

REGIONAL E-WASTE MANAGEMENT STRATEGY

2022 - 2027

DEVELOPED

BY

THE REGIONAL E-WASTE MANAGEMENT STEERING COMMITTEE

UNDER THE LEADERSHIP OF

EACO WORKING GROUP 07 ON E-WASTE MANAGEMENT AND GREEN ICTs

FOREWORD

The use of ICT equipment in service provision by the public and private sector has resulted into the rapid growth of End-of-Life (EoL) electronic devices, often known as electronic waste [E-Waste]. E-Waste is a word used to characterize obsolete, malfunctional, dead electronic products and devices that have components which comprise of hazardous substances and toxic elements which may endanger human health and the environment when released out or improperly disposed of.

According to the Global E-waste Monitor, 2020: Quantities, flows and the circular economy potential, a record 53.6 million metric tonnes (Mt) of electronic waste was generated worldwide in 2019, up 21 per cent in just five years. The report also predicts global e-waste – discarded products with a battery or plug – will reach 74 Mt by 2030, almost a doubling of e-waste in just 16 years. This makes E-waste is now the world’s fastest-growing waste stream. Only 17.4 per cent of 2019’s e-waste was collected and recycled

The World Economic Forum reported an estimated waste stream of 48.5 million metric tons in 2018 and an estimated generated tonnage of 61 million by 2023. The increase in generation of E-waste is the result of the short replacement cycles of ICT devices such as mobile devices due to various reasons such as personal lifestyle and the need to replace as well as technological advancements. Today, disused computers, mobile devices, and server main frames are routinely thrown out and discarded into the environment, while some are kept in home storage with the hope of repair, donate and replace parts.

There is need to integrate appropriate mechanisms for safe e-waste disposal management and recycling to ensure safety of persons and sustainability of the environment. It is against this

background that the EACO has developed a five-year strategic plan to curb the rapid accumulation of e-waste across EACO member states. This Strategy spells out priority strategies along with specific respective actions to manage e-waste in EACO member states. The strategy further promotes the principle of Extended Producer Responsibility (EPR) to finance appropriate methods of collection and treatment of e-waste in the region, as well as incorporation of the circular economy principles in anticipation of significantly reducing e-waste generation. The regional strategy will ensure harmonization of policies and legal frameworks in EACO member states as well as the establishment of the regional infrastructure that will facilitate trans-boundary movement of e-waste material in the region. In this regard, it is anticipated that through cooperative regional interventions towards the implementation of this strategy, EACO member states will achieve zero negative impact of E-waste by 2030.

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EXECUTIVE SUMMARY

Population growth, increasing prosperity and changing global consumer habits have increased demand for consumer electronics. Further to this, rapid changes in technology, falling prices and consumer appetite for better products have exacerbated e-waste management challenges and seen millions of tons of electronic devices become obsolete.

In accordance with the global e-waste studies, Africa generated a total of 2.9 Mt of e-waste in 2019. However, at the end of their lifetime, they can pose environmental hazards. In response, some of the East African member states have put in place initiatives to address the threats, including establishment of policies and legislation. Despite this, the threat posed by mismanagement of e-waste persists. Some of the factors exacerbating this situation are: inadequate legal and institutional framework; insufficient enforcement capacity for the existing laws and regulations; inadequate infrastructure; weak operating standards and inadequate transparency; illegal imports, security, data gaps, trust, informality and costs.

In view of the above, the East African Communications Organisation (EACO) has developed a Regional E-waste Strategy, 2022-2027 building on the earlier one which ran from 2017 - 2022. The overall objective of the Strategy is to establish mechanisms for sustainable e-waste management within the EACO members countries. The strategy will cover all 6 member states (Burundi, Kenya, Rwanda, South Sudan, Tanzania and Uganda). The development of the Strategy has adopted a Balanced Score Card approach. The approach is widely used in developing affective strategic management plans. It involves the iteration of nine steps towards achievement of the desired planning framework.

This Regional E-waste Strategy is structured around Seven Chapters. Chapter one provides general introduction, including the background of EACO and its objectives; Vision, Mission, Goal, Purpose and Purpose of e-waste Strategic Management Plan and the guiding principles in the development of the Strategy. Chapter two to seven form the basis of the Strategy as they provide Situational Analysis of the e-waste management; Strategic Management Approach for the member states; Strategic Implementation Plan; Resource Mobilization Strategic Management Plan; Monitoring and Evaluation Plan and Communication and Advocacy Plan.

DEFINITION OF TERMS

The following key terminologies will apply to E-waste management;

“collection centre” means a centre established individually or jointly or a registered society or a designated agency or a company or an association to undertake collection operations of E-waste;

“consumer” means user of electrical and electronic equipment or generator of E-waste;

“deposit bonds” means advance recycling fee from the end user.

“electrical and electronic equipment” means equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields.

“electrical and electronic equipment registry” means a unit housed by the Authority for the purposes of effecting registration of all electrical and electronic equipment producers and recyclers;

“entity” includes Agency, organization, establishment, business, partnership, body corporate with capacity to sue or to be sued;

“environmentally sound management” means taking all steps required to ensure that E-waste are managed in a manner which shall protect health and environment against any adverse effects, which may result from hazardous substance contained in such waste;

“E-waste” also referred to as waste electrical and electronic equipment means waste resulting from electrical and electronic equipment including components and sub- assemblies thereof;

“generator” means any person whose activities or activities under his or her direction produces E-waste or if that person is not known, the person who is in possession or control of that E-waste;

“market” means an environment that facilitates trading in Electrical and electronic equipment and E-waste;

“manufacturer” means an entity involved in the making or production of electrical and electronic equipment either locally or internationally;

“minimum collection incentive” means the minimum collection price paid by recyclers to the collection network to ensure collection of problematic fractions;

“problematic fractions” means components or parts of E-waste where the collection and treatment cost far outweighs the material recovery value;

“producer” means any person or entity who introduces or causes to be introduced new and used electrical and electronic equipment into the market by sale, donation, gifts, inheritance or by any such related methods and can either be a manufacturer, importer, distributor or assembler;

“recovery” means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfill a particular function;

“recycling” means any operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes;

“recycler” means any person or entity engaged in recycling or reprocessing used electrical and electronic equipment or assemblies or their component;

“refurbisher” means any person who repairs, dismantles or re-assembles electrical and electronic equipment to extend the working life of the product;

“refurbishing” means the action of repair, dismantling, improvement of E-waste for the purposes of extending the working life of the product;

“take-back” means the process of returning or repossessing used products from the market to the producer or their representative;

“transporter” means a person or entity that is in the conduct of carrying or conveying E-waste from one point to another;

“treatment” means processing E-waste through modern and eco-friendly technologies to ensure compliance with environmental protection; and

“treatment facility” means a licensed plant, premise, and establishment for processing E- waste.

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CHAPTER ONE: GENERAL INTRODUCTION

1.1 East Africa Communications Organization (EACO)

The East African Communications Organization (EACO) was established in 2012, as a regional autonomous organization with international legal credentials and is headquartered in Kigali Rwanda. EACO brings together national ICT regulators, operators, services providers in the telecommunication, broadcasting and postal sub-sectors, ICT training institutions and other stakeholders in the communication sector within Burundi, Kenya, Rwanda, South Sudan, Tanzania and Uganda. The broad objective of EACO is to strengthen and promote cooperation among the six EAC Countries in the development and provision of postal, telecommunication and broadcasting services in East Africa.

1.1.1. Specific Objectives of East Africa Communication Organization (EACO)

The following are the specific objectives of the East Africa Communication Organization (EACO);

- i. To harmonize ICT Policy and regulatory frameworks in the East African region
- ii. To promote the development of broadcasting, postal and telecommunications/ ICTs
- iii. To devise ways and means to achieve fast, reliable, secure, affordable and efficient communication services within the EAC

1.1.2. E-waste management strategy

The first EACO regional e-waste management strategy was developed in 2017 on the backdrop of the E-waste management challenges posed by the rapid diffusion of information and communications technologies (ICTs) in the economies of EACO member states. These challenges ranged from increasing stock piles of e-waste in the region to potential environmental and health

problems associated with e-waste. Another key factor which drove the formulation of EACO Regional E-waste management strategy was the need to build the capacity of EACO member states in sustainable collection and management of e-waste.

There was a number of initiatives leading to the development of the first EACO E-waste management Strategy. Below is a synthesis of some of the key events and initiatives which led to the formulation of the first strategy.

- EACO member states e-waste readiness assessment – most EACO members have carried out rapid e-waste status surveys and established the baseline for selected indicators.
- The establishment of the EACO regional e-waste management steering committee and taskforce within the ambit of the EACO working group 7. The regional steering committee prioritized e-waste management activities and their mainstreaming within EACO
- Establishment of national e-waste management steering committees and/or e-waste management technical working teams

The above and other initiatives paved the way for the development of the first EACO e-waste management strategy whose major aim was to consolidate all these efforts into a single policy document - a document that shall provide the strategic direction for e-waste management in EACO member states.

1.1.3 Vision of the strategy

The vision that EACO e-waste management strategy sought to achieve is: **zero negative impact of the e-waste among EACO member states by 2030.**

1.1.4 Goal of the strategy

The goal of the previous strategy was the establishment of mechanisms for sustainable e-waste management within the EACO members.

1.2 Purpose of the strategy

The main purpose of the said EACO e-waste management strategy was to drive the development and coordination of initiatives towards the achievement of the zero negative impact of E-waste within the EACO member states by 2030.

1.3 Rationale of the strategy

EACO developed the 2017 E-waste management strategy to address the challenges that rose from the rapidly growing e-waste stream in member states. These included;

- i. The continued increase of e-waste volumes resulting from imports of electrical and electronic equipment and regional assembled or manufactured electrical and electronic equipment.
- ii. The 2017 strategy enabled EACO to increase the level of awareness among e-waste key stakeholders that include users and consumers of the electrical and electronic equipment on the recommended standards for EEE, the hazardous nature or toxicity of e-waste and effects of incorrect e-waste disposal/management. However, there still remain some gaps that need to be filled.

- iii. Improvements have been made in infrastructure and capacity building during the implementation of the 2017 strategy which resulted in the establishment of three additional e-waste facilities and training in three areas. There still remain some gaps in infrastructure and technical capacity to handle, treat and dispose E-waste generated along the entire chain from collection, sorting, transportation, re-using, dismantling, treatment, recycling and final disposal.
- iv. Certain milestones were achieved in the implementation of the 2017 e-waste strategy in development of policies and laws where Rwanda and Tanzania enacted E-waste Regulations and Uganda reviewed their e-waste policy. There still remains some gaps in existing legal framework for E-waste management to address the uniqueness of e-waste.
- v. Existing E-waste recycling and disposal practices are largely informal in member states, with inappropriate techniques applied for treatment and disposal.
- vi. Lack of incentives for consumers and enterprises to hand out obsolete EEE, or voluntary take back systems for end-of-life equipment. In many EACO countries the problem is that they do not discard "for free". The access to waste cost is a major stumbling block in financing of the system.
- vii. Limited availability of accurate estimates and data of the quantity of e-waste generated and recycled so as to inform E-waste management interventions.
- viii. Limited resources in place for e-waste management, and profitable e-waste investments, including financial, human and E-waste handling infrastructure and/or treatment facility.

1.4 Guiding Principles

The following were the guiding principles of the first EACO e-waste management strategy;

- i. Participatory and inclusion derived from participation of all key stakeholders involved in e-waste management value chain both at the national and regional (EACO) levels.
- ii. Alignment with policy, legal and institutional framework for the EAC.
- iii. Consistent with national, regional and global development agenda. The strategy should be aligned to global development agenda such as the Sustainable Development Goals (SDGs) and cater for development strategies of the member states
- iv. Equitable distribution of initiatives across the region
- v. Collaborative frameworks and Public Private Partnerships (PPP)

1.5 Funding

The 2017 – 2022 Strategy had an estimated budget of USD 1,680,000. During the five-year period, a total of USD 1,000,000 was raised both in financial and technical support. The funding was facilitated by EACO Secretariat, GIZ/UNITAR/WRF/Prevent Alliance and ITU. EACO is grateful for this generous support.

EACO expects more technical and financial support for its E-waste programmes in the next five years.

CHAPTER TWO: CURRENT SITUATIONAL ANALYSIS OF E-WASTE MANAGEMENT IN EACO MEMBER STATES

2.1 Introduction

This section of the strategy analyzes the current situation of e-waste management amongst the EACO member states and across the globe.

2.2 Generation of E-waste

In accordance with the global e-waste studies, in 2019, the world generated 53.6 Mt of e-waste a 21% increase from the last five years. The reports also predicted that the generation of e-waste will reach 74 Mt globally, within a short period, i.e., by 2030. This is almost double the amount in 16 years from 2014. This makes e-waste a rapidly growing waste stream across the globe. This is mainly due to shorter life cycles, frequent changes in technology, shorter life spans, changes in customer behaviour and limited options for repair for EEE. In the year 2019 statistics showed that Asia topped the generation of e-waste with 24.9 Mt, accompanied by the Americas with 13.1 Mt, Europe with 12 Mt and lastly Africa and Oceania with 2.9 Mt and 0.7 Mt respectively.

The amount of e-Waste generated in 2017 in Tanzania as per survey done by Tanzania National Bureau of Statistics was 4,750 metric tonnes. In Kenya this was estimated at 5,100 metric tonnes in 2021. Rwanda is estimated to generate 1,500 metric tonnes of e-waste during the same period. According to the Global E-waste Monitor Report 2020 by the United Nations, the e-waste generated in Uganda was estimated at 1,700 metric tonnes in 2018. In Burundi, the Telecommunications Regulator, ARCT estimates are at 3,000 metric tonnes in 2019.

2.3 Current legal and regulatory framework

Today, 71% of the global population has incorporated policies on E-waste, different from region to region; the remaining 29% are yet to bind themselves with a legal framework to ensure legal practices for a sustainable E-waste management. Even with the countries that have enforced E-waste legislation, illegal practices and imports still exist.

The legal framework relevant to e-waste was mapped for all EACO countries in a two-step process. In the first step, framework legislation, technical regulations, statutory orders, strategies, policies, action plans etc., related to environment and waste management, as well as import-exports was collected. This included those in force as well as in draft.

Table 1: High level legal framework mapping (1)

Topic	RW	KE	TZ	BI	UG	Gaps / Notes
E-waste jurisdiction	National	National	National	National	National	National level policy and legislation across all
Government stakeholders involved	MINIRENA, RURA, RBS, REMA,	MOEF, NEMA, KEBS, KRA Customs	VPO, TCRA, NEMC		Ministry of ICT &NG, NEMA, URA, UCC,	Highlight lead govt. stakeholder for e-waste matters
Imports EEE	– East African Community (EAC) customs union. Customs tariffs, rules of origin, import prohibitions, and trade remedy regulations have been harmonized through the EAC.					good reference for harmonization; check tariff from non EAC countries

Import UEEE	– Not allowed (only for recycling)	Allowed	Allowed	Allowed	Allowed (ban lifted)	Check for import duties in each country; paperwork for import
Import WEEE	– Allowed for recycling	Banned	Allowed	Allowed	Allowed	Check documentary requirements for imports in each country; applicable duties and standards
Main ports of import	Dar Es Salaam (TZ) - Rusumo Border, Mombasa (KE) - Gatuna Border; DRC Gisenyi & Rusizi Borders (DRC); Bugesera Border (BI)	Mombasa – Seaport; limited quantities by air	Dar Es Salaam (TZ)	Kobero–Kabanga (overland TZ)	Mombasa (KE)	Check One Stop Border Post (OSBP) requirements for EEE/UEEE/ WEEE between EAC members

Table 2: Table 2 - High level legal framework mapping (2)

Topic	RW	KE	TZ	BI	UG	Gaps / Notes
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E-waste legislation	Yes, in force awaiting implementation	Yes, draft	Yes, draft		Yes, final text	Check definitions; provision for or timeline for entry into force
Framework and scope	EPR-based; EUWEEE 1	EPR-based; EUWEEE 1	EPR-based; EUWEEE 1		EPR-based; EUWEEE 1	Check for exemptions in scope, if any
Target	No				No	Check potential to introduce harmonized target for collection and/or recycling
Financing mechanism	Provision for fees; details will be incorporated in the Draft Ministerial order	Financing of problematic fractions from Producers				Check description of financing mechanism – legal basis for ARF/ eco-levy/ treatment fee
Fee calculation	Fee based on market share	Fee based on market share				Check basis of fee – calculation method (eg. per unit/ per kg)
System management	Under discussion ; potentially RURA					Check details on administration and

						distribution of fund
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Table 3: High level legal framework mapping (3)

Topic	RW	KE	TZ	BI	UG	Gaps / Notes
Technical guidelines	Yes, RS 276-1				Yes,	Check Technical guidance for collection, transport, recycling;
Licensing & authorization	Yes; with 5 year validity	Yes, 12 months validity			Yes Nema give input	Check licensing requirements for collection, transport, recycling; compare costs, timeline and documentation; validity
Reporting requirements	Yes, annually	Yes			Yes, annually	Check reporting format – compare documents required/ form format; frequency of reporting
Transboundary shipments	Basel + Basel Ban + Bamako	Basel + Basel Ban + Bamako	Basel + Bamako	Basel + Basel Ban + Bamako	Basel + Basel Ban + Bamako	Check TZ status on Basel Ban – for countries that allow imports of WEEE – where are they allowed/ not allowed from in case of Ban.
Nodal agency for Basel notification	REMA	DG, NEMA		NEMA	NEMA	Check if there are any protocols/

						channels between EAC countries to share Basel information
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2.4 Infrastructure for e-waste management

Only less than 20% of e-waste generated worldwide is recycled through appropriate infrastructure to treat e-waste. The lack of appropriate infrastructure to handle e-waste is seen as a global issue.

In order to map the current availability of national and regional infrastructures for formal e-waste collection and treatment in EACO countries, a survey was undertaken. The goal was to help identify the needs for infrastructure extension/regional or international collaboration. Only a few appropriate infrastructures were identified in EACO countries. The list of identified recycling plants is found in Table 4 and 5.

2.4.1 Mapping of recycling infrastructure in the region

In order to map the current availability of national and regional infrastructures for formal e-waste collection and treatment in EACO countries, a survey was prepared (via Google Forms). The goal was to help identify the needs for infrastructure extension/regional or international collaboration. The survey was distributed to known contacts who were in turn asked to distribute it themselves.

The survey collected a total of 19 responses; for this reason, during the December workshop the results were complemented with knowledge of a pool of national consultants and participants of the workshop which also represented national institutions. While some of the initial respondents to the survey provided some indication on the treatment capacity of the plant, during the workshop not for all the identified players was possible to indicate the treatment capacity. Capacity provided

by respondents has not been cross-checked with waste permits or licenses. Furthermore, the focus was on E-waste plant and no detailed mapping of Pb-smelters was carried out.

Table 4: Recycling plants EACO countries

Country	Players identified
Burundi	5
E-waste	2
Pb-smelter	3
Kenya	12
E-waste	9
Pb-smelter	3
Rwanda	3
E-waste	3
Tanzania	25
E-waste	17
Pb-smelter	8
Uganda	9
E-waste	8

Pb-smelter	1
Total	51

Figure 1- Location of plants and legend below

Table 5: Plants in EACO region

Country	Company	Type	City/Region	Capacity declared (t/year)
Burundi	Glice Burundi	E-waste	Bujumbura	312
Burundi	Computer for Schools Burundi	E-waste	Bujumbura	18
Kenya	E-waste Initiative Kenya	E-waste	Nairobi	2,500
Kenya	WEEE Center	E-waste	Nairobi	1,000
Kenya	Recyka International	E-waste	Nairobi	100
Kenya	Sintmont	E-waste	Nairobi	N/A
Kenya	Synomet	E-waste	Nairobi	10,000
Kenya	Enviroserve	E-waste	Nairobi	N/A
Kenya	Circular Economy HUB	E-waste	Mombasa	N/A

Kenya	Communications Authority of Kenya	E-waste	Nairobi	100
Kenya	Beta beta metals	E-waste	Nairobi	N/A
Rwanda	Enviroserve	E-waste	Bugansera	10,000
Rwanda	Blancomet	E-waste	Kigali	N/A
Rwanda	Kigali Sanitation	E-waste	Kigali	N/A
Tanzania	Chillambo	E-waste	Dar Es Salaam	9,000
Tanzania	OK Plast	E-waste	Dar Es Salaam	N/A
Tanzania	Environmental and mined land rehabilitation group (EMLRG)	E-waste	Bomani	N/A
Tanzania	Nyabigena mining cooperative society	E-waste	Tarime	250
Tanzania	Center for Clean technology	E-waste	Dar Es Salaam	N/A
Tanzania	Focus Environmental Metal Cleaner	E-waste	Temeke	1,500

Tanzania	AMIT General traders	E-waste	Geita	N/A
Tanzania	Digital Agencies Ltd	E-waste	Dar Es Salaam	N/A
Tanzania	Nyamatagata Small Scale Miners	E-waste	Geita	N/A
Tanzania	Mkombozi	E-waste	Dar Es Salaam	N/A
Tanzania	Victoria Quality Services Ltd	E-waste	Dar Es Salaam	N/A
Tanzania	Bulabu Environmental Services	E-waste	Dar Es Salaam	N/A
Tanzania	Isaack Enterprises	E-waste	Dar Es Salaam	N/A
Tanzania	Nyabigena Mining Cooperative Society Ltd	E-waste	Dar Es Salaam	N/A
Tanzania	Mwanza Environmental Sympathisers Co Ltd	E-waste	Dar Es Salaam	N/A
Tanzania	Kenwood Enterprises Tanzania Ltd	E-waste	Dar Es Salaam	N/A
Tanzania	Sanyifeida Focus Company Ltd	E-waste	Dar Es Salaam	N/A
Uganda	Zero Waste Consult	E-waste	Kampala	200

Uganda	Computer for Schools Uganda	E-waste	Seeta	80
Uganda	Gayaza Electronic Works	E-waste	Kampala	3
Uganda	Nature Riddu Ltd	E-waste	Kampala	3
Uganda	Ecosystem Studies and waste management ltd.	E-waste	Kampala	2
Uganda	Epilson	E-waste	Kampala	3
Uganda	Luwero Industries	E-waste	Kampala	N/A
Uganda	Paladium	E-waste	Kampala	N/A

The Tables below allow to derive a first rough estimation of availability of recycling infrastructure considering the data of waste generated indicated in the Global E-waste Monitor (2017) using the year 2016 as reference.

The Table below shows the gap of installed capacity; It should be considered that for many of the plants listed, no information on the capacity is available. Assuming that, for the plant with no information on capacity, the average installed capacity is equal to the average of the existing ones, the estimations can be further refined.

Table 6: Comparison between available capacity and waste generated.

Country	Cumulated capacity (t/year)	Waste Generated in 2016 (t)	Total number of plants	Plants with capacity declared	GAP (t)	GAP with estimated capacity (t)
Burundi	330	5,000	2	2	4,670	4,670
Kenya	13,700	38,000	9	5	24,300	13,566
Rwanda	10,000	5,900	3	1	-4,100	-9,467
Tanzania	10,750	38,000	17	3	27,250	-10,320
Uganda	291	25,000	8	6	24,709	19,342

Total	35,071	111,900	39	17	76,829	17,791
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The mapping exercise and tables above allow highlighting of a few important elements:

- For majority of the mapped plants, no information on treatment capacity is available and for those where capacity was declared, no validation from authorities issuing waste permit is currently possible. It is therefore recommended to fill such knowledge gap with specific activities at national level.
- Assuming as baseline for the waste generated the most recent data contained in Global E-waste Monitor (2017), the region lacks capacity. The estimation of the missing capacity is estimated between 20 and 70 thousand tons. Such result is anyway highly influenced by the installed capacity of existing players. Under the assumption that those numbers are reflecting the need of recycling infrastructures, we can assume in the region there is room for 3 to 8 plants having a capacity in line with the newest developed in the Region (Enviroserve, Rwanda).
- In some countries the number of plants appears to be insufficient (e.g. Kenya, Uganda) when compared to the volumes of waste generated. This means that even in the short term some transfer of waste could happen.

2.5 Awareness and Capacity Building

To raise awareness and build capacity in regard to E-waste management, Government agencies, Private players, the Media, International NGOs, and all Stakeholders from the E-waste industry should all be involved in the national, regional and international campaign.

2.5.1 Awareness

Therefore, e-waste awareness is a part and parcel of digital literacy in all EACO member states. It can be defined as the ability to understand the real impact of the changes brought by the information society. In one hand awareness would also imply foreseeing and anticipating such changes, either to avoid or smooth their impact. Awareness can be conducted through radio talk shows, TVs, newspapers and social media.

Waste Electrical and Electronic Equipment (EEE) are growing at an alarming rate in the region and the world at large as it has become a point of concern because EEES are made of several components most of which are hazardous and non-hazardous, therefore the improper way of recycling and disposal processes do little to curb the problem and instead, worsen the conditions on national, regional and on a global scale. The environmental impact of careless disposal can wreak havoc in the environment. This begs the questions; how can consumers do their part and make electronic waste management more efficient? Making people aware in all EACO member states is something very crucial.

2.5.2 Capacity Building

Capacity building seeks to improve the performance of work units, departments, and the whole institutional organisation. Therefore, an institutional capacity building is a system-wide, planned effort to increase an institutional performance through purposeful reflection, planning and action. In particular, capacity building looks in-depth at where an institution stands in comparison to where it hopes to be in the future and develops skills and resources to get there. Thus, an institutional capacity building is synonymous with an institutional learning.

The ultimate goal of capacity building in all EACO member states is to enable the institution to grow stronger in achieving its purpose and mission.

Building institutional capacity typically involves four steps:

- Diagnosing what is missing or needed in the institution, which involves gathering information through the use of interviews, observation, document and records.
- Strategic Planning is concerned with developing a plan for institutional improvement based on these data. The process typically identifies problem areas in the institution and outlines the outcomes, steps to resolve the problem to change the situation.
- Educating personnel to carry out change which consist of involving the people most affected by the problem in diagnosis and strategic planning steps. This makes implementation easier as changes are not imposed upon people but rather invented by them.

In some cases, the education step solves sharing of the information obtained in the diagnosis with the people who are affected by the problem and helping them adopt the planned change.

- The Evaluation step is similar to the diagnose step. Once changes have been implemented, data is gathered to determine the effects of planned change. This information then informs the next cycle of planning and action.

Therefore, an institution or organizational capacity expands when learning goes beyond solving a specific problem to gaining the skills and knowledge to solve future problems.

2.6 Resource Mobilization

The main sources of funding for the strategic plan for the management of WEEE within EACO are among others:

2.6.1 Internal funding by Member States

Ensure that in EACO member countries all national procurement mechanisms support the application of the principle of Extended Producer Responsibility. Producers remain responsible for the environmental impacts of their products throughout their life cycle. Factoring the cost of disposal or recycling into the pricing of new products has the effect of shifting responsibility for the management of discarded products from end-users to private sector producers.

Create and manage a recycling fund: Recycling or recovery costs are paid in advance by the consumer when the latter acquires a new product, and are used to finance part or all of the recycling process.

Create an import duty (based on taxation) imposed at the point of entry on all electronic and electrical products imported by individuals, which promotes a transfer of responsibility to consumers of electrical and electronics equipment.

2.6.2 Contributions from Governments of Member States

The contributions of the Member States, deducted from the national budget, would only be used to facilitate the harmonization of procedures and practices in the collection of funds for the management of WEEE, the control of stakeholders in the management of WEEE.

2.6.3 Contributions from international organizations and development partners

These are ad hoc support for the evaluation and development of legislative and regulatory texts on the management of WEEE, capacity building of the actors involved and the exchange of experiences at regional and international level.

2.7 Opportunities and Prospects

There are quite a number of opportunities that present themselves especially in countries that are still grappling to manage e-waste adequately such as in developing countries. There is currently a global push to manage e-waste and international organizations such as ITU and UN have spearheaded this push which has then cascaded downwards to regional and national levels. It is quite noticeable that governments even in the developing regions like East Africa have appreciated the need to adequately manage e-waste. E-waste and its management also present an economic, social and technological opportunities, i.e., e-waste is a source of valuable resources, its management presents business and employment opportunities etc. Adequate e-waste management reduces negative environmental impact.

2.8 Swot Analysis

These challenges and opportunities are further summarized in the SWOT Analysis presented in the Table 7 below;

Table 7: SWOT Analysis

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> - Regional strategy for E-waste management in place - Conducting of e-waste management survey in member states to ascertain status of e-waste and its management - Capacity building and training on e-waste management through the steering committees - Development and review of regulatory framework on e-waste management - Model regional e-waste management policy framework in place - Political commitment by leaders in the member states e.g., ratification and adoption of relevant policies, laws and conventions - Existence of E-waste management coordination structures at regional and national levels (EACO WG 10, National steering committee, regional steering committees) 	<ul style="list-style-type: none"> - Lack of adequate statistics on e-waste generation in the region - Limited coordination of e-waste activities at both at national and regional level - Lack of comprehensive awareness on e-waste especially among end-users, decision makers. - Inadequate e-waste management infrastructure and facilities. - Insufficient e-waste policies, laws and regulations and weak enforcement of existing ones and lack of harmonization of the existing ones - Unpredictable flow of resources on e-waste management

<ul style="list-style-type: none"> - Improved appreciation on awareness of e-waste matters across the board (political, technical and general public) - Implementation of e-waste management initiative of EACO e.g. studies/ statistics - Existing of some basic e-waste management infrastructure in some countries such as dismantling facilities in Kenya and Rwanda - Existence of enabling environment at national level such as e-waste management policy and strategy in Uganda and draft policy in Rwanda, draft regulations and guidelines in Kenya. - Existence of downstream market for some fractions of e-waste in EACO member states 	
<p>OPPORTUNITIES</p>	<p>THREATS</p>
<p>Political</p> <ul style="list-style-type: none"> - Global push on e-waste management issues and initiatives by ITU, UN activities through UNFCCC, UNEP, Basel and Bamako Convention, StEP 	<p>Political</p> <ul style="list-style-type: none"> - Political instability in the region - Set back on political will

<ul style="list-style-type: none"> - Regional integration and the EAC policy harmonization framework - Global conventions, protocols, declarations. 	
<p>Economic</p> <ul style="list-style-type: none"> - Funding support on e-waste management activities and initiatives - Economic opportunities arising from E-waste management - Business and employment - Potential for export growth 	<p>Economic</p> <ul style="list-style-type: none"> - Affluent societies – High consumption... - Counterfeit of substandard goods
<p>Social</p> <ul style="list-style-type: none"> - Growing activism on environment and Green computing - Increased Awareness of negative impact of e-waste – Public health - Potential positive on special impact groups such as women, youth and PWDs – people with disabilities. 	<p>Social</p> <ul style="list-style-type: none"> - Booming informal sector in the region - Social practices and culture in handling e-waste (holding on items due to emotional attachment)
<p>Technology</p> <ul style="list-style-type: none"> - Opportunity for participation at international fora to speak to interests of 	<p>Technology</p>

<p>e-waste management in the region, building capacity as well as contribution to standards formulation</p> <ul style="list-style-type: none"> - Availability of available technologies - Best practices for Bench mark 	<ul style="list-style-type: none"> - Changing of technology making the ICT equipment's inseparable - Rudimentary technology like incineration or burning.
<p>Environment</p> <ul style="list-style-type: none"> - Urban mining - Reduced Greenhouse gases emissions 	<p>Environment</p> <ul style="list-style-type: none"> - Continued Poor disposal methods hence pollution to the environment - Non segregation of waste

CHAPTER THREE: EACO E-WASTE MANAGEMENT STRATEGY APPROACH FOR 2022 – 2027

3.1.Strategic direction

This clearly spells out the direction towards which EACO is heading in regards to e-waste management and circular economy.

3.1.1. Vision, Goals and Strategic Themes

i. Vision

The vision of EACO e-waste management strategy seeks to achieve is: zero negative impact of e-waste among EACO member states by 2030.

ii. Goal

The goal of the strategy is to establish mechanisms for sustainable e-waste management within the EACO member states.

iii. Strategic themes/pillars

In order to realize the above goal, EACO member states and collaborators undertake to intervene in the following priority areas:

- Policy, Legal and Regulatory framework
- Infrastructure for e-waste management
- Resource mobilization
- Coordination and institutional alignment
- Capacity building, Research and Innovation

3.2 Strategies and strategic actions

3.2.1 Pillar 1: Policy, Legal and Regulatory frameworks

Enhance harmonization of policy, legal and regulatory framework for e-waste management in all the EACO member states. Strategic actions are as follows:

- i. Facilitate development of policies, laws, standards and guidelines for e-waste management in all the EACO member states
- ii. Disseminating regional e-waste management policies, laws, standards and guidelines to all EACO member states
- iii. Facilitating the ratification of regional e-waste policies, guidelines and standards in all EACO members states.
- iv. Advocating for alignment of national policies, guidelines and standards and to develop regional policies, standards and guidelines in all EACO member states

3.2.2 Pillar 2: Infrastructure for E-waste Management

Ensuring rationalization of e-waste management infrastructure in the EACO member states. Strategic actions to be taken are as follows:

- i. Conducting surveys on E-waste generation and volumes and develop an updated inventory to inform priority e-waste management infrastructure in the EACO member states
- ii. Developing an e-waste management infrastructure roll out plan and establish synergies between existing infrastructures

- iii. Putting in place appropriate mechanisms for collection, transportation and disposal of e-waste such as the take-back systems with incentives for consumers, door-to-door collection, etc
- iv. Facilitate the development of appropriate collection and dismantling infrastructure in all EACO Member States
- v. Facilitating the development of a regional modern e-waste recycling and recovery facility within the EACO member states

3.2.3 Pillar 3: Resource Mobilization

Strengthening Resource Mobilization mechanisms for e-waste management. Strategic actions to be taken are as follows:

- i. Implementation of the Resource Mobilization plan for effective implementation of EACO e-waste Management Strategy
- ii. Streamlining funding mechanisms for e-waste management
- iii. Promote adoption and implementation of EPR principle
- iv. Conducting a feasibility study for the establishment of EACO e-waste fund
- v. Encouraging Governments to set aside specific budgets for e-waste management
- vi. Enhancing engagement with regional and international organizations/development partners to support e-waste initiatives in EACO member States
- vii. Promote development of e-waste management-oriented businesses

- viii. Encourage Governments to provide incentives (Land, Taxes etc.) to attract investors in e-waste management

3.2.4 Pillar 4: Coordination and Institutional Alignment

Strengthening of the EACO e-waste coordination and collaborative structures at national, regional and international levels. Strategic actions to be taken are as follows:

- i. Supporting the operations and functions of the Regional Steering Committee for effective coordination of the implementation of regional e-waste Strategic plan
- ii. Supporting the establishment of a national (regional) producer association as a mechanism for the implementation of EPR (extended producer responsibility), ARF (Advanced recycling fee) and to enhance producer participation in e-waste management
- iii. Engaging with key stakeholders such as Government, Academia, Private sector, Civil Society and Development Partners to foster mainstreaming of e-waste management within their policies, work plans and budgets.

3.2.5 Pillar 5: Capacity building, Research and Innovation

Improving skills and promoting research and innovation in e-waste management. Strategic actions to be taken are as follows:

i. Strategy 1

Promoting research and innovation in e-waste management

ii. Strategy 2

Putting in place a monitoring and evaluation mechanism for e-waste management

iii. Strategy 3

Providing capacity Building and Awareness creation for e-waste management in EACO member states

iv. Strategy 4

Promoting Circular Economy Technology Development.

3.3 Strategic actions to be taken

3.3.1 Strategic action 1: Research and Innovation

Strategic actions to be taken are as follows:

- i. Conducting studies and baseline surveys on e-waste statistics and data management
- ii. Development of EACO e-Waste Data Management System module (to be integrated with EACO Databank)
- iii. Organizing annual e-waste management innovation contests/awards
- iv. Collaborating with research institutions to promote research and innovation on e-waste management and statistics
- v. Mainstreaming e-waste issues in educational curriculum at various levels especially in technical schools, colleges and universities

3.3.2 Strategic action 2: Monitoring and Evaluation

Strategic actions to be taken are as follows:

- i. Putting in place a monitoring and evaluation mechanism for e-waste management
- ii. Developing and implement a participatory monitoring and evaluation framework
- iii. Conducting mid-term review and final evaluation of the regional e-waste management strategy
- iv. Supporting monitoring and evaluation for national e-waste management initiatives in member states

3.3.3 Strategic action 3: Capacity building

Strategic actions to be taken are as follows:

- i. Raising comprehensive awareness about e-waste and its management
- ii. Building capacity amongst stakeholders and special interest groups such as informal sector, scheme operators etc.
- iii. Undertaking e-waste awareness campaigns in all member states targeting the general public, technical staff and local leaders
- iv. Networking with partner organizations through stakeholder meetings and dialogues
- v. Engaging producers/retailers of EEE to participate in e-waste awareness campaigns
- vi. Participating in regional and international fora on best practices in e-waste management
- vii. Developing information, education and communication (IEC) packages for each stakeholder category.

3.3.4 Strategic action 4: Promoting circular Economy and Technological Development

Strategic actions to be taken are as follows:

- i. Collecting/collating information on best practices on circular economy in e waste management
- ii. Create a regional repository for E waste data/information
- iii. Training of Technical and task force members on EPR, specifically on E-waste management.
- iv. Engaging Universities to research in circular economy technology development
- v. Assist EACO member states in developing policies and guidelines to promote circular economy electronics industry.

CHAPTER FOUR: IMPLEMENTATION PLAN OVER THE NEXT FIVE YEARS (2022 – 2027)

4.1 Roles of key stakeholders

Different stakeholders (individuals and institutions) will play roles and responsibilities in the execution of the EACO e-waste Management Strategy.

For this purpose, the stakeholders have been grouped into three categories, namely: national, regional and international stakeholders. The international stakeholders include development partners, the regional stakeholders include EACO secretariat and all its partners. The partners include the existing as well as potential partners. The national stakeholders include national organizations that constitute EACO member states, national organizations responsible for e-waste management as well as structures and mechanisms created at country level to coordinate e-waste management issues. The key stakeholders and their roles are indicated in the Implementation Matrix in **Annex 3**.

4.2 Coordination and Institutional Alignment

The overall responsibility for implementation, oversight and monitoring and evaluation of the strategy rests with the EACO. The day-to-day implementation of the strategy will be the responsibility of EACO Working Group 07 on E-waste Management and Green ICTs through the Regional E-waste Management Steering Committee. The organizational structure for the implementation of EACO e-waste Management Strategic Plan is as illustrated in Figure 1.

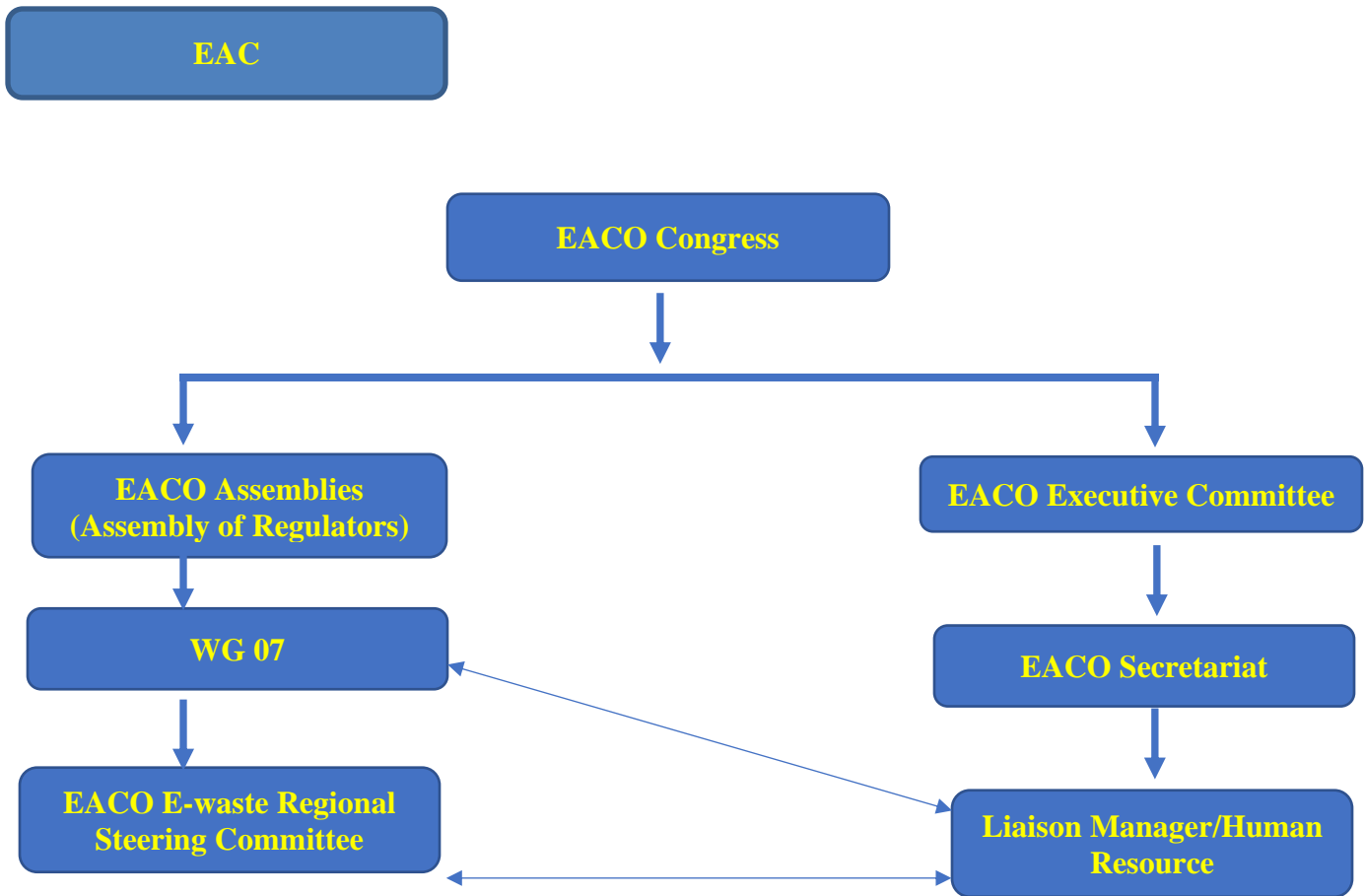


Figure 1: E-waste strategic plan implementation structure

4.3 Strengthening Institutional Capacity

In order to ensure effective coordination of the implementation of the strategy, some capacity enhancement measures have been proposed. These include;

- i. Supporting the operations and functions of the Regional Steering Committee for effective coordination of the implementation of regional e-waste Strategic plan
- ii. Establishing collaborative frameworks with key regulatory bodies and other relevant stakeholders for the proper management of e-waste in EACO member states.

- iii. Supporting the establishment of a Regional Producer Association as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced recycling fee) and to enhance producer participation in e-waste management
- iv. Building capacity and creating Awareness for e-waste management in EACO member states.

4.4 Action Planning

The actions identified for each of the strategies were spilt further into activities and inputs. The timeframe for implementation of these strategies has also been estimated. The resulting **Action Plan** is indicated in **Annex 3**. This being the second strategic plan, most of the strategic interventions are expected to commence in year one. However, in order to circumvent the risk of not being able to mobilize adequate resources within the first year, other interventions have been scheduled to start in year 2. There are only a few interventions, which will delay beyond year two such as the mid-term review and terminal evaluation of the plan, which are respectively scheduled for 2 ½ and the 5th year.

CHAPTER FIVE: E-WASTE MANAGEMENT RESOURCE MOBILIZATION PLAN FOR EACO MEMBER STATES FOR THE NEXT FIVE YEARS (2022 – 2027)

5.1 Introduction

For successful implementation of the e-waste strategy, there is need for a sustainable and sufficient funding mechanism. A critical analysis of the required resources, the funding gap and proposed measures to finance the gap are as detailed below.

5.2 Costing of the Plan

All strategic interventions in the strategic plan have been costed and total resource requirement for implementation of the plan projected for the entire five-year period. The costing has been based on estimation of costs for the different outputs by looking at the average costs of the inputs, which go into delivery of these outputs. Some inputs include the following:

- i. Cost of conducting workshops for stakeholders (venue, refreshment and allowances)
- ii. Coordination costs including travel and meetings
- iii. Writing funding proposals
- iv. Cost for benchmarking
- v. Monitoring, inspection and audits
- vi. Consultancy and professional fees
- vii. Printing and publication
- viii. Advertising and publicity

Based on the above framework, the total cost of the strategy for the entire five years is estimated at USD 2,112,000 which translates into an average of USD 422,400 per annum.

5.3 Funding gap

The current budget allocation to e-waste by EACO is USD 20,000... per annum. By comparing this with the projected average annual budget of USD 422,400 leaves a huge funding gap of USD 402,400 per annum and USD 2,002, 000 over the entire five-year period.

5.4 Financing the plan

There has not been any structured funding mechanism for e-waste management in the region. The allocation by EACO is at a meager USD 20,000 per annum. No development partner has yet committed to financing e-waste management in the region based on this current strategy.

Development of a comprehensive resource mobilization strategy has been prioritized as one of the key strategic interventions for the plan. EACO targets to mobilize at least USD 2,000,000 over the five-year period. This will include:

- i. The possible sources of funding, which are to be further articulated in the resource mobilization strategy include but not limited to funding from Development Partners
- ii. Innovative measures of mobilizing resources from producers such as the EPR, ARF
- iii. Contributions from Governments of Member States
- iv. Corporations and Private sector

5.5 Other proposed measures to finance the gap include

- i) **Local/community contribution** - WEEE is an emerging issue; therefore, no resources

have been allocated for e-waste management. Local authorities are already constrained in collecting solid waste and e-waste is not seen as a priority. Governments and other stakeholders will need to allocate initial funding for e-waste management.

ii) Mainstreaming of e-waste management in various implementing Ministries, Departments and Agencies (MDAs) and other stakeholders' budgets.

These avenues should be explored to ensure e-waste is collected and properly disposed of, and that the e-waste challenge is handled in a sustainable manner.

For effective collection and management of resources for sustainable e-waste management, creation of e-waste fund has been proposed. The e-waste fund is anticipated to be a contributory fund for mobilizing and financing priority regional e-waste management initiatives. Among the measures to replenish, are contributions from development partners, private sector, producers and government. A feasibility study will be conducted to inform on the institutional coordination framework as well as financial model for the fund.

It should be noted that establishing and operationalizing an e-waste fund will be a medium-term measure to ensure sustainable financing of e-waste management.

The specific resource mobilization actions highlighted in this strategic plan includes:

- i. Preparing a detailed resource mobilization plan for implementation of the e-waste strategy.
- ii. Engaging key institutions on the set up and management of the e-waste fund.
- iii. Facilitating the setting up of a Producer Responsible Organization to coordinate the

- resource financial mobilization.
- iv. Liaising with relevant institutions to review legislation to include an Advance Recycling fee for imported EEE.
 - v. Issuing operational licenses to all E-waste collectors and facility operators/owners, and regulate their operations.
 - vi. Advocating for inclusion of E-waste management in budgetary allocations at various levels of governance.
 - vii. Engaging manufactures of various EEE brands to support e-waste recycling, treatment, and disposal activities, and contribute to the e-waste fund.
 - viii. Participating and seeking partnership in the various international, regional and local projects on funding e-waste projects.
 - ix. Reviewing and updating existing legislation and regulations to provide for e-waste levy for all e-waste producers.

CHAPTER SIX: MONITORING AND EVALUATION FRAMEWORK

6.1 Introduction

To be able to gauge the extent to which the target outcomes have been realized, a monitoring and evaluation framework for the plan has been developed. The framework identifies the anticipated outcomes and results of the strategy – both immediate and long-term. For each result (outcomes and outputs) baseline conditions and targets have been identified to show the current status and help in assessing changes in the indicator over time. The detailed M&E matrix is appended Table 8.

Table 8: Presentation of high-level outcomes with indicators

Target Outcome	Indicator level	Baseline	Target
Impact			
1. Improvement in standard of living.	(i) No of green jobs created	29	200
	(ii) Tax income to government from scheme operators	None	USD 50,000
2. Reduction of negative impact of e-waste on public health and environment.	(i) Tons of e-waste recycled according to standards	5%	70%
Outcomes			

1. Align the legal, policy and regulatory framework for e-waste in EACO member states	(i) Availability of regional e-waste management policy and guidelines	None	1
	(ii) Number of Member states adopting regional e-waste standards	0	5
	(iii) No of member states whose policies and laws are harmonized with those of the region	3	6
2. A rationalized and well distributed and developed e-waste management infrastructure	(i) Number of e-waste infrastructure developed at regional level	1	1
	(ii) Number of e-waste infrastructure established in member states	10	15
3. Availability of a comprehensive resource mobilization mechanism	i) Number of development partners attracted in e-waste	5	20
	ii) % Annual increase in e-waste management budget	0	15%
	iii) Number of Innovative E-waste funding mechanism such as	zero	5

	EPR, ARF and e-waste Fund established		
3. Strengthened capacity for coordination of e-waste at EACO	i) % Functionality of EACO structures responsible for e-waste (WG 7, Steering Committee etc)	90%	100%
	ii) % Of e-waste management strategic plan implemented	1	1
7 Effective research innovation and technology development for e-waste	(i) Availability of updated inventory of e-waste	None	1
	(ii) Number of reports generated from research	2	5
	(iii) Number of innovations generated	None	2
	(iv) No of circular economy technologies disseminated	None	1
8 Comprehensive awareness about e-waste in the region	(i) % Increase in public awareness about e-waste	30%	70%
	(ii) % Adoption of sound e-waste management practices	15%	50%

Development of a comprehensive Monitoring and Evaluation System has been identified as one of the core strategies for successful monitoring of the implementation and evaluation of the impact of the e-waste strategy. Underscoring this M&E system is the need for an intensive surveillance, inspection, monitoring, audit and reporting on performance of the strategy. The E-waste strategy shall also be subjected to a mid-term review after two and half years and a terminal evaluation after the fifth year of its implementation. Monitoring and Evaluation will be undertaken by the Regional Steering Committee and will cover the various stakeholders or lead agencies involved in implementation of the strategy.

CHAPTER SEVEN: COMMUNICATION AND ADVOCACY PLAN FOR EACO MEMBER STATES FOR THE NEXT FIVE YEARS (2022 – 2027)

7.1 Introduction

This section examines the following broad focus points;

- i. Key stakeholders to be engaged
- ii. Stakeholder interests – power and influence
- iii. Measures to help engage stakeholders
- iv. Media of reaching out to stakeholders

7.2 Key Stakeholders to be engaged

In order to achieve a successful implementation of this strategy, communication to and advocacy among the key stakeholders is crucial by way of engagement. The key stakeholders in WEEE include but not limited to: Development Partners such as, UNIDO, UNEP, STEP, BASEL, WORLD BANK, DANIDA, GIZ whose main interest in the strategy is to build lasting partnerships and promote closer engagements to foster democracy, economic development and trade. Investors are also key stakeholders because they will want the strategy to ensure an enabling environment for investment. EACO Member States and the Government Agencies therein will want the strategy to deliver a harmonized regional E-waste management Policy, Regulations, Guidelines and Standards in the region. E-waste schemes will expect the strategy to give them a clear roadmap which will standardize the framework of e-waste management in the region, the strategy should also ensure incentives in e-waste management which will make them re-coup their money and create a level playing ground for all. While the public will expect a clean and healthy environment free of negative impact of e-waste.

These stakeholders, if properly engaged will influence smooth implementation of the strategy. The stakeholders shall be engaged through meetings, retreats, development of proposals, development of projects, workshops as well as trainings.

CATEGORY	STAKEHOLDER	INTEREST	MEANS OF ENGAGEMENT
Development Partners	UNIDO, UNEP, STEP, BASEL, ITU, WORLD BANK, GIZ, DANIDA	Build lasting partnerships and promote closer engagements to foster democracy, economic development and trade.	Meeting, retreats, development of proposals, development of projects, Workshops
Private investors		Creating an enabling environment for investment	Meeting, retreats, development of proposals, development of projects, Workshops
Member States	RWANDA, UGANDA, TANZANIA, KENYA, BURUNDI, SOUTH SUDAN	A harmonized regional E-waste management Policy, regulation, guidelines and standards.	
Agencies in Member states	KRA, NITA, NEMA, NEMC	Harmonized regional e-waste policy, Regulations, guidelines	Development of the regulations

E-waste Scheme	EPR, Recycler, collectors,	A clear roadmap which will standardize the framework of e-waste management in the region, Ensure incentives in e-waste management, which will make them recoup their money and create a level playing ground for all.	Workshops, trainings,
Public	ALL	A clean and healthy environment free of negative impact of e-waste.	Publications
The informal sector	Recyclers, collectors. Etc.	To ensure a clean and safe environment to the operators in the informal sector.	Guidelines and workshops
Producers, Importers and distributors	Producers	Empowered market with the capability of buying electric goods and adequately disposing them after they have obtained their lifespan	Guidelines and workshops
Non-governmental organizations	All related to Environment and humanitarian sectors	Have continued investment of the non-governmental organizations and at the same	Stakeholders' meetings and workshops

		time have them protect the environment in their endeavors	
Formal collectors and recyclers	Recyclers and Collectors	Have conducive environment for the operation of the collectors and recyclers of the e waste Conducive policies for e-waste collection and recycling activities	Guidelines and workshops
International corporations	Corporations	Trans-boundary and product compliance Reliable and accurate data /information on e-waste generation	Treaties and agreements
Universities and research institutions	Universities and research institutions	Have relevant information on the lifespan of electric goods and their probable disposal site Reliable and accurate data/information on e-waste generation	Research topics and curriculum
Companies	All	Companies to have proper disposal sites for the electric wastes.	Guidelines and systematic collection plans.

ANNEX 1: SUMMARY DESCRIPTION OF INTERNATIONAL PROTOCOLS AND CONVENTIONS RELEVANT TO E-WASTE

1. Basel Convention (5th May 1992)

The **Basel Convention on the Control of Trans boundary Movements of Hazardous Wastes and Their Disposal**, usually known as the **Basel Convention**, is an international treaty that was designed to reduce the movements of hazardous Wastes between nations, and specifically to prevent transfer of hazardous waste from developed to Less Developed Countries (LDCs). It does not, however, address the movement of radioactive waste.

The Convention was opened for signature on 22 March 1989, and entered into force on 5 May 1992. As of July 2016, 183 states and the European Union are parties to the Convention. Haiti and the United States have signed the Convention but not yet ratified it. EACO Member states have all signed and ratified the Basel Convention.

2. The Basel Convention Ban Amendment 1994

The “Ban Amendment” provides for the prohibition by each Party included in the proposed new Annex VII (Parties and other States which are members of the OECD, EC, Liechtenstein) of all transboundary movements to States not included in Annex VII of hazardous wastes covered by the Convention that are intended for final disposal, and of all transboundary movements to States not included in Annex VII of hazardous wastes covered by paragraph 1 (a) of Article 1 of the Convention that are destined for reuse, recycling or recovery operations.

The Ban Amendment was originally adopted as a decision of the second meeting of the Conference of the Parties in March 1994. The Secretariat provides assistance to parties that are facing difficulties in ratifying the Ban Amendment, on request and within available resources.

3. Bamako Convention;

The **Bamako Convention on the ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa** is a treaty of the African Nations nations prohibiting the import of any hazardous wastes including

radioactive wastes. The Convention was negotiated by twelve nations of the OAU at Bamako, Mali in January 1991, and came into force in 1998.

The Bamako Convention uses a format and language similar to that of the Basel Convention, but is much stronger in prohibiting all imports of hazardous waste. Additionally, it does not make exceptions on certain hazardous wastes (like those for radioactive materials) made by the Basel Convention.

5. Framework Convention on Climate Change.

The United Nations **Framework Convention on Climate Change** (UNFCCC) is an international environmental treaty negotiated at the Earth Summit in Rio de Janeiro from 3 to 14 June 1992, then entered into force on 21 March 1994.

6. The Vienna Convention for the Protection of the Ozone Layer.

The **Vienna Convention on the Law of Treaties (VCLT)** is a treaty concerning the international law on treaties between states. It was adopted on 22 May and opened for signature on 23 May 1969. The Convention entered into force on 27 January 1980. The VCLT has been ratified by 114 states as of April 2014. Some countries that have not ratified the Convention, such as the United States recognize parts of it as a restatement of customary law and binding upon them as such.

7. Montreal Protocol on Substance that Deplete the Ozone Layer 1987

The **Montreal Convention** (formally, the **Convention for the Unification of Certain Rules for International Carriage by Air**) is a multilateral treaty adopted by a diplomatic meeting of ICAO member states in 1999. It amended important provisions of the Warsaw Convention regime concerning compensation for the victims of air disasters.

8. Kyoto protocol

The **Kyoto Protocol** is an international treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce

greenhouse gases emissions, based on the premise that (a) global warming exists and (b) man-made CO₂ emissions have caused it.

ANNEX 2: MAPPING STRATEGIES TO STRATEGIC ACTIONS BY PILLAR

Pillar	Strategies	Strategic Actions
1. Policy, Legal and regulatory frameworks	1.1 To enhance harmonization of policy, legal and regulatory framework for e-waste management in all the EACO member states	1.1.1 Facilitate development of policies, laws, standards and guidelines for e-waste management in all the EACO member states
		1.1.2 Disseminating regional e-waste management policies, laws, standards and guidelines to all EACO member states
		1.1.3 Facilitating the ratification of regional e-waste policies, guidelines and standards in all EACO members states
		1.1.4 Advocating for alignment of national policies, guidelines and standards and to develop regional policies, standards and guidelines in all EACO member states
2. Infrastructure for E-waste Management	2.1 Ensuring rationalization of e-waste management infrastructure in the EACO member states	2.1.1 Conducting surveys on E-waste generation and volumes and develop an updated inventory to inform priority e-waste management infrastructure in the EACO member states

		<p>2.1.2 Developing an e-waste management infrastructure roll out plan and establish synergies between existing infrastructures</p>
		<p>2.1.3 Putting in place appropriate mechanisms for collection, transportation and disposal of e-waste such as the take-back systems with incentives for consumers, door-to-door collection, etc</p>
		<p>2.1.4 Facilitate the development of appropriate collection and dismantling infrastructure in all EACO Member States</p>
		<p>2.1.5 Facilitating the development of a regional modern e-waste recycling and recovery facility within the EACO member states</p>
<p>3. Resource mobilization</p>	<p>3.1 Strengthening Resource Mobilization mechanisms for e-waste management</p>	<p>3.1.1 Implementation of the Resource Mobilization Plan for effective implementation of EACO e-waste Management Strategy</p>
		<p>3.1.2 Streamlining funding mechanisms for e-waste management</p>

		<p>3.1.3 Promote adoption and implementation of EPR principle</p>
		<p>3.1.4 Conducting a feasibility study for the establishment of EACO e-waste fund</p>
		<p>3.1.5 Encouraging Governments to set aside specific budgets for e-waste management</p>
		<p>3.1.6 Enhancing engagement with regional and international organizations/development partners to support e-waste initiatives in EACO member States.</p>
		<p>3.1.7 Promote development of e-waste management-oriented businesses</p>
		<p>3.1.8 Encourage Governments to provide incentives to informal e-waste management players</p>
		<p>3.1.9 Encourage Governments to provide incentives (Land, Taxes etc.) to attract investors in e-waste management</p>

<p>4. Institutional coordination and alignment</p>	<p>4.1 Strengthen of the EACO e-waste coordination and collaborative structures at national, regional and international levels</p>	<p>4.1.1 Supporting the operations and functions of the Regional Steering Committee for effective coordination of the implementation of regional e-waste Strategic Plan</p> <p>4.1.2 Supporting the establishment of National (Regional) Producer Association as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced Recycling Fee) and to enhance producer participation in e-waste management</p> <p>4.1.3 Engaging with key stakeholders such as Government, Academia, Private sector, Civil Society and Development Partners to foster mainstreaming of e-waste management within their policies, work plans and budgets</p>
<p>Pillar 5: Capacity Building Research and Innovation</p>	<p>5.1 Improving skills and promoting research and innovation in e-waste management</p>	<p>Strategy 1: Promoting research and innovation in e-waste management</p> <p>5.1.1 Conducting studies and baseline surveys on e-waste statistics and data management</p> <p>5.1.2 Development of EACO e-Waste Data Management System module (to be integrated with EACO Databank)</p>

		<p>5.1.3 Organizing annual e-waste management innovation contests/awards</p>
		<p>5.1.4 Collaborating with research institutions to promote research and innovation on e-waste management and statistics</p>
		<p>5.1.5 Mainstreaming e-waste issues in educational curriculum at various levels especially in technical schools, colleges and universities</p>
		<p>Strategy 2: Putting in place a monitoring and evaluation mechanism for e-waste management</p>
		<p>5.1.6 Putting in place a monitoring and evaluation mechanism for e-waste management</p>
		<p>5.1.7 Developing and implement a participatory monitoring and evaluation framework</p>
		<p>5.1.8 Conducting mid-term review and final evaluation of the regional e-waste management strategy</p>
		<p>5.1.9 Supporting monitoring and evaluation for national e-waste management initiatives in member states</p>

		<p>Strategy 3: Providing capacity Building and Awareness creation for e-waste management in EACO member states</p>
		<p>5.1.10 Raising comprehensive awareness about e-waste and its management</p>
		<p>5.1.11 Building capacity amongst stakeholders and special interest groups such as informal sector, scheme operators etc.</p>
		<p>5.1.12 Undertaking e-waste awareness campaigns in all member states targeting the general public, technical staff and local leaders</p>
		<p>5.1.13 Networking with partner organizations through stakeholder meetings and dialogues</p>
		<p>5.1.14 Engaging producers/retailers of EEE to participate in e-waste awareness campaigns</p>
		<p>5.1.15 Participating in regional and international fora on best practices in e-waste management</p>
		<p>5.1.16 Developing information, education and communication (IEC) packages for each stakeholder category</p>

		<p>Strategy 4: Promoting Circular Economy Technology Development</p>
		<p>5.1.17 Collecting/collating information on best practices on circular economy in e-waste management</p>
		<p>5.1.18 Create a regional repository for E-waste data/information</p>
		<p>5.1.19 Training of technical and task force members on EPR specifically on E-waste management</p>
		<p>5.1.20 Engaging universities to research in circular economy technology development</p>
		<p>5.1.21 Assist EACO member states in developing policies and guidelines to promote circular economy electronics industry.</p>

ANNEX 3: ACTION PLAN

Pillar	Strategies	Strategic Actions	Inputs	Proposed Budget (USD)					Total Budget	Responsible	Time frame
				2022/23	2023/24	2024/25	2025/26	2026/27			
Policy, Legal and regulatory frameworks	1.1 To enhance harmonization of policy, legal and regulatory framework for e-waste management in all the EACO member states	1.1.1 Facilitate development of policies, laws, standards and guidelines for e-waste management in all the EACO member states	Workshops, Meetings Desk review Consultancy		70,000		70,000		140,000	EACO - RSC, EACO WG7	2026
		1.1.2 Disseminating regional e-waste management policies,	Workshops			30,000	30,000	30,000	90,000	EACO - RSC,	2027

		laws, standards and guidelines to all EACO member states								EACO WG7	
		1.1.3 Facilitating the ratification of regional e-waste policies, guidelines and standards in all EACO member states	Meetings				20,000	20,000	40,000	EACO - RSC, EACO WG7	2027
		1.1.4 Advocating for alignment of national policies, guidelines and standards to develop regional policies, standards and guidelines in all EACO member states	Advocacy Workshops Frameworkr		50,000	50,000			100,000	EACO - RSC,	2025
Infrastru cture for E-waste	2.1 Ensuring rationalization of e-waste management	2.1.1 Conducting surveys on E-waste generation and volumes and develop an updated inventory to inform	Consultancy Workshops		300,000				300,000	EACO - RSC, EACO WG7	2024

Managem ent	infrastructure in the EACO member states	priority e-waste management infrastructure in the EACO member states									
		2.1.2. Developing an e-waste management infrastructure roll out plan and establish synergies between existing infrastructures	Consultancy Workshop					50,0 00	50,0 00	EACO - RSC, EACO WG7	2027
		2.1.3 Putting in place appropriate mechanisms for collection, transportation and disposal of e-waste such as the take-back systems with incentives for consumers, door-to-door collection etc	Trainings, Workshops, Technical working group	20,00 0	20,0 00	20,0 00	20,0 00	20,0 00	100, 000	EACO - RSC, EACO WG10, Nationa l steering commit tee.	2027

		2.1.4 Facilitate the development of appropriate collection and dismantling infrastructure in all EACO Member States	Meetings			5,000			5,000	EACO - RSC, EACO WG7	2025
		2.1.5 Facilitating the development of a regional modern e-waste recycling and recovery facility within the EACO member states	Consultancy/ Technical working group Workshops,					100,000	100,000	EACO - RSC, EACO WG7	2027
Resource mobilization	3.1. Strengthening Resource Mobilization	3.1.1 Implementation of the Resource Mobilization Plan for effective implementation of EACO e-waste Management Strategy	Technical working groups/Retreat	15,000					15,000	EACO - RSC, EACO WG7	2023

mechanism for e-waste management	3.1.2 Streamlining funding mechanisms for e-waste management	Meetings/Workshops	10,000	10,000	10,000	10,000	10,000	50,000	EACO, RSC, WG 7	2027
	3.1.3 Promote adoption and implementation of EPR principle	Awareness creation campaigns	10,000	10,000	10,000			30,000	EACO - RSC, EACO WG7	2025
	3.1.4 Conducting a feasibility study for the establishment of EACO e-waste fund	Study			10,000			10,000	RSC, EACO WG7	2025
	3.1.5 Encouraging Governments to set aside specific budget for e-waste management	Awareness creation campaigns to be done together with 3.1.3 and 3.1.4							EACO - RSC, EACO WG10	2025

		3.1.6 Enhancing engagement with regional and international organizations/Development partners to support e-waste initiatives in EACO member States.	Development of project proposal (Facts findings expenses)		10,000				10,000	2024	EAC - RSC, EAC O WG7
		3.1.7 Promote development of e-waste management-oriented businesses	Workshops with potential e-waste management investors		20,000				20,000	2024	EAC - RSC, EAC O WG7

		3.1.8 Encourage Governments to provide incentives to informal e-waste management players	Awareness creation campaigns to be done together with 3.1.3, 3.1.4 and 3.1.5 and 3.1.6							2025	EAC O - RSC, EAC O WG7
		3.1.9 Encourage Governments to provide incentives (Land, Taxes etc.) to attract investors in e-waste management	Awareness creation campaigns to be done together with 3.1.3, 3.1.4,3.1.5 and 3.1.6							2025	EAC O - RSC, EAC O WG7

Institutional coordination and alignment	4.1 Strengthen EACO e-waste coordination and collaborative structures at national, regional and international levels	4.1.1 Supporting the operations and functions of the Regional Steering Committee for effective coordination of the implementation of regional e-waste Strategic Plan	Meetings, Workshops, Operations, office	20,000	20,000	20,000	20,000	20,000	100,000	EACO - RSC, EACO WG07	2027
		4.1.2 Supporting the establishment of National (Regional) Producer Associations as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced Recycling Fee) and to enhance producer participation in e-waste management	Meetings, Operations	10,000	10,000	10,000	10,000	10,000	50,000	EACO - RSC, EACO WG07	2027

		4.1.3 Engaging with key stakeholders such as Government, Academia, Private sector, Civil Society and Development Partners to foster mainstreaming of e-waste management within their policies, work plans and budgets	Meetings Workshop	5,000	5,000				10,000	EACO - RSC, EACO WG07	2024
Capacity Building, Research and Innovation	5.1 Improving skills and promoting research and innovation in e-waste management	Strategy 1: Promoting research and innovation in e-waste management									

		5.1.1 Conducting studies and baseline surveys on E-waste statistics and data management	Consultancy/ Technical working group	10,000	10,000				20,000	EACO - RSC, EACO WG10	2023
		5.1.2 Development of EACO e-Waste Data Management System module (to be integrated with EACO Databank)	Consultancy/ Technical working group	10,000	10,000				20,000	EACO - RSC, EACO WG10	2024
		5.1.3 Organizing annual e-waste management innovation contests/ awards	Events, workshop			50,000			50,000	EACO - RSC, EACO WG10	2023
		5.1.4 Collaborating with research institutions to promote research and	Workshops, conferences				10,000	20,000	30,000	EACO - RSC, EACO WG10	2027

	innovation on e-waste management and statistics										
	5.1.5 Mainstreaming e-waste issues in educational curriculum at various levels especially in technical schools, colleges and universities	Workshops, Meetings			5,000	5,000	5,000	15,000	EACO - RSC, EACO WG10	2027	
	Strategy 2: Putting in place a monitoring and evaluation mechanism for e-waste management										
	5.1.6 Putting in place a Monitoring and Evaluation Mechanism for e-Waste Management		4000	4000	4000	4000	16,000	32,000	EACO - RSC, EACO WG10	2027	

		5.1.7 Developing and implement a participatory monitoring and evaluation framework	Workshops, Visits,	10,000	40,000				50,000	EACO - RSC, EACO WG10	2024
		5.1.8 Conducting mid-term review and final evaluation of the regional e-waste management strategy	Consultancy, workshops			20,000		20,000	40,000	EACO - RSC, EACO WG10	2025/ 2027
		5.1.9 Supporting monitoring and evaluation for national e-waste management initiatives in member states	Workshops, Meetings				20,000	30,000	50,000	EACO - RSC, EACO WG10	2026
		Strategy 3: Providing capacity Building and Awareness creation for e-waste management in EACO member states									

		5.1.10 Raising comprehensive awareness about e-waste and its management	workshop, IEC printed materials	10,000	10,000	10,000	10,000	10,000	50,000	EACO - RSC, EACO WG10	2027
		5.1.11 Building capacity amongst stakeholders and special interest groups such as informal sector, scheme operators etc.	Trainings, workshops, conferences	10,000	10,000	20,000	10,000	10,000	60,000	EACO - RSC, EACO WG10	2027
		5.1.12 Undertaking e-waste awareness campaigns in all member states targeting the general public, technical staff and local leaders	Campaigns Road shows, workshop	20,000	20,000	20,000	20,000	20,000	100,000	EACO - RSC, EACO WG10	2027
		5.1.13 Networking with partner organizations through	Meetings	5,000	5,000		5,000		15,000	EACO - RSC,	2024

		stakeholder meetings and dialogues								EACO WG10	
		5.1.14 Engaging producers/retailers of EEE to participate in e-waste awareness campaigns	Meetings	5,000	5,000				10,000	EACO - RSC, EACO WG10	2023
		5.1.15 Participating in regional and international forum on best practices in e-waste management	Travels, Meetings, conference	20,000	20,000	20,000	20,000	20,000	100,000	EACO - RSC, EACO WG10	2027
		5.1.16 Developing information, education and communication (IEC) packages for each stakeholder category	IEC materials	5,000	5,000	5,000	5,000	5,000	25,000	EACO - RSC, EACO WG10	2027

		Strategy 4: Promoting Circular Economy Technology Development									
		5.1.17 Collecting /collating information on best practices on circular economy in e-waste management	Travels, workshops	10,000	10,000	10,000	10,000	10,000	50,000	EACO WG 07	2027
		5.1.18 Create a regional repository for E-waste data/information	Computer Equipment and Software Design	5000	5000	5000	5000	5000	25,000	EACO	2027
		5.1.19 Training of technical and task force members on EPR, specifically on Ewaste management	Travels , Traing workshops	10000	10000	10000	10000	10000	50,000	EACO	2026
		5.1.20 Engaging Universities to Research in circular	Conferences/ meetings	10000	10000	10000	10000	10000	50,000	EACO, WG 07	2026

		economy technology development										
		5.1.21 Assist EACO member states in developing policies and guidelines to promote circular economy in the electronics industry	Workshops, Travels	10000	1000 0	1000 0	1000 0	1000 0	5000 0	EACO, WG 07	2027	
		Total budget		244,0 00	709, 000	364, 000	334, 000	461, 000	2,11 2,00 0			

ANNEX 4: THE DETAILED M&E MATRIX LOGIC FRAMEWORK FOR THE REGIONAL E-WASTE MANAGEMENT STRATEGY

HIERACHY OF INTERVENTIONS	KEY PERFORMANCE INDICATORS	BASELINE January 2022	TARGET	Time line	MEANS OF VERIFICATION	CRITICAL ASSUMPTION
<i>Pillar 1: Policy, Legal and Regulatory frameworks for E-waste management in EACO member states</i>						
Outcome 1.: A harmonized legal, policy and regulatory frameworks	Harmonized legal, policy and regulatory framework in place	3	Harmonized policy Harmonized regulations Harmonized standards	2025	EACO Reports	Continued Regional Integration

Output 1.1 Regional e-waste policies, guidelines and standards developed for EACO member states.	Number of developed regional e-waste policy, guidelines and standards	Draft model framework policy	1 regional e-waste management policy 1 regional e-waste management guideline 1 regional standard	2025	EACO reports	
Output 1.2 Policy, laws and standards for e-waste management reviewed.	Number of policies, laws, regulations reviewed	3	5 E-waste policies, 5 E-waste regulations 5 E-waste standard	2025	EACO Report	Continued Political Goodwill
Output 1.3 Regional e-waste management policy, guidelines and standards disseminated to EACO member states	Number of dissemination workshops conducted in each member state	4 workshops	7 workshop (2 in each member state)	2027	EACO Reports Workshop reports	

Output 1.4 E-waste regional policy, guideline and standard adopted at national level	Number of states adopting the regional e-waste policy, guidelines and standards	None	6 states	2027	EACO Report	
Output 1.5 National policies, guidelines and standards aligned to regional policy, standard and guideline.	Number of policies, guidelines and standards aligned to regional policies, standards and guidelines	None	5 E-waste policies, 5 E-waste regulations 5 E-waste standard	2027	Annual report	

Pillar 2 : Infrastructure for E-waste management in EACO member states

Outcome 2: A rationalized and well distributed E-waste management infrastructure in the EACO member states	Number of E-waste infrastructure in the region	0	1 Regional modern facility	2027		Availability of viable investors
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Output 2.1: Baseline survey on E-waste generation and volumes to inform priority e-waste management infrastructure in the EACO member states conducted	Baseline survey report on e-waste generation and volumes available	Pilot	1	2025	Survey Reports	Availability of funds
Output 2.3: An e-waste management infrastructure roll out plan is developed	Report on e-waste management roll out plan	None	1 report produced	2024	EACO reports	Continued political support
Output 2.4 Appropriate mechanisms for collection, transportation and disposal of e-waste are established	No of collectors and transporters trained.	None	200 collectors and transporters trained	2026	Certificate of participation	Commitment of stakeholders
	No. of collection centers/point established in member states	1	30 environmentally friendly collection centers/ point	2026	EACO reports	Availability of funds

			established (at least 5 in each country)			
	Tons of e-waste properly collected	1600 tons	40,000 tons of e-waste collected for proper treatment	2025	EACO report	
Output 2.5 Facilitation for the development of a regional modern dismantling and recovery facility within the EACO member states is provided	Business plan for the regional facility available	None	1 Business plan	2024	EACO	Availability of funds
<i>Pillar 3: Resource Mobilization for proper e-waste management</i>						
Outcome 3: A comprehensive resource mobilization mechanism for the e-waste	Availability of a comprehensive resource mobilization mechanism	1	2 Resource mobilization mechanisms	2023	EACO Report	Continued commitment and good

management in EACO member states						will from Governmen
	Total amount of funds mobilized	USD 1,000,000	USD 2,112,000	2027	EACO Report	
	Total amount invested in e-waste management by the private sector	0	USD 5,000,000	2027	EACO Report	
Output 3.2 EACO e-waste fund is established to collect EPR fees, ARF individual, corporate and donor contributions	Availability of feasibility study report	None	Feasibility report	2024	EACO Report	
	E-waste fund in place and functional	None	E-waste fund	2026	EACO Report	

<p>Output 3.3 EEE producers/retailers engaged in strategic partnerships including financing the e-waste collection, transportation and treatment through the extended producer responsibility and advanced recycling fee</p>	<p>Total amount committed to the e-waste fund</p>	<p>None</p>	<p>At least 500,000 USD</p>	<p>2025</p>	<p>EACO report</p>	<p>Commitment to producers</p>
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Pillar 5: Capacity Building, Research and Innovation

<p>Outcome 4: An established research, M&E system, innovation as well as developed capacity in e-waste management</p>						
	<p>Number of reports generated from the M&E system</p>	<p>2</p>	<p>5 Annual reports 1 Mid-term report 1 final evaluation report</p>	<p>2027</p>	<p>EACO report</p>	

Output 4.1 E-waste management is mainstreamed in educational curriculum at various levels especially in technical school	Availability of e-waste mainstreaming guideline	None	1 regional curriculum mainstreaming guideline	2025	
	No of curriculum with e-waste incorporated	None	3 curriculum (primary, secondary and tertiary) in each country	2026	
Output 4.2 The e-waste strategy is monitored and evaluated	Availability of strategy mid-term and final review reports	2	1 mid-term report 1 final report	2025 2027	
Output 4.3: National e-waste management initiatives in all member states are monitored and evaluated	Availability of national evaluation reports	None	1 mid-term report 1 final report	2025 2027	
Output 4.4 Developed Circular economy technologies in e-waste management	Availability of improved circular economy technologies	None	1	2027	

Pillar 4: Coordination and institutional alignment

Outcome 5: EACO E-waste coordination structures at regional and national levels are strengthened	Availability of financial support for the E-waste Regional, national committee and WG 7	E-waste Regional and national steering committee in place WG 7	XX+500,000 USD	2022	EACO reports	Political will Continued Continued commitment of key institutions
	% of physical implementation of the strategy	0%	100% (annually 20%)	2027	EACO reports	

Output 5.1: E-waste regional steering committee operations and functions supported for effective coordination of the implementation of the regional e-waste strategic plan	Allocated resource to the operations and functions of the steering committee (National and regional) Number of steering committee meeting held.	20,000 USD	500,000 USD	2027	EACO reports	
Output 5.2: A Regional Producer Association as a mechanism for the implementation of EPR (Extended Producer responsibility), ARF (Advanced recycling fee), is established	Regional Producer association (RPA) is in place and functional	None	1 Regional Producer association	2025	EACO report	

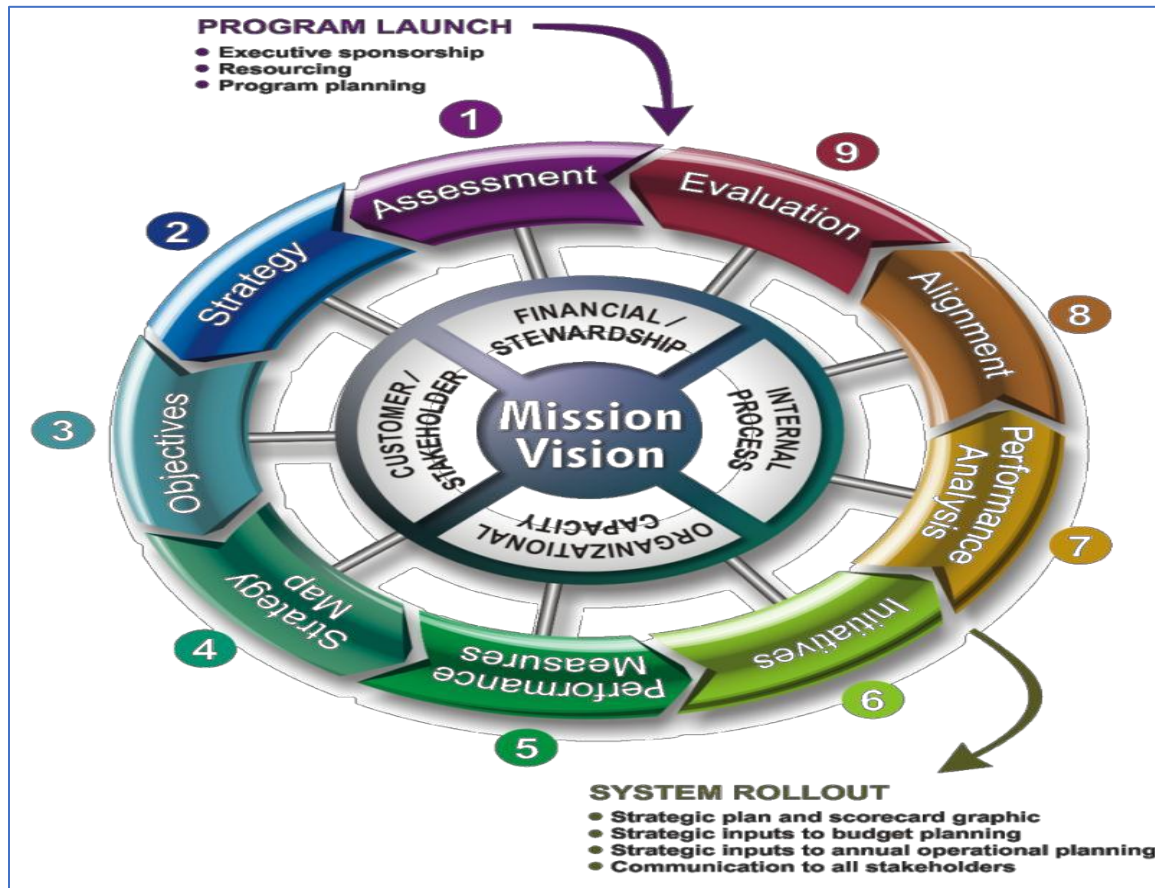
	Number of producers registered to the association	None	At least 50 producers	2025		
Output 5.3: A communication and stakeholder engagement strategy on e-waste management is developed	Communication and stakeholder engagement strategy are in place	None	1 Communication and stakeholder engagement strategy	2023	EACO reports	

ANNEX 5:

7.2.1.1 The step-by-step planning processes of the regional E-waste strategy

The Balanced Scorecard Institute's framework, *Nine Steps to Success*, a scientifically disciplined, practical approach to developing a strategic planning and management framework was adopted in development of the e-waste management strategic plan. **Step One** of the balanced Scorecard building process started with an organizational assessment of purpose of the strategic plan, organization's challenges (pains) and enablers, and the organization's values. In **Step Two**, strategies, including strategic results, strategic themes, and perspectives, were developed. In **Step Three**, strategies were decomposed into strategic objectives that are linked in cause-effect relationships to produce a strategy map (**Step Four**) for each strategic theme. As part of Step Four, theme strategy maps were then merged into an overall organizational implementation strategy map that shows how the organization will create value for its customers and stakeholders. In **Step Five**, cost implication measures were developed for the purpose of the strategic management plan, and in **Step Six**, possible outcomes of the strategic initiatives were developed to support the overall strategic objectives of the strategic plan as depicted by figure 1 below;

Figure 2: The Balanced Scorecard – Strategy Formulation Process



Post implementation steps will include carrying out performance analysis to assess the effectiveness and alignment of the strategic plan through cascading and evaluation of the balanced scorecard steps.

7.2.1.2 Step One: Organizational Assessment of the Purpose of the Strategic Plan

Review of Existing Strategic Elements (Vision, Goal, Purpose and Core Values).

A review of existing strategic elements was conducted by the strategic leadership team building on what was in place to set a new direction for the strategic management team. Drafting of the

strategic management plan was undertaken by a taskforce of five (5) Members drawn from the EACO Regional e-waste management committee. The following processes were followed by the taskforce in developing the purpose of the of Strategic Management Plan. These processes were subjected to EACO member state approval and adoption processes.

Desk review analysis and assessments were carried out to provide an understanding of the current internal and external factors influencing e-waste in EACO Member States and the estimated volumes of e-waste generation.

- 1) Planning retreat – Online meetings and a five (3) day strategic planning retreat was held for members of the taskforce through which a Draft Strategic plan was produced to help generate stakeholder inputs.
- 2) Stakeholder consultation - a series of activities were arranged to facilitate stakeholder consultations and engagements. These included regional e-waste steering committee meetings, working group 10 meeting and stakeholder validation workshops.
- 3) Endorsements and approvals - the draft strategy was assessed and endorsed by the EACO governance structures including the Assemblies and the Congress.

7.2.1.3 Insights of the Vision, Mission, Goal and Core Values of the Strategic Management Plan of the EACO Member States

The formulation of the Vision, Mission, Goal and Core Values of the Strategic Management Plan are guided by the following insights this is further elucidated as follows;

E-waste Strategy Vision for EACO Member States

Achievement of zero negative impact of the e-waste hazard among EACO member states

Through its vision, the strategic Management plan portrays the realization of a possibility of zero zero negative impact of the e-waste hazard among EACO member states.

E-waste Strategy Mission of the EACO Member States

To provide a framework that will develop and coordinate regional interventions towards the achievement of zero negative impact of E-waste within the EACO member states by 2030

The Strategic Management Plan aims at the elimination of the negative impact of E-waste materials by 2030 amongst EACO member states through interventions that are developed and coordinated alongside the member states.

Strategic Goal E-waste Management Plan of the EACO member states

The strategic plan seeks the establishment of mechanisms for sustainable e-waste management within the EACO members.

The strategic Management plan is goal-oriented with the ultimate desire that the organization will achieve a sustainable e-waste management ecosystem amongst EACO member states that will build synergies among the member states in the implementation of interventions.

Core Values of the E-waste strategy of EACO member states

These are the bedrock values of EACO E-waste strategic management team. These principles will be held in the highest regard at all times and form the basis of the organisation actions and interactions. These ideas are essential to maintaining the honourable and proud traditions of the organization. The following traits are behaviours or characteristics that are valued by the

membership and are essential for the delivery of the mission of EACO member states.

Accountability: In all our dealings we will remain transparent, Honest, Credible & trustworthy

Integrity: We are dedicated to serving with honesty, high professional standards and good ethical conduct.

Non Discriminatory: Non-discrimination in terms of vulnerability (Physical, Social, Economic, Political), race, faith, background, we value human dignity

Excellence: We intend to achieve our goals through hard work, innovation, creativity prudence and exemplary leadership.

7.2.1.4 Step Two: Inclusive Strategies for the E-waste strategy EACO member states

In order to realize step one of the balanced score card the following strategies have been prioritized:

- i. Strengthening of the policy, legal and regulatory framework for sustainable resourcing of e-waste management activities for effective protection of human health and environment within the region;
- ii. Putting in place the requisite e-waste management infrastructure and rationalize its distribution across EACO member states to harness unique value and enhance synergy;
- iii. Establishing mechanisms for comprehensive and sustainable mobilization for e-waste management resources (physical, financial and human resources);
- iv. Strengthening the EACO e-waste coordination structures at regional and national levels
- v. Promoting research and innovation in e-waste management;
- vi. Putting in place a monitoring and evaluation mechanism for e-waste management; and

- vii. Building capacity and create awareness for effective e-waste management in EACO member states

7.2.1.5 Step Three: Map of the Cause-Relationship E-waste Strategic Plan of the EACO Member States

The strategies in step two of this Strategic Management Plan resonate with the resolutions made by EACO member states and their partners to address the identified e-waste management constraints, especially in unlocking the binding constraints on inadequate capacity to mobilize adequate resources on sustainable basis to address and fund e-waste management priorities. The strategies and their corresponding actions address the binding constraints identified in each of five strategic areas of intervention/themes, namely:

- i. Policy, Legal and Regulatory framework
- ii. Infrastructure for e-waste management
- iii. Resource mobilization
- iv. Coordination and institutional alignment
- v. Capacity building, Research, Monitoring and Evaluation

7.2.1.6 Step Four: Implementation Procedures of the E-waste Strategic Managing Plan within the EACO State Members

The strategy recognizes that for effective execution, the relationships of key stakeholders need to be well coordinated and managed primarily through strengthening of the e-waste coordination mechanisms at regional and national levels. Other mechanisms include;

- i. Putting in place a platform for continuous engagement with different stakeholder categories, including potential and existing financing institutions, policy makers, legislators and e-waste producers;
- ii. Supporting the operations and functions of the Regional Steering Committee for effective coordination of the implementation of the regional e-waste Strategic plan;
- iii. Establishing collaborative frameworks with key regulatory bodies and other relevant stakeholders for the proper management of e-waste in EACO member states.
- iv. Supporting the establishment of a Regional Producer Association as a mechanism for the implementation of the Extended Producer Responsibility (EPR), Advanced Recycling Fee (ARF) in order to enhance producer participation in e-waste management; and
- v. Building Capacity and Creating Awareness for e-waste management in EACO member states.

7.2.1.7 Step Five: Cost Implication Measures for the E-waste strategy for EACO Member States

The resource requirement for executing the resource mobilization strategies and interventions identified in this plan have been estimated. The need for costing of the strategies was to identify the size of investment needed to bring out target resource mobilization outcomes. That is, the ‘seed money’ and other resources required to build the capacity of EACO to sustainably mobilize

resources to finance her resource mobilization priorities. The total size of required investment in the next five years is estimated at USD 2,112,000, which translates into an average of USD 442,400 per annum. If these resources are made available in a timely manner, effectively allocated, released and utilized; they can be able to generate an e-waste investment portfolio in the Region estimated at USD 4,000,000.

7.2.1.8 Possible E-waste financial sources for the EACO Member States

The major sources of investment in EACO e-waste management have been categorized and identified to include the following:

8 Development Partners;

9 Innovative measures by e-Waste stakeholders such as the EPR, ARF;

10 Contributions from Governments of Member States;

11 Corporations and Private sector; and

12 Local/community contribution – although Local authorities are already constrained in collecting solid wastes and e-waste is not seen as a priority, it can be an importance source of revenues for e-waste management if well implemented.

In order to better manage the resources pooled together to implement e-waste management initiatives at national and regional levels, the following additional measures were recommended in the EACO Regional e-waste management strategy.

- a. Creation of e-waste fund – an e-waste fund is anticipated to be a contributory fund for financing priority regional e-waste infrastructure projects. The fund may be replenished by

contributions from development partners, private sector, producers and government. A feasibility study will be conducted to advise on the institutional coordination framework as well as financial model for the fund.

- b. Mainstreaming of e-waste management in various implementing Ministries, Departments and Agencies (MDAs) and other stakeholders' budgets is critical.

9. Step Six: Possible outcomes of the Strategic initiatives for the E-waste strategy by EACO Member States

The overall impact of the e-waste management strategy is to contribute towards:

- i. Improvement in standard of living reflecting both the number of green jobs created and size of tax income to government contributed by scheme operators;
- ii. Reduction of negative e-waste impacts on public health measured by percentage reduction in diseases related to e-waste and;
- iii. Reduction of negative impacts of e-waste on the environment as reflected in percentage reduction of Greenhouse Gas (GHG) emissions.

The interim results – outcome and output indicators will include but not limited to the following:

- i. Increase in the Number of Member states adopting regional e-waste standards and Number of members states whose e-waste management policies and laws are harmonized
- ii. Availability of regional e-waste management policy and guidelines
- iii. Number of e-waste infrastructure developed at regional level
- iv. Number of e-waste infrastructure projects established in member states

- v. Number of development partners attracted in e-waste management;
- vi. Percentage increase in e-waste management budget
- vii. Number of Innovative E-waste funding mechanism (such as EPR, ARF and e-Waste Fund established
- viii. Percentage Functionality of EACO structures responsible for e-waste management (WG 10, Steering Committee etc)
- ix. Percentage Increase in public awareness about e-waste and
- x. Percentage Adoption to sound e-waste management practices

10. Step Seven: Performance Analysis

Stakeholders intervention mechanisms in the implementation of the regional e-waste management strategy were identified in regards to levels of influence. The approaches are outlines as below;

- i. Strong involvement of all national stakeholders, including relevant government ministries, authorities, industry (recyclers and producers) and academia, as far as possible;
- ii. Virtual and physical meetings to report on the progress of the various tasks as well as webinars with EACO regional e-waste steering committee were held;
- iii. Involvement of national consultants, who are well aware of the political situation and maturity of the systems in different countries, as well as with existing and relevant contacts in all countries;
- iv. Transparent process to include relevant comments from national stakeholders: comments, data and suggestions provided will be made available to EACO and the regional e-waste steering committee.

The methodological approach was to divide the work into four tasks that were complementary **(Error! Reference source not found.)**:

- **Task 1:** Review status of policy framework in each country for e-waste management in the region (policies, laws, guidelines and standards).

Outputs: glossary of terms and common definition, list of all existing policies, regulations, standards and laws related to e-waste management in each country, mapping of national requirements and gap analysis.

This task had the aim to collect, analyse and compare the different measures adopted or in development in the five target countries. A common glossary was first defined in order to facilitate comparison (of what exactly was meant by a policy, law, regulation, guideline and standard) and information was gathered via desk review and consultation with local experts. The gap analysis will allow consultants to highlight the common basis for harmonization (task 2).

- **Task 2:** Identification of common basis for harmonization of regional level (support development of policies/laws/guidelines/standards).

Outputs: common basis for harmonization at EACO level, policy areas to be aligned.

Learnings from Task 1 will have given the main common elements that are needed to create a consistent framework at EACO level. EACO members are then free to implement the principles in their own jurisdiction.

- **Task 3:** Supporting national alignment: identification of national activities for adoption of common framework.

Outputs: list of activities needed at national level to adopt a common framework, roadmap for harmonization.

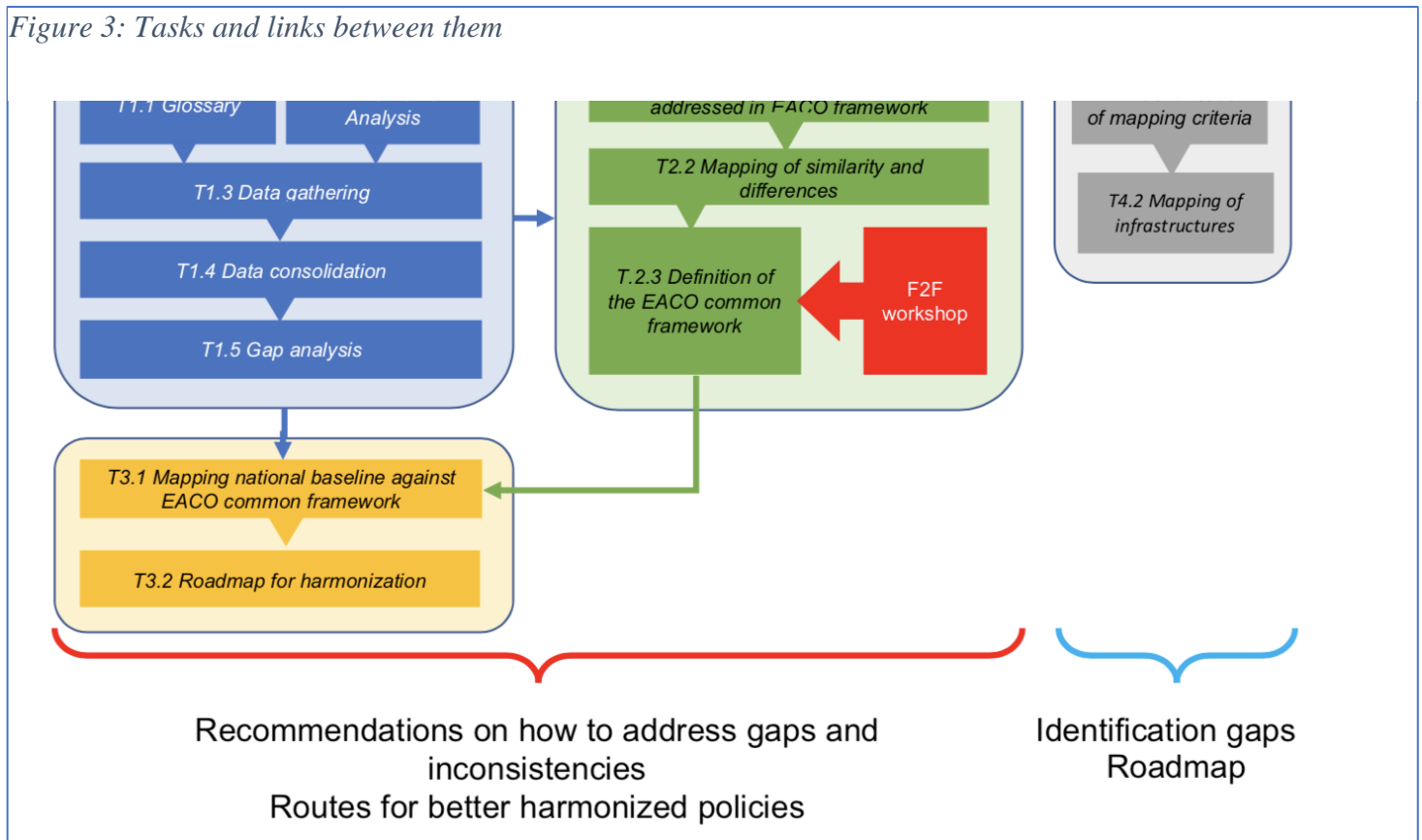
The task took learnings from previous tasks and identified the actions needed at national level in order to implement a coherent policy framework.

- **Task 4:** Mapping of national and regional infrastructures.

Outputs: mapping framework and open database of infrastructure capacities.

The task defined a consistent framework in order to map existing infrastructures and requirements in the region for e-waste management.

Figure 3: Tasks and links between them



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