Funded by the European Union

meetMED
Mitigation Enabling Energy Transition in the MEDiterranean region
Together We Switch to Clean Energy

FACT SHEET ON THE ELECTRONIC WASTE MANAGEMENT SITUATION IN JORDAN

MED ENER

RCREEE
Regional Center for Renewable Energy and Energy Efficiency
المركز الإقليمي للطاقة المتجددة وكفاءة الطاقة

© 2024 / meetMED. All rights reserved

Licensed to the European Union under conditions

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of MEDENER and RCREEE and do not necessarily reflect the views of the European Union.

Cover page image: Jordan, ©AdobeStock.com

Credits:

Editorial Team and Authors

Ahmed Abdelrasoul, Mohamed Ali, Eman Adel (RCREEE)

Ayham Al Rabee (NERC/RSS)

Coordination and Revision:

Ahmed Khalil, Eman Adel (RCREEE)

Design Lead:

Asmaa Ahmed (RCREEE)

Acknowledgements:

This activity was created by meetMED to demonstrate the efficacy of scrapping campaigns for old high-energy-consuming appliances in the South and East Mediterranean countries (SEMCs).

The objective is to promote and support the replacement of old appliances and motivate customers to purchase energy-efficient alternatives. The collection of data and information is kindly acknowledged to the committed work by the experts from meetMED project partners: the Regional Centre for Renewable Energy and Energy Efficiency (RCREEE), the Mediterranean Association of the National Agencies for Energy Management (MEDENER), and the Jordanian National Energy Research Centre (NERC)/Royal Scientific Society (RSS).

Date of Issuance: January 2024

About the project

The Mitigation Enabling Energy Transition in the Mediterranean region “meetMED” is an EU-funded project developed by the Mediterranean Association of the National Agencies for Energy Management (MEDENER) and the Regional Centre for Renewable Energy and Energy Eficiency (RCREEE).

With the objective of contributing to energy and climate transition Southern Mediterranean Neighbourhood through a multi-scale, multi-partner inclusive approach, meetMED II activities aim at developing a more stable, efficient, competitive, and climate-resilient socioeconomic environment in Southern Mediterranean countries, by fostering regional cooperation for Energy Efficiency measures and implementing demo actions.

Introduction

Jordan is a country known for its constitutional monarchy and a stable political system, historical sites and its vibrant culture. With a population of approximately 10 million people, Jordan is a relatively small country that has made significant strides in various sectors. The country has made efforts to promote social and economic reforms, attract foreign investment, and diversify its economy. Key sectors in Jordan include tourism, manufacturing, agriculture, and services.

In terms of environmental challenges, Jordan faces unique circumstances due to its arid climate and limited water resources. The country has implemented innovative solutions to address these challenges, such as water conservation and renewable energy initiatives. Jordan is also committed to mitigating climate change and has set ambitious targets for reducing greenhouse gas emissions. In the context of electronic waste management, Jordan recognizes the importance of proper disposal and recycling. The government has implemented policies and regulations to encourage responsible practices and has established collection centers and recycling facilities. Efforts are underway to enhance public awareness and promote the proper handling of electronic waste.

I. Technical Performance

The technical performance section provides information on the electronic waste management situation in Jordan. The country generates approximately 8,735,188 unit of electronic waste per year. The specific breakdown of electronic waste includes temperature exchange equipment, screens and monitors, lamps, large equipment, small equipment, and small information technology and telecommunication equipment.

However, data regarding the collection, recycling, and final destination of electronic waste is not accessible for all categories. For small information technology and telecommunication equipment, approximately 217,155 unit are generated annually, with a recycling rate of 2.1 %[4].

Electronic waste — 8,735,188 unit[5]

Electronic waste — 8,735,188 unit[5]

1. **Temperature exchange equipment**, including fridges, freezers, air conditioners, and heat pumps. — **5,985 unit**

2. **Screens and monitors,** comprising liquid crystal displays (LCDs) and light-emitting diodes (LEDs) used in televisions, monitors, laptops and tablets — **110,138 unit**

3. **Lamps,** including LED lamps, high intensity discharge lamps, compact fluorescent lamps and straight tube fluorescent lamps — **7, 715,819 unit**

4. **Large equipment,** including dishwashers, washing machines, ovens, central heating systems, large printing systems and photovoltaic panels. — **187,225 unit**

5. **Small equipment,** comprising microwaves, grills, toasters, personal care products, speakers, cameras, audio sets, headphones, toys, household tools, medical equipment and monitoring systems — **498,866 unit**

6. **Small information technology (IT) and telecommunication equipment,** including desktop personal computers, printers, mobile telephones, cordless telephones, keyboards, routers and consoles — **217,155 unit**

7. Collected — **2.6%[6]**

8. Recycled — **2,1%[7]**

9. Final Destination — **N/A**

10. Open dumb site — **84.5%**

11. Sanitary Landfills — **N/A**
    - Operational
    - Planned
    - Under construction
    - Constructed

II. Policy and planning environment

In Jordan, used electrical and electronic equipment produced there can be sold domestically because there are no regulations against it. However, the importation of used EEE into the nation is prohibited under Law No. 43 of 1999, which is a part of the Hazardous Waste Management Act. Additionally, according to Tarawneh landfill (2013) and Saidan landfill and Tarawneh landfill (2015), the directive No. 2005/24 on managing, transferring, and handling toxic and hazardous chemicals forbids the disposal of electronic trash in landfills. In addition, as stated in Jordan's environmental protection law No. 52 of 2006, solid trash and electronic waste, including batteries, are monitored, governed, and enforced by the ministry of the environment (MoE). Although this law does not specifically address e-waste, it stipulates in article 25 that the council of ministers shall regulate certain elements, including but not limited to the management of solid waste which is delegated to the MoE (The Jordanian Ministry of Environment, Environment Protection Law, 2006)[8]

Regulatory public policies for integrated waste management (Annexes 1)

The general policies designed aim to limit and minimize the negative effects of waste in all its forms on the environment in Jordan and to maximize benefit from them, which are as follows:

- Achieving sustainable development standards for the various elements of the environment.
- Developing clear foundations of standards and requirements related to waste management.
  Creating an integrated and unified system for waste management at the level of the Kingdom.
- Raising the level of waste management equally in the various governorates of the Kingdom.
- Raising the level of environmental awareness among individuals.
- Increasing the percentage of commitment by institutions and increasing the levels of safety and public protection.

Electronic and electrical waste management policy in Jordan (Annexes 2)

In developing this policy, the Ministry of Environment seeks to achieve the following objectives:

1. Prevent the discharge of electrical and electronic waste into household unions or into the sewage system health.
2. Establish appropriate mechanisms for sorting, collection, recycling, treatment, or disposal exported outside the country for processing.
3. Shading the generation of electronic and electrical unions to reduce their impact on the environment by using less toxic materials in manufacturing and using recycled materials, minimizing the use of raw materials in manufacturing and using the best available technologies and best environmental practices (BATABEP) and manufacturing and importing materials that can be reused and recycling, which leads to the application of procedures that lead to pollution control.
4. Introducing and educating stakeholders and people about the sound management of dealing with electrical and electronic unions based on environmentally sound management.
5. Developing and applying a knowledge and enabling basis targeting human resources in dealing with electrical and electronic waste.
6. Developing environmentally sound management for the recycling of electrical and electronic waste and recovering renewable resources.
7. Provide guidance and reference on the standards and specifications of electrical and electronic equipment that are imported into the country.

III. Legal framework

Legislative and administrative reforms have been implemented to help meet the waste management objectives that have been set.

The following are the primary environmental and waste-related laws:

Law No. 6 for year 2017

for Environmental production, (Annex 3)

This law aims to protect human and animal health, plants, water, air, soil, ecosystems, sites, landscapes, and the environment in general from the harmful effects of waste. For this purpose, this law aims at the following :

This Law consisting of 33 articles aims at protecting the environment providing that (i) the Ministry of Environment is the authority responsible for environmental protection; (ii) the Ministry together with the related parties shall develop the policies and prepare the plans and programs, work on forecasting climate change identifying the involved sectors, follow the implementation of international environmental agreements, protect the biodiversity identifying areas that need special attention, protect water sources, issue environmental permits for activities that have a strong impact on the environment, establish the principles governing use and circulation of hazardous substances, gather environmental information and establish a national environmental database, and prepare emergency and disaster management plans. The Law deals also with permits for facilities; harmful substances and rules for their entry, import, storage, circulation and use; management of hazardous waste; management of liquid and solid waste; and the establishment of an environmental protection Fund.

Law No.16 of 2020

The Waste Management Framework, (Annex 4)

This Framework Law consisting of 32 articles and IV Annexes aims at organizing the waste management, including the related installations and its division into classes and categories, except for radioactive waste, gaseous emissions to atmosphere, wastewater, and the solid biomass residues. It divides waste into the following two categories, non-hazardous and hazardous. Article 4 defines the activities included in the waste management, such as waste minimization, reuse, sorting at source, collection, transport, sorting, storage, recovery, recycling, treatment and final disposal, and waste treatment installations closure and after-closed phase. Article 6 lists the measures to be taken to reduce pollution and limit its harmfulness to the environment, public health and sustainable development. Basic principles to be adopted in waste management are set out in article 6, and they are (i) prevention; (ii) precautionary principle; (iii) principle of extended producer responsibility; (iv) polluter pays principle; and (v) proximity principle. Article 9 provides for the establishment of the Supreme Steering Committee for Waste Management with the following tasks (i) approval of the national Waste Management Plan; (ii) adoption of waste management policies, strategies, and action plans; (iii) reviewing of progress reports on plans mplementation; and (iv) establishment of the concerned committees.

At article 10 are set out the competences of the Ministry of the Environment and all the other ministries and local authorities connected and involved in waste management, which mainly concern the activity of environmental control, through the environmental inspectors, and approval relating to waste management plants.

Permits are requested for (i) waste transport; and (ii) waste management installations. Special measures need to be taken by installation that produce more than 10000 tons of non-hazardous waste per year, or any quantity of hazardous waste.

The IV Annexes are entitled as follows (I) Waste categories (non-hazardous); (II) Hazardous waste properties; (III) Operations that may lead to recovery; and (IV) Waste disposal operations. Annex I includes waste from agriculture, seafood cultivation, afforestation, hunting, fishing, food preparation and processing.

V. Institutional framework

The institutional framework in Jordan plays a crucial role in addressing electronic waste management. It encompasses various government entities, policies, and regulations aimed at ensuring proper handling and disposal of electronic waste. The framework includes institutions responsible for waste management, environmental protection, and sustainable development. Coordination among these institutions is vital to create an effective system for electronic waste management in the country.

Law No. 68 of 2020

Hazardous Materials and Waste Management System , (annex 5)

This Regulation consists of 14 articles and 3 Annexes. It is established at the Ministry of Environment a Technical Committee for the Management of Hazardous Substances and Waste including, among others, representatives of the Ministry of Water and Irrigation, Ministry of Agriculture, and Ministry of Health. The Committee, which reports to the Minister, has the following main tasks (i) to classify the prohibited and restricted dangerous substances, and their waste; (ii) establish principles, conditions, and methods for the transport, collection, storage, treatment, and disposal of waste of hazardous substances; (iii) prepare models for the permits, and duration, for the collection and circulation of hazardous substances and their waste; (iv) prepare the technical requirements for testing sites for the treatment, management, and disposal of hazardous substances. The Regulation prohibits to deal with hazardous substances, including medical waste, and waste without a permit. Article 8 lists the prohibited actions related to hazardous substances and waste, such as import, circulation, throwing on the ground, in water, or in the air. Article 9 indicates the duties of operators in the sector of the circulation of dangerous substances. While article 10 delas with the operators in the field of their collection, storage, transport, and treatment.

Law No. 68 of 2020

Instructions for managing electrical and electronic waste for year 2021 issued under the provisions of Paragraph (b) of Article (13) of the Hazardous Materials and Waste Management System (Annexes 6)

VI. Options for improvement

E-waste is a problem that is projected to reach unprecedented levels in the coming years. Appropriate steps must be taken to mitigate its negative environmental impacts, the following is the main road map to improve WEEE management:

A Laws & Regulations

Develop short and succinct law on the disposal of obsolete electrical equipment as a type of waste and recognize it with a term such as WEEE/WEEE.

B Collection

Enforce licensing and EHS regulation requirement on collectors/recyclers participating in auctions for WEEE from governmental sector and enterprises.

C Recycling & Treatment

Empower the informal sector through trainings, technical and financial scheme. Design a business model for informal sector and incentives through better prices. Encourage civil society and development NGOs to prioritize WEEE recycling sector.

D Extended Producer Responsibility (EPR)

The Extended Producer Responsibility (EPR) is an environment protection strategy that makes the producer responsible for the entire lifecycle of the product, especially for take back, recycle, and final disposal of the product. Thus, the producer's responsibility is extended to the post-consumer stage of the product life cycle. This needs to be included in the legislative framework making EPR a mandatory activity associated with the production of electronic and electrical equipment.

E Awareness & Education

Conduct mass awareness campaigns targeting specific sectors, supported by booklets and manuals on WEEE. Such campaigns should work closely with civil societies and governmental agencies working on environmental concerns to reach as much social segments as possible.

VII. Private sector involvement

Encourage the private sector to invest in the processing and recycling in WEEE because it has great value due to the precious metals and other components that are commonly found in electronic waste. Governmental support for the private sector should be provided by setting up a framework with restrictions on the transfer of electronic waste.

VIII. E-waste Recycling Centers

Center Name	Location	Contact	Website
Jocycle company	Amman-Al Mowager	0799159919	www.jocycle.com.jo
Ibrahim Jazr company	Amman - Marka (collection only)	0796940267	www.jorecytech.com
Issa Qawwas company	Amman - Abu Alanda (collection only)	0796940267	www.jorecytech.com
Karam AlSalameen company	Zarqa - Al Hashimeh	0788224971	
Hasan Aboura company	Amman - Marka	0799578450	
Montaser Al karaki and Co. company	Amman - Mowager	0797131153	
Elaf company for recycling	AlMafraq	07952222123	
E-Tafkeek Company	Amman Mecca Street	+962 6 5511533	www.e-tafkeek.com

VIII. Annexes

- **Annex 1: Regulatory public policies for integrated waste management**

  السياسات البيئية – وزارة البيئة (moenv.gov.jo)

- **Annex 2: Electronic and electrical waste management policy in Jordan**

  السياسات البيئية – وزارة البيئة (moenv.gov.jo)

- **Annex 3: Environmental Protection Law No. (6) of 2017**

  القوانين – وزارة البيئة (moenv.gov.jo)

- **Annex 4: The Waste Management Framewor Law No.16 of 2020**

  القوانين – وزارة البيئة (moenv.gov.jo)

- **Annex 5: The Hazardous Materials and Waste Management System No. 68 of 2020**

  الأنظمة – وزارة البيئة (moenv.gov.jo)

- **Annex 6: Instructions for managing electrical and electronic waste for the year 2021**

  التعليمات – وزارة البيئة (moenv.gov.jo)

meetMED

www.meetmed.org

@meetMED1

@meetMED-Project

@meetMED

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of MEDENER and RCREEE and do not necessarily reflect the views of the European Union.

MEDENER

RCREEE
Regional Center for Renewable Energy and Energy Efficiency
المركز الإقليمي للطاقة المتجددة وكفاءة الطاقة