NATIONAL **ELECTRICAL AND** ELECTRONIC **EQUIPMENT WASTE** MANAGEMENT POLICY

VALIDATION WORKSHOP

Report Dissemination 27th October 2022





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Problem Statement

- Due to advancement in technologies, generation of WEEE is increasing in the country although it is not quite significant compared to other countries in the region.
- Generally, Malawi does not manufacture EEE but assembles some products using imported components and largely these are imported from the Middle East, Asia, Africa, Europe and the USA.
- WEEE is currently not being disposed of in an environmentally sound manner since there is no engineered landfill in the country and most WEEE ends up in open dumping sites and mixed with other wastes. More data is needed to understand disposal patterns of e-waste in Malawi.
- Some WEEE is collected by informal waste collectors to extract valuable components from the equipment but the amount is difficult to quantify.

OBJECTIVES

Main Study Objective

Fill the existing gap in the information needed to guide in the development of the National Waste Electrical and Electronic Equipment Management Policy (NWEEEMP)

Specific Quantify Malawi's EEE Put on the Market **Objectives**

Estimate the E-waste generated based on trade statistics data

Methodology

The framework followed can integrate existing data at country level and can serve as the basis for e-waste statistics and e-waste indicators. For this work, focus was on 1) EEE Put on the Market and 2) E-waste generated.



Methodology

Tools

Put on the Market Tool (POM)

E-Waste Generated tool

Input Data

Data on imports and exports in terms of their HS codes

Currency Value (MK)

Commodity net weight (kgs)

Data Analysis tools - POM

POM (captures data on imports and exports)

Calculated as: Imports - Exports + Domestic Production

Data source: NSO Trade data on imports and exports

Currency value

Measurement unit for weight (Kgs)

Harmonized System (HS) codes expressed in a 6-digit format

Methodology

E-waste Generated Tool

- It uses POM data and product lifespan for the years in order to calculate the E-waste generated from 1995 to 2030
- Uses the disposal rate (Weibull distribution) to determine the product lifespan
- Provides multiple sheets that E-waste generated tool uses according to their purpose
- Provides data outputs based on the input data



STUDY RESULTS

Observed and expected mortality by year

Put on Market (EU6) in tonnes



- Lamps
- Temperature exchange equipment

Screens, monitors, and equipment containing screens (..)

E-waste Generated

E-waste generated (EU6) in tonnes



E-waste Small Equipment: Example





Conclusions

General increase of e-waste generated of all types across the years

Rapid growth of e-waste generated in the form of small equipment across the years

A rise in e-waste generated in the form of small IT and telecommunication equipment



Limitations

Data gaps in some of the important EEE commodities

Sometimes there is late access of import and export data by NSO from the MRA

Challenges in quantifying other e-waste flows as outlined in the e-waste statistics framework

THANK YOU FOR YOUR ATTENTION