

I n t e r n a t i o n a l T e l e c o m m u n i c a t i o n U n i o n

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SERIES L: ENVIRONMENT AND ICTS, CLIMATE
CHANGE, E-WASTE, ENERGY EFFICIENCY;
CONSTRUCTION, INSTALLATION AND PROTECTION
OF CABLES AND OTHER ELEMENTS OF OUTSIDE
PLANT

Success stories on e-waste management

ITU-T L-series Recommendations – Supplement 27

ITU-T

ITU-T L-SERIES RECOMMENDATIONS

**ENVIRONMENT AND ICTS, CLIMATE CHANGE, E-WASTE, ENERGY EFFICIENCY; CONSTRUCTION,
INSTALLATION AND PROTECTION OF CABLES AND OTHER ELEMENTS OF OUTSIDE PLANT**

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Supplement 27 to ITU-T L-series Recommendations

Success stories on e-waste management

Summary

This Supplement sheds light on e-waste management success stories in different countries. The Supplement covers different policies, legislation, initiatives, and different stakeholders' involvement (government, private sector, non-governmental organizations (NGOs), and informal sector).

It has been developed in response to WTSA Resolution 79 (Dubai, 2012), which instructed ITU-T Study Group 5 to develop and document examples of success stories in countries and regions in handling and managing e-waste generated from telecommunications and ICT equipment. It is complementary to the Supplement guidelines for developing a sustainable e-waste management system, currently being discussed by Q13/5. However, the guidelines introduced in this Supplement apply to all categories of Waste Electrical and Electronic Equipment (WEE). The Supplement presents some countries' and regions' success stories of e-waste management that could be used as best practice guidance. They may be adopted by countries or regions working on developing adequate e-waste management systems to improve their processes and procedures. Finally, the Supplement strongly encourages ITU membership to adopt ITU-T standards and internationally recognized indicators.

History

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FOREWORD

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The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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Supplement 27 to ITU-T L-series Recommendations

Success stories on e-waste management

1 Scope

The scope of this Supplement is to present some countries' and regions' success stories on adequate e-waste management which could be adopted by countries working on developing adequate e-waste management systems.

The purpose of the Supplement is to present the different procedures and processes adopted by countries to adequately manage their e-waste, not to select or endorse the best methods or practices.

2 References

[ITU-T L.1410] Recommendation ITU-T L.1410 (2014), *Methodology for environmental life cycle assessments of information and communication technology goods, networks and services*.

3 Definitions

3.1 Terms defined elsewhere

None.

3.2 Terms defined in this Supplement

None.

4 Abbreviations and acronyms

CRC	Computer Restoration and refurbishment Centre
CRT	Cathode Ray Tube
CU	Central Unit board
EACO	East Africa Communications Organizations
EPR	Extended Producers' Responsibility
NEMA	National Environmental Management Authority
NGO	Non-Governmental Organization
PCB	Printed Circuit Board
SWEEP NET	Regional Solid Waste Exchange of Information and Expertise Network
WEE	Waste Electrical equipment
WEEE	Waste Electrical and Electronic equipment

5 Introduction

Environmental challenges, including waste problems are recognized as a significant worldwide issue. The growing use of ICT and the innovations in its sector have resulted in large amounts of e-waste within a short span of time. This global problem is addressed by governments, non-governmental organizations' and relevant private companies. In many countries and regions, methods and solutions

are defined to measure and handle e-waste (collection, pre-processing, dismantling, end-processing etc.).

This Supplement has been developed in response to WTSA Resolution 79 (Dubai, 2012), which instructed ITU-T Study Group 5 to develop and document examples of countries' success stories for handling and managing e-waste generated from telecommunications and ICT equipment.

This Supplement does not intend to be a guideline for reducing, handling or managing e-waste, However, the guidelines introduced in this Supplement apply to all categories of waste electrical and electronic equipment (WEEE). The Supplement presents some countries' and regions' success stories of e-waste management that could be used by countries or regions working on developing adequate e-waste management systems to develop or improve their processes and procedures. Finally, the Supplement strongly encourages ITU membership to adopt ITU-T standards and internationally recognized indicators.

6 Overview of e-waste management practices in regions and countries

#	Countries or Region name	Polices and legislation	Lead institution or ministry in charge of e-waste management	Collaboration with other parties	Statistics on e-waste / EEE, including period of observation	Ratification to the conventions and protocols	End-of-life management practices (collection, pre-processing, dismantling, end processing)
6.1.1.1	Combination of North African countries via the Regional Solid Waste Exchange of Information and Expertise Network (SWEEP NET)	A study on e-waste was conducted in 2014. This study catered to the development of a harmonised e-waste legal framework		All countries' administrations	Not conclusive. Some countries have carried out inventories while other have not.		A study on e-waste was conducted in 2014 which suggests the following action plan in the region: carry out e-waste assessments; set up pilot projects allowing the elaboration of e-waste management practices; develop legal framework; organise multi-stakeholder dialogues; develop e-waste business models; promote EPR; study the setting-up of a regional treatment platform.

#	Countries or Region name	Polices and legislation	Lead institution or ministry in charge of e-waste management	Collaboration with other parties	Statistics on e-waste / EEE, including period of observation	Ratification to the conventions and protocols	End-of-life management practices (collection, pre-processing, dismantling, end processing)
6.1.1.2	Morocco	None			No adequate data		Collect computer equipment from companies, repair it and distribute it to other associations, organisations and rural schools; Train young people to repair, refurbish and dismantle computer equipment.
6.1.1.3	Egypt	Green ICT policy. Plans underway to develop a legal framework, regulation on the import of old equipment			None		
6.1.1.4	Egypt						
6.1.1.5	Tunisia	Study to implement ECO-tax, a legal framework is in the making			An inventory was conducted but a challenge to get information and data		E-waste is collected by local collection mechanism. Pilot separation and collection systems have been set up. E-waste recycling facility is operated for all e-waste in the country and the model has state of the-art recycling facility
6.1.2.1	Nigeria	Formal-informal sector collaboration on e-waste collection			1,100,000 tonnes/year (2011)		
6.1.2.2	Cameroon	e-waste management law and practice					Introduced and EPR

#	Countries or Region name	Polices and legislation	Lead institution or ministry in charge of e-waste management	Collaboration with other parties	Statistics on e-waste / EEE, including period of observation	Ratification to the conventions and protocols	End-of-life management practices (collection, pre-processing, dismantling, end processing)
6.1.2.3	Ghana	Combating uncontrolled dumping of e-waste			179,000 tonnes/ year (2011)		Combating uncontrolled dumping of e-waste
6.1.3.1	The East African Region under East Africa Communications Organisations (EACO)	Model framework for e-waste management, draft e-waste management strategy	The EACO secretariat	All countries' administrations	Not conclusive	Yes	Regional sensitisation and awareness through workshops, periodic meeting under the EACO to discuss initiatives on e-waste.
6.1.3.2	Kenya	Formal/ informal collaboration on e-waste processing	Ministry of Environment, National Environmental Management Authority (NEMA)	ICT regulator	None	Yes	Pilot study on collection, recycling centres (the WEEE centre)
6.1.3.3	Tanzania	E-waste is under the hazardous waste management	Ministry of ICT	NEMA, ICT regulator			e-waste assessment
6.1.3.4	Uganda	e-waste policy, strategy and guidelines	Ministry of ICT	NEMA, ICT regulator			e-waste policy, strategy and guidelines.
6.1.3.5	Rwanda	Supporting legal framework for e-waste management (draft policy)		Rwanda Environmental Management Agency (REMA), Rwanda Utilities Regulatory Authority (RURA)			e-waste assessment is conducted and the establishment of a dismantling facility is underway
6.1.4.1	Southern Africa under the Southern Africa Telecommunications Association (SATA),	Guidelines for e-waste disposal		All countries under SATA			Guidelines for e-waste disposal The Southern African E-waste Alliance (SAEWA) was put in place to manage the entire e-waste stream

#	Countries or Region name	Polices and legislation	Lead institution or ministry in charge of e-waste management	Collaboration with other parties	Statistics on e-waste / EEE, including period of observation	Ratification to the conventions and protocols	End-of-life management practices (collection, pre-processing, dismantling, end processing)
6.1.4.2	South Africa	Law and technical strategy for e-waste management (2010)					e-waste recycling in South Africa under the e-waste association of South Africa (eWASA)
6.2.1	India		Formal/ informal collaboration on e-waste processing				ERP introduced, Take back system in place for some institutions, plans underway to put in place collection networks
6.2.2	China						Policing illegal traffic, ban in place on importation of WEEE
6.2.3	Japan						Tracking and tracing system for e-waste
6.3.1	Mexico	Voluntary collective initiatives			None		Project on increasing the recovery rate from mobile phones, raising awareness
6.3.2	Costa Rica and Brazil	Regulation for the integrated management of electronic waste					Retailer and service centres take back regulation for the integrated management of electronic waste national collection infrastructure in place
6.3.3	Peru						Formal/informal collaboration on e-waste processing