



Welcome to the **ITU-UNEP-UNU Joint Online Workshop**

*WEEE: Towards regional harmonization of national WEEE
policies, regulations, and standards in the Arab States*

Day 2



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Session 2: WEEE policy, legislation, and regulation

Moderator: Mr. Abdul-Majeid Haddad, Deputy
Regional Director, West Asia Office, United
Nations Environment Programme



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The Status of Electronic Waste in Egypt

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Ministry of Environment, Egypt

WMRA

- WMRA (Waste Management Regulatory Agency) has been established in 2015 by **PRIME MINISTER'S DECREE No.(3005)**.
- Existing in Cairo, under Ministry of Environment.
- cooperation between different ministries and Stakeholders to Prepare policies and strategic planes for management of different types of waste at the national level.
- Preparing proposal to improve and updating Legislation, laws, regulations, standards and technical rules regulating the method of integrated waste management



- ▶ Availability of data and information related to the waste sector.
- ▶ Provide technical services and recommendations to the competent authorities as well as the Stakeholders in the waste management system.
- ▶ Organizing and defining roles and responsibilities among the different Stakeholders in the waste management system.



General status of E-waste and Egypt 's experience represented by the efforts of the Ministry of Environment through WMRA

- ▶ Previously e-waste treated in improper way
by informal sector like open burning, manual
dismantling without safety



General status of E-waste and Egypt 's experience represented by the efforts of the Ministry of Environment through WMRA



General status of E-waste and Egypt 's experience represented by the efforts of the Ministry of Environment through WMRA

- ▶ Egypt listed WEEE under the category of the hazardous waste list issued by the Ministry of Industry (decree 165/2002), item 16. As WEEE is identified as hazardous waste by the aforementioned decision articles addressing hazardous waste management in law 4/94 regulate it.
- ▶ Restricting the Import of old EEE with exception of some EEE goods conditional **it is not longer than 5 years from day of production.**
- ▶ **Egypt issued the Waste Management Regulation Law No. 202 of 2020, which regulates the management of all types of waste.**



General status of E-waste and Egypt 's experience represented by the efforts of the Ministry of Environment through WMRA

- ▶ *At the national level*
- ▶ The National Committee for the Sustainable Management of Electronic Waste was established among the relevant ministries to study the health , environmental impacts and track electronic waste by Decree of the Minister of Environment No. 124 of 2019 on 4/23/2019.



Collection :

- ▶ Awareness campaign.
- ▶ Display Film.
- ▶ The electronic application called "E-Tadweer" has been launched **recently** for the collection of electronic waste from individuals, collection from houses directly or by collection points.



General status of E-waste and Egypt 's experience represented by the efforts of the Ministry of Environment through WMRA

Awareness

- Distribute this booklet on
- Mobile companies.
- Different sectors in government.



General status of E-waste and Egypt 's experience represented by the efforts of the Ministry of Environment through WMRA



Recycling:

- ▶ Egypt has (7) E- waste recycling companies compliance with environmental law and have a license (auditing) and according to Article 55 in Waste Management Regulation Law No. 202 of 2020, we can follow up the waste from transportation to final disposal.
- ▶ MOE provide the technical support for the informal sector to be formal.



General status of E-waste and Egypt 's experience represented by the efforts of the Ministry of Environment through WMRA



the relevant laws, regulations, policies on E-waste management

- ▶ Law 4 /1994 on the Environment and its amendments in Law 9/2009.
- ▶ Decree of Trade and Industry Minister No. 165 of 2002.
- ▶ Basel Convention (Annex 8 &9) for exporting.
- ▶ Egyptian Law of Auction.
- ▶ Second Hand Telecommunication
- ▶ Equipment Import: Article 46 prohibits the import of used telecommunication equipment for purpose of trading.
- ▶ Finally, Waste Management Regulation Law No. 202 of 2020.



the relevant laws, regulations, policies on E-waste management

- ▶ Egypt, through the Ministry of Environment, has added environmental requirements for use in auctions (through approved Recyclers).



Key Issues in E-waste Management Challenges

Collection:

- ▶ No EPR (Extended Producer Responsibility),
new law will regulate it.
- ▶ As large quantities are generated per year, not enough are collected/recycled by formal sector, leaving majority of WEEE treated or dumped, according to the informal sector treatment, **Egyptian Ministry of Environment converts number of informal sector to formal sector.**



Key Issues in E-waste Management Challenges

plastic and how about dumping it in a special cell.

- ▶ plastics which contains POPs?, This is because of **flame retardants** are added to most used plastic parts in the electronic parts , which are bromine derivatives (BFR) and the material used in the circuit boards (TBBPA), which is considered persistent organic pollutants under the Stockholm Convention.



Key Issues in E-waste Management Challenges

- ▶ CRT (Cathode Ray Tube) Screens (we have a lot of CRT in many ports by illegal way), **Egypt in process to get rid of it.**
- ▶ **This the real challenge**, Different types of Batteries rather than lead acid Batteries.





Finally, by issuing **Waste Management
Regulation Law No. 202 of 2020**
WMRA will be economic agency

www.wmra.gov.eg





***Thank you for your
attention***





Country practice: E-Waste statistics in Jordan



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E-waste statistics in Jordan



E-waste generated from households in Jordan in 2018 (in tonnes)



كمية ونوع المخلفات الإلكترونية والكهربائية الناتجة
عن المنازل حسب الفئة (عدد) , 2018
Quantity and type of Electronic and Electrical Waste
Produced from Household Activities(No.) , 2018



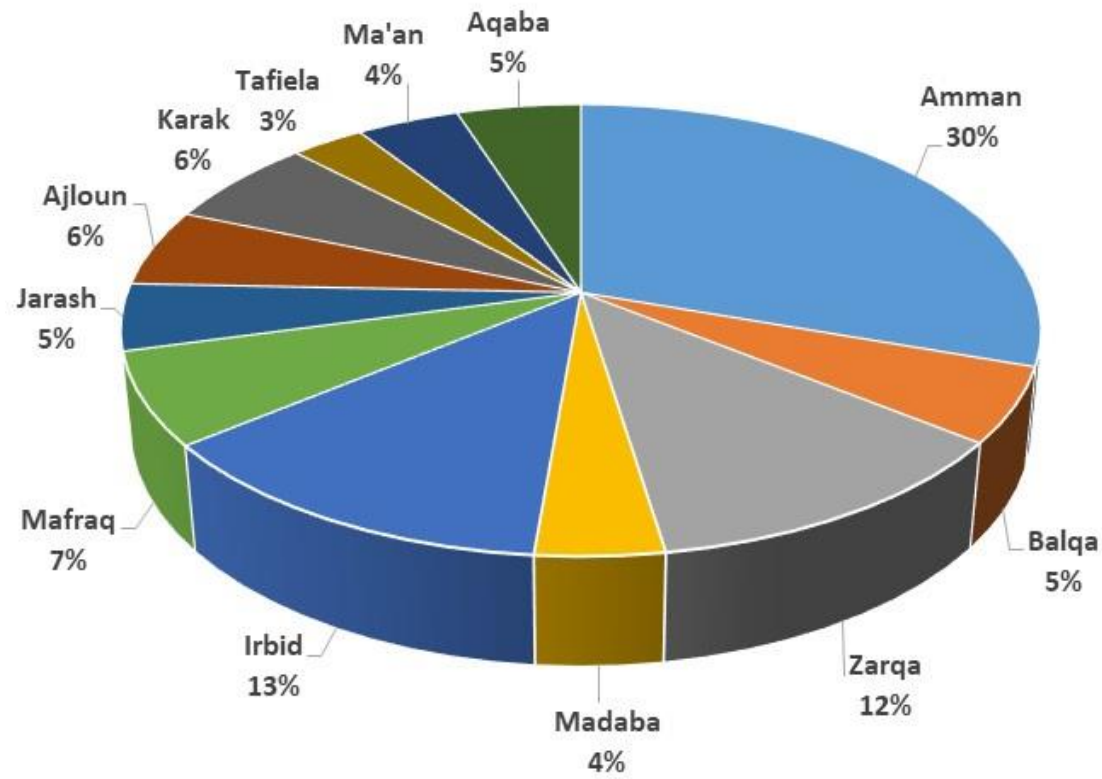
Law and special instructions in E-waste management in Jordan

- ▶ قانون الإطارية لإداره النفايات رقم ١٦ لعام ٢٠٢٠
- ▶ تعليمات إدارة النفايات والكهربائية والالكترونية لعام ٢٠٢٠ لتنظيم النفايات الكهربائية والإلكترونية و طرق الجمع والتخلص منها بطريقة امنة عن طريق الناقل والمنتج والحائز والمجمع
- .1 Framework Law on Waste Management No. 16 of 2020
- .2 Instructions for waste management, electrical and electronic for the year 2020 to regulate electrical and electronic waste and methods of collection and disposal in a safe manner through the carrier, the producer, the holder and the collector

Have the family Destroyed any of the following Devices according to the table:

[illegible]

Percentages of targeted and responded households distributed in the twelve governorates



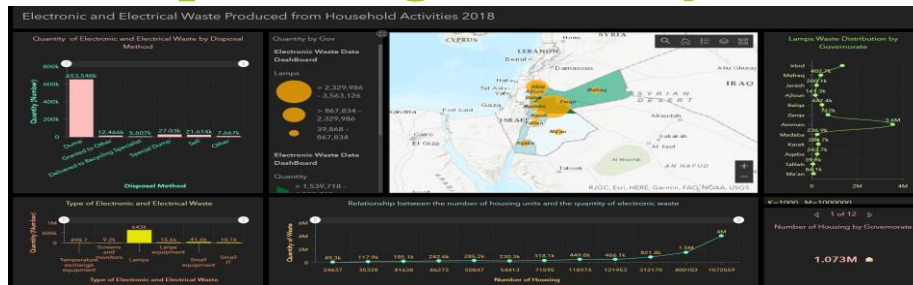


Survey Methodology

E-WASTE IN JORDAN 2018

- ▶ The advantages of the new electronic and electrical waste survey methodology are:
 - Using tablet devices instead of paper questionnaires.
 - Applying the classification of electrical and electronic equipment under the six categories (EU-6).
 - Using of ArcGIS Online, mapping and statistical data analysis.

<https://arcg.is/1KzvjO> ▶





Percentage Distribution of electronic waste by disposal method at Kingdom level

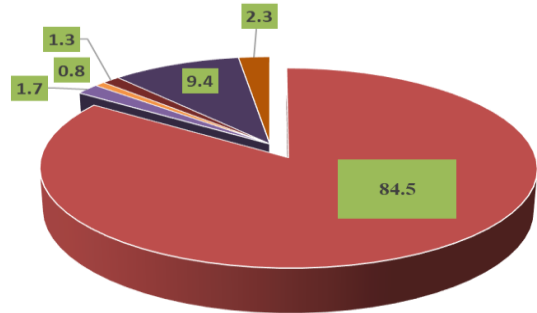
2018

توزيع النسبي النفايات الالكترونية حسب اسلوب التخلص على مستوى المملكة

Percentage distribution of electronic waste by disposal method at Kingdom level

مكب Dump	منحة الى جهة أخرى Granted to Other	تسليمه الى جهات مختصة بالتدوير Delivered to Recycling Specialist	مكب خاص Special Dump	بيع Sell	أخرى Other
84.5	1.7	0.8	1.3	9.4	2.3

توزيع النسبي لنفايات الالكترونية حسب اسلوب التخلص على مستوى المملكة
% distribution of electronic waste by disposal method at kingdom level



- Dump 84.5
- Granted to Other 1.7
- Delivered to Recycling Specialist 0.8
- Special Dump 1.3
- Sell 9.4
- Other 2.3

جدول 1: كمية ونوع المخلفات الإلكترونية والكهربائية الناتجة عن أنشطة المنازل حسب المملكة وأسلوب التخلص لعام 2018												
Table 1: Quantity and Type of Electronic and Electrical Waste Produced from Household Activities by kingdom and Disposing Method, 2018												
Waste Type	Unit	Disposal Method			أسلوب التخلص			الكمية Quantity	الوحدة	CODE UNU Key	نوع النفاية	
		أخرى	بيع	مكب خاص	تسليمه الى جهات مختصة بالتدوير	منحة الى جهة أخرى	مكب					
		Other	Sell	Special Dump	Delivered to Recycling Specialist	Granted to Other	Dump					
معدات تبادل حراري												
Air Conditioners (household and portable)	No.	545	1302	1330	105	1269	1434	5985	عدد	111	مكيفات هواء (مركبة في المنزل والمحمولة)، معدات تبريد	
شاشات والواح ومعدات												
Laptops (incl. tablets)	No.	3005	1592	4111	2357	3803	3497	18365	عدد	303	حواسيب محمولة (بما فيها اللوحية)	
Flat Display Panel Monitors (LCD, LED)	No.	3721	2750	3853	893	6798	11055	29069	عدد	309	شاشات عرض مسطحة (LCD+LED)	
Flat Display Panel TVs (LCD, LED, Plasma	No.	6374	3532	10817	7665	10127	24188	62704	عدد	408	شاشات تلفزيون مسطحة (LCD + LED، بلازما)	
مصابيح												
Compact Fluorescent Lamps (incl. retrofit & non-retrofit)	No.	59376	284601	0	82	381	1845730	2190171	عدد	502	مصابيح فلورسنت منمجه	
Straight Tube Fluorescent Lamps	No.	15259	261702	464	1337	3545	2084146	2366452	عدد	503	مصابيح فلورسنت ذو أنبوب مستقيم (نيون) قصير/طويل او دائري	
Special Lamps (e.g. professional mercury, high & low pressure sodium)	No.	19174	161148	0	512	7744	2970618	3159196	عدد	504	مصابيح LED	
معدات كبيرة												
Dishwashers	No.	0	0	481	838	1449	696	3464	عدد	102	غسالات صحون	
Kitchen equipment (e.g. large furnaces, ovens, cooking equipment)	No.	6920	10783	24373	8233	16148	24156	90614	عدد	103	معدات مطبخ (الافران الكبيرة والصغيرة و معدات الطهي)	
Washing Machines (incl. combined dryers)	No.	7931	9769	24324	10171	17851	23101	93147	عدد	104	غسالات ملابس (مكيفات المنمنجة و عسارات)	
معدات صغيرة												
smal ventilators·irons ·clocks·adapters	No.	10487	17850	17304	15816	15922	76816	154196	عدد	201	المراوح والمكاري والساعات والمحولات	
food(toaster·grills·food processing·frying pans	No.	3091	9892	8822	5020	10499	32723	70046	عدد	202	معدات تجهيز الاطعمة مثل المقالي والشويبات	
Hot Water (i.e. Coffee·tea·water cookers)	No.	4314	5963	3472	3432	5816	18265	41261	عدد	203	جهاز تسخين الماء (تحضير القهوة والشاي)	
Toys (e.g. car racing sets, electric trains, music toys.)	No.	24759	24135	2741	270	21925	152280	226109	عدد	701	العاب مثل سيارات السباق والقطارات والدراجات و طائرات	
Household medical equipment(e.g. thermometers, blood pressure meters	No.	136	824	0	346	3286	2661	7254	عدد	801	معدات طبية منزلية (موازين الحرارة و اجهزة السكري و اجهزة ضغط الدم)	
معدات تكنولوجيا ومعلومات اتصالات صغيرة												
Mobile Phones (incl. smartphones, pagers)	NO.	33052	27381	12955	10204	23027	110535	217155	عدد	306	طابعات، ماسحات ضوئية، فاكسات و هواتف متنقلة بما فيه الهواتف الذكية	
Total		198,143	823,225	115,045	67,283	149,590	7,381,901	8,735,187	المجموع			

electronic waste in economic activities 2018

Table 5.6.1: Quantity and Type of Electronic and Electrical Waste Produced from Hotel and Education Activities by Disposing Method, 2018

Waste Type	Unit	Disposal Method						الكمية Quantity	الوحدة	نوع النفاية
		أخرى Other	بيع Sell	مكب خاص Special Dump	تسليمه الى جهات مختصة بالتدوير Delivered to Recycling Specialist	منحة الى جهة أخرى Granted to Other	مكب الامانة Dump			
personal Computer	No.	266.8	6026.6	86.0	394.8	505.7	527.8	7807.7	عدد	كمبيوتر شخصي
persona Laptop	No.	0.0	79.3	0.0	51.3	0.0	306.3	436.9	عدد	كمبيوتر محمول
CRT Screen	No.	108.7	96.8	0.0	46.0	0.0	0.0	251.5	عدد	شاشات CRT
LCD Screen	No.	25.0	785.2	16.5	158.7	66.7	443.8	1495.8	عدد	شاشات LCD
Scanners	No.	8.7	0.0	0.0	4.7	0.0	4.2	17.5	عدد	ماسح ضوئي
Printers	No.	265.3	1104.4	9.0	989.0	41.2	770.0	3178.8	عدد	طابعات
Dry Batteries	No.	501.7	0.0	0.0	0.0	0.0	26287.0	26788.8	عدد	بطاريات جافة
Chargeable Batteries	No.	0.0	102.7	0.0	210.0	0.0	2030.1	2342.7	عدد	بطاريات قابلة للشحن
Cartridge Ink	No.	0.0	152.4	0.0	330.8	100.0	140587.2	141170.4	عدد	عبوات احبار كارتريج
Refill Ink	No.	0.0	0.0	0.0	4433.3	0.0	4300.2	8733.5	عدد	عبوات احبار معة
Accessories	No.	96.3	206.3	0.0	0.0	0.0	0.0	302.6	عدد	اكسوارت
Compact Fluorescent Bulb CFL	No.	1303.1	108.7	0.0	0.0	0.0	24539.9	25951.8	عدد	اللمبة الفلورية المدمجة CFL
Fluorescent (neon)	No.	663.0	0.0	0.0	0.0	0.0	7559.6	8222.6	عدد	الفلورسنت (نيون)
Refrigerators	No.	61.5	854.7	0.0	216.1	0.0	155.8	1288.2	عدد	ثلاجات
Televisions	No.	68.6	1224.2	0.0	9.3	0.0	0.0	1302.1	عدد	تلفزيونات
Conditioners	No.	24.9	128.8	0.0	32.7	0.0	0.0	186.4	عدد	مكيفات
Fans	No.	105.0	673.4	0.0	597.5	33.3	875.2	2284.3	عدد	مراوح
Electrical devices	No.	0.0	31.5	0.0	0.0	0.0	320.0	351.5	عدد	نفايات كهربائية اخرى
Other	No.	0.0	313.8	0.0	0.0	0.0	34.8	348.5	عدد	اخرى
Total	No.	3,499	11,889	112	7,474	747	208,742	232,462	عدد	المجموع

Quantity and Type of Electronic and Electrical Waste Produced from Household

Activities by Governorate, 2018

كمية ونوع المخلفات الإلكترونية والكهربائية الناتجة عن أنشطة المنازل حسب المحافظة لعام 2018

Quantity and Type of Electronic and Electrical Waste Produced from Household Activities by Governorate, 2018

CODE	المحافظة	معدات تبادل حراري	شاشات والواح ومعدات	مصباح	معدات كبيرة	معدات صغيرة	معدات تكنولوجيا ومعلومات اتصالات صغيرة Small IT
	Governorate	Temperature exchange equipment	Screens and monitors	Lamps	Large equipment	Small equipment	
11	Amman	2123	39852	3563126	55631	308357	60622
12	Balqa	212	6866	447400	4880	4460	2308
13	Zarqa	670	21195	712032	24931	39284	23302
14	Madaba	42	838	236945	1602	1415	1712
21	Irbid	458	22555	1338859	46230	67624	63993
22	Mafraq	72	3726	402746	13822	12466	16946
23	Jarash	175	3061	200051	6950	8840	11262
24	Ajloun	218	3103	161252	3558	8361	8592
31	Karak	393	4412	284727	10890	12510	5147
32	Tafiela	48	742	39868	2465	4559	1639
33	Ma'an	239	1397	86121	6919	12937	10275
34	Aqaba	1334	2391	242691	9346	18053	11358



Data collection mechanism

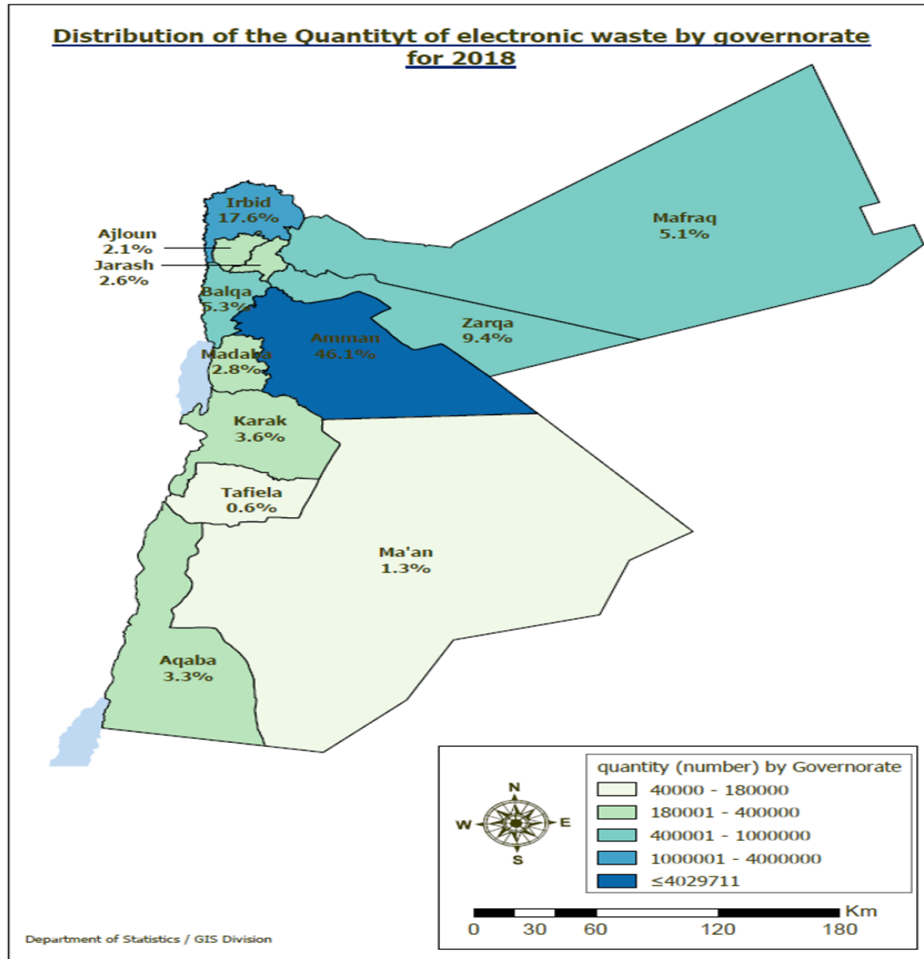


HS Code	UN HSCODE E	UN HSCODE Description	2016		2017		2018	
			EXPORT _QNN	IMPORT_ QNN	EXPORT _QNN	IMPORT_ QNN	EXPORT_ QNN	IMPORT_ QNN
630110	630110	Blankets; electric	-	13,481	-	3,303	-	3,397
840310	840310	Boilers; central heating boilers (excluding those of heading no. 8402)	-	494,986	7,090	649,424	9,353	414,378
842112	842112	Centrifuges; clothes- dryers	-	6,040	-	28,479	-	50,462
842211	842211	Dish washing machines; of the household type	-	29,902	-	-	-	59,372
842219	842219	Dish washing machines; of other than household type	-	29,144	-	-	3,600	27,145

Market EEE(tons) in Jordan



Distribution of the Quantities of electronic wastes by governorate for 2018



Thank You





Electronic Waste in Palestine (E-waste)

WEEE: Towards regional harmonization of national WEEE policies, regulations, and standards in the Arab States

02-03 Dec 2020



2019

Population

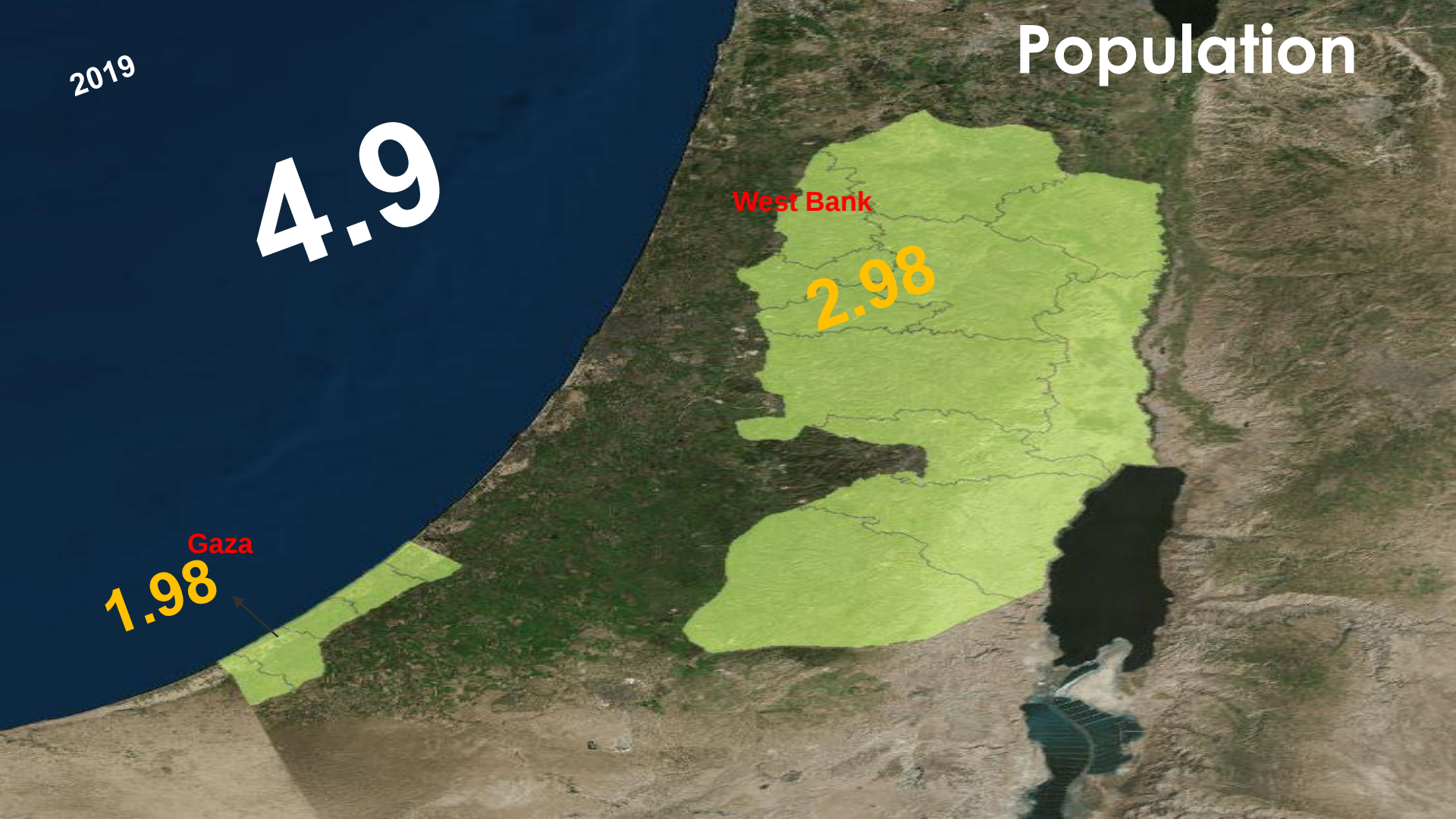
4.9

West Bank

2.98

Gaza

1.98



Introduction

- Waste statistics form an important part of the environment statistics at PCBS since 1997.

جدول 7: نسبة المنشآت الاقتصادية في فلسطين التي تنتج عنها نفايات صلبة وتقوم بفصلها حسب نوع النفايات الصلبة والمنطقة، 2015

Table 7: Percentage of Economic Establishments in Palestine that Generate Solid Waste and Separate it by Type of Solid Waste and Region, 2015

Region	نوع النفايات الصلبة المفصولة										المنطقة
	Type of Separated Solidwaste	نفايات صلبة	نفايات صلبة	نفايات صلبة	نفايات صلبة	نفايات صلبة	نفايات صلبة	نفايات صلبة	نفايات صلبة	نفايات صلبة	
	اخرى	نفايات كيميائية	نفايات مشعة	نفايات معدية	نفايات حادة	نفايات عضوية	تراب وحجارة	زجاج ومعادن	بلاستيك ومطاط	ورق وكرتون	
	Others	Chemical Waste	Radioactive Waste	Infectious Waste	Sharp Waste	Organic Waste	Soil & Stones	Glass & Metals	Plastic & Rubber	Paper & Cartoon	
Palestine	6.9	32.1	53.9	33.3	30.8	6.2	5.8	5.8	3.4	5.5	فلسطين
West Bank	7.6	34.1	100.0	35.7	30.3	4.0	4.0	6.2	2.3	4.2	الضفة الغربية
North of West Bank	7.2	51.5	100.0	27.9	30.8	4.7	4.8	9.0	2.9	6.4	شمال الضفة الغربية
Middle of West Bank	5.0	37.0	-	53.7	31.5	7.1	7.7	7.5	2.9	3.8	وسط الضفة الغربية
South of West Bank	14.2	7.1	100.0	51.7	29.0	1.6	1.3	1.9	1.0	1.7	جنوب الضفة الغربية
Gaza Strip	3.4	8.8	53.6	28.8	31.4	10.5	7.4	4.9	6.3	8.4	قطاع غزة

- : No observations

- : لا يوجد مشاهدات

Introduction

- E-waste could be a source of pollution, or an important resource according to the management process.



Waste Indicators collected by PCBS

Solid Waste Collection Service:

1. Availability of waste collection service
2. Doer responsible about the service
3. Means of collection
4. Periodicity of collection

Production of Waste:

1. Quantity of produced Waste
2. Waste components
3. Availability of waste separation

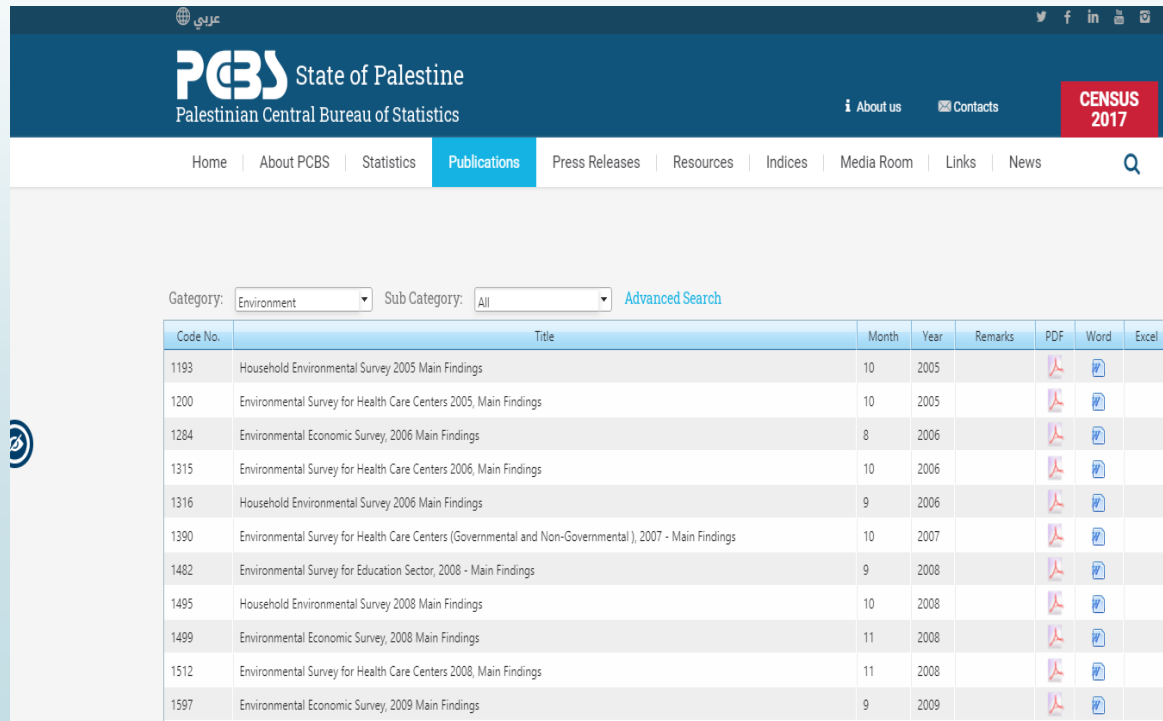
Waste Disposal:

1. Treatment of waste before final disposal
2. Dumping sites (waste disposal places)
3. Waste disposal methods

Environmental impact of Dumping sites

Sectors included in waste statistics:

- Household sector
- Economic sector (ISIC4) except Agricultural sector
- Localities sector
- Health care sector
- Education sector



The screenshot shows the PCBS website with the 'Publications' tab selected. The table below lists various environmental surveys conducted between 2005 and 2009, categorized by Code No., Title, Month, Year, Remarks, and download links for PDF, Word, and Excel formats.

Code No.	Title	Month	Year	Remarks	PDF	Word	Excel
1193	Household Environmental Survey 2005 Main Findings	10	2005				
1200	Environmental Survey for Health Care Centers 2005, Main Findings	10	2005				
1284	Environmental Economic Survey, 2006 Main Findings	8	2006				
1315	Environmental Survey for Health Care Centers 2006, Main Findings	10	2006				
1316	Household Environmental Survey 2006 Main Findings	9	2006				
1390	Environmental Survey for Health Care Centers (Governmental and Non-Governmental), 2007 - Main Findings	10	2007				
1482	Environmental Survey for Education Sector, 2008 - Main Findings	9	2008				
1495	Household Environmental Survey 2008 Main Findings	10	2008				
1499	Environmental Economic Survey, 2008 Main Findings	11	2008				
1512	Environmental Survey for Health Care Centers 2008, Main Findings	11	2008				
1597	Environmental Economic Survey, 2009 Main Findings	9	2009				

National Classification of E-waste

Until now, we don't have any classification specifically made for E-waste; still, we only have Basel Convention classification for all hazardous waste.

However, there is the **Palestinian Waste Categories and Hazardous Waste List**

	Palestinian Waste Categories and Hazardous Waste List	تصنيفات النفايات وقائمة النفايات الخطرة الفلسطينية
	Wastes Categories	تصنيفات النفايات
1	Industrial waste	النفايات الصناعية
2	Construction and demolition waste	المخلفات الإنشائية
3	Agricultural waste.	النفايات الزراعية
4	Wastes from Oils, Fuels, Solvents and Related Materials	مخلفات الزيوت والوقود والمذيبات والمواد ذات الصلة
5	Municipal Waste	المخلفات البلدية
6	Wastes Resulting from Handling and Treatment of Wastes and Wastewater	المخلفات الناتجة عن التعامل مع النفايات والمياه العادمة ومعالجتها
7	Wastes from Other Sources	مخلفات من مصادر أخرى
8	Wastes from Human or Animal Health Care	النفايات الناتجة عن مراكز الرعاية بصحة الإنسان أو الحيوان
Serial Number	Main Sector Sub Sector	القطاع الرئيس القطاع الفرعي
01	Chapter One - Industrial Wastes	الفصل الأول - المخلفات الصناعية
01-01	Sub-Chapter One - Wastes from Pharmaceutical Industry	الفصل الفرعي الأول - مخلفات الصناعة الدوائية
01-02	Sub-Chapter Two - Wastes from Chemical Manufacturing	الفصل الفرعي الثاني - مخلفات الصناعات الكيماوية
01-03	Sub-Chapter Three - Wastes from Paint Manufacturing	الفصل الفرعي الثالث - مخلفات صناعة الدهانات
01-04	Sub-Chapter Four - Wastes from Manufacturing of Ceramics and Glass	الفصل الفرعي الرابع - مخلفات صناعة الزجاج والخزف
01-05	Sub-Chapter Five - Wastes from Manufacturing of Wood	الفصل الفرعي الخامس - مخلفات الصناعات الخشبية
01-06	Sub-Chapter Six - Wastes from Paper	الفصل الفرعي السادس - مخلفات صناعة الورق

Palestinian Waste Categories and Hazardous Waste List

Serial Number	EU Code	Main Sector	القطاع الرئيس
		Sub Sector - Wastes	القطاع الفرعي - النفايات
_07		Chapter Seven - Wastes from Other Sources	الفصل السابع - مخلفات من مصادر أخرى
_07-3		Sub-Chapter Three - Wastes from Electrical and Electronic EQUIPMENT (from industry, commerce or households)	الفصل الفرعي الثالث - مخلفات المعدات الكهربائية والإلكترونية (من الصناعة والتجارة والمنازل)
		wastes from electrical and electronic equipment	مخلفات الأجهزة الكهربائية والإلكترونية
_07-03-101	16 02 09*	transformers and capacitors containing PCBs	المحولات و المكثفات التي تحتوي على PCBs
_07-03-102	16 02 10*	discarded equipment containing or contaminated by PCBs other than those mentioned in 16 02 09	أجهزة متخلص منها ومحتوية على مواد PCBs أو ملوثة بها غير المذكورة تحت 16 02 09
_07-03-103	16 02 11*	discarded equipment containing chlorofluorocarbons, HCFC, HFC	أجهزة متخلص منها ومحتوية على كاربون كلوريدي فلوريدي HCFC, HFC
_07-03-104	16 02 12*	discarded equipment containing free asbestos	أجهزة متخلص منها ومحتوية على الأسبستوس الحر

Palestine and E-waste

As a result of the Israeli occupation measures (separation and annexation wall, land confiscations, closures, sieges...etc.) many Palestinians went to work on collecting and separating electronic wastes as a new source of income.

The rapid accumulation of e-waste in Palestine, which has turned the country into a cemetery for electronic devices, is the result of the smuggling and illegal movement of waste from Israel and illegal Israeli settlements.



E-waste management and legislation status in Palestine

E-waste was mentioned in the bylaw of hazardous waste, which has been ratified in 2018, as hazardous waste without having any classifications and there aren't any classifications for hazardous waste in the Palestinian Environmental Law No. 7/1999 too.

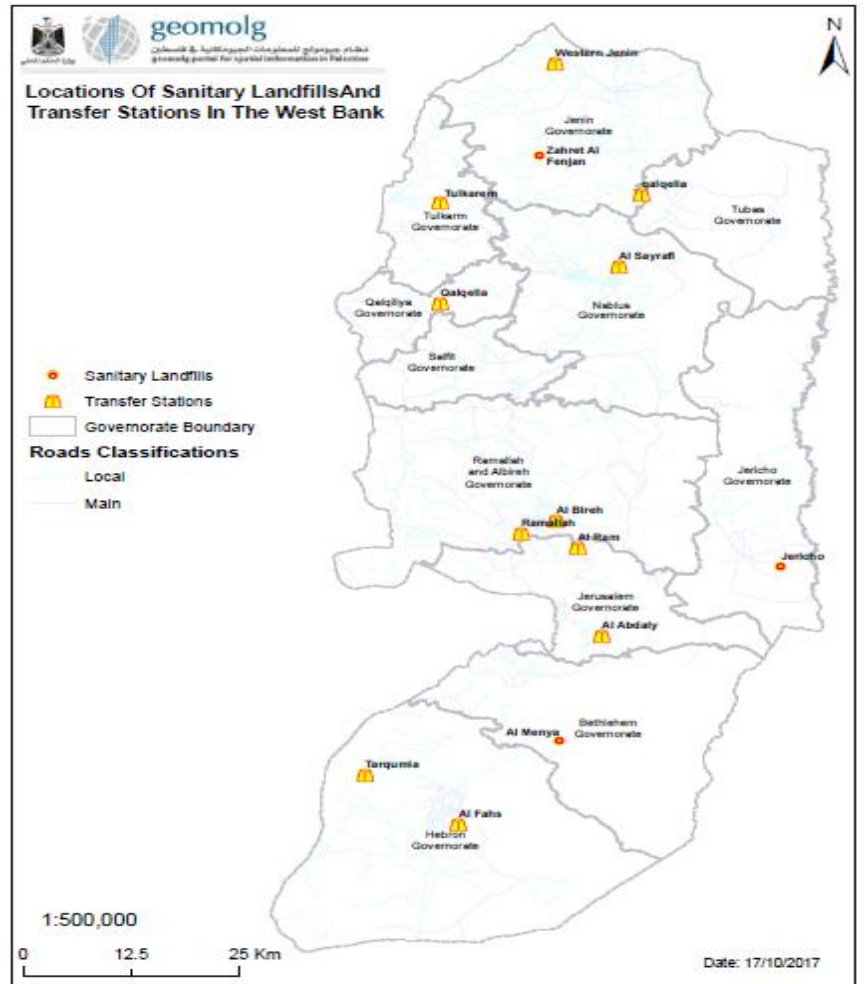
Solid Waste

Article (7)

The Ministry, in coordination with other specialized agencies, shall set a comprehensive plan for solid waste management on the national level, including the ways and the designation of sites for solid waste disposal as well as the supervision to implement this plan by the local councils.

EQA is preparing a roadmap for e-waste in Palestine in cooperation with the Italian CESVI and other stakeholders.

Locations of Sanitary Landfills and Transfer Stations in the West Bank



E-waste Statistics

- ❖ Around 300,000 - 400,000 ton/yr by informal sector
- ❖ 70-80% of e-waste comes from Israeli occupation as illegal movement
- Source: Environment Quality Authority, 2016



E-waste Challenges

- 1- Absence of national e-waste strategy
- 2- Lack of experience and human resources skills and training
- 3- Lack of funding
- 4- Illegal movement of e-waste by Israeli occupation



Recommendations

- Increasing studies and research on E-waste by research centers and students.
- The activation and implementation of the law.
- Increasing employment rate.
- Increase in training to compile national e-waste statistics.



Telecommunication and Post Regulatory Authority

TPRA – Sudan

ITU-UNEP-UNU Joint Online Workshop on WEEE: Towards regional harmonization of national WEEE policies, regulations and standards in the Arab States

E.waste Management in Sudan

Eng: Eiman Farouk Mahmoud

Head of Environmental Effects Division

SG5 Vice-chairman & SG5RG-ARB Chairman (2017-2020)

2-3 Dec. 2020

www.tpra.gov.sd

- **E.waste management is through the country's environmental councils:**
 - ❑ **Higher Council for Environment & Natural Resources.**
 - ❑ **Higher Council for Environment & Urban and Rural Promotion.**
- **Related parties and relationship.**



Higher Council for Environment & Natural Resources

➤ According to:

- ☐ Environmental Protection Law 2001 updating 2020.
- ☐ Regulation of Hazardous Wastes 2020.
- ☐ Basel Convention, Sudan is part of it, since April 2006.
- ☐ Rotterdam Convention, Sudan is part of the agreement since 2004.
- ☐ Bamako Regional Agreement.
- ☐ A license to re-export e-waste is granted to recycling agencies.

Higher Council for Environment, Urban and Rural Promotion

- **According to:**
 - ❑ **Environmental Protection and Promotion Act 2008.**
 - ❑ **Regulation of Hazardous Wastes in Khartoum State for the year 2011 amending 2018.**
 - ❑ **Khartoum State Environmental Strategic Assessment and Evaluation Project November 2014.**
 - ❑ **A license to re-export e-waste is granted to recycling agencies.**

Telecommunication and Post Regulatory Authority

- ❑ According to the General Telecommunications Regulations 2012 and the Telecommunications and Postal Regulation Law 2018:
- ❑ According to Regulatory guidelines have been issued for the management of e-waste for telecommunication equipment, which are based on their re-export to recycling entities according to the Basel Convention for Hazardous Wastes in 2016 amending 2020.
- ❑ Recommendations of a committee for the ideal management of e-waste for telecommunication equipment has been set up by telecommunications operators, companies that supply telecommunication equipment and corresponding government agencies and the relationship in 2018.

Re-export e-waste companies:

- ❑ Working on collecting, sorting re-exporting of e.waste.
- ❑ It is licensed by the Environment Councils in Sudan.
- ❑ Its license is renewed annually with supervision and inspection to comply with international standards for re-exportation, as required by the Basel Convention.



Re-export e-waste companies:

- Number of companies working in e.waste management are Eight:
 - ❑ 2018: One company.
 - ❑ 2019: Two companies.
 - ❑ 2020: Five companies.
- All of them work on assembling, sorting and re-exporting specialized laboratories for recycling in Turkey, Germany, Malaysia ... etc.



Future Planning:

- ❑ **Renewal of corporate licenses and open opportunities for companies operating in accordance with international requirements.**
- ❑ **Issuing licenses only from Higher Council for Environment & Natural Resources, as it is responsible for all states of Sudan and the Basel Convention Signer.**



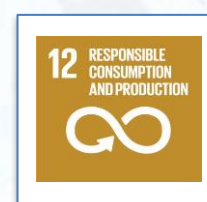
Future Planning:

- ❑ Issuing licenses to treat and manage the recycling of e.waste locally, especially that can be recycled and utilized.
- ❑ Starting a statistical work on all electronic waste in Sudan and create a database of all e-waste in the country.



Future Planning:

- ❑ Striving to achieve the Sustainable Development Goals 2030 and go to Green environment.



Striving to achieve



Obstacles:

- ❑ The high budget of the e-waste statistics project, especially of the health conditions (COVID-19).
- ❑ Difficulty of transportation, if it is local or international.



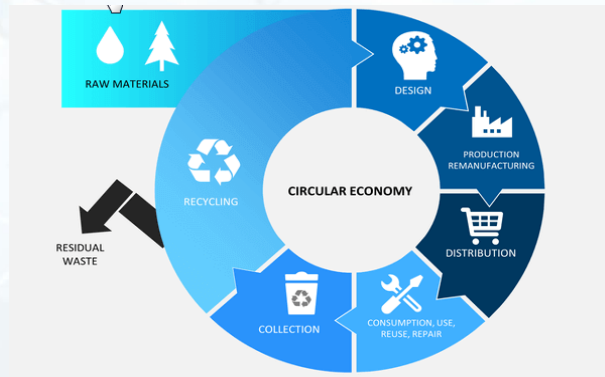
Obstacles:

- ❑ Overlapping of specializations and responsibilities.
- ❑ Lack of awareness.



Recommendations:

- ❑ Unifying regulations and laws in line with global conventions.
- ❑ Support the Participation of companies working in electronic waste management.



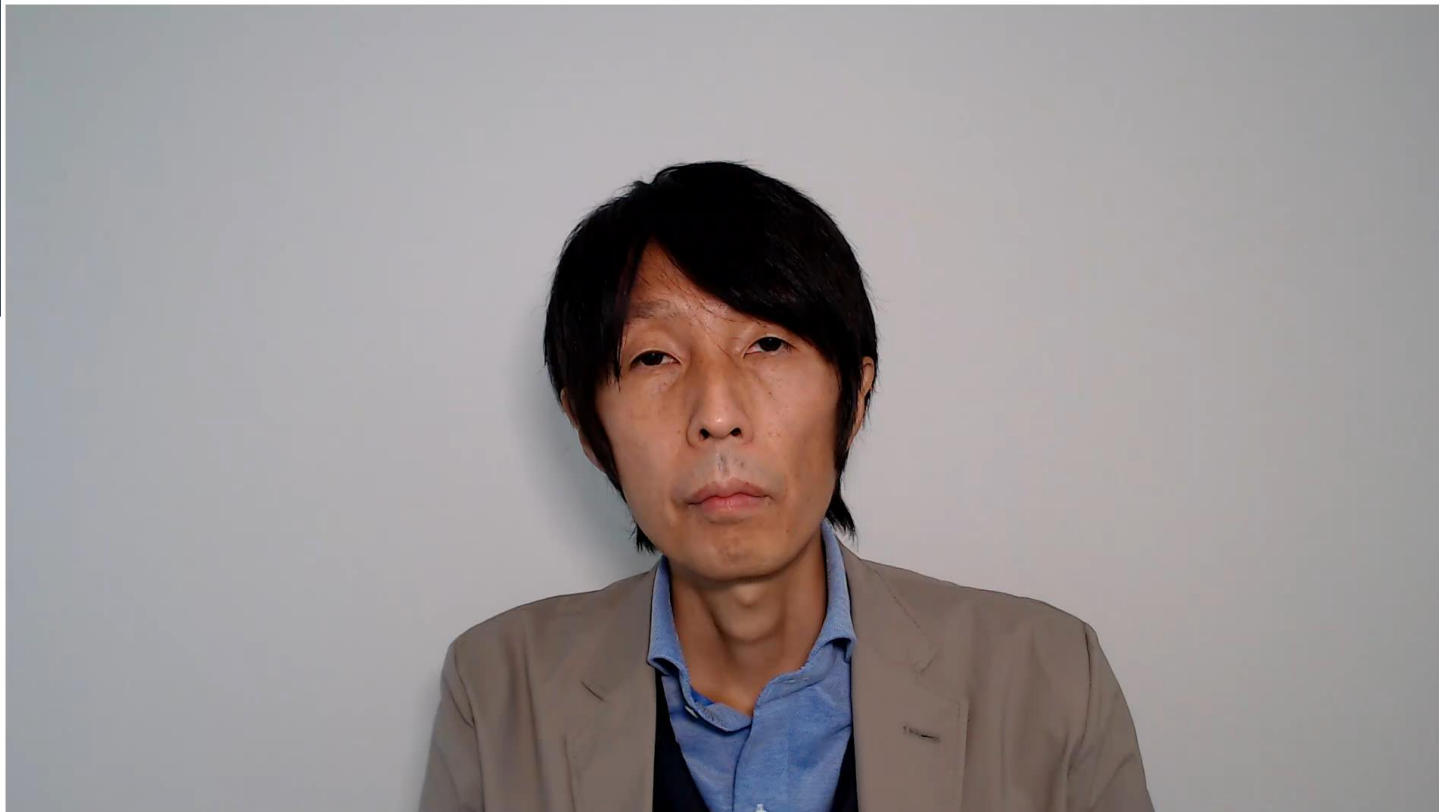
Recommendations:

- ❑ Providing assistance to finance the electronic waste management project (Recycling, statistical and Raise awareness).





Japan



EACO WG 07 MILESTONES IN REGIONAL E- WASTE MANAGEMENT

**PRESENTED TO THE ITU-UNEP-UNU Joint
Online Workshop
WEEE: Towards regional harmonization of
national WEEE policies, regulations, and
standards in the Arab States
3RD DECEMBER 2020**

**By: Juma Ooro
Chairperson, EACO Working Group 7 on E-waste
Management and Green ICTs**

Background

- The East African Communications Organization (EACO) was established in 2012, as a regional autonomous organization with international legal personality 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.

Objective

- 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.
- EACO is organized in various technical working groups, among other organs. Working Group 07 on E-waste Management and Green ICTs is one such group.

Membership

- Burundi
- Kenya
- Rwanda
- South Sudan
- Tanzania
- Uganda
- EACO Secretariat

The working group conducts its business through holding physical meetings, online meetings, training, workshops

Terms of reference for the WG 07

- To analyze the level of e-waste in the region and its impact on humans and the environment.
- To harmonize policies, strategies and regulations on e-waste management in the region.
- To recommend adoption of green ICT best practices by stakeholders in the communications sector.
- To recommend national and regional environmentally sound e-waste management systems for the EAC region.
- To develop strategies for public awareness on issues relating to e-waste.

Terms of reference for the WG 07...

- To recommend strategies for collaboration/cooperation between National ICT Regulators, National Environmental Management Authorities and other environmental management Agencies with a view to establishing and strengthening the e-waste management systems within the region.
- To coordinate and follow up the work of the relevant ITU Study Group(s) and facilitate the development of regional recommendations or contributions relating to the work of this ITU Study Group(s) or other relevant international and regional organization.
- To harmonize the framework for ICT counterfeit gadgets management within the region

Framework & Committees

- Model Framework on E-waste Management for the Region.
- The framework gave guidelines to countries regarding formulation of E-waste Management in the region
- Facilitated constitution of National E-waste Steering Committees in the EACO Member countries to coordinate the E-waste strategies within their respective countries
- Established EACO Regional E-waste Management Steering Committee (RSC).
- The Committee consists of Chairpersons and Secretaries of the National Steering Committees (NSC).

Regional Strategy

- The Regional Committee formulated the Regional E-waste Strategy in July, 2017 in Kampala, Uganda.
- Pillars of strategy:
 - Policy, Legal and Regulatory framework
 - Infrastructure for e-waste management
 - Resource mobilization
 - Coordination, institutional alignment
 - Research, Monitoring, Evaluation and Capacity building
- The strategy has been shared by the National E-waste Steering Committees in the member countries.
- Strategy is currently at different stages of implementation by various countries. Regional Steering Committee is strengthening the framework for monitoring and evaluating its implementation.

Status of Implementation of the Regional Strategy

- The review of existing Policy, Laws, Standards and Guidelines for e-waste management in EACO member states to identify gaps was done by GIZ funding in 2019
- WG7 developed a Model Framework for E-waste Management in 2013 and was revised in 2016
- In terms of Advocacy, WG07 has conducted workshops in 2015, 2017, 2018, 2019 in Kenya, Uganda, Rwanda and Burundi. The one in Tanzania this year was postponed due to Covid-19 disease till year 2021
- EACO held the 1st E-waste Webinar and celebrated 3rd International E-waste Day on 13th and 14th October 2020 respectively

Status of Implementation of the Regional Strategy...

- E-waste management infrastructure requirements analysis for the EACO member states was done by GIZ funding. Need to have rollout plan and implementation
- EACO has already conducted training on E-waste (Rwanda, 2016), Green ICT (Uganda, 2017) and E-waste Statistics (Uganda, 2019).
- EACO also collaborated with E-waste Academy for Managers (EWAM) who conducted training on E-waste Statistics (Tanzania 2017).
- Awareness campaigns were done in all member states targeting the general public, technical staff and local leaders; the next awareness will be in Tanzania and South Sudan.
- EACO and its members participates in ITU Meetings and workshops on E-waste (Study Group 5, Green Standards Week) and in events of other Iregional and international bodies

Funding

- The total amount of required initial investment in the next five years to implement strategy is estimated at USD 1,680,000, which translates into an average of USD 336,000 per annum
- EACO has so far received funding/technical support to the tune of USD 500000 (from GIZ) to implement certain action points in the strategy.
- Prevent Alliance has committed USD 297000 for an E-waste Project in Tanzania with EACO's partnership
- More funds/technical support have been promised from ITU.
- EACO is still exploring funding possibilities by other donors including: UNDP, UNEP, DFID, ITU-D, DANIDA, World Bank, Basel Convention, Waste Concepts Kenya, KFW and EU to fully implement the Regional Strategy

Capacity building & Awareness workshops

- EACO has undertaken training on E-waste Statistics, Green ICTs and E-waste management
- Successful awareness workshops have been held held in Nairobi, Kenya in March 2015, Kampala, Uganda July 2017, Kigali, Rwanda in May 2018 and Bujumbura, Burundi in March 2019.

Capacity building & Awareness workshops

- Participation in workshops were more than 150 participants in each and drawn from within and beyond the region comprising: Government Representatives, local, regional and International experts, E-waste collectors, recyclers and other stakeholders.
- Next awareness workshop is planned for Tanzania in 2021 and South Sudan in 2022

E-waste Survey & Green ICTs

- Aimed at establishing reliable statistics for the region.
- Rwanda, Kenya and Tanzania have done their surveys
- Other Member countries are undertaking/planning surveys and expected to complete in 2021.
- ITU has indicated that they will provide partial funding for the surveys

E-waste Survey & Green ICTs

- Have drafted and is working on comprehensive information paper on Green ICTs which will be recommended for adoption by members
- ITU has recognized EACO contributions on Green ICTs during their Green Standards Week and SG 5 Meetings

Partnerships

- The working group has always worked together with other stakeholders on E-waste
- The group and workshop participants have visited E-waste facilities in Kenya, Tanzania, Rwanda and Burundi and learnt good lessons

Challenges

- Inadequate awareness
- Limited expertise in the region on the subject matter of Green ICTs and E-Waste.
- Inadequate funding
- Inadequate Government support especially on legal framework

Future

- Full implementation of the Regional Strategy
- Concerted efforts by both Governments and Private Sector
- Regional E-waste Facility
- E-waste Fund
- Zero E-waste

E-waste management starts with you

End

E-waste collection Netherlands



3 December 2020

rene.eijsbouts@wecycle.nl



Agenda

- Introduction: NVMP/Wecycle and the Netherlands?
- Current collection system and EU Legislation (65% collection target)
- Current financing system (plus options for other countries)

The Netherlands and Wecycle/NVMP

- NVMP/ Wecycle formed in 1999
- Approximately 2,000 producers & importers are partner of NVMP
- 17 million people, rich country (annual income EUR 29,500 per household (2018))
- New equipment apprx. 26 kg/inhabitant per year

Collection system and European targets

- NVMP/ Wecycle: 75% of the market volume
- Collection at 400 municipal waste transfer stations, thrift stores (200), plus retail locations (8,000) and 2,000 installation companies
- Sorting facilities (12 locations) plus contracts with certified (WEEELABEX) recyclers (15)
- 116,000 tonnes in 2019 (approximately 9 kg/inh/year)

Collection system and European targets

- Current collection rate = 50%
- This should be 65%
- E-waste > some parts have value, some have not and some are (very) costly (PCBs, CFKs, mercury, radio-active) if treated in a environmental friendly way
- Plus a lot of logistics, handling & sorting activities
- Additional volume means more contracts & more money
- Value of metals is not enough > extra funding > costs roughly 300 euro/tonne
- Roughly 75 million euro is needed annually plus all actors involved

All Actors Approach

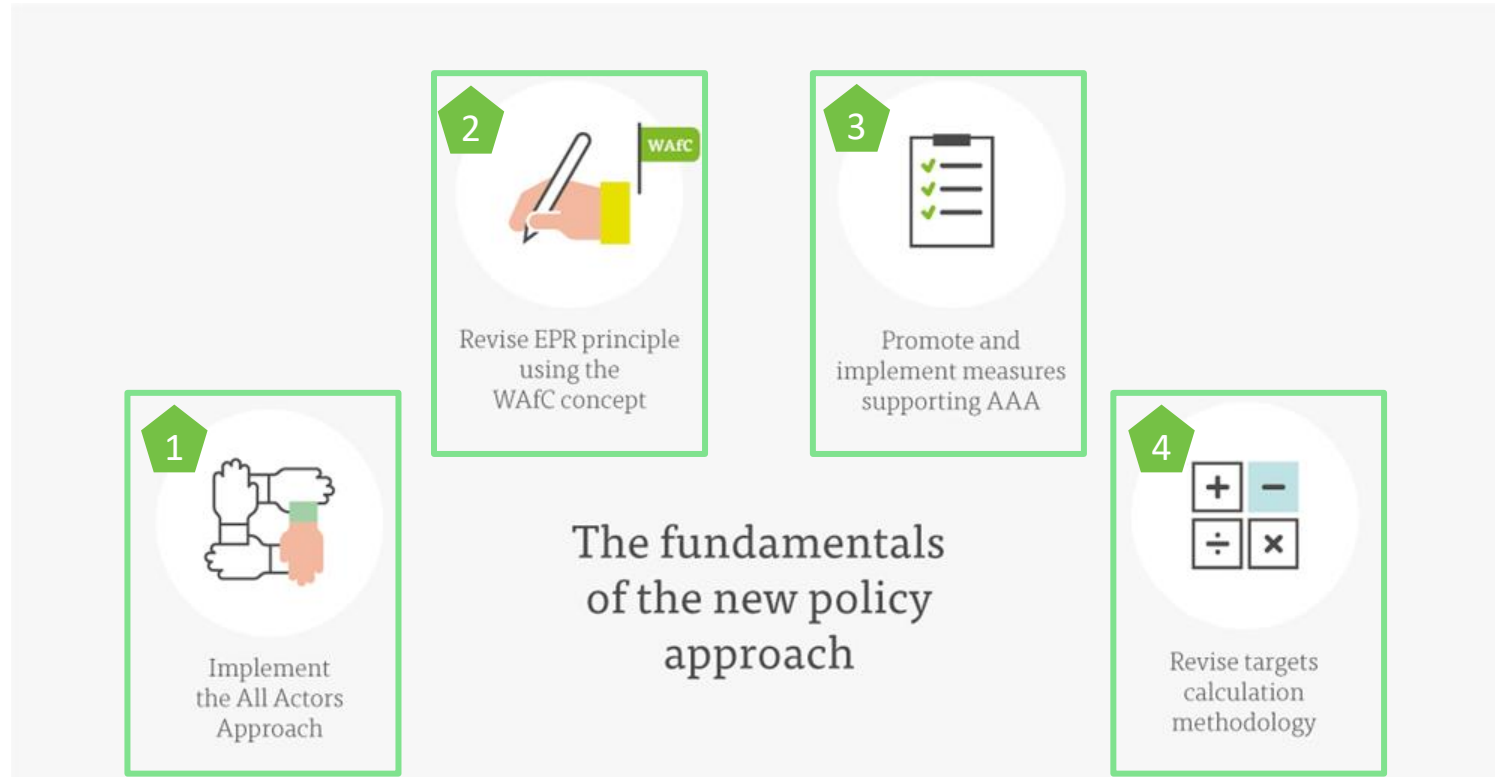
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Implement
the All Actors
Approach



Collection system and European targets



Current funding of the Wecycle system

- National WEEE Register for new equipment (Put-on-Market data) and collected e-waste
- Contracts with recyclers, transporters, sorting facilities, recyclers etcetera
- This leads to a budget forecast to collect and treat WEEE
- Put-on-market data > tariff per kilogram (depends upon the appliances EUR 0,05 – 0,30 per kilogram)
- Tariff is charged directly at producers/importers
- Budget goes to a central fund > for collection, transport and treatment
- Producers are in control of this fund
- New POM-tariffs are calculated for the next year based upon new POM data and the amounts of collected & recycled e-waste

Other options

- 1) Until 2013: Visible fee for customers for selected appliances like refrigerators, to be paid when buying new equipment
- 2) Since 2013: recycling fee is included into the product price (current situation)
- 3) Value Added Tax (VAT). For example 1% of the consumer price goes to a special fund for WEEE
- 4) Customs checks and “WEEE taxes” directly once new equipment is imported in your country

Questions?

3 December 2020

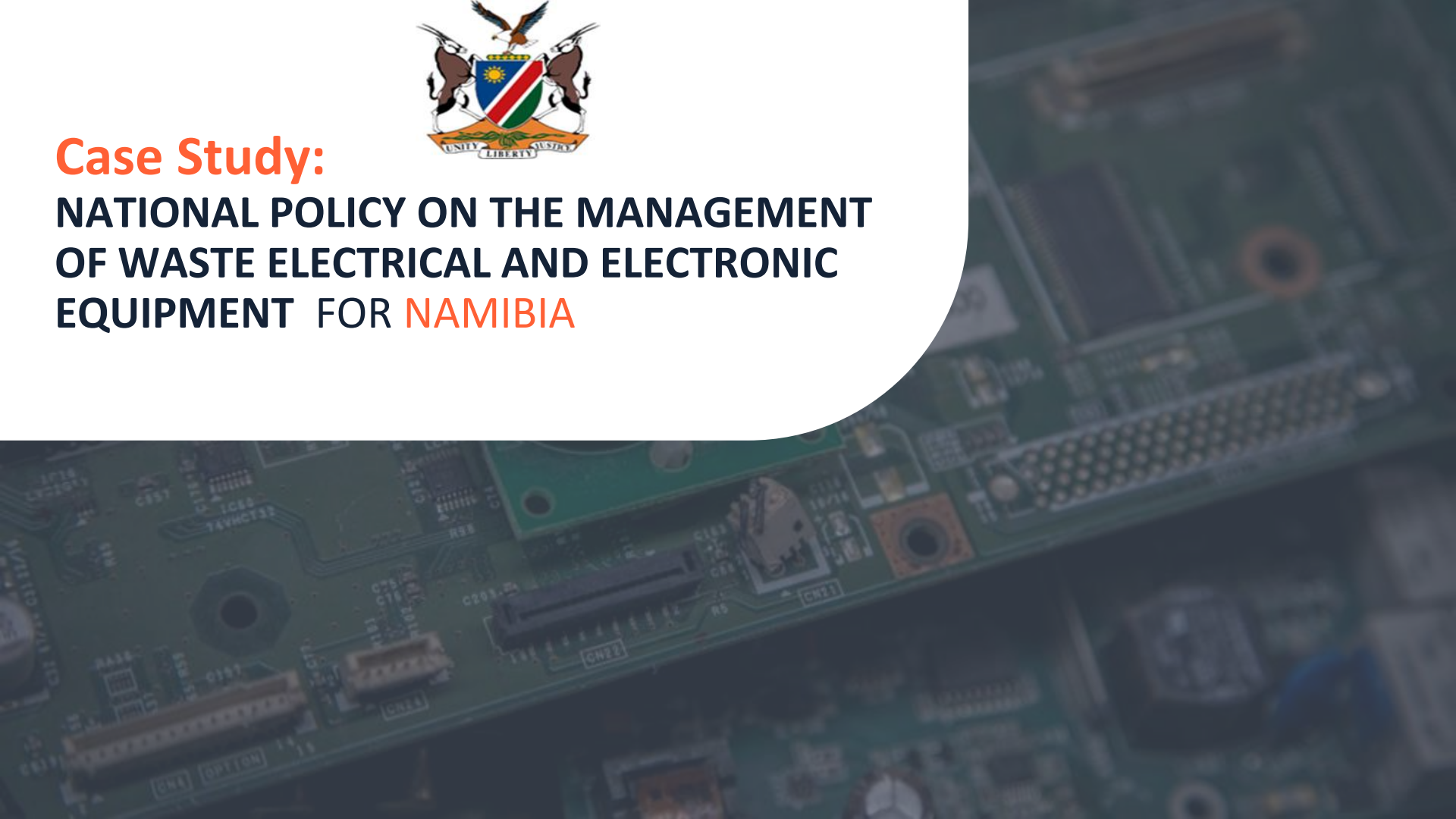
rene.eijsbouts@wecycle.nl





Case Study:

NATIONAL POLICY ON THE MANAGEMENT OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT FOR **NAMIBIA**



Outline

- Introduction
- Alignment of Instruments
- Draft Policy (objectives, strategies, key principles & stakeholders)
- Progress made
- Future activities
- Lesson learnt

WEEE in Namibia



- Republic of Namibia generated a total of 16'000 of e-waste in 2019, on average equivalent to 6.4kg per inhabitant.
- The current system for managing WEEE in Namibia is not formalized, and in the absence of regulations and awareness, there is little to guide stakeholders - whether producers, consumers, recyclers or the government.
- In Namibia, local authorities are mandated to manage solid waste, but this does not include WEEE. Whilst private sector initiatives do provide domestic and commercial collections for WEEE, there is little clarity nor direction on the valorization process and the actual recycling of valuable waste fractions.

16'000 t
6.4 kg per capita
WEEE
generated

\$ 17.05
million
value of raw
materials



Multiple dimensions under national and international commitments, strategies and goals provide for E-waste regulation



The Constitution of the Republic of Namibia

Article 95 of the Namibian Constitution on the Promotion of the Welfare of the People

Namibian Vision 2030

Chapter 5 of the Namibian Vision 2030 which calls for a sustainable resource base, emphasizing ecological preservation and the protection of Namibia's outstanding natural beauty.

5th National Development Plan

Highlights the uncertainties faced by the onset of climate change and the environmental management challenges arising in Namibia.

Harambee Prosperity Plan

WEEE, a challenge of inter-disciplinary nature, must be tackled across the key pillars of the HPP covering progress in the economic, social, and infrastructural aspects of Namibian society.

Environmental Management Act, 2007 (No.7 of 2007)

Promote sustainable management of the environment and the use of natural resources by establishing principles for decision making on matters affecting the environment. This Act provides definitions of waste

Environmental Impact Assessment Regulations of 2012

Activities that need an environmental clearance certificate

National Solid Waste Management Strategy 2018

Objectives of this strategy are to strengthen the institutional, organizational and legal framework for solid waste management, to install a widespread culture of waste minimization and to expand recycling, to implement formalized solid waste management.

Public Health Act (No. 36 of 1919)

Hazardous Substances Ordinance No. 14 of 1974

- Basel Convention
- Bamako Convention
- African Telecommunications Union guidelines for WEEE
- Sustainable Development Goals

Drafting the policy

Goal

Ensure the efficient, equitable and sustainable management of Waste Electrical and Electronic Equipment (WEEE) that is safe for the environment, protects human health and propels a circular economy in Namibia.

Vision

The vision of the policy is a robust and comprehensive framework for the sustainable management of WEEE in Namibia that serves all its citizens.

Mission

The mission of the policy is to enable a systemic change in the management of WEEE from its current unorganized state to a streamlined and self-sustaining system that delivers the overall vision of the policy.

Draft Objectives and Strategies

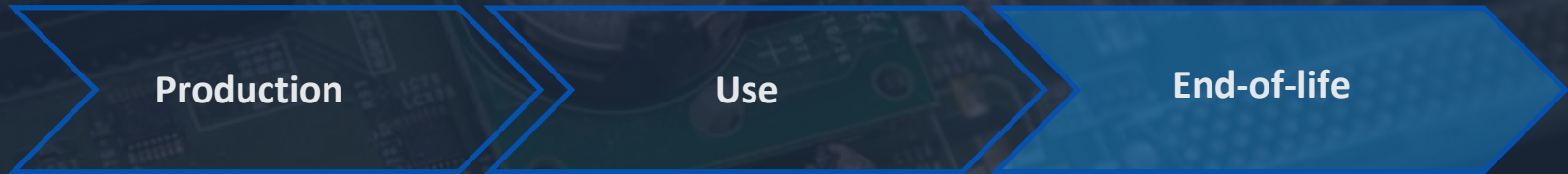
- **Policy Objective 1: Legal and institutional framework for the management of WEEE**
 - The introduction of a regulation specifically for the management of WEEE.
 - The establishment of a national Namibian WEEE Association.
 - The creation of institutional structures to implement and operationalize the regulations
- **Policy Objective 2: Financial mechanism for economically viable WEEE management**
 - Establishment of financial mechanism for efficient and sustainable management of WEEE
- **Policy Objective 3: Knowledge, capacity building and awareness on WEEE**
 - The delivery of an advocacy, community education and awareness, inter-sectoral collaboration and capacity building programme on the guiding principles and objectives of this policy.

Draft Objectives and Strategies

- **Policy Objective 4: Infrastructure for the management of WEEE**
 - The development of an appropriate WEEE infrastructure for the context of Namibia.
- **Policy Objective 5: WEEE guidelines, technical standards and enforcement mechanism**
 - The development and adoption of national WEEE guidelines and standards
 - The creation of a harmonised monitoring and enforcement framework for regulation.

Key principle: **Extended Producer Responsibility** (EPR): Internationally used for WEEE legislation

“an environmental policy approach in which a producer’s responsibility for a product is extended to the post-consumer stage of a product’s life cycle”.



“Traditional” Producer Responsibility:

- Sound production
- Functionality
- Product safety

Extended Producer Responsibility:

- Sound end-of-life management

Key Stakeholders



Ministry of Information and Communication Technology (MICT)
Communication Regulatory Authority of Namibia (CRAN)
Ministry of Environment, Forestry and Tourism (MEFT)
Ministry of Health and Social Services (MHSS)
Ministry of Works and Transport (MoWT)
Ministry of Finance (MoF), and Customs and Excise
Ministry of Urban and Rural Development (URD)
Ministry of Industrialization, Trade and SME Development (MIT)
National Standard Institute (NSI)
Namibian Statistics Agency (NSA)
Regional Councils (RCs)
Local Authorities (LAs)



Producers (importers, retailers, distributors and manufacturers)
Formal and Informal recyclers
Academia and relevant training institutions
Civil society organisations (non-governmental organisations)

Progress to date

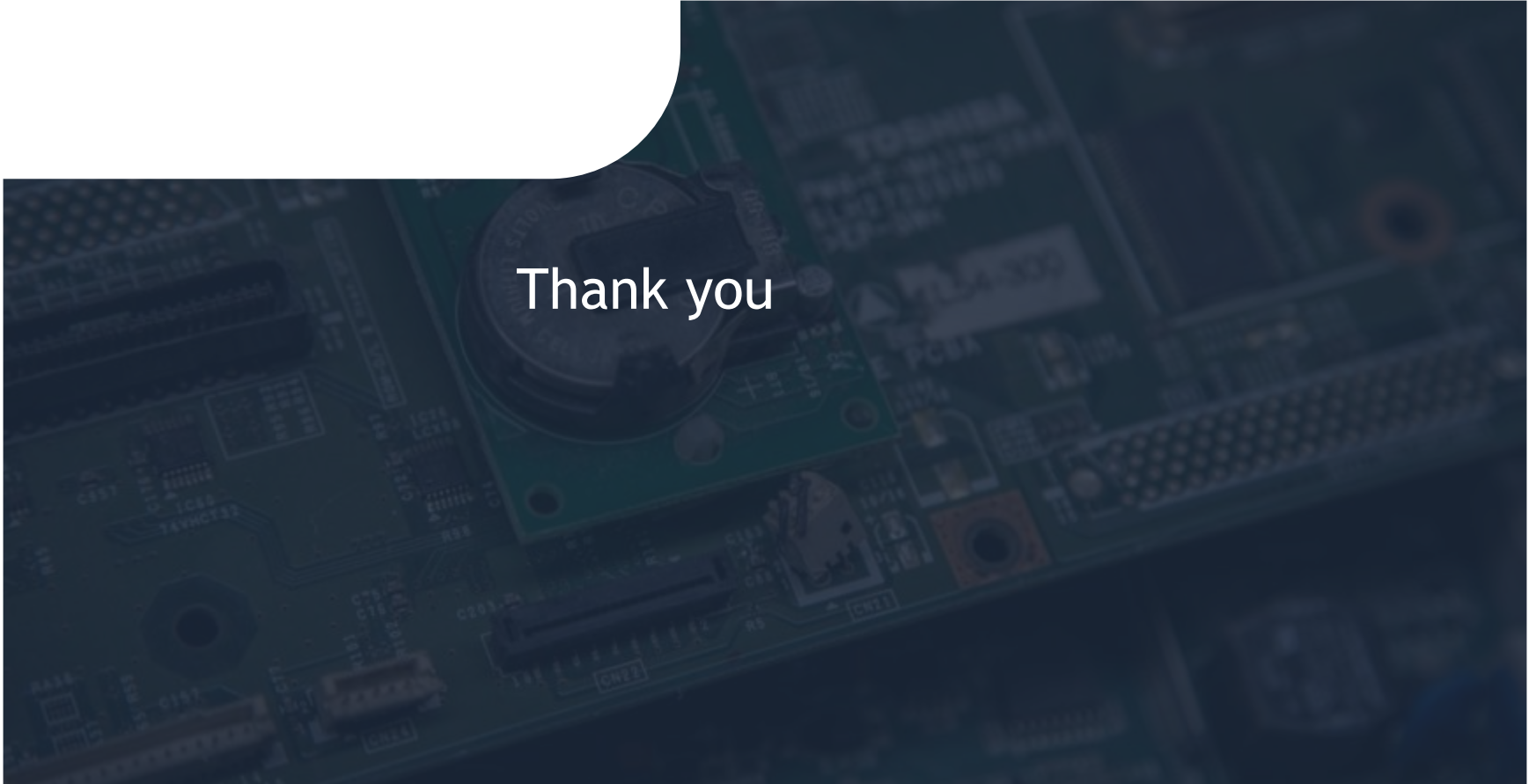
- ❑ Public and private sector consultations held
- ❑ Producers informed
- ❑ Stakeholders aligned on roles
- ❑ Validation workshop conducted
- ❑ Draft Policy and Implementation Action Plan

Future Activities

- ❑ Data and statistics capacity building planned
- ❑ Implementation of the Policy
- ❑ Monitoring and evaluation
- ❑ Review

Lessons Learnt

- Institutional knowledge
- Stakeholders mapping (Identify key institutions, producers)
- Roles and funding



Thank you



Q&A and final thoughts?



Thank you!

ITU-UNEP-UNU Joint Online Workshop

WEEE: Towards regional harmonization of national WEEE policies, regulations, and standards in the Arab States

Day 2



UNITED NATIONS
UNIVERSITY

