



International Conference

“Contribution of sound waste management systems to sustainable tourism and the protection of marine ecosystems”

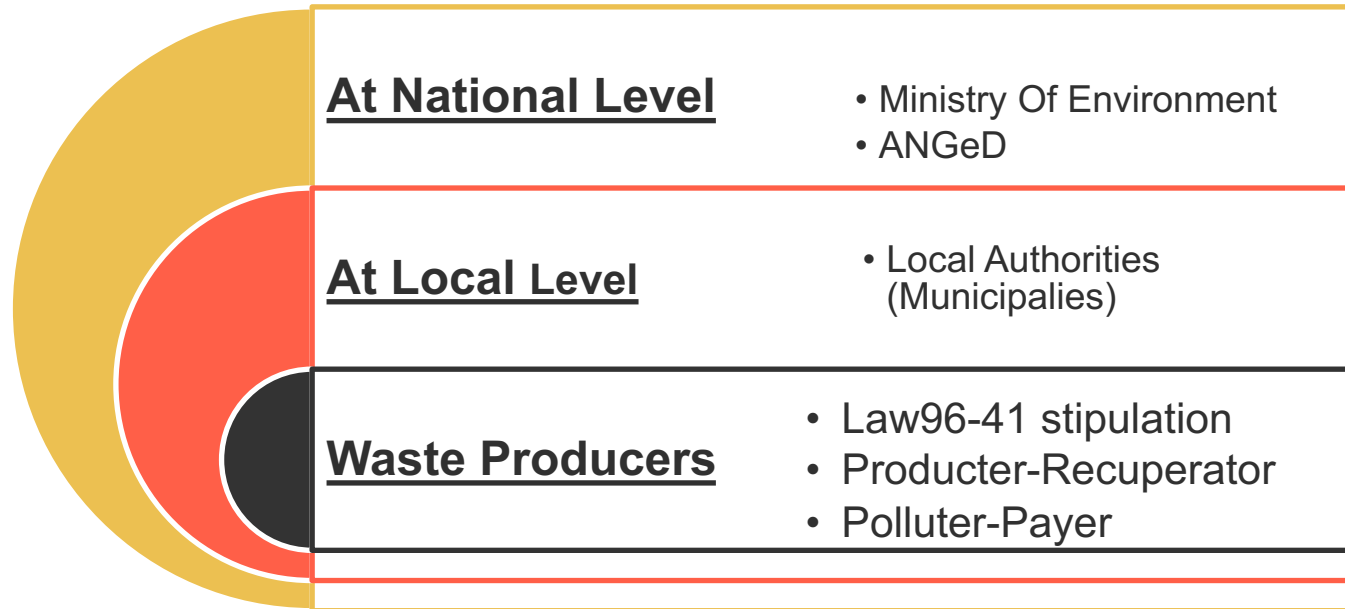
Name of Session: Session 2: Waste management strategies and promotion of EPR

Date: 10/10/2022

Name of Speaker: Badreddine LASMAR - National Agency For Waste Management – Ministry of Environment -

Waste Management Strategy and the promotion of Circular Economy in Tunisia

Institutional Framework



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Legal Framework

Framework Law N° 96-41 of 10 June 1996 on Waste Management

Local Authorities Code - Law N° 2018-29 du 9 mai 2018

Decree N° 2005-2317 of August 22nd 2005 (Creation of ANGED)

- Decree N° 97-1102 of June 2nd 1997 fixing the management of packaging waste
- Decree N° 2000-2339 of October 10th 2000, fixing the list of Hazardous Waste
- Decree N° 2002-693 of April 1st 2002 fixing the management of used lubricating oils and oil filters
- Decree N° 3395 of December 26th fixing the of used batteries and accumulators management.
- Decree N° 2008-2745 of July 28th 2008, fixing the Healthcare Waste management;
- Decree N° 2015-786 of July 9th 2015, fixing the management of used tires

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Evolution of the National Strategy for Waste Management

PRONAGDES : Since 1993

- ▶ Creating controlled landfills
- ▶ Closing dumpsites
- ▶ Developing recycling and recovering systems

National Strategy for Integrated and Sustainable Waste Treatment – (2020-2035)

The Strategy is based on the main principles:

- Prevention;
- Proximity;
- Extended Responsibility of the Producer (EPR)
- Polluter -Payer
- Partnership and Cooperation between Stakeholders

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National Strategy for Integrated and Sustainable Waste Treatment – (2020-2035)

The National Strategy aims to reduce the waste production at the source, recuperation and reuse of material, recycling and valorisation; and then treatment in suitable infrastructure

The main objectives are:

- Reduce 10 % of waste produced by household in 2035 (comparing to 2020)
- Raise the valorisation of waste up to 40% in 2035.
Raise the recycling of materials up to 20% in 2035.
- Reduce the landfilling to 60 % in 2035.

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National Strategy for Integrated and Sustainable Waste Treatment (2020-2035)

Axe 2 : Promtion of the intergrated waste management through the principal of Circular Economy

Key measures and activities to attend the objectives of axe 2

Mesure 2 : Implementation of the Extended Responsibility of the Producer (EPR)

Mesure 10 : introduce the sorting of waste at the source

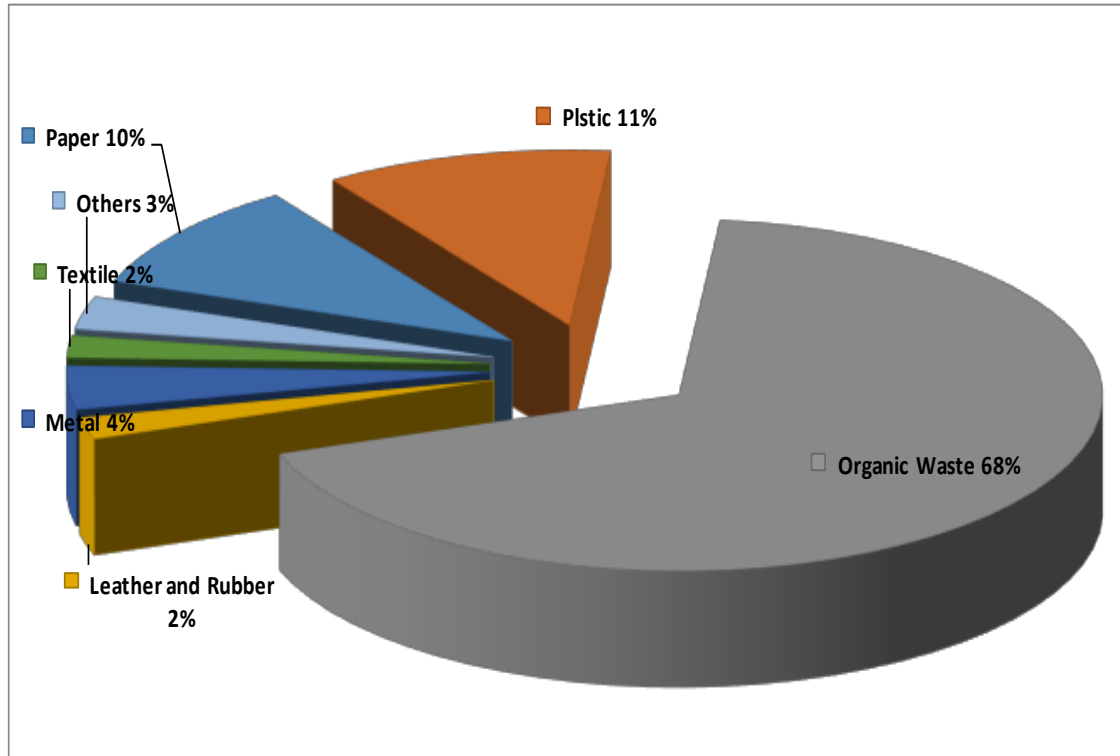
Mesure 13 : Develop the Public Private Partnership (PPP)

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Household Waste Management

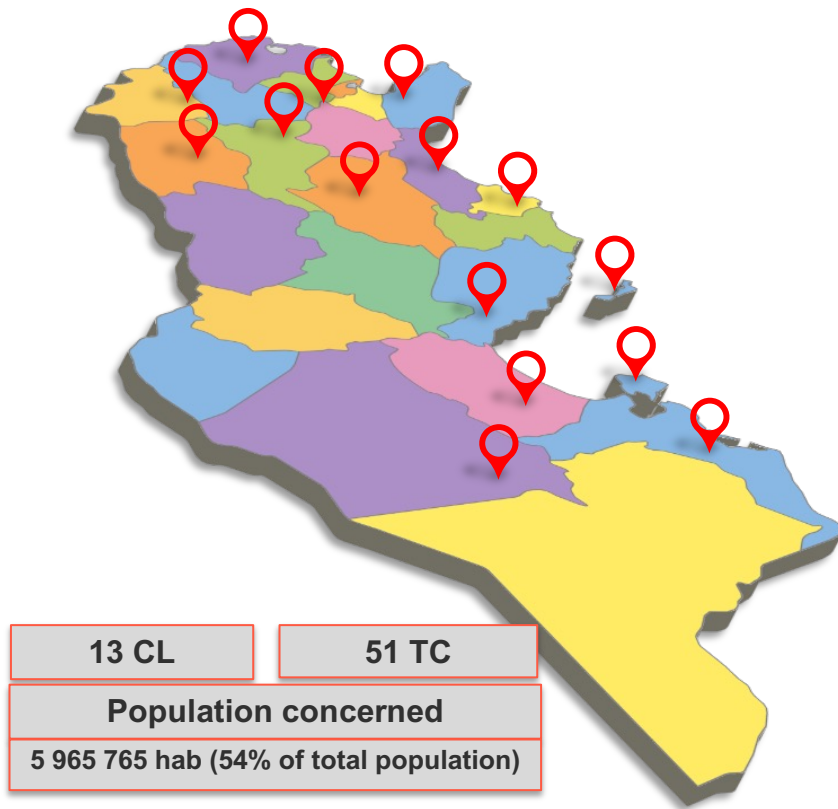
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Household Waste Composition



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Projects under Operation



DC	Cost/T (DT)	Qty: 1000 T (2020)
Grand Tunis	29	900
Nabeul	39	257
Zaghouan	34	75
Bizerte	38	163
Vallée		
(*)Medjerdha	15	99
Kairouan	43	75
Sousse	27	230
(*)Monastir	28	167
Sfax	40	220
Kerkennah	40	10
Gabes	40	76
(*)Djerba	36	53
Médenine	53	55
Tozeur	34	37
Total		2417

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Transfer Center



Biogas Treatment



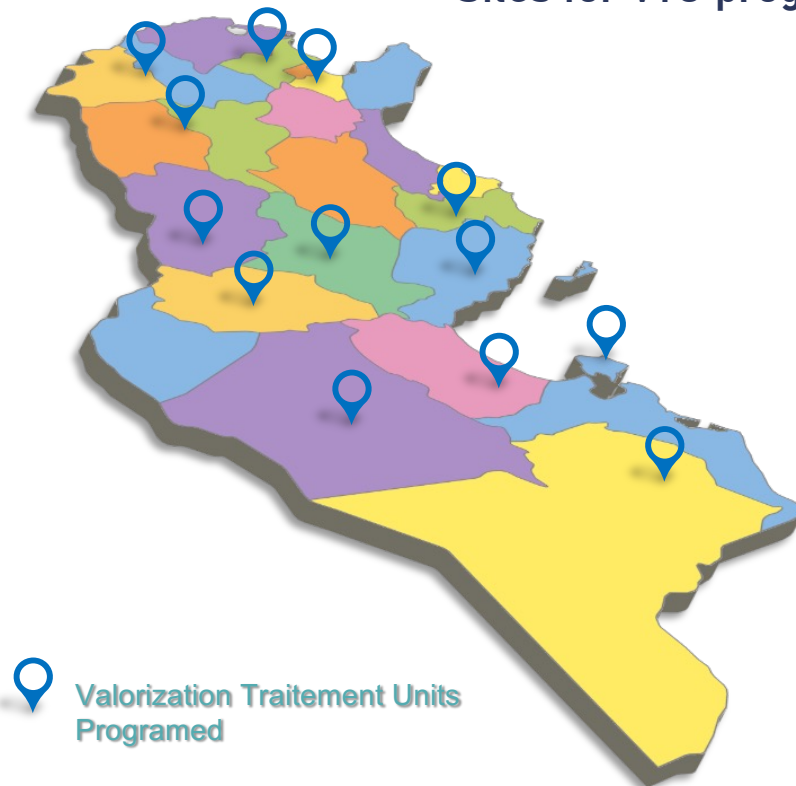
Controlled Landfill



Leachate Treatment



Sites for VTU programed through PPP Contracts



UTV Programmés

Tunis Nord

Tunis Sud

Beja /Jendouba

Siliana/Kef

Mahdia

Sfax

Gabes

Djerba

Medenine/ Tataouine

Gafsa

Sidi Bouzid

Kasserine

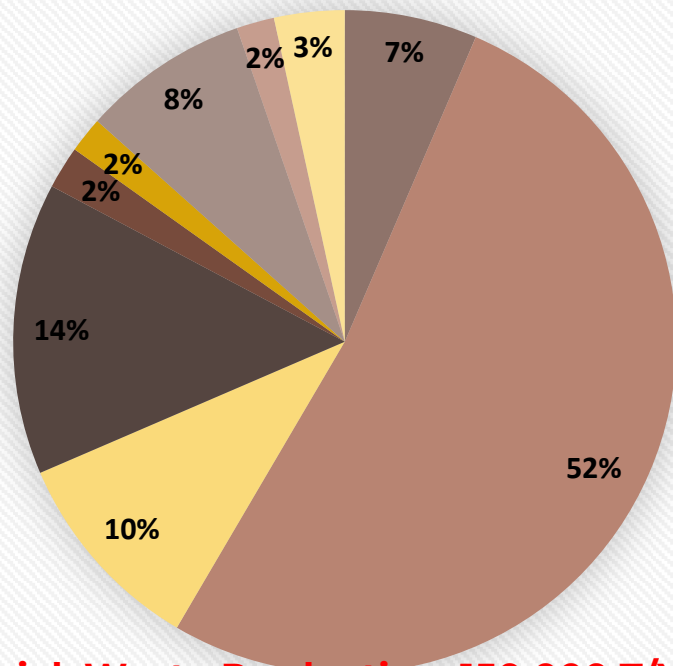
Kebili

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INDUSTRIAL HAZARDOUS WASTE MANAGEMENT

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Industrial Waste Composition



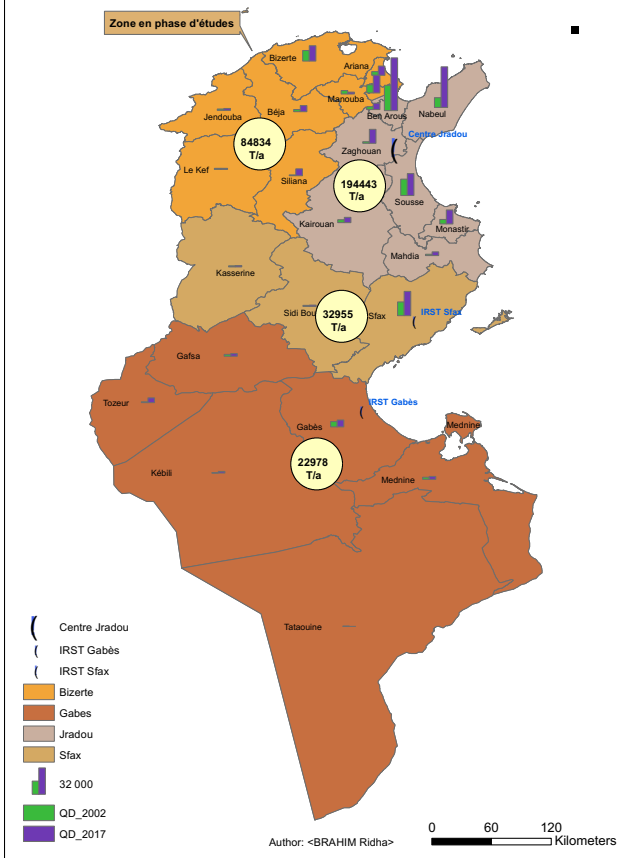
Industrial Waste Production: 150 000 T/Y

- Food industry
- Mechanical and Metallurgical Industries
- Electrical Electronics Industries and Household appliances
- Chemical industry
- Textile Industry
- paper and cardboard manufacturing
- Car Service
- Agriculture
- Separate Collection

Main Objectives

- To ensure the suitable treatment and the elimination of the industrial and special waste, by respect the environmental standards and the regulations in force.
- to make producers and/or holders of industrial and special waste respect the law and legal framework, for suitable elimination.

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Program Components

- Unit of treatment (Jradou) : 90000 t/year
- 2 Reception, Transfer and Storage Centers:
 - ✓ Sfax: 16000 t/year
 - ✓ Gabes: 10000 t/year

Development Perspective: Preparation of PPP tender to operate the Centers

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Management of Pesticides: African Programme PASP -Tunisie (2005 – 2012)

205 inventoriated Deposit

1940 Ton of Pesticide treated

- Elimination of pesticide stock piles
- Implementation of Preventive Program;
- Capacity Building.



3-zone de stockage des transformateurs



Management of PCBs (2012- 2017)

Cadre:

- National Plan for Persistent Organic Pollutants (POPs) (elimination of 100% by 2025)

Indicators:

- 140 deposit /2480 ton
- Communication Program
- Capacity Building





Health Care Waste Program (2012- 2017)

Decree N°2008-2745 for HCW Management

- Quantity generated: 18000 T /y
- Quantity treated: 3800 T/y

- Acquisition of Equipements: containers, ...
- Communication Program;
- Capacity Building



Waste Recycling Systems

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Implemented Recycling Systems:

- Used Packaging (Eco-Lef)
- Used Lubrificant oil (Eco-Zit)
- Used Filters (Eco-filtre)
- Used Accumulators (Eco-batteries)



- Used Batteries (Eco-piles)

- POPs (Pesticides, HCW&PCB)

Systems under implementation : WEEE, used tires...

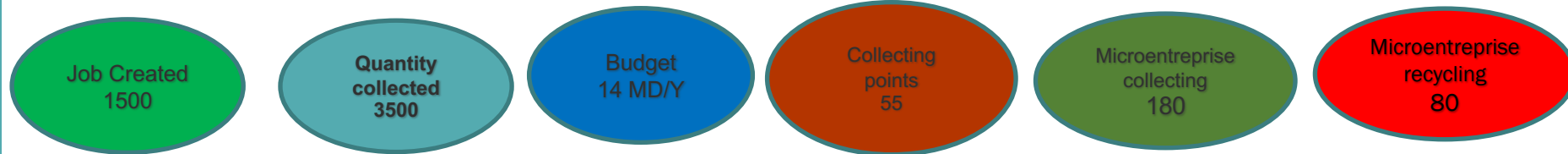
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PACKAGING RECYCLING SYSTEM « ECO-LEF »

- Decree N° 97-1102 of June 2nd 1997 fixing the management of packaging waste (modified by 2001-843)

MAIN INDICATORS



Development Perspective: instauration of the Extended Responsibility of the Producer - ERP

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Lubrificant Oil Recycling System « Eco-Zit »

- Decree N° 2002-693 of April 1st 2002 fixing the management of used lubricating oils and oil filters

Production: 50 000 T/y

Financing : - contribution of members+ Eco taxes (LF2004)

Collection: 11 000 collecting point

Quantity collected: 14 000 T/y

Quantity valorised: 10 000 T/y

11 Collecting societies

Two (2) regenerating societies

Unité de Régénération des HLU



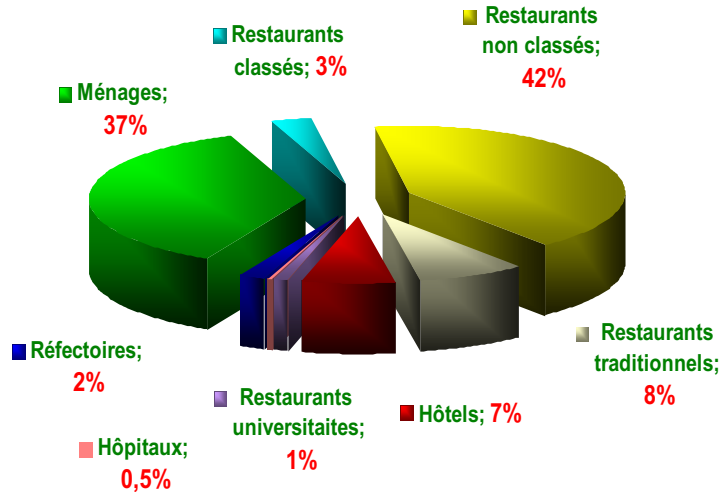
Centres de collectes des huiles lubrifiants usagées



Development Perspective: instauration of the Extended Responsibility of the Producer - ERP

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Quantités des huiles & graisses végétales usagées par source



Food Used Oil and Fat



- A decree is under preparation
- Quantities **50.000** Ton/Year (60%from household
- **200 microentreprises** of collection
- **6 society** of biodiesel production,
- Quantity collected : **17000 ton**
- Quantity recycled (biodiesel) and exporter: **8000 ton**



Used Accumulators Recycling System « Eco-Batteries »



- Decree N° 3395 of December 26th fixing the of used batteries and accumulators management.
- Production **500,000 units**
- **07** authorized Societies for recycling

Development Perspective: instauration of the Extended Responsibility of the Producer - ERP

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Used Tires Recycling System « Eco-Pneus »

Decree N° 2015-786 of July 9th 2015, fixing the management of used tires

- Production: **3 Million Unit** (48,000 T)
- **09** societies are authorized for collection
- **05** societies authorized for recycling



Development Perspective: instauration of the Extended Responsibility of the Producer - ERP

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Electric and Electronic Waste(D3E)

- Production : 100.000 T/y
- 17 societies authorised for collecting and recycling
- 01 unit for recycling at national level (Capacity 24000T/y)



Development Perspective: instauration of the Extended Responsibility of the Producer - ERP



Actually financing system is based on:

- 100% of **investissement costs** are insured by **national budget** (Grant-Loans)
- 20% of Household WM operation cost is based on local taxes
- 80% of Household WM operation on **Ecotaxes**,
- 50% of Industrial Waste Treatment Cost **insured by Ecotaxes**,
- 100% of Managing Recycling Systems are based on **Ecotaxes**

Financing and Cost Recovery

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