of specific planning, environmental and social assessment, environmental standards, economic instruments and other management methods and tools for environment and natural resources management.

Overall, Malawi's institutional arrangements for environment and natural resources management are structured into six levels: Ministry of Natural Resources, Energy and Environment (which though its Environmental Affairs Department (EAD) coordinate formulation of policy and legislations matters related to the environment); MEPA; Lead Agencies; Advisory Committees; District Environment Sub-Committees; and Local Environment and Natural Resources Committees. These organs constitute important and have been entrusted to discharge different roles and responsibilities countrywide as far as the management of the environment and natural resources is concerned.

EMA (2017) Part VII (55) clarifies the duty to minimize and manage waste. The Act states that "every person must manage any waste generated by his activities or the activities of those persons working under his direction in a way and in a manner that he does not cause ill health to other persons or damage to the environment. It also requires persons to dispose generated waste within or outside Malawi in sound environmental manner and that any person who contravenes this section commits an offence".

[5] E-waste can be defined as any electrical and electronic equipment that is discarded or is intended to be discarded or is required to be discarded after use, including all components, sub-assemblies, and consumables that are part of the product at the time of discarding (European Union Directive 2012/19/EU Waste of electric and electronic equipment (WEEE).

The Act also prohibits an individual from handling, storing, transporting, classify or destroy waste other than domestic waste, operating a waste disposal site or plant, or generating waste unless he has a permit/license from the authority. For this case, e–e-waste is one of the substances which requires the Authority to give permit/license to the dialer or an individual related to collection, storage, transportation, importation, exportation, distribution, selling, purchasing, recycling, refurbishing, assembling, dismantling and disposal of electrical and electronic equipment waste or components, and their movement into and outside Malawi.

Section (58) of the Act prohibits an individual from engaging in exportation of hazardous waste except under a permit issued by the Authority, and subject to conditions determined by the Authority. Electrical and electronic equipment waste (e–e-waste) consists of hazardous materials and chemicals and therefore its management is required to be regulated by the Malawi Environmental Authority. Any person who fails to manage hazardous substances or materials, processes and wastes or engages in illegal trafficking in hazardous substances or wastes, commits an offence and shall, on conviction, be liable to a fine of fifty million Kwacha K50,000,000 and imprisonment for fifteen (15) years.

4.1.3. Environment Management (Chemical and Toxic Substances Management) Regulations, 2008

These regulations direct any person in Malawi, whose activity is manufacturing, repackaging, importation, exportation, transportation, distribution, sale or other mode of handling toxic substances and chemicals, to obtain a license. The regulations also establish the notification procedures and the prior informed consent process for the transboundary movement of toxic substances chemicals in Malawi, as well as the licenses required for entities to carry out their importation and exportation of products. Local authorities are required to prepare by-laws for the management of toxic substances and chemical wastes. These by-laws should ensure that the disposal method of chemical wastes is environmentally sound. Although this law does not refer to e-waste, the Act is relevant because the Program will generate e-waste which consists of toxic substances.

4.1.4. National Waste Management Strategy 2019 -2023

It sets out the priority areas to be pursued by Malawi to minimize the detrimental impact on human health and the environment. The strategy also recognizes e-waste as a significant, emerging waste stream in Malawi due to the adoption of ICT across all sectors and the inflow of low-quality EEEs into the country. According to this strategy, the challenges which face the country to attain effective management of e-waste include:

- Lack of specific policy or legal framework on e-waste management covering issuing surrounding (the re-use or recycling of e-waste, the end-of-life product take-back, and the implementation of extended producer responsibility).
- Lack of legislation on the import of e-waste products (governing standards, certification, testing, labelling of second-hand e-waste products before their importation to prevent the country from being used as a dumping site).
- Inadequate public awareness on e-waste.
- Lack of E-waste and environmental expertise and institutional capacity.
- Lack of infrastructure for appropriate e-waste management; and

- Limited financial resources to implement the basic intervention steps needed to manage e-waste.

For effective management of e-waste anticipated to be generated under the Malawi Fiscal Governance Program for Results implementing agencies will need to address the aforementioned challenges as part of Program implementation.

4.1.5. Public Procurement and Disposal of Public Assets Act (2017)

The scope of application of this Act covers all procurement involving public funds and disposal of public assets. The Act establishes the Malawi Public Procurement and Disposal of Assets Authority with overall responsibility to administer the implementation of this Act. Specific functions of the Authority among others include:

- Regulate, monitor and oversight of public procurement and disposal of assets in Malawi. The disposal of hazardous substances has to comply with Toxic Substance Regulations;
- to develop and enhance the efficiency and effectiveness of public procurement and disposal of assets operations;
- to develop standardized and unified procurement and disposal of assets regulations in consultation with concerned professional and official entities;
- to establish and maintain institutional linkages with the Malawi Institute of Procurement and Supply and other professional bodies having an interest in regulating the ethical behaviours and standards of supply chain management professionals;
- to collect and establish a data and information base on public procurement and disposal of assets and monitor the performance of procuring and disposing entities and suppliers, contractors, consultants and other service providers so as to ascertain efficiency and compliance with applicable legislation;
- to maintain and circulate lists of debarred bidders, suppliers, contractors, consultants and other service providers;
- to provide an annual report of procurement and disposal activities carried out by procuring and disposal entities and lay it before the National Assembly;
- to refer some violations of this Act and the regulations relating to public procurement and disposal of public assets to the relevant budgetary and law enforcement authorities for appropriate action;
- to facilitate administrative review of bid protests; and
- to carry out economic studies on public procurement and disposal of assets.

This Act is relevant since it will involve procurement, replacement and/or disposal of ICT equipment upon procuring new ones.

In disposing of assets, including ICT equipment in Malawi, an institution is supposed to adhere to the established internal policies, procedures, and relevant laws and regulations. In particular, it is crucial to consult the Public Procurement and Disposal of Authority (PPDA) mandated by the PPD Act of 2017 to monitor, regulate, and oversee public procurement and disposal of assets.

To a large extent the majority of ICT equipment are auctioned to maximize competition and achieve value for money. This means that after an asset is auctioned, the selling organization is not concerned with end life of ICT equipment as the responsibility for safe disposal is transferred. This prevailing mechanism has potential risks to compound the e-waste situation in the country especially if the generated waste will be mismanaged by the new owner of the asset.

The DRG and the MoFEA reported that disposal of old or used electronic equipment is done by off boarding of the recycled items and donations to other institutions. As a result, non-recyclable items are piled up in a room, a situation which poses human health and environment hazard risks.

4.1.6. Malawi Revenue Authority Act (2017)

The Act provides for the establishment of the Malawi Revenue Authority as a main body responsible for the assessment and collection of revenue on behalf of the government. Specifically, the Authority has been mandated by law to perform the following core functions:

a) to administer and enforce the Malawi Revenue Authority Act;
b) to promote voluntary tax compliance to the highest degree possible;
c) to take measures to improve the standards of service given to taxpayers to improve efficiency and effectiveness and maximize revenue collection;
d) to take measures as may be required to counteract tax fraud and other forms of fiscal evasion;
e) to advise the Minister on matters of revenue policy and matters relating to the administration and collection of revenue under the laws listed in the Schedule; and
f) to perform such other functions about revenue as the Minister may direct.

This Act is relevant since the MRA is also invested in powers of holding, purchasing and disposing of any property, moveable and immovable in the course of performing its functions. In this regard, the procurement of ICT equipment anticipated under the Program is likely to cause the replacement and/or disposal of old equipment, and thus it requires to comply to the Chemical and Toxic Substances Management) Regulations (2008) directives.

4.1.7. The Malawi Information and Communication Technology (ICT) Policy (2013)

Malawi cognizes that the world operates amid science and technology and it can make use of information and communication technology to modernize its economy. In realization of this, the country passed its ICT policy in 2013. The goal of the ICT Policy is to contribute to socio-economic development through maximum integration of ICT in all sectors and the provision of ICT services to the rural areas. The policy establishes institutions, regulatory and legal frameworks to govern this subsector. In particular, it gives directions on how ICT can be mainstream in various economic sectors in Malawi.

The client is required to observe the provisions and directives of this policy during the execution of the Program. It is a relevant as it covers Information Technology (IT); investment in priority ICT areas; provision of ICT services in rural areas and to vulnerable groups; utilization of ICT by the public sector; and safeguarding fundamental human rights, protecting privacy, promoting electronic services while using ICT technology. Specifically, the latter is key for this ESSA because this policy-specific objective aims to address the social risks of the Program anticipated to arise following interoperability of GovTech systems.

4.1.8. The Electronic Transactions and Cyber Security Act (2016)

An Act make provision for electronic transactions; for the establishment and functions of the Malawi Computer Emergency Response Team (MCERT); to make provision for criminalizing offences related to computer systems and information communication technologies; and provide

for investigation, collection and use of electronic evidence; and for matters connected therewith and incidental thereto. The Malawi CERT as a Unit, is established for protection of national infrastructure and response to information and communication technology security threats in the country. The Act also give powers to the Authority to appoint Cyber Inspectors who among other functions have powers to monitor and inspect any website database with critical data or activity on an information system in the public domain and report any unlawful activity to the Authority.

PART VII (71&74) covers issues of data protection and privacy stressing. It stresses that a data controller shall ensure that personal data is processed fairly and legally; and that a data controller shall implement technical and organizational measures enabling protection of personal data against accidental or unlawful destruction or accidental loss, alteration, unauthorized disclosure or access, in particular where the processing involves the transmission of data over a network, and against all other unlawful forms of processing.

PART X of this act consists of provisions on offences. Subsection 84 prohibits unauthorized access, interception or interference with data. It also prescribes penalties and sanctions to a person who intentionally accesses or intercepts any data without authority or permission to do so, that he/she commits an offence and shall, upon conviction, be liable to a fine of K2,000,000 (equivalent $1,176.45) and imprisonment for five years. In addition, Subsections (88; 89; 90; 91& 92) prohibit and penalize acts related to offensive communication; cyber stalking[6]; hacking, cracking and introduction of viruses; unlawful disabling of a computer system; and spamming respectively. This Act is relevant because it gives directions on data protection and fighting against cybersecurity threats.

4.1.9. The Communications Act, 2016

This is the principal legislation that govern communication matters in Malawi. It also establishes the Malawi Communications Regulatory Authority (MCRA); the Malawi Broadcasting Corporation (MBC); and the Malawi Posts Corporation (MPC). The primary objective of the MCRA is to regulate and monitor the provision of communications services and ensure it is reliable and affordable. Such communication also has to meet the demand and expectations of users while conforming to the principle of transparency, certainty, market orientation, efficiency, and consumer satisfaction. The Act also provide provisions on regulation of electronic communication services (Part III: 31) where it states that "person shall not provide electronic communications services except in accordance with a license issued by the Authority". The Act is relevant since though interoperability of GovTech systems institution will share information. Information sharing will be required to observe this Act.

[6] E-waste constitutes deliberate willfully, maliciously, and repeatedly uses of electronic communication to harass another person and makes a threat with the intent to instill reasonable fear in that person for his safety or to a member of that person's immediate family.

4.2. Institutional Framework for Malawi Fiscal Government Program for Results, Environmental and Social Matters

4.2.1 Program Environment and Social Responsibility of the Ministry of Finance and Economic Affairs

The MoFEA will provide oversight and coordination of Program. The ministry has been entrusted by the GOM to formulate economic and fiscal policies that seek to manage government financial and material resources and provide strategic guidance on economic and development planning for the attainment of socio-economic development. MoFEA's mission envisages to achieve sustainable high economic growth, macroeconomic stability and sound financial management for socio-economic development; and provide reliable statistics.

The PFM-SC is chaired by the Secretary to Treasury and has the responsibility of providing strategic oversight and coordinating direct engagement with designated core PFM stakeholders, including at the ministerial level and with donor partners who are providing support for implementation of the PFM Strategy through other projects.

The MoFEA will be responsible for ensuring the Program meets its environmental and social requirements. In respect to the management of e-waste and ensuring data protection, it will ensure each benefiting institution has required capacity to meet the project's E&S requirements. The MoFEA will ensure ICT departments of all the benefiting institution comprises of individuals with expertise in database, network, application management as well as risk and compliance; and that implementing are connected to the secure government network. Likewise, Program benefiting institution will devise and operationalize Cybersecurity Policies.

Procurement and disposal of electronic equipment shall be done sustainably. This will include a requirement for an institution to have chemicals and toxic substances permit to dispose of e-waste as well as embracing sustainable procurement such as green procurement. In addition, the MoFEA will spearhead development of Electronic Waste Management Plan to be adopted and operationalized by all Program implementers.

The ESSA has found that none of the implementing institutions have a department or unit that deals with environmental issues. To fill this gap, the MoFEA shall hire E&S specialist and or second an expert from other government departments and get integrated into the PIC. To ensure close supervision, implementation, monitoring, and reporting of e-waste, an E&S Expert shall have demonstrated experience in hazardous substances management.

4.2.2 Ministry of Natural Resources, Energy and Environment

The Ministry of Natural Resources, Energy and Environment (MNREE) is mandated to provide policy guidance and direction on all matters concerning Malawi's natural resources, energy, and environmental management. The Ministry's mission is to coordinate, facilitate and promote participation of all stakeholders in the sustainable development, utilization and management of natural resources, energy and environment for socio-economic growth and development. The EAD of MNREE is responsible for all matters related to the environment.

Specifically, the EMA, 2017, directs the EAD to coordinates waste management and is responsible for licensing the storage, transportation, classification or destruction of waste; the operation of a waste disposal site or plant; the authorized generation of waste; and the import and export of hazardous waste.

4.2.3 The Malawi Environment Protection Authority (MEPA)

The MEPA is mandated to coordinate, monitor and supervise all activities relating to the utilization and management of the environment and natural resources in Malawi. It is there to enforce compliance with environmental law and policies.

Of relevance to this project MEPA:

a) Advise the Minister on the formulation and implementation of policies for the protection and management of the environment and the conservation and sustainable utilization of natural resources;
b) Initiate legislative proposals, standards and guidelines on the environment;
c) Coordinate and monitor all activities concerning the protection and management of the environment and the conservation and sustainable utilization of natural resources;
d) Prepare plans and develop strategies for the protection and management of the environment and the conservation and sustainable utilization of natural resources,
e) Promote integration and mainstreaming of environmental and social concerns into overall national planning through coordination with relevant ministries, departments and agencies of Government;
f) Coordinate the promotion of public awareness and education on the protection and management of the environment and the conservation and sustainable utilization of natural resources;
g) Advise the Government on regional and international environmental conventions, treaties and agreements to which Malawi should be a party and follow up on the implementation of such agreements to which Malawi is a party;
h) Render advice and technical support, where possible, to entities engaged in environment and natural resources management to enable them to carry out their functions satisfactorily; and
i) Carry out any other activities and take such other measures as may be necessary or expedient for the proper administration and achievement of the objects of this Act.

Given this background, MEPA and EAD shall approve the implementing agencies respective Electronic Waste Management Plans prepared by e-Government, to be developed under this Program to govern e-waste issues.

4.2.4 Malawi e-Government and Data Protection

Electronic Government (e-Government) Department is one of the key departments under the Ministry of Information and Digitalization. The department is trusted to lead, coordinate and manage ICT development in Malawi and it stands to deliver innovative and efficient e-government solutions and services for the improvement of the delivery of public services and maximizing the impact of ICTs. The department performs various services to both public and private sectors as detailed below:

a) System Development and Support: This service is provided under Application Sections and is responsible for providing technical support to ICT Systems in Government as well

as development of new ICT Applications. It also develops and maintains a variety of applications and ensure such applications and systems are structured, designed and maintained according to departmental standards.

b) Networking Internet and E-Mail: This service is provided under the Government Wide Area Network section, responsible for the development and maintenance of Government ICT network infrastructure. The section provides network services to government ministries, departments and agencies. These include network and internet bandwidth, email, network security and hosting of government websites and applications.
c) ICT Education and Training: The department has the National College of Information Technology (NACIT) which provides ICT education and training both to the public and private sector. NACIT offers a Diploma, Advanced Diploma, Bachelor's Degree and short courses in the field of Information Technology.
d) Policy Planning and Programmes: The Policy Planning and Programmes section is responsible for the formulation of ICT policies, strategies and standards. The Section also coordinates various ICT programmes including projects.
e) Website Development and Hosting: The Department is also mandated to initiate website development and host it for any government ministries free of charge. For the website to have relevant information, each ministry is required to appoint a support officer to monitor and update the website regularly.

Malawi eGovernment Department is a relevant institution for implementation through its established sections such as Networking Internet and E-Mail section, Program implementing agencies can enhance their network security. In addition, in collaboration with the e-Government Department, capacity-building training on ITC, data protection and cybersecurity awareness can be provided by NACIT.

5 ESSA FINDINGS AND POTENTIAL ENVIRONMENTAL AND SOCIAL EFFECTS OF THE PROGRAM

5.1 Potential Environmental and Social Benefits

Socio-economic Benefits: The Program aims to enhance public resource mobilization; strengthen resource allocation and prioritization; as well as improve budget execution and accountability. The Program will also roll out electronic government procurement and market systems to MDAs; and enable Interoperability of GovTech systems that entail Integrated Financial Management Information System (IFMIS). Interoperability of GovTech systems will enable multiple institutions to work together and exchange information through linked interfaces. These initiatives will enhance transparency and improve efficiencies for the entire cycle of PFM in Malawi.

Environmental Benefits: The Program through the PAP will support the implementing institutions in capacity-building interventions including (i) helping to advance awareness and capacity to manage e-waste sustainably; and (ii) promoting and advancing green and sustainable procurement concepts which will benefit Malawi. For instance, by adhering to green procurement, the benefiting institutions will procure ICT equipment and products which are recyclable, re-usable, energy serving, long-lasting (reparable products), products that produce the lowest radiation and emission of noise and pollutants as well as products with duplex function. Overall, this will help to serve the environment and reduce carbon footprint. To efficiently manage e-waste, the eGovernment will develop E-waste Management Plan which will guide handling procurement and disposal of e-waste within an institution. At the minimum the plan will stipulate who will collect e-waste, where to store it and the capacity building around this strategy/plan.

5.2 Potential Social Risks and Impacts

The potential social risks are related to data protection and cyber-security threats. This might arise due to the Interoperability of GovTech systems which could compromise the security of institutional data and information from infringement leading to impairment of institution's reputation. Such risks will be addressed by putting necessary measures that will enhance the safety and protection of institutions' data against cybersecurity threats. The extent to which data protection and security is already implemented by the benefiting institutions will be assessed so as to devise and/or update ICT Security Policies as part of the PAP.

5.2.1 Likelihood of Exclusion and Discrimination of Vulnerable Individuals from Program Benefits

To address these risks the implementing institutions will devise mechanisms that will enhance equitable allocation of Program benefits to all individuals within the implementing institutions. For this case, PIC should ensure that, vulnerable individuals within benefiting institutions equally receive relevant Program capacity-building training as well as assistive devises which suit their needs for the case of staff with disabilities as required.

5.2.2 Increased risk of Sexual Exploitation and Abuse/ Sexual Harassment (SEA/SH) and associated transmission of Sexually Transmitted Diseases (STDs).

Capacity building trainings will increase engagement and interactions among the participating

institutions staff and external experts. This might expose participants to SEA/SH risks and associated risks of STDs including HIV/AIDS. The PIC will ensure social issues including gender, SEA/SH, health, human rights, disability, HIV/AIDS and are mainstreamed in the Program's intervention measures as required by Malawi's safeguard laws and policies (NEP, 2005, EMA 2017:13).

5.3 Environmental and Health Risks and Impacts associated with Electronic Waste

Participating institutions will procure considerable amount of electronic equipment such as desktops, laptops, tablets, printers, servers, backup power equipment such as Uninterruptible Power Supply (UPS) batteries, database security, physical Security tools and services (CCTV and Biometric door system), batteries, MySQL Management studio etc.; Likewise, some institutions are likely to dispose of electronic equipment, leading to an increase in e-waste generation. Annex 2 indicates tentative electronic requirements for each Program-implementing institution.

5.3.1 Predicted Environmental and Health Risk and Impacts of e-waste

Scientific research indicates that electronic equipment contains hazardous chemicals and materials[7]. Improper disposal of electrical waste can lead to environmental and health impacts due to the hazardous materials contained in them (Table 5.1). Poor disposal of e-waste is likely in the absence of recycling options.

Improper burning of e-waste to extract precious materials, produces ash contaminated by heavy metals and flame retardants that affect the soil. Lead is one of the common substances released into the environment if e-waste is recycled, stored or dumped using inferior activities, such as open burning[8]. Burning at low temperatures tends to generate toxins such as dioxins that are released into the environment. The fine particles generated during the burning process can travel thousands of kilometers and affect an extensive area. Heavy metals (lead, arsenic, cadmium, etc.) and flame retardants usually contained in electric and electronic equipment (EEE), can leach directly from e-waste into the soil, contaminating groundwater and crops leading to contamination of food chains. Inhalation, and dermal absorption can also occur through dust and direct exposure of workers (and their families) working in primitive recycling areas.

E-waste is resistant to biodegradation with strong tendency to bio-accumulate in agricultural lands and ground water and be available for uptake by grazing livestock and boreholes for drinking water or irrigation. Elevated levels of e-waste pollutants in water, air, soil, dust and human matrices (blood, urine, breast milk) indicate that workers are not the only ones who are at risk of being exposed to e-waste, but the general public and future generations are also at risk.

In addition, improper use of acids to extract precious materials from e-waste also contaminate the environment and travel long distances through various pathways. Toxic chemicals used to extract precious materials from e-waste have the potential to contaminate water resources.

7 ITU (2018): Developing an e-waste national policy and regulatory framework for Malawi, Geneva, International Telecommunication Union.

8 (Widmer R, Oswald-Krapf H, Sinha-Khetriwal D, Schnellmann M, Böni H. Global perspectives on e-waste. Environ Impact Assess Rev. 2005;25(5):436-458.)

Table 5.1: Toxic Substances in E-waste and Associated Health Implications

Substance	Occurrence in E-waste	Health Related Impacts
Halogenated Compounds		
PCB (polychlorinated biphenyls)	Condensers, Transformers	Toxic effects of PCBs include immune suspension, liver damage, cancer promotion, nervous damage, reproductive damage (both male and female) and behavioral change.
TBBA (tetrabromo-bisphenol-A) PBB (polybrominated biphenyls) PBDE (polybrominated diphenyl ethers)	Fire retardants for plastics (thermoplastic components, cable insulation) TBBA is presently the most widely used flame retardant in printed circuit boards	Suspected of hormonal interference (damage to growth and sexual development) and reproductive harm. BFRs are used to make materials more flame-resistant. Exposure studies reveal BFRs in breast milk, and blood of workers in the electronics industry, among others.
PVC (polyvinyl chloride)	Cable insulation	Most used plastic found in everyday electronic. When burned it produces large quantities of hydrogen chloride gas, which combines with water to form hydrochloric acid (HC). Inhaling HCL can cause respiratory problems.
Heavy Metals and other Metals		
Arsenic	Small quantities in the form of gallium arsenide within light emitting diodes	Long-term exposure may cause lung, cancer, nerve damage and various diseases.
Barium	Getters in cathode ray tubes (CRTs)	Exposure may lead to brain swelling, muscles weakness, damage to heart, liver, and spleen, or increase blood pressure.
Beryllium	Power supply boxes which contain silicon-controlled rectifiers and x-ray lenses	Exposure can cause lung cancer and chronic Beryllium diseases. Symptoms of chronic Beryllium dieses include breathing difficulties, coughing, chest pain and general weakness.
Cadmium	Rechargeable computer batteries, fluorescent layer (CRT screens), printer inks and toners, photocopying-machines (printer drums)	Long term exposure to Cadmium can cause kidney damage, and damage to bone (jaw) density
Chromium VI	Anticorrosive coatings in electrical equipment including data tapes and floppy disks.	Carcinogenic
Lead	CRT screens, batteries, printed wiring boards, television sets, PC monitors, light bulbs, lamps	Exposure to Lead can cause brain damage, nervous systems damage, blood disorders, kidney damage, and damage to fetal development. Children are specifically vulnerable.
Mercury	Fluorescent lamps that provide backlighting in LCDs, in some alkaline	Exposure through ingestion or inhalation can cause central nervous system damage and kidney damage.

Substance	Occurrence in E-waste	Health Related Impacts
	batteries and mercury wetted switches	
Selenium	Older photocopying-machines (photo drums)	Exposure to high concentrations causes selenosis, which can cause hair loss, nail brittleness, and neurological abnormalities.

5.3.2 E –waste Management Situation in the Malawi

Malawi generates e-waste due to growth of ICT industry that has expanded the demand of electronic goods and services. E-wastes are mainly generated from a broad range of electronic products such as computers, printers, televisions, mobile phones as well as all kinds of electrical equipment, often divided into large equipment (such as washing machines, air-conditioners, freezers) and small equipment (such as hairdryers and vacuum cleaners)[9].

In 2018, the International Telecommunication Union (ITU) estimated that in the next five years, between 8.69 and 11.66 million devices will become e-waste in Malawi. Mobile phones represent above 95% of these devices. In 2018, the expected value of e-wasted collected due to mobile phones, computers and TV sets, was estimated to be below 10 per cent of the total e-waste value for these devices. There is currently no collection of e-waste.

Currently, there is no specific legislation or regulation on e-waste management in Malawi, and there is a growing concern regarding the impact this type of waste can have on the environment and public health (ITU, 2018). The Malawi Government recognizes the need to establish policies and regulations to manage e-waste as reflected in its National Waste Management Strategy. The situation is even becoming important given the fact that many electronic equipment imported in the country are of low quality and dominated by second hand or used EEE which are near their end of life.

5.3.3 Tools to Manage E-Waste

These are considered as pillars of good international practices in relation to e-waste management as detailed below:

- ***Extended Producer Responsibility (EPR)***: This is the main feature of e-waste management systems. The producer of the electronic equipment has the responsibility of managing such equipment after its end of life. The EPR principal aims to shift part of the waste management responsibilities (administrative, financial and/or physical) from governments or municipalities (taxpayers) to the agency that produces and sells the products. The EPR concept also motivates the producers to reduce consumption of virgin materials, undertake product design changes to reduce waste generation and ensure closure of material loops to promote resource efficiency and sustainable development. Although producers ensure the financing of systems in EPR-based systems, consumers might eventually pay the end-of-life costs due to increased product price.
- ***Producer Responsibility Organization (PRO)/ Compliance Scheme:*** Producers can implement EPR either individually or collectively, through a Producer Responsibility Organization (PRO) or compliance scheme. A PRO takes on the responsibility of the operational aspects such as collection, transportation, environmentally sound recycling, and disposal of end-of-life products, on the behalf of the producers to meet the EPR obligations. While a PRO is founded by producers collectively, a compliance scheme is similar, except that it is a service provider to producers. The main services provided by PRO are: manage the financing of the system; organize and supervise collection and recycling activities; maintain integrity of the system through standards and audits; conduct awareness raising programs; manage corresponding data; and provide reporting and compliance on behalf of its members.

[9] Malawi National Waste Management Strategy 2019 -2023.

- ***Economic Instruments***: enabling the financing of a system is often a fee that may be designated as "environmental fee", "eco-fee", "eco-levy", "advance recycling fee" etc. depending on the regulation. The Organization for Economic Co-operation and Development (OECD) provides a useful criterion for evaluating economic instruments including environmental effectiveness, economic efficiency, administration and compliance costs, revenues, wider economic benefits, soft effects, and dynamic effects.
- ***Informal Sector:*** The guidance principles for the Sustainable Management of Secondary Metals (ISO IWA: 19, 2017) categorized informal actors as those in economic substance activities or unofficial economic activities. The former includes recyclers who subsist thanks to their recycling activities, while the latter category includes those who have profitable or even lucrative businesses that deliberately evade compliance with pertinent regulations.
- ***Down Stream Value Chain:*** The e-waste value chain is basically the post-consumer e-waste management value chain and consists of stakeholders such as dealers, /retailers, collectors, dismantler, refurbishes, and recycler/ material recovery operations for the metals and plastics mainly.
- ***Product Scope and Characterization:*** The type of products included under national legal frameworks for e-waste and EPR based regulation may be specific, only certain products, it is also important to clearly identify and define waste from the non-waste.
- ***E-waste Management Value Chain:*** One of the characters that differentiate E-waste from other waste streams is that it involves a range of players that are active after the first dismantling phase the three broad stages in the e-waste value chain are: (i) waste generation; (ii) waste collection and aggregation; and (iii) treatment, recovery, and disposal.
- ***Key Stakeholders, Roles, and Responsibilities in an e-waste Management System****:* The e-waste management value chain consists of a range of actors responsible for the functioning of different stages of the system. While many current e-waste regulations are built around the EPR concept and thus focus more on the responsibilities of producers, other stakeholders such as governments, municipalities, consumers, retailers, treatment partners, etc. also have important roles to play in a successful system. These stakeholders may play slightly different roles at different capacities based on countries based on country-specific cultural, societal, economic, and further conditions. Stakeholders' collaboration is central as it facilitates in bringing awareness and knowledge transfer, stakeholder interaction and funding to tackle the overall e-waste issues.

5.3.4 Good International Industry Practice (GIIP) of Electronic Waste

According to Sustainable Recycling Industries 2021, the best e-waste management practices involve operationalization of key concepts including the Extended Producer Responsibility (EPR), Producer Responsibility Organization (PRO), e-waste Regulations and e-waste Management. To a large extent, these practices are consistent with what is considered as e-waste management practice which was recommended for Malawi by the International Telecommunications Union in 2018. The required practice includes:

- Defining e-waste before phasing in additional types of EEE;
- Establishing a management structure with a mix of responsibilities for government and third party organizations;
- Utilizing the extended producer responsibility (EPR) principle;
- Establishing a legal framework to comply with Basel Convention obligations; and

- Implementing e-waste education and awareness program to inform the public

5.3.5 Capacity of Implementing Agencies to Manage E-waste

Currently, there is no specific legislation or regulations on e-waste management in Malawi, and there is a growing concern regarding the impact this type of waste can have on the environment and public health. The NEP (2005); NEA (2017); and the Environment Management (Chemical and Toxic Substances Management) Regulations, 2008 make reference to hazardous chemicals and materials but they do not place an emphasis on e-waste. The recently developed National Waste Management Strategy (2019 - 2023) has recognized the need for policies and regulations to manage e-waste due to its increasing volumes. This has advanced/progressed from the Malawian State of Environment and Outlook Report of 2010 which did not pay attention to e-waste.

Secondly, ESSA has found that none of the implementing agencies has the capacity to manage e-waste. Their organizational structures have no departments or units and/or Environmental Experts that deal with environmental issues; and particularly how the benefiting institutions will integrate E&S matters into daily operation of the Program.

Despite the observed limitations, the ESSA revealed some opportunities to address e-waste related challenges. Almost all Program's benefiting institutions are aware that the proposed activities are likely to contribute to the generation of e-wastes that have environmental and health risks/hazards if mismanaged. They also see the need to devise proper mechanism to address the specified gaps. Such steps should go hand in hand with creating awareness through including e-waste management topics during capacity building.

The prevailing business process flow for the disposal of public assets that emphasize on auction of ICT equipment; inadequate institution arrangement for e-waste (absence of policies, legislations and regulations covering e-waste); along with weak capacity of the benefiting institutions to manage e-waste calls for deliberate plans to handle e-waste anticipated to be generated by the Program. To get rid from business as usual, the Program's benefiting institutions are advised to adopt EPR to manage e-waste.

5.4 Data Protection and Cyber Security Procedure within Program's Implementing Institutions

Cybercrime is major problem of global concern, which constitutes crime that primarily takes place online. With new threats every year, the different types of cybercrime affecting businesses are staggering and in some cases targets government agencies. As such importance of data protection[10] in government agencies cannot be over emphasized.

To ensure effective data protection and cyber-security, it is recommended to observe the CIA Triad[11] model which identifies confidentiality, integrity, and availability as key elements for

[10] The legal or proper control over access to and use of data stored in computers or computer systems or computer accessories (flashes, tablets, mobile phones etc.).

11 Fenrich, K. (2008). Securing your control system: the" CIA triad" is a widely used benchmark for evaluating information system security effectiveness. Power Engineering, 112(2), 44-49.

information security. Data protection and cyber security is partly archived by ensuring that institutions have functional and strong Cybersecurity Policies. Such policies must include all necessary strategies, including proper choice of antiviruses, use of strong passwords, multi-factor authentications, access control, choice of operating system, cyber-security audits, and a workable business continuity plan for both infrastructure and people (e.g., working area recovery, disaster recovery site, HR policy-personnel retention and succession plan).

Agencies are also advised to ensure conformity to international standards on data protection. In particular, an organization has to develop manuals and procedures for data protection and fighting against cybersecurity threats. In addition, having an ITC department comprised of qualified technical personnel with expertise in areas of networking, database, application and risk and compliance is central. This is especially important in large organizations like those proposed to implement the Malawi Fiscal Governance Program for Results.

To assess institutions' capacities for data protection and readiness to fight against cybersecurity threat, ESSA employed three main criteria:

a) Availability of Cyber-Security Policy that conforms to international standards;
b) Existence of Personnel with the required expertise in database, network, application management and risk and compliance to facilitate data Protection; and
c) Organisation culture to conduct routine capacity-building for its IT personnel and other categories of their personnel on data protection and cybersecurity were employed.

The ESSA has found mixed results on capacities of institutions to protect data and fight against cybersecurity threats. Organizational structures of all the Program's implementing institutions have ICT Departments. They also have personnel with some capacity to protect data and fight against cybersecurity threats (Table 5.2). However, none of the assessed institutions had a Cybersecurity Policy. The MRA and NAO are currently devising Cybersecurity Policies but they are yet to be approved and operationalize.

All institutions indicated importance of strengthening capacity of their institution for data protection. Areas that need deeper considerations include the following among others:

- ***Phishing Awareness:*** Educate employees about phishing attacks and other social engineering techniques.
- ***Security Hygiene:*** Promote good cybersecurity practices, such as strong password management and secure use of devices.
- ***Network Segmentation*****:** Implement network segmentation to limit lateral movement of attackers within the network.
- ***Strong Authentication****:* Enforce strong authentication mechanisms, including multi-factor authentication (MFA).
- ***Access Controls:*** Regularly review and update access controls to ensure the least privilege principles.
- ***Encryption:*** Implement encryption for sensitive data in transit and at rest.
- ***Data Backup*****:** Regularly backup critical data and test the restoration process.
- ***Incident Response Plan:*** Develop and regularly test an incident response plan to efficiently respond to and recover from security incidents.

- ***Monitoring and Logging:*** Implement robust monitoring and logging mechanisms to detect and analyze security events.
- ***Third-Party Risk Management:*** Assess and manage the cybersecurity risks associated with third-party vendors and partners.
- ***Secure Software Development:*** Implement secure coding practices and conduct security assessments during the software development lifecycle.
- ***Continuous Improvement:*** Regularly evaluate and enhance cybersecurity measures based on the evolving threat landscape.
- ***Security Awareness Programs:*** Implement ongoing security awareness programs for employees.

Therefore, to effectively develop capacity for data protection and fight against cybersecurity threats, the Program's implementing agencies will have to develop Cybersecurity Policies and operationalize them. In addition, the implementing agencies will have to ensure proper selection of data protection and cyber-security strategies and develop manuals and procedures for the same conforming to international standards.

Table 5.2: Summary of Institutions' Capacity and Readiness for Data Protection and fight against Cyber Security Threats

S/N	Agency	Identified Capacity and Gap
1.	MRA	• The Authority conforms to the international standards on cyber-security. Currently it has ISO/IEC 27001: Information Security Management System (ISMS); CIS Controls (Center for Internet Security); and to the National Institute of Standards and Technology (NIST) Cybersecurity Framework. However, the Authority's Board has not approved a Draft Cyber-Security Policy. • The MRA' organizational structure consists of ICT Department with technical personnel with expertise in database, network, and application management as well as risk and compliance and have relevant professional certifications in their areas of expertise. • MRA also conducts routine capacity-building training for their IT personnel and other categories of their personnel on data protection and cybersecurity.
2.	NAO	• NAO's organizational structure consists of an ICT Department with personnel with current knowledge base encompassing database, network, and application management. However, they have inadequate in-depth expertise in these fields and haven't obtained any relevant certifications. • No Cyber-security policy though it conducts routine capacity-building for its IT personnel and other categories of their personnel on data protection and cybersecurity.
3.	PPDA	• The PPDA organizational structure consists of ICT Department. Its staff have expertise and some having certified in IT essentials (CISCO); CCNA fundamentals and CCNA exploration, Cybersecurity (CC), and managing risk in the information age. The agency is currently developing its Cybersecurity Policy.
4.	DRG	• DRG organizational structure consists of ICT Department. However, it does not have technical personnel with expertise in database, network, application management, as well as risk and compliance. • The department is currently saved by IT staff with general knowledge and experience on computer but without relevant professional certifications in their areas of expertise. • The agency has no cybersecurity and does not conduct routine capacity-building for its IT personnel and other categories of their personnel on data protection and cybersecurity.
5.	MoEFA	• The Ministry has ICT department with a considerable number of IT staff. However, it has inadequate personnel with expertise in database, network, application management as well as risk and compliance with relevant professional certification. • The Ministry does not conduct routine capacity-building training for their IT personnel and other categories of their personnel on data protection and cybersecurity.
Source: Information Provided by Institutions During ESSA Preparation		

5.5 The Grievance/Complaint Redress Mechanism

5.5.1 Grievance Redress Mechanisms for the Program's Benefiting Institutions

The nature of this Program does not require a workforce from non-Civil Servants. Therefore, there is no need to devise a separate GRM to address such category of group. In the context of the Malawi Fiscal Government Program for Results, grievances constitute any complaints and or concerns that might arise in the course of implementing Program activities. Such activities are related to enhancing improvement of the effectiveness of resource mobilization, budget execution, and transparency of public finances in Malawi. In these circumstances, grievances may emanate from staff within the implementing institutions and or from the suppliers of electronic equipment. Staff's grievances may include complaints related to exclusion and or discrimination of vulnerable individuals from Program benefits related to (i) capacity building opportunities and or provision of assistive devises that suit needs of staff with disabilities; and (ii) Sexual Exploitation and Abuse/ Sexual Harassment (SEA/SH) may arise during the implementation of technical and technological capacity-building of staff to achieve effective execution of the Program.

Grievances related to poor disposal/dumping of e-waste will be addressed in accordance to the provisions and directives set in: The Environmental Management Act (EMA), 2017; Public Procurement and Disposal of Public Assets Act, 2017; and the Environment Management (Chemical and Toxic Substances Management) Regulations, 2008**.**

For this case, the Civil Servants engaged in this Program have access to grievance procedures provided under the Malawi's Public Service Act/Regulations. The current procedures for handling grievances from civil servants will remain. In handling grievances, the staff follow Staff Regulations and other Government Circulars which require employees to first discuss their complaints with their immediate supervisors and the authorities above the immediate supervisors to mediate the conflicting parties to arrive at a mutually agreed settlement.

5.5.2 Grievance Redress Mechanisms with Suppliers

The grievances between Suppliers and the program implementers will be addressed through signed procurement contracts. Normally, before effecting procurement will be required to sign formal agreement which bind the supplying process and payment. The Operational Manual of the Program will need to review the existing system and provide timelines and a monitoring mechanism for the grievance redress mechanism (GRM) between the supplies and benefiting institutions.

5.5.3 World Bank Procedure to Handle Community' Grievances.

Communities and individuals who believe that they are adversely affected by a World Bank supported project may submit complaints the Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address project-related concerns. Project affected communities and individuals may submit their complaints to the World Bank's Inspection Panel which determines whether harm occurred, or could occur, because of WB non-compliance with its policies and procedures.

5.6 Exclusion Criteria

In managing Programs implemented under PfoR financing arrangement under the World Bank, the exclusion principle is applied to the Program activities that are ineligible for PforR financing

(i.e., activities that are judged to be likely to have significant adverse impacts that are sensitive, diverse, or unprecedented on environment and/or affected people). The Program shall exclude project activities that are likely to involve:

a) Procurement of ICT/electronic equipment from producers or suppliers who are not liable under contract to take back the old machines and dispose them in an environmentally sound manner. This is important for encouraging Extended Producer Responsibility (EPR).
b) Noncompliance with Green Procurement requirements.

6. OPERATIONAL PERFORMANCE AND INSTITUTIONAL CAPACITY ASSESSMENT

6.1 Introduction

This chapter summarizes the country's E&S systems and institutional capacity assessment based on the WB PforR core principles. The ESSA concludes that, to some extent, the national regulatory framework for environmental and social management in Malawi is consistent with the Bank PforR Policy and Directive regarding principles and critical elements. The legal framework provides a reasonable basis for addressing environmental, health, safety and social issues likely to arise in the proposed Program.

With regards to data protection, Electronic Government Department (e-Government) under the Ministry of Information and Digitalization has relevant capacity to assist the implementing institutions in data protection. Similarly, there are other relevant institutions which are central in data protection and communication including: The Malawi Communications Regulatory Authority (MCRA); and Malawi Computer Emergency Response Team (MCERT). Therefore, the Malawi Fiscal Government Program for results will benefit from the existing services offered by these institutions related to data protection. Challenges that may arise can be associated with a lack of compliance with the regulatory framework, inadequate human resources and limited budgets for some of the implementing institutions. It is worth noting that, despite existing national framework for data protection, all the implementing institutions will be required to strengthen their capacities in data protection and defending themselves against cybersecurity. This shall be done by devising and operationalizing Cybersecurity Policies that are aligned with international standards as well as addressing the observed deficiency of cybersecurity skills.

The ESSA has found that Malawi has not yet established institutional arrangement to deal with e-waste. This is despite the fact that the country has seen a growth of ICT industry that has expanded the demand of electronic goods and services and are generating e-wastes. There is no specific policy nor regulations that govern management of e-waste. Other key pressing challenges which face Malawi to attain effective management of e-waste include: inadequate public awareness on e-waste; lack of E-waste and environmental expertise and institutional capacity; lack of infrastructure for appropriate e-waste management; and limited financial resources for the implementation of basic intervention measures to manage e-waste.

Further, the ESSA has found that none of implementing agencies have capacity to manage e-waste. Their organizational structures have no departments or units and or Environmental Experts that deal with environmental issues. Despite the specified shortcomings, the ESSA has observed some opportunities which the Program can leverage to improve e-waste management. The National Waste Management Strategy considers e-waste as a public issue of concern requiring immediate attention. Consequently, the contents of this analysis reflect the capacity of the E&S systems applicable to the Program in its present form – i.e., national regulatory bodies (e.g. e-Government and MEPA).

The main findings are presented using the SWOT *(Strengths-Weaknesses-Opportunities-Threats)* approach, which is adopted and applied to the PforR context in the following way:

- Strengths of the system, or where it functions effectively and efficiently and in accordance with the Bank Policy
- Inconsistencies and gaps ("weaknesses") between the principles espoused in the Bank policy and Directives and the countries/the implementing institutions' environmental and social systems and capacity constraints.
- Actions ("opportunities") are required to strengthen the existing system within the implementing institutions to address social and environmental issues.
- Threats (Risks) that are likely to affect program implementation and performance.

The E&S Management Systems are summarized below and respective details of the each are provided in Annex 3.

6.2 Core Principle 1: General Principle of Environmental and Social Management

The Core Principle No. 1 is Applicable. There is a limited national regulatory framework and a procedure for E&S due diligence concerning the potential impacts of the Program. The Program will not have physical activities that have adverse effects on people and environment, however procurement of ICT equipment is likely to generate e-waste. Although the generated e-waste might not need environmental assessment, their disposal must be taken seriously and be handled within the available national regulations. There are also social risks related to Data and Digital Security arising from Interoperability of GovTech systems.

Program implementing institutions shall strengthen their capacity to manage e-waste and data protection. e-Government and PPDA as lead implementing institutions, together with MEPA and EAD, will lead development of a National E-WASTE Strategy and Action Plan, applicable for all spheres of Government, to address:

a) Interim: E-waste that is currently being stored for disposal including actions for storage, handling, transport and disposal.
b) Short term: road map of actions how to make E-waste more sustainable in Malawi, including actions for storage, handling, transport, disposal, and emergency procedures – including in District and Boma areas.
c) Long Term: how to reduce e-waste, e.g. through EPR policies, and product thresholds (MBS). The Strategy and Action Plan to include policy, legislation, regulations required to support the strategy and Action Plan. And communication and awareness both within the project, but also to the country of the national strategy and action plan.
d) Within the program, implementing agencies to develop and conduct awareness on, their respective e-waste management plans, developed in accordance with the Chemical and Toxic Substances Regulations and Waste Management Strategy, and approved by MEPA.

Also, Program implementing institutions will devise and operationalize Cybersecurity Policies that align with national and international standards. Such policies to be preceded with Cybersecurity Audit. To ensure effective implementation of the Malawian E&S management system for the MoFEA will hire and or second E&S specialists with hazardous substances management experience and integrate him/her to the PIC at the MoFEA.

6.3 Core Principle 2: Natural Habitats and Physical Cultural Resources

The Core Principle No 2 is Not Applicable. The Program investments would not involve activities that convert critical natural habitats. All interventions are related to enhancing capacity of the GoM to improve the effectiveness of resource mobilization, budget execution, and transparency in the use and management of public funds in Malawi. As such, the ESSA did not consider the Program with regard to Core Principle 2.

6.4 Core Principle 3: Public and Worker Safety

The Core Principle No. 3 is Applicable. The Program activities will necessitate enhancement of technical and technological capacity of staff to achieve effective performance of the Program. Capacity building trainings will increase engagement and interactions among the staffs of the participating institutions and external experts. This might expose participants to SEA/SH and STD risks. In addition, mismanagement of toxic substances in e-waste, and the disposal thereof and has potential to cause impacts on the environment and community.

Program implementing institutions shall strengthen their capacity to manage SEA/SH and STD risks and impacts. GBV – SEA/SH and HIV/AIDS will be mitigated by GBV and HIV awareness programs and by putting in place functional GRM. Similarly, the implementing institutions will be compile Electronic Waste Management Plan, as mentioned in Core Principle 1, along with conducting capacity building awareness to their staff on e-waste issues to improve level of knowledge, attitude, and practice towards e-waste management. In addition, MoFEA shall hire and or second E&S specialists with hazardous substances management experience and integrate him/her to the PICs at the MoFEA.

6.5 Core Principle 4: Land Acquisition

Core Principle 4: Land Acquisition is not Applicable. The proposed activities will not involve acquisition of land, as such, the ESSA did not consider the Program with regards to Core Principle 4.

6.6 Core Principle 5: Indigenous Peoples and Vulnerable Groups

The Core Principle 5 is Not Applicable. Within Malawi no groups defined as Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities are present not will the project disproportionately impact vulnerable groups.

6.7 Core Principle 6: Social Conflict

The Core Principle 6 on Social Conflict is Not Applicable**.** The Program will not entail social conflict in fragile states, post-conflict areas or areas subject to territorial disputes, nor will the Program cause social conflict or impact distributional equity or associated cultural sensitivities. As such, the ESSA did not consider the Program with regards to Core Principle 6 as this Core principle and key element does not apply to the Program

6.8 Integrated Risk Assessment

The overall E&S risks of the Program is considered Low. The proposed activities, provided mitigation measures are implemented accordingly, are expected to have a low chance of causing adverse effects on the environment and human health. The risks are expected to be site-specific, predictable, and mitigatable through adherence to the existing national laws, regulations, and

standards. There will not be any material threat to the natural habitats, biodiversity, ecosystem and natural resources such as fisheries and forests. Equally, no land acquisition will be triggered by the Program activities that might cause physical or economic displacement. Likewise, the Program will not exacerbate social conflicts and or violation of the rights of indigenous peoples and other vulnerable groups.

The environmental risks of this Program are those related to electronic waste generation, which contains toxic substances, while social risks are those related to the possible misuse of shared data and digital security concerns, both related to data protection and cyber-security. In addition, there is a possibility of exclusion and discrimination of vulnerable individuals (workers) from project benefits, and risks of SEA/SH. The latter are likely to happen because the Program activities will necessitate enhancement of technical and technological capacity of staff to ensure effective execution of PFM. Such capacity building will increase engagement and interaction among the staff members of the participating institutions and external experts which might expose them to SEA/SH risks.

To address the potential E&S risks and impacts, the Program has devised appropriate measures for enhancing the Program Action Plan developed under Malawi Fiscal Governance Program for Results. This ESSA therefore recommends the following key measures to address the specified risks and gaps during Program implementation (Table 6.1).

Table 6.1: Measures to Strengthen System Performance for Environmental and Social Management

S/N	Target Objective	Action Item (s)	Progress indicators	Responsible	Time Frame	Outputs
1.	Ensure effective implementation of the Malawian E&S management system for the PforR Program (e-waste in particular).	E-Government, PPDA, EAD and MEPA, together with relevant implementing agencies develop a National Strategy and Action Plan on E-Waste and disposal thereof in compliance with the Chemical and Toxic Substances Regulations and National Waste Management Strategy. The Action Plan to set out 3-levels of road map: 1. Interim: how to address immediate e-waste disposal (storage, handling, transport, disposal) 2. Medium term: How to dispose of e-waste more sustainably (storage, handling, transport, disposal, emergency procedures). 3. Long term: how to reduce generation of e-waste e.g. through EPR strategies or product thresholds. Seek advice from MEPA and PPDA during procurement of ICT and subsequent disposal of e-waste. **Instrument:** Include PAP actions in legal agreement.	Interim E-waste Management Plan in place Electronic Waste National Strategy in place.	E-Government, MEPA, EAD, MRA, NAO, PPDA, DRG, MoFEA	Within six months of Project effectiveness.	Enhanced effective management of e-waste.
		Hire and or second E&S specialists with hazardous substances management experience and integrate him/her to the PICs at the MoFEA	E&S specialists in place and get integrated into the Project Implementation Team at the Ministry of	MoFEA	Within six months of Project effectiveness.	Enhanced capacity of monitoring, supervision, and enforcement of E&S management

S/N	Target Objective	Action Item (s)	Progress indicators	Responsible	Time Frame	Outputs
			Finance and Economic Affairs			enhanced.
		The implementing institutions to compile institution-specific e-waste management plans in terms of Chemical and Toxic Substances Management Regulations and Waste Management, to be approved by MEPA. The implementing institutions to conduct capacity building awareness to their staff on e-waste issues to improve level of knowledge, attitude, and practice towards e-waste management. The training will also cover capacity building on the developed Electronic Waste Management Plan.	Training program in place & increased awareness staff awareness on e-waste management issues.	MRA, NAO, PPDA, DRG, MoFEA	Within One year of Program effectiveness.	Staff's knowledge, attitude, and practice towards e-waste management enhanced.
2.	Ensure effective data protection, control, and fight against cybersecurity threats.	Implementing institution to devise and operationalize **Cybersecurity Policies** that align with international standards.	Cybersecurity Policies	MRA, NAO, PPDA, DRG, MoFEA	Within six months to one year of Project effectiveness	Enhanced data protection, control, and fight against cybersecurity threats.
		The implementing institutions to work closely with eGovernment Department to enhance their capacity in data protection and fighting against cyber-threats. **Instrument:** The MoFEA to sign MoU with eGovernment Department on data management on behalf of itself and other Program benefiting institutions.	MoFEA sign memorandum with eGovernment Department to assist them in data protection and fighting against cyber-threats.	MoFEA	Throughout project cycle	Enhanced data protection, control, and fight against cybersecurity threats.

S/N	Target Objective	Action Item (s)	Progress indicators	Responsible	Time Frame	Outputs
		In collaboration with the eGovernment Department, all the implementing agencies to undertake Cybersecurity Audit to determine whether there are proper cybersecurity mechanisms that comply with relevant regulations.	Cybersecurity Audit Report.	MRA, NAO, PPDA, DRG, MoFEA	Within one year of Project effectiveness.	Enhanced data protection, control, and fight against cybersecurity threats.
		Plan for routine capacity building in data protection and cybersecurity to address the deficiency of cybersecurity skills among the implementing institutions.	Training plan in place with subsequent training of staff in participating institutions on data protection and cybersecurity issues.	MRA, NAO, PPDA, DRG, MoFEA	Within six months to one year of Project effectiveness	Enhanced data protection, control, and fight against cybersecurity threats.
		Consultation with eGovernment Department and all the implementing agencies to have functional and strong Cyber Security Policies that capture all necessary strategies including antiviruses choice, use of strong passwords, multi-factor authentications, access control, choice of operating systems and a workable business continuity plan for both infrastructure and personnel.	Cybersecurity Policy in Place &	MRA, NAO, PPDA, DRG, MoFEA	Within One and two years of Project effectiveness	Enhanced data protection, control, and fight against cybersecurity threats.
3.	Strengthen procedures to promote equitable allocation of benefits to all individuals within the implementing agencies.	Devise mechanisms that will enhance equitable allocation of Program benefits to all individuals within the implementing institutions. **Instrument: A** report showing how vulnerable groups are accommodated in the Program.	Vulnerable groups within the implementing institutions accrued project benefits related to Program capacity building as well as ICT equipment with required assistive	MRA, NAO, PPDA, DRG, MoFEA	Throughout project cycle	Enhanced equitable allocation of project benefits to all social groups within the implementing institutions.

S/N	Target Objective	Action Item (s)	Progress indicators	Responsible	Time Frame	Outputs
			devises where possible.			

7. STAKEHOLDERS CONSULTATIONS

World Bank E&S Team conducted a multi-stakeholders consultation meeting on 12th February 2024 in Lilongwe World Bank Office. This was important for meeting Program-for-Results policy and guidance as well as the World Bank's access to information policy. A total of 16 participants representing Program implementation agencies, government departments, regulatory authorities, private sector and civil society organization attended the meeting (Annex 4). A multi-stakeholders consultation aimed at seeking stakeholders' contributions on how the Program can be implemented without adversely affecting the environment and people. It also sought inputs, feedback, and/or confirmation from stakeholders on the factual basis and assumptions used to prepare the ESSA. Further, participants were asked to validate ESSA findings and the proposed recommendations to improve the Malawi E&S Systems. Through this forum stakeholders also had an opportunity to suggest alternative E&S management measures.

Major Observations and Findings: The participants expressed strong support to the Malawi Fiscal Governance Program for Results. They were in agreement with ESSA findings and the proposed Program Action Plan (PAP) to address key E&S gaps in national E&S systems as well as implementing institutions. There were many questions, recommendations and suggestion on how E&S issues can be mainstreamed in the Program as summarized in the Table 7.1 below:

Table 7.1: Multi-stakeholders Views, Comments, Concerns and Suggestion, 12th February 2024

S/N	Question/Comment Response/ Remarks	Comment Response/ Remarks
1	Under recommendations to have Cybersecurity Policies: Will one national policy suffice or should every agency have its own policy.	National policies should be prepared but each agency will also need its own policy related to the risks they face. The design of program should improve exchanges and sharing of information between different agencies so the policies can be aligned to avoid duplication of effort.
2	On the awareness programmes for GBV and HIV: What do the MDAs need to do, should they be targeted for individuals within the agencies or should they target the community as well?	The awareness programs shall be done at an institutional level and will cover many issues including GBV, HIV/AIDs as well as Vulnerable Groups including people Living with Disabilities (PLWDs). PIC will also make consideration to any risks associated with the institution's interactions with external stakeholders. The implementing agencies can improve or build on existing programmes that are already in use within their structures.
3	An update to the Malawi ICT Policy has been finalized (The Malawi Digitization Policy) (e-government to share). The Data Protection Act was assented on 1 February 2023. Cybersecurity Act/Regulations are yet to be completed, recognizing that integrated systems bring different risks. The e-waste policy under e-government is at an advanced stage.	The ESSA will be updated to reflect the information provided.

4	The ESSA is referring mostly to ICT equipment and does not highlight back up power equipment such as Uninterruptible Power Supply (UPS) batteries, and Solar Panels including as e-waste	ICT equipment is what is mostly anticipated for the program, but waste UPS batteries and solar panels are considered as e-waste. This has been reflected in the update of the document.
5	Vulnerable groups should include waste pickers who are usually young people and should be considered when carrying out public awareness programmes on e-waste.	Agree. This information has been included in the ESSA and it will be taken into account in the development of e-waste management.
6	Public auction is the main disposal method, but this shifts the responsibility for managing e-waste as there are no facilities to repurpose.	It was noted that the management of e-waste is complex. Within the PforR, short term, medium and long term actions have been recommended. Short term actions will be detailed in management plans while medium and long term measures would include requirements to repurpose, EPR. etc.
7	The invitation to FEDOMA to attend the meeting indicates the commitment that the program has for inclusion of vulnerable groups. There was a recommendation to ensure that organizations are inclusive in delivery of the program including employment of people with disabilities, involvement in monitoring. There is need to standardize policies on vulnerable groups and ensure deliberate inclusion.	The ESSA has proposed PAP that addresses inclusion of vulnerable groups. For instance, the PIC should ensure that vulnerable individuals within Program implementing institution receive Program related capacity building and assistive devices to meet their needs as relevant. There was also response from other Agencies that there are policies put in place to ensure inclusion of vulnerable groups but this will also be emphasized in the ESSA. There is also an MSME order which specifically references vulnerable groups which requires target procurements. The program will strengthen procurement by MSMEs.
8	For e-waste, especially computers, disposal is usually by auction as they are seen as assets. PPDA would need to review its policies if e-waste was to be returned to suppliers etc	PPDA: There are two methods of disposal either through public auction or destruction. If disposal is through destruction the institutions need to follow relevant regulations. Institutions are referenced in the guidelines so that requirements with regards to e-waste are followed.

9	How will the project mainstream the E&S issues into the indicators and activities?	There is not a separate financing for the E&S activities given that this is a PforR operation and the nature of the financing. Mainstreaming and funding is therefore built into the DLIs. Citizen feedback will also be built into the audit process and review of achievement of the DLIs. However, actions in the Program Action Plan (PAP) for E&S will also be monitored and there are controls that can be utilized if the PAP is not being followed.
10	What is the source of funding for the E&S activities?	
11	How will capacity building for E&S be increased (especially for technical issues such as e-waste and cyber security) including gender mainstreaming and consideration of vulnerable groups?	This will be a key activity of the IPF component of the Project which will support Technical Assistance to achieve the DLIs as well as a centralized unit to support to increase capacity related to procurement, E&S, contract management. The unit will be housed in MoFEA and will not only support this project but also other development projects in Malawi.
12	OHS issues that come along with the installation of ICT equipment should be considered by the MDAs	Noted and agreed: It has been accommodated in the updated ESSA. To accommodate OHS issues during installation of ICT equipment, contractor will be required to develop **Site Specific Environmental and social Management Plan.**
13	There was a suggestion that an E&S Specialist proposed by ESSA to provide input into the e-waste policy and strategy.	The E&S Specialist would have a supporting role in the development of the instruments but the responsibility for drafting policies and strategies would sit with the implementing partners to promote ownership and sustainability beyond the project.
14	A suggestion to indicate the lead agency for implementation of actions under the ESSA, rather than a group of agencies. The timelines should also be specific i.e. with a clear deadline	Lead agencies and amended timelines has been included in the revised version of the ESSA PAP and shared for feedback.

8. REFERENCES

In addition to the laws, policies, and regulations cited in this report, the ESSA has drawn information from a range of sources including Government documents, technical reports and project documents. This annex lists some of key sources that were consulted in the preparation of the ESSA.

- Bank Guidance: Program-for-Results Financing Environmental and Social Systems Assessment. World Bank, 2020.
- Cucchiella, F.; D'Adamo, I.; Koh, S.C.L.; Rosa, P. (2015). Recycling of Waste from Electric and Electronic Equipment (WEEEs): An Economic Assessment of Present and Future E-Waste Streams. Renewable and Sustainable Energy Reviews. Elsevier 51:263-272.
- Fenrich, K. (2008). Securing Your Control System: the" CIA triad" is a widely used benchmark for evaluating information system security effectiveness. Power
- The World Bank's Operational Policy Directives as revised in 2022 - Program-for-Results Financing.
- Ministry of Natural Resources Energy and Environment (2010). Malawi State of Environment and Outlook Report. Accessible through: https://wedocs.unep.org/20.500.11822/9063.
- Ministry of Natural Resources Energy and Environment (2005): Malawi National Environmental Policy, Lilongwe, Environmental Affairs Department.
- ITU (2018): Developing an e-waste national policy and regulatory framework for Malawi, Geneva, International Telecommunication Union.
- Minister of Natural Resources, Energy and Mining: National Waste Management Strategy 2019 -2023. Lilongwe, Minister of Natural Resources, Energy and Mining.

9. APPENDICES

Appendix 1: Institutional Mandates

Institution	Entrusted Mandates
Malawi Ministry of Finance and Economic Affairs (MoFEA)	• To formulate economic and fiscal policies that seek to manage Government financial and material resources. • To provide strategic guidance on economic and development planning based on accurate and reliable statistics for attainment of socio-economic development.
Malawi Revenue Authority (MRA)	• Responsible for assessment, collection, and accounting for tax revenues. The revenue that the Authority collects goes to the Government for the implementation of various socio-economic development projects such as the construction of roads, bridges, schools, health facilities, and provision of social services. These include national security and, the provision of salaries for civil servants such as the police, the army, judges, doctors, nurses, and teachers.
Department of Registrar General (DRG)	• Registration of Trade Marks, Registered Designs and Patents; • Registration of Businesses, incorporation of Companies and incorporation of trustees; • Personal Property Security Registry, stamp and estate duty; • Registration of Political Parties, Processing change of particulars of Registered Political parties, declaration of assets and donations for political parties; • Registration of marriages and Supervision of District Marriage Registrars; • Director of insolvency and Official Receiver in bankruptcy and company winding up.
National Audit Office (NAO)	• To undertake audit and report on the public accounts of Malawi, and exercise such other powers with relation to the public accounts and the accounts of public authorities and bodies as may be prescribed by an Act of Parliament.
Public Procurement and Disposal of Authority (PPDA)	• Mandated to regulate, monitor and oversee public procurement and disposal of assets in Malawi. • To develop and enhance the efficiency and effectiveness of public procurement and disposal of assets operations. • To develop standardized and unified procurement and disposal of assets regulations, instructions, and bidding documents which shall be binding on all procuring and disposing entities, in consultation with concerned professional and official entities, for issuance by the relevant authorities for use throughout Malawi. • To establish and maintain institutional linkages with Malawi Institute of Procurement and Supply and other professional bodies having interest in regulating the ethical behavior and standards of supply chain management professionals. • To collect and establish a data and information base on public procurement and disposal of assets and monitor the performance of procuring and disposing entities and suppliers, contractors, consultants and other service

Institution	Entrusted Mandates
	providers to ascertain efficiency and compliance with applicable legislation. • To maintain and circulate lists of debarred bidders, suppliers, contractors, consultants and other service providers. • To provide an annual report of procurement and disposal activities carried out by procuring and disposal entities within three months of the close of the financial year through the Authority to the Minister, who shall lay it before the National Assembly, not less than six months from the date of report. • To refer some violations of this Act and the regulations relating to public procurement and disposal of public assets to the relevant budgetary and law enforcement authorities for appropriate action.

Appendix 2: Potential Types of ICT and Infrastructure to be Procured and Disposed Following Implementation of Malawi Fiscal Governance Program for Results

Institution	*Planned Specific Activities an Individual Institution is Expecting to Implement Under this Program*	*Anticipated No. of ICT Equipment and Infrastructure to be Procured to Support Intervention*	*ICT Equipment and Infrastructure to be Replaced and or Disposed off*
MRA	**Establish and put in place** • **A Single Sign-On (SSO)**- authentication process that allows a user to access multiple applications or services with a single set of login credentials (username and password). A user can log in once, and the authentication information is then used to access various interconnected systems. • **Checkpoint -** Network security firewall and VPN (Virtual Private Network) product designed for protection against various cyber threats and secure network communication. • **Network Access Control (NAC)** - a set of technologies and security policies designed to manage and control access to a network. The primary goal of NAC is to ensure that only authorized and compliant devices and users can access a network. • **Web Application Firewall (WAF) -** a security solution designed to protect web applications from various online security threats. • **Database Security –** Protection of databases and the information stored within them from unauthorized access, data breaches, and other security threats.	Database Security (1), Checkpoint (1), Web Application Firewall (1), Vulnerability Assessment Tools (1), Desktops (400) & Laptop (500)	Database Security (1), Checkpoint (3), Desktops (400) & Laptop (500)
NAO	**Undertake:** • Audits of Extractive Industries, Forensic Audit, Audit of Debt and Aid; • Automate Audit services, train auditor in extractive industries, forensic and debt and aid audits; • Train Auditors in Audit Management System (AMS) and Computer Assisted Audit Tools (CAATS), capacity-building for Public Accounts Committee of Parliament, conduct citizen engagement meetings; and • Follow up Audit recommendations and Procure AMS and CAATS.	Desktops, Laptops, printers, AMS, Forensic Audit Equipment, Cameras, Tablets and CAATS	Desktops, Laptops and printers
PPDA	• Establishment of an electronic Government Procurement system • Establishment of an electronic Government Marketplace • Development and adoption of Sustainable Procurement Policy	Cloud server (1), DR Server (1), Mobile Tablets (400), Smartphones (120) for MSMEs, Youth, Women and Disabled	Server

Institution	*Planned Specific Activities an Individual Institution is Expecting to Implement Under this Program*	*Anticipated No. of ICT Equipment and Infrastructure to be Procured to Support Intervention*	*ICT Equipment and Infrastructure to be Replaced and or Disposed off*
	• Updating of Standard Bidding Documents	(Distributed in all regions). SMS & IVR Aggregation services (1); Maintenance Software (e.g., MySQL Manager) for PPDA (1); Dedicated IP Address for DR Site (1) & Provision of Security Tools and Services (1).	
The Department of Registrar General	• Conduct re-registration of businesses and companies under MBRS • Digitizing physical records of businesses and companies • Automate Stamp Duty and Estate Duty • Interface of Automated system with MRA • Interfaces with MDAs (MRA, NRB, Lands and Courts system) • Review of Stamp Duty Act and enactment of Stamp Duty Amendment Bill; • Draft Stamp Duty Amendment Bill	Servers (2), Desktop (9), Switches (2), Licensed Windows server application (2), SSL certificates (2), Desktop Raid Storage (backup equipment) (2) Dedicated IP Address.	Switch, Desktop Backup storage & Software application (after expire).
MOFEA	• Monitoring financial performance of public enterprises; • Provision of Financial Management and Accounting services; • Provision of internal audit and accounting services to Ministries, Departments and Agencies; • Provision of Government budget planning and management services; • Mobilization and management of domestic and external resources.	• File server for digitized ministry files (1); • Public IP address from private ISP and VPN configuration for Meridian system (1); • Provision of physical Security tools and services (CCTV and Biometric door system) (1); • Computer /server protection (computer Antivirus) (1); and • Software maintenance and upgrade (Windows server and MySQL Management studio) (1).	Server (3TB) and Network switch (24 ports).

Appendix 3: Environmental and Social System and Institutional Capacity Assessment
Core Principle 1: General Principle of Environmental and Social Management

Bank Policy for Program for Results Financing: Environmental and social management procedures and processes are designed to (a) promote environmental and social sustainability in Program design; (b) avoid, minimize, or mitigate against adverse impacts; and (c) promote informed decision-making relating to a program's environmental and social effects.

Bank Directive for Program for Results Financing: Program procedures will:

- Operate within an adequate legal and regulatory framework to guide environmental and social impact assessments at the program level.
- Incorporate recognized elements of environmental and social assessment good practice, including (a) early screening of potential effects; (b) consideration of strategic, technical, and site alternatives (including the "no action" alternative); (c) detailed assessment of potential induced, cumulative, and trans-boundary impacts; (d) identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized; (e) clear articulation of institutional responsibilities and resources to support the implementation of plans; and (f) responsiveness and accountability through stakeholder consultation, timely dissemination of program information, and responsive grievance redress measures.

The Core Principle No. 1 is Applicable

The Program will enhance the capacity of the GoM to improve the effectiveness of resource mobilization, budget execution, and transparency of public finances in Malawi. The Program will incentivize the achievement of a series of outputs that will pave the way for the achievement of these outcome targets, including: (i) enhanced public resource mobilization to be manifested in implementation of electronic billing systems, upgraded of the integrated tax administration system, sensitization of taxpayers.

Summary Findings

There is a limited national regulatory framework and a procedure for E&S due diligence concerning the potential impacts of the Program. The Program will not have physical activities that have adverse effects on people and environment, procurement of ICT equipment is likely to generate e-waste. Although the generated e-waste might not need environmental assessment, their disposal must be taken seriously and be handled within the available national regulations. There are also social risks related to Data and Digital Security arising from Interoperability of GovTech systems.

System Strengths: Malawi has established institution arrangement for environmental and natural resource management.	**Gaps** **Weak implementation**:
• The EMA (2017) has provisions that requires the project proponent to undertake impact assessment for the project which are judged to have a significant impact on the environment. • The MEPA is an autonomous institution mandated by law to enforce compliance with environmental laws and policies. In particular, the authority is mandated to coordinate, monitor and supervise all activities relating to the utilization and management of the environment and natural resources in Malawi.	• Although Malawi has NEP (2005) and EMA (2017) that provide a framework for environmental and natural resources management, the country has no specific regulations nor established e-waste institutional arrangement that guide issues of e-waste. • All the implementing institutions have no dedicated units and staffs to

• The law also gives Powers to the MEPA. • MEPA is responsible to review and approve Environmental and Social Impact Assessments, strategic environmental assessments and other relevant environmental assessments. • Malawi has policies, laws, and technical guidelines that guide data security issues. eGovernment Department has required capacity to help the implementing institutions to meet cybersecurity threats. Also, there is MCERT responsible for rescuing government institutions in case of cyber related challenge.	oversee E&S issues which can contribute to inadequate management of E&S issues. • None of the implementing institutions has a Cybersecurity Policy. This situation challenges their capacity to defend themselves against cybersecurity threats.
Actions and Opportunities • The recently formulated National Waste Management Strategy 2019 -2023 recognizes e-waste as a significant, emerging waste stream in Malawi. • Participating institutions are aware of the existence Cybersecurity threats and some have made attempt to develop Cybersecurity Policies which are at advanced stages. • Lead Program implementing institution will be required to improve capacity to integrate E&S issues in Program operation. This can be done through hiring E&S Expert or by seconding an expert from other government authorities. • All the implementing agencies to maintain close collaboration with e-Government on data protection and cybersecurity.	

Core Principle 2: Natural Habitats and Physical Cultural Resources

Bank Policy for Program for Results Financing: Program E&S management systems are designed to avoid, minimize, or mitigate adverse impacts on natural habitats and physical cultural resources resulting from the Program. Program activities that involve the significant conversion or degradation of critical natural habitats or critical physical cultural heritage are not eligible for PforR financing.
Bank Directive for Program for Results Financing*:* As relevant, for the program to be supported, it: • includes appropriate measures for early identification and screening of potentially important biodiversity and cultural resource areas. • supports and promotes the conservation, maintenance, and rehabilitation of natural habitats; avoids the significant conversion or degradation of critical natural habitats; and if avoiding the significant conversion of natural habitats is not technically feasible, measures to mitigate or offset impacts or program activities are necessary. • considers the potential adverse effects on physical, cultural property and as warranted, provides adequate measures to avoid, minimize, or mitigate such impacts.
Core Principle No 2 is Not Applicable **Summary Findings:** The Program investments would not involve activities that convert critical natural habitats. All interventions are related to enhancing capacity of the GoM to improve the effectiveness of

resource mobilization, budget execution, and transparency in the use and management of public funds in Malawi. As such, the ESSA did not consider the Program with regard to Core Principle 2.

Core Principle 3: Public and Worker Safety

Bank Policy for Program for Results Financing: Program E&S management systems are designed to protect public and worker safety against the potential risks associated with (a) the construction and/or operation of facilities or other operational practices under the Program; (b) exposure to toxic chemicals, hazardous wastes, and otherwise dangerous materials under the Program; and (c) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards.

Bank Directive for Program for Results Financing:

- Promotes community, individual, and worker safety through the safe design, construction, operation, and maintenance of physical infrastructure or in carrying out activities that may be dependent on such infrastructure with safety measures, inspections, or remedial works incorporated as needed.
- Promotes the use of the recognized good practice in the production, management, storage, transport, and disposal of hazardous materials generated through program construction or operations; promotes the use of integrated pest management practices to manage or reduce pests or disease vectors; and offers training to workers involved in the production, procurement, storage, transport, use, and disposal of hazardous chemicals following the international guidelines and conventions.
- Includes measures to avoid, minimize, or mitigate community, individual, and worker risks when program activities are carried out in areas that are prone to natural hazards such as floods, hurricanes, earthquakes, or other severe weather or climate events.

The Core Principle No. 3 is Applicable

The Program activities will necessitate enhancement of technical and technological capacity of staff to achieve effective performance of the Program. Capacity building trainings will increase engagement and interactions among the staffs of the participating institutions and external experts. This might expose participants to SEA/SH and STD risks. In addition, mismanagement of toxic substances contained in e-waste, and the disposal thereof have potential to cause impacts on the environment and community.

Strengths	**Gaps**
• NEP (2005) and EMA (2017:13) as principle safeguard policy and law require government departments and sector ministries to ensure social issues including gender, health, human rights, disability, and HIV/AIDS are mainstreamed in Program interventions. • The program's implementing institutions are aware about this required and the need of creating awareness on issues of HIV/AIDS, gender discrimination, and SEA/SH. • Malawi has **Environment Management (Chemical and Toxic Substances Management) Regulations, 2008** which governs handling of toxic substances.	Organisation structure of the benefiting institutions do not have an E&S Expert nor a section dedicated to overseeing E&S issues. The implementing Agencies do not have toxic substances permits or hazardous substances plans as per the Environment Management (Chemical and Toxic Substances Management) Regulations, 2008.

Actions and Opportunities • BV – SEA/SH and HIV/AIDS will be mitigated by undertaking GBV and HIV awareness programs and putting in place functional GRM for both GBV and other project grievances. • The implementing institutions to compile institution-specific e-waste management plans in terms of Chemical and Toxic Substances Management Regulations and Waste Management, to be approved by MEPA. • Conduct capacity building awareness to implementing institution staff on e-waste issues to improve level of knowledge, attitude, and practice towards e-waste management along with operationalization of the E – waste Management Plan.	**Risks:** Risk related to GBV – SEA/SH and HIV/AIDS is low because the Program implementing institutions are aware about NEP (2005) and EMA (2017) requirement to integrate issues of HIV/AIDS, gender discrimination, and SEA/SH. The **(Chemical and Toxic Substances Management) Regulations, 2008 does not reference e-waste.** There are thus risks related to handling and subsequent disposal of e-waste.

Core Principle 4: Land Acquisition

Bank Policy for Program for Results Financing: Program E&S systems manage land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement and assists affected people in improving, or at the minimum restoring, their livelihoods and living standards.

Bank Directive for Program for Results Financing: As relevant, the program to be supported, it has to:

- Avoid or minimize land acquisition and related adverse impacts.
- Identify and address economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people who may lack full legal rights to assets or resources they use or occupy.
- Provide compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses paid before taking of land or restricting access.
- Implement supplemental livelihood improvement or restoration measures if the taking of land causes loss of income-generating opportunities (e.g., loss of crop production or employment); and
- Restore or replace public infrastructure and community services that may be adversely affected.

Core Principle 4: Land Acquisition is Not Applicable

The proposed activities will not involve acquisition of land, as such, the ESSA did not consider the Program with regards to Core Principle 4.

Core Principle 5: Indigenous Peoples and Vulnerable Groups

Bank Policy for Program for Results Financing: Program E&S systems give due consideration to the cultural appropriateness of, and equitable access to Program benefits, giving special attention to the rights and interests of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities, and to the needs or concerns of vulnerable groups.

Bank Directive for Program for Results Financing*:*

- Undertakes free, prior, and informed consultations if Indigenous Peoples are potentially affected (positively or negatively) to determine whether there is broad community support for the program.
- Ensures that the Indigenous People participate in devising opportunities to benefit from the exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the Indigenous Peoples.
- Pays attention to groups vulnerable to hardship or disadvantages, including the poor, the disabled, women and children, the elderly, and marginalized ethnic groups. Special measures are taken to promote equitable access to program benefits.

The Core Principle 5 is Not Applicable

Within Malawi no groups defined as Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities are present not will the project disproportionately impact vulnerable groups.

Core Principle 6: Social Conflict

Bank Policy for Program for Results Financing: Program E&S systems avoid exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

Bank Directive for Program for Results Financing: Considers conflict risks, including distributional equity and cultural sensitivities.

The Core Principle 6 on Social Conflict is Not Applicable

The Program will not entail social conflict in fragile states, post-conflict areas or areas subject to territorial disputes, nor will the Program cause social conflict or impact distributional equity or associated cultural sensitivities. As such, the ESSA did not consider the Program with regards to Core Principle 6 as this Core principle and key element does not apply to the Program

Appendix 4: List of People Consulted during Capacity Assessment and Multi-stakeholders Consultation Meetings

List of People Participated in Institutions' E&S Capacity Assessment

S/N	Name	Institution and Tittle
1.	Vitumbiko Mjura Mkandawire	Accountant General (Accountant
2.	Joseph K Chintolo	Deputy Registrar General (Department of Registrar General)
3.	Yasinta Photo	National Audit Office (Planning Officer
4.	Caroline Jere	Senior Programmer
5.	Chippo Fatch	Department of Registrar General (ICT Officer)
6.	Wilson Upindi	Malawi Revenue Authority
7.	Andsen Mbango	Ministry of Finance and Economic Affairs (Principal Economist)
8.	Natasha Kandoje	Ministry of Finance and Economic Affairs (Principal Revenue Officer)
9.	Alice Chandimba	Department of Registrar General (ICT Officer)
10.	Zione Malani	Malawi Revenue Authority

List of People Participated in Multstakeholders Consultation, World Bank Conference Room, 12th February 2024

S/N	Name	Position	Institution
1.	Yacinta Phiri	Planning Officer	NAO
2.	Robert Matengula	Mahaging Director	Matex International
3.	Michael Roscitt	TTL PforR	WB
4.	Callie Phillips	Senior Social Development Specialist	WB
5.	Diana Trindade	Environmental Safeguard Specialist	WB
6.	Andsen Mbango	Principal Economist	MOFEA
7.	Samantha Braid	Senior Environmental Specialist	WB
The Following Joined Virtually			
8.	Alexander Songoro	Word Bank Social Development Consultant	WB
9.	Roy Khooge	ICT Business Channel Manager	MRA
10.	Wilson Upinde	ICT Technology Manager	MRA
11.	Bessie Nsusa	Chief Economist	EP&D
12.	Scader Louis	Deputy Chairperson	FEDOMA
13.	Gloria Thupi	e-Procurement Manager	PPDA
14.	Gerald Mabweka	RRM	PPDA
15.	Khama Ntelela	Economist	E –Government
16.	Edda Lijoni	Safeguards	PPPC DIAMAP