



WP4: Promote Efficient Appliances & Develop the Market

Ahmed Khalil, WP 4 Leader, RCREEE

Ahmed.khalil@rcreee.org

28 Feb 2024



Funded by the
European Union



RCREEE 

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



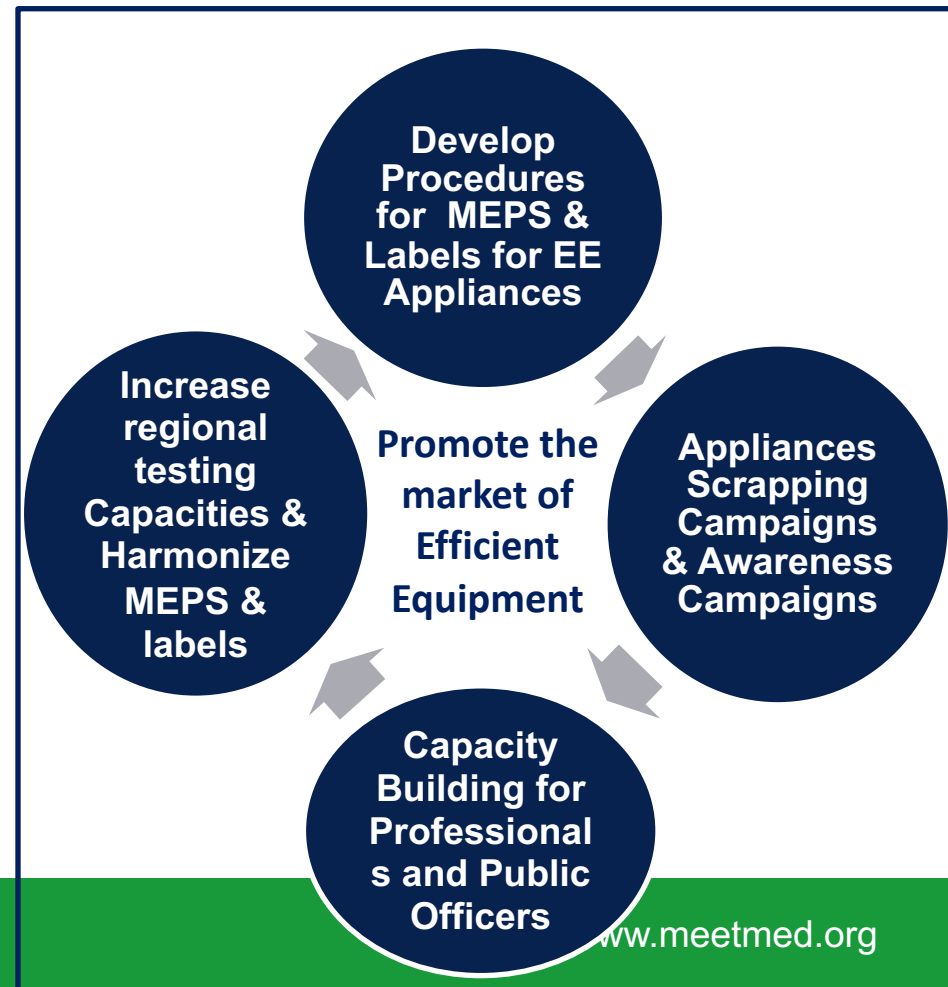
Funded by the
European Union

WP4 in few words :

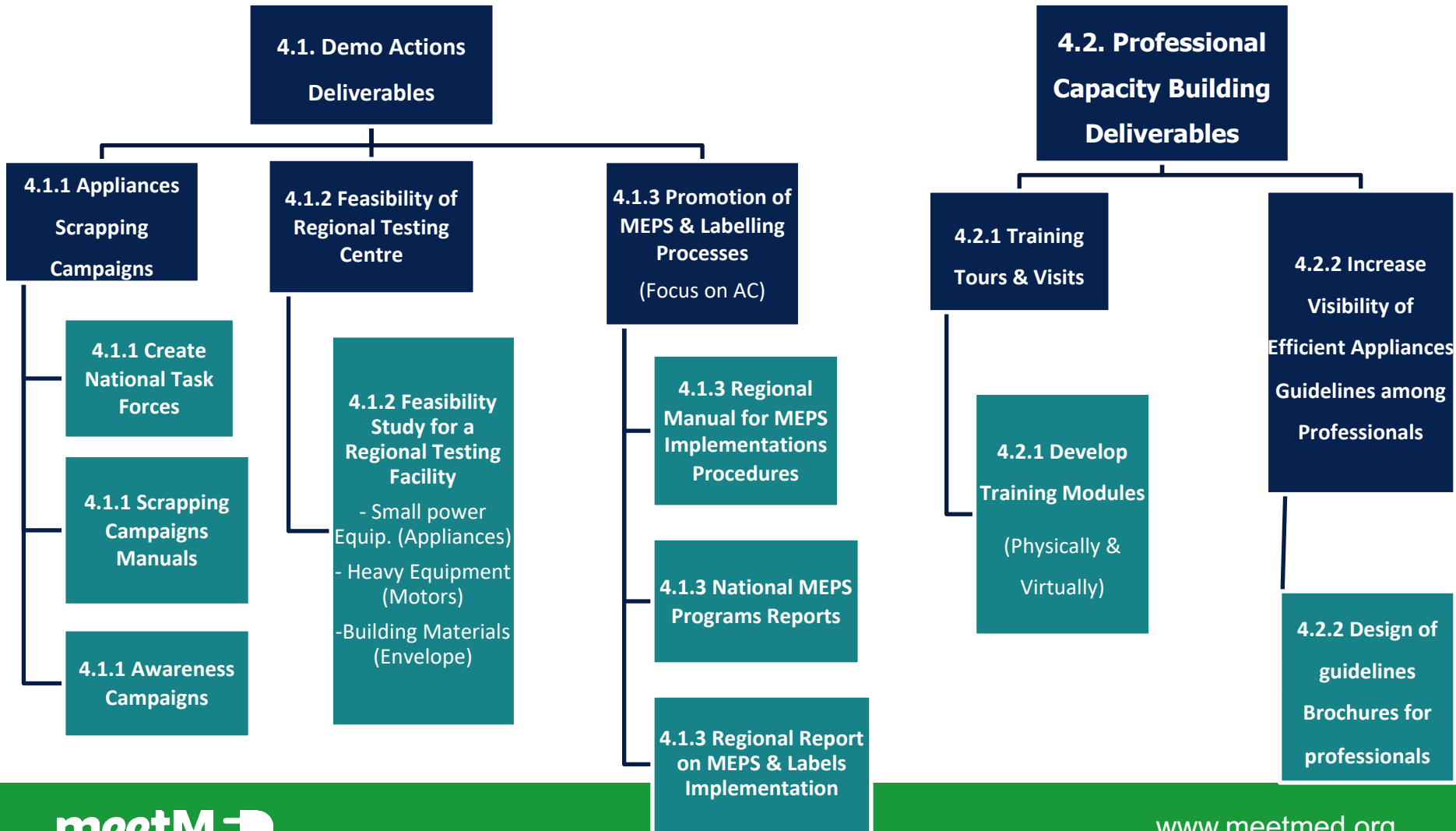
Promote Efficient Appliances & Develop the Market

WP4 Objectives

- WP4 focuses on **promoting the use of energy efficient appliances in the SEM Countries** in order to help in the **global energy security** & contributes to **economical growth**.
- **The time plan** for implementation of WP4 is Jan 2021 → June 2024 the project's life time (~ 3.5 yrs).
- The **main design concept** was to focus on **Practical on-ground Implementation** and that is why WP4 consists of 2 main Pillars:
 - 1) **Demo Actions & Projects.**
 - 2) **Capacity Development Activities**



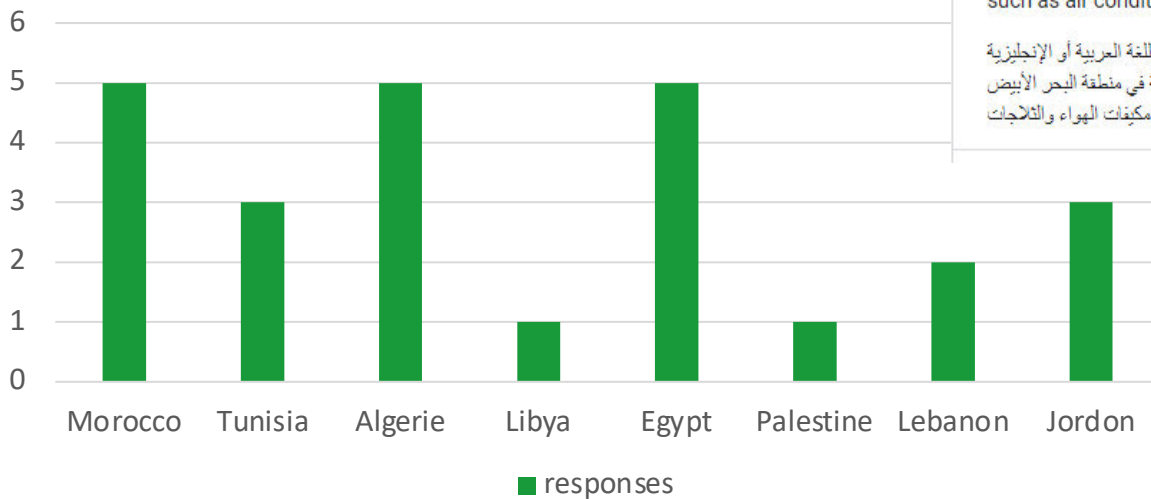
WP4 Deliverables & Expected Outputs



WP4.1.1 status

- Survey on appliances scrapping distributed, receiving 25 responses, and waiting to receive further responses

responses



<https://docs.google.com/forms/d/e/1FAIpQLSd1UJIXm3AX1YoR4GNPnYpN0G1an5efGkxbXjJYE8QY-NQAMw/viewform>

Appliances Scrapping in the Mediterranean region

Please, feel free to fill out this survey in Arabic or in English. This survey aims to understand the current situation and challenges facing electronic and electrical waste management in the Mediterranean region, especially the appliances that consume a lot of energy such as air conditioners and refrigerators.

من فضلك ، لا تتردد في ملء هذا الاستبيان باللغة العربية أو الإنجليزية. يهدف هذا الاستبيان إلى فهم الوضع الحالي والتحديات التي تواجه إدارة النفايات الإلكترونية والكهربائية في منطقة البحر الأبيض المتوسط ، وخاصة الأجهزة التي تستهلك الكثير من الطاقة مثل مكيفات الهواء والثلاجات

WP4.1.1 status

- Data collection and analysis regarding polices and legislations regulating appliances collection, dismantling, and safe disposal (8 countries).
- Fact sheet is underdevelopment for each country, from which collective brochure will be developed reflecting the status of Appliances scrapping in the concerned countries



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

Fact sheet on the appliances scrapping management situation in Egypt

I. Background information 2023

Population	104.5 million
Municipal Solid Waste (MSW) Generation:	27 million tons/year
Per Capita MSW Generation:	
- Urban areas	0.25:0.4 kg/day/capita
- Rural areas	0.55:1,2 kg/day/capita
Agricultural waste	32 million tons/year
Construction and Demolition Waste	6 million tons/year
Medical waste generation	0.045 million tons/year
Industrial waste	7 million tons/year
Hazardous waste	0.6 million tons/year
Electronic waste	0.585 million tons/year ¹

II. TECHNICAL PERFORMANCE

Electronic waste	0.585 million tons/year
ICT and Telecommunications Equipment CPUs, screens, monitors, mice, printers, keyboards, networking equipment, laptops, audio amplifiers, CDs, DVDs, and video cameras. %
Large Household Appliances Fridges, Freezers, cookers, air conditioners, TVs, monitors, screens and fans %
Small Household Appliances Hair dryers, fryers, and swing weaving %
Consumer Equipment Items used for consumer use will also be included in the electronic waste sector. This category for consumers is %

¹ Abdelbasir et al. (2018)



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

all forms of activity that will be important to serve consumers. Many activities fall into this category.	
Medical Equipment And there are still many who are not aware that this waste is also included in medical matters. If this is added up, it can be calculated how much the amount of waste is. So, electronic equipment is involved in injury, treatment, prevention, and detection activities. %
Office Electronics calculators, photocopying equipment, electrical, typewriters, telephones, fax machines %
Recycled %
Final Destination %
Open dumb site %
Open dumb site %
Sanitary Landfills	1 ²
Sanitary Landfills %
- Operational %
- Planned %
- Under construction %
- Constructed %

III. Policy and planning environment

A national policy and planning, which defines the basic framework of the electronic waste sector

IV. Legal framework

The Hazardous materials and waste procedures were made clear in Articles 53 to 64 of waste management regulation law no. 202 for 2020. The formation of a technical committee under the Waste Management Regulatory Agency to be charged with issuing unified lists of hazardous materials and waste was also stipulated in Article No. 53. The duties of the committee are defined in Article 48 of the executive regulation of the law no 722 for 2022.

² Elmasara landfill, Alexandria Governorate

WP 4.1.3

Reports under preparation:

- Regional Report on MEPS/Labels Implementation with Focus on Air Conditioning.
- Manual Procedure for MEPS/ Regional Certifications Implementation
- National MEPS Program for Libya
- National MEPS Program for Lebanon

Consultation Missions:


- Morocco - Tunisia

WP4.2 Status

Survey on appliances scrapping distributed, receiving 10 responses, those responses have been analyzed to conclude the main topics of the upcoming capacity building activities within WP4


After the analysis and identifications of the gaps we started a data collection process internally covering the needs assessment for the 8 relevant countries in the appliances, scrapping and the awareness related to them

“Awareness and Capacity Building” Questionnaire



Funded by the
European Union

Together We Switch to Clean Energy



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

Activity A4.2 Aims to enriching experts' and public bodies' officials' knowledge in the energy efficiency of appliances and their implementation & Increase Visibility of Efficient appliances. This will be done through regional training , study visits and dedicated tools for dissemination as "brochures" on topics related to the testing centers, MEPS and labelling promotion for appliances with a special focus on air-conditioning.

This Questionnaire is one of the main tools to identify the needs and gaps among the relevant countries to be able to conduct the trainings and raise the awarness in the needed areas and we are relying on your support as local experts to fulfill the data needed.

Questions						
Do you have any regional or international programs related to EE in your country?	Yes	No				
If yes, please give us more information about the program?						
are there any local/regional programs you know that focus on EE in appliances in your country?						
Who is conducting this program? Is it possible to share the contacts?	Stakeholder	Email	Phone Number	Position	Organization	Program link
Do you have any awareness campaign related to EE in the residential sector?	Yes	No				
If yes, please explain what kind of the campaigns?						
Who is conducting this awareness campaign? Is it possible to share the contacts of the involved?	Stakeholder Name	Email	Phone Number	Position	Organization	

WP4.2 Status

Stakeholders mapping have been developed to all the countries including all the public, private and international organization

The stakeholders have been identified to primary, secondary and others

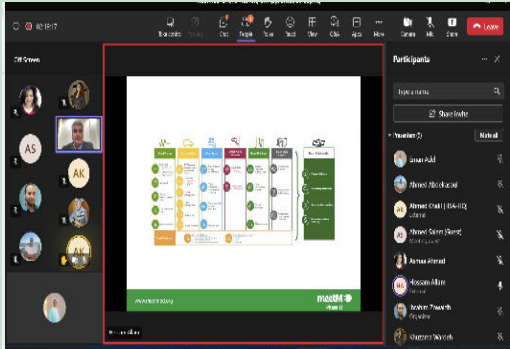

key players and stakeholders in				
		Policy Making and Public Agencies	Private Sector	Regional and International Co-
Algeria	Primary Players	APRUE MEM IANOR		RCREEE
	Secondary Players		APOCE PROMI	UNDP WB
	Other Players	ONS CDER CREDEG		IEA
Egypt	Primary Players	EE Unit -SG for CoM MoERE EOS		RCREEE
	Secondary Players	Federation of Egyptian I	CESCP	UNDP WB GIZ
	Other Players	EgyptERA GOEIC MFTI NREA NRC	EAG	EElGGR GEFF AFREC IEA

takeholders Mapping for Activity 4.2

#	Abbreviation	Stakeholders Name	Type of stakeholder	Website			
Algeria							
1	APRUE	National Agency for the Promotion and Rationalization of Energy Use	Governmental Institutions	http://www.aprue.org.dz			
2	MEM	Ministry of Energy and Mines	Governmental Institutions	http://www.mem-algeria.org			
3	ONS	National Statistics Office	Governmental Institutions	http://www.ons.dz			
4	CDER	Renewable Energy Development Center	Research and Academia	http://www.cder.dz			
5	CREDEG	Centre for Research and Development of the Electricity and Gas	Research and Academia	http://www.credeg.dz			
6	IANOR	Algerian Institute of Standardization					
7	SONELGAZ	National Society for Electricity and Gas (SONELGAZ)	Utilities	http://www.sonelgaz.dz			
8	CREG	Electricity and Gas Regulation Commission (CREG)	Governmental Institutions	http://www.creg.gov.dz			
9	MDIPI	Ministry of Industry and Mines (MDIPI)	Governmental Institutions	http://www.mdipi.gov.dz			
10	MESRS	Ministry of Higher Education and Scientific Research (MESRS)	Governmental Institutions	https://www.mesrs.dz			
11	CRTSE	Research Center in Semi-Conductor Technology for Energy (CRTSE)	Research and Academia	https://crtse.dz/			
Egypt							
1	EE Unit -SG for CoM	Energy Efficiency Unit – Secretary General for Cabinet of Ministers	Governmental Institutions				
2	MoERE	The Ministry of Electricity and Renewable Energy	Governmental Institutions	http://www.moee.gov.eg			
3	EOS	Egyptian Organization for Standardization and Quality	Governmental Institutions	http://www.eos.org.eg			
4	TA	Tourism Authority (TA)	Governmental Institutions	http://www.egypt.travel			
5	EgyptERA	Egyptian Electric Utility and Consumer Protection Regulatory Agency	Utilities	http://www.egyptera.org			
6	CAPMAS	Central Agency for Public Mobilization and Statistics	Governmental Institutions	http://www.capmas.gov.eg			
7	MFTI	Ministry of Trade and Industry	Governmental Institutions	http://www.mfti.gov.eg			
8	NREA	New and Renewable Energy Authority	Governmental Institutions	http://www.nrea.gov.eg			
9	NRC	National Research Center	Governmental Institutions	http://www.nrc.sci.eg/nrc			

Stakeholders Colour Coding	
	Essential and Key Stakeholder
	High Potential Stakeholder
	Relevant Stakeholder
	International Stakeholder

WP4.2 Status

Action	Description	Status
<ul style="list-style-type: none"> Conducting the first online training on Equipment Scrapping to be held on the 29th of Feb 2023 	<ul style="list-style-type: none"> ✓ Regional initiatives for scrapping and it's technicalities ✓ The regulatory frameworks and main pillars for enhancing it ✓ Analyzing the countries current situation 	<p>Achieved</p>
<ul style="list-style-type: none"> Conducting the national consultation mission in cooperation with activity 4.1.1 in Egypt with the to Egyptian Electronics Recycling company (EERC) 	<ul style="list-style-type: none"> ✓ The national consultation mission for appliances scrapping in Egypt organized in cooperation with Egyptian Electronics Recycling company (EERC) to have more information about the scrapping and recycling industry, and to identify the potential of collection, recycling and marketing the materials from scrapped appliances. 	<p>Achieved</p>

WP4.2 Status

Action	Description	Status
<ul style="list-style-type: none"> Preparing for the visualization tool on appliances 	<ul style="list-style-type: none"> ✓ Videos have been created based on the surveys on the below topics ✓ Human behavior, labelling system for home appliances and the AC technologies including inverter 	Achieved
<ul style="list-style-type: none"> Conducting the national consultation mission in cooperation with activity 4.1.1 in Jordan to the most relevant stakeholders 	<ul style="list-style-type: none"> ✓ Existing programs for appliances scrapping ✓ Types and amounts of appliances ✓ Existing market for appliances scrapping and recycling ✓ Existing facilities dealing with appliances ✓ Types of materials recycled and the potentiality of exporting ✓ Main barriers and challenges facing appliances scrapping 	Achieved
<ul style="list-style-type: none"> Preparing the study tours on both Scrapping and appliances 	<ul style="list-style-type: none"> ✓ To exchanging in formation and enhance the capabilities of the national experts 	Under preparation
<ul style="list-style-type: none"> Preparing for the MMW 	<ul style="list-style-type: none"> Focusing on the awareness raising for the scrapping 	Under preparations

THANK YOU

Contact us!



Mitigation Enabling Energy Transition in the MEDiterranean region
Together We Switch to Clean Energy - Phase II

For any inquiries or comments,
please don't hesitate to contact
us

 www.meetmed.org

 meetMED Project

 @meetmed1



Funded by the
European Union