



# Water and Environment Support

in the ENI Southern Neighbourhood region

## WES NATIONAL “TWIN” ACTIVITIES CO-ORGANISED WITH THE MINISTRY OF ENVIRONMENT OF JORDAN (ACTIVITIES NO: N-E-JO-1&2)

**Joining Forces to Combat Single-Use Plastics (SUPs) in Jordan: *Consultation workshop on a proposed Roadmap to address SUPs and draft recommendations for stakeholders on green banking and Green investment Opportunities to curb plastic waste***

17 MAY 2023 AT THE HILTON HOTEL IN AMMAN, JORDAN





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Joining Forces to Combat Single-Use Plastics (SUPs) in Jordan:  
*Consultation workshop on a proposed Roadmap to address SUPs and draft recommendations for stakeholders on green banking and Green investment Opportunities to curb plastic waste*

***Baseline situation in Jordan and proposed sustainable alternative options to transition away from manufacturing and using SUPs***

Presented by: **Dr. Eyad Batarseh**, Senior expert in Environment and Waste Management

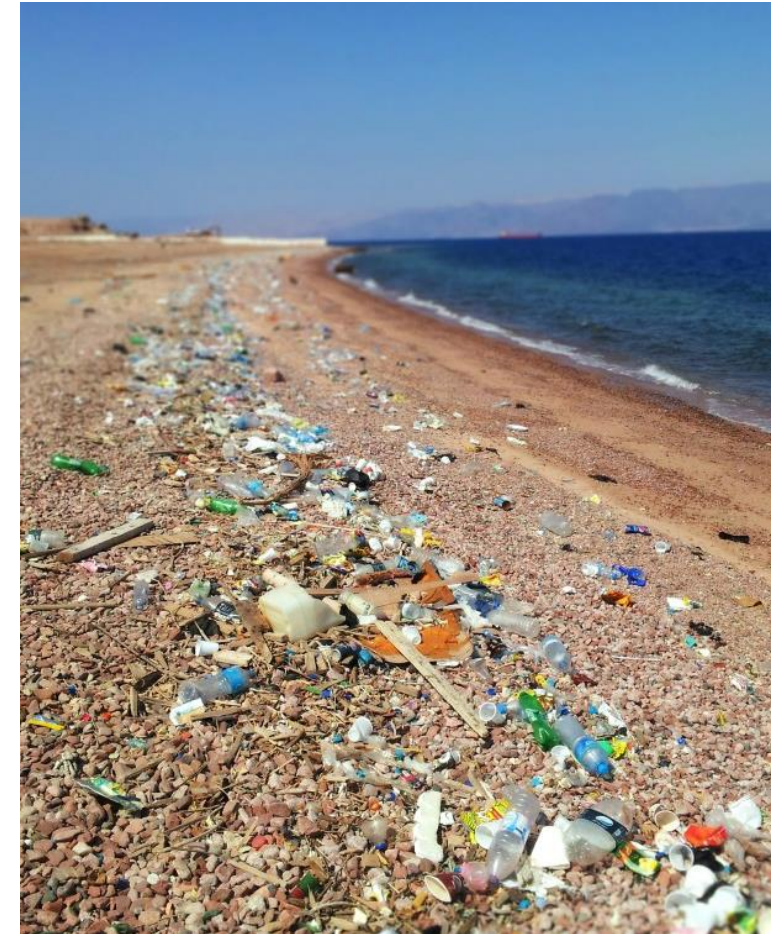


# Baseline Situation in Jordan



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- SUPs use worldwide including Jordan has tremendously increased over the last few decades. It has now become integrated into our daily activities much more than ever before.
- The overall list of SUPs is quite long and cannot be all tackled in one go. Therefore, in this project it was determined to proceed with 4 SUPs which were selected in collaboration with the MoENV based on:
  - Guidelines on tackling SUP products in the Mediterranean (UNEP/MAP, 2021)
  - Selecting SUPs that are common in Jordan but that have some clear alternatives



*Aqaba - Jordan*



# Baseline Situation in Jordan



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Group of SUPs	SUP	Reason for selection
Packaging	Plastic bags	Shopping bags have already been targeted previously, and the MoENV wants to build on their previous work as Littering caused by plastic bags is still visibly high and it is found in large quantities in the waste stream
Food and beverage packaging	Plastic Drink bottles, caps and lids	Littering caused by Drink bottles, caps and lids is visibly high and it is found in can be seen in large quantities in the waste stream
On-the-go food and beverage packaging	Food containers including fast food plastic packaging	Littering caused by food containers is visibly high and it is found in large quantities in the waste stream
On-the-go food and beverage packaging	Plastic Cutlery, plates and trays	Littering caused by cutlery, plates and trays is visibly high and it is found in large quantities in the waste stream



# Plastic Shopping Bags



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**Plastic shopping bags** are commonly used in Jordan by consumers in almost every retail shop including: Grocery stores, Fresh vegetables and meat markets, Bakeries, Fast-food restaurants, Electronics, Apparel, and several other types of shops.

It has been reported that approximately 3 billion plastic bags are used per year in Jordan 300 bags per person per year

Shopping bags in Jordan are regulated by “Shopping plastic bags regulation” no 45 of 2017 – The regulation has some positive impacts but is not considered enough

Clean used plastic bags can be recycled but the main issue with bags recycling is that the bags are typically heavily contaminated with other wastes which makes recycling it a costly and difficult endeavour



# DRINKING BOTTLES



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**Drinking bottles** has become an integral part of the daily life of Jordanians with the most common:

- **Mineral water bottles** which comes in different sizes (250ml, 330ml, 500ml, 700, and 1500 ml)
- **Juice bottles** with the most common sizes 330, and 1000 ml
- **Soda drinks** with the most common sized 500 ml and 1000 ml
- **Fresh milk** with the most common being 1000 ml



# FOOD CONTAINERS



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**FOOD CONTAINERS** Plastic food containers are commonly used in Jordan in many types and shapes:

- **Hummus and foul** restaurants are very common to use plastic PE
- **Shawarma** restaurants commonly use Styrofoam containers for meals
- Other **local restaurants** use all sorts of plastic containers (PE, PET, PP, and Styrofoam) for take away and delivery meals
- Most **dairy products** factories use plastic (PP) containers for yogurt, labaneh, cream cheese, and other dairy products.
- **Grocery stores** use plastic food containers (PE, PET, PP, and Styrofoam) for cold cuts, cheese, and other food items



# CUTLERY, PLATES AND TRAYS



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**Cutlery, plates and trays.** This type of SUPs has gained more popularity in the Jordanian society recently due to its convenience and low cost due to:

Increase in the demand for food delivery service. Delivery restaurants usually will include a set of plastic cutleries with the meals. Often customers may toss out the plastic utensils without using them as they are eating at home and prefer to use regular cutlery.

Also, Individuals often buy plastic utensils for home or travel use as tossing used cutlery and plates at a home after a large gathering is much more convenient than cleaning and storing them.



# PLASTICS INDUSTRIAL SECTOR IN JORDAN



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The Plastic industrial sector in Jordan have around **614 institutions** (258 industrial institutes and the remaining handicraft employing around **10,757 people**. The total output of the sector was about **763.1 Million JD** in 2017.

Since Plastic sector official reporting does not distinguish between single and multi use plastic, the factories working with SUPs were estimated by Jordan Chamber of Industry as following:

SUP type	Number of facilities
Plastic bags	60
Drink bottles, caps and lids	30
Food containers including fast food packaging	30
Cutlery, plates and trays	30
<b>Total</b>	<b>150</b>

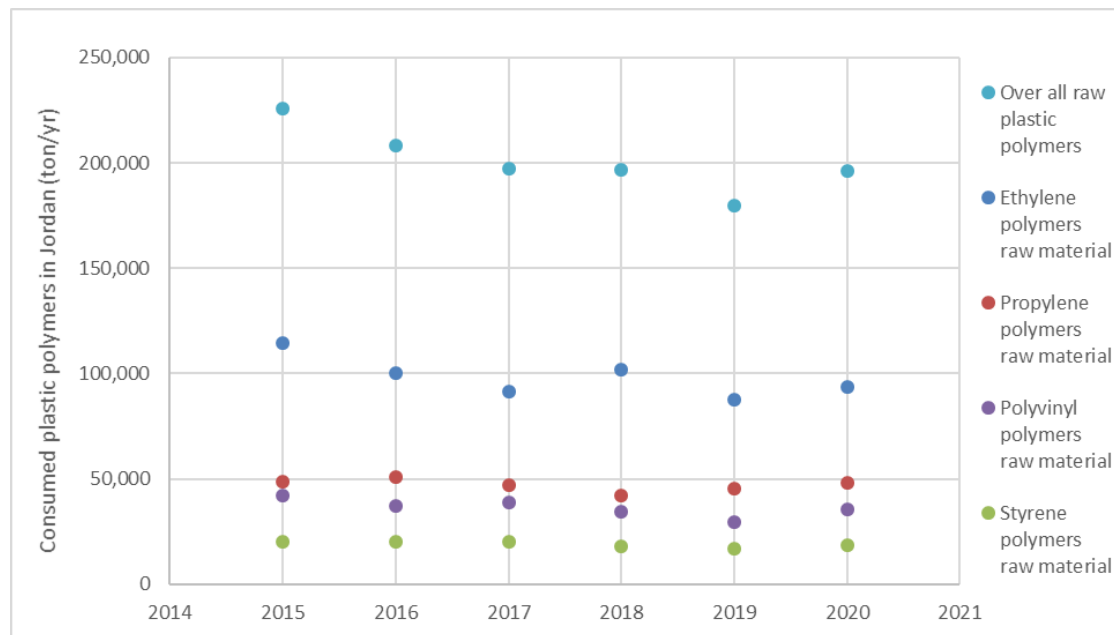


# QUANTIFICATION OF PLASTICS MARKET IN JORDAN

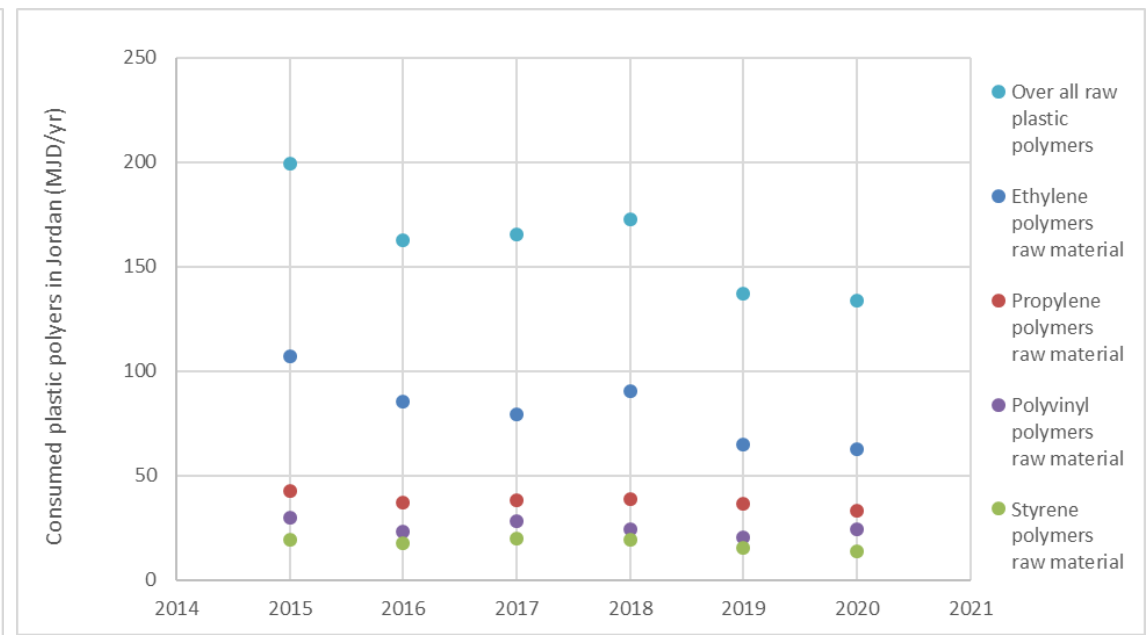


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Plastic imports and exports are documented by the Jordanian Department of Statistics. Data was used to develop the following figures for **plastic consumption in Jordan (mixed SUPs and Multi use)**



Raw plastic consumption in Jordan (Tons/yr)



Raw plastic consumption in Jordan (MJD/yr)



## QUANTIFICATION OF PLASTICS MARKET IN JORDAN



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From the data above, it can be seen that the total raw plastics value used in Jordan in the year 2020 were about 140 M JD.

If we consider 40% of it was used to make the 4 selected SUPs (similar to internationally reported value of 40% for Packaging), then 56 M JD would be the value of raw plastics used to make SUPs.

Assuming 30% is the added cost of energy and maintenance and 30% added value as reported by JCI for the plastics sector the total value of SUPs market in Jordan would come up to around **89.6 M JD per year**



## BUSINESSES INVOLVED IN SUPS VALUE CHAIN



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In addition to the industrial sector, the following business are also involved in sups value chain:

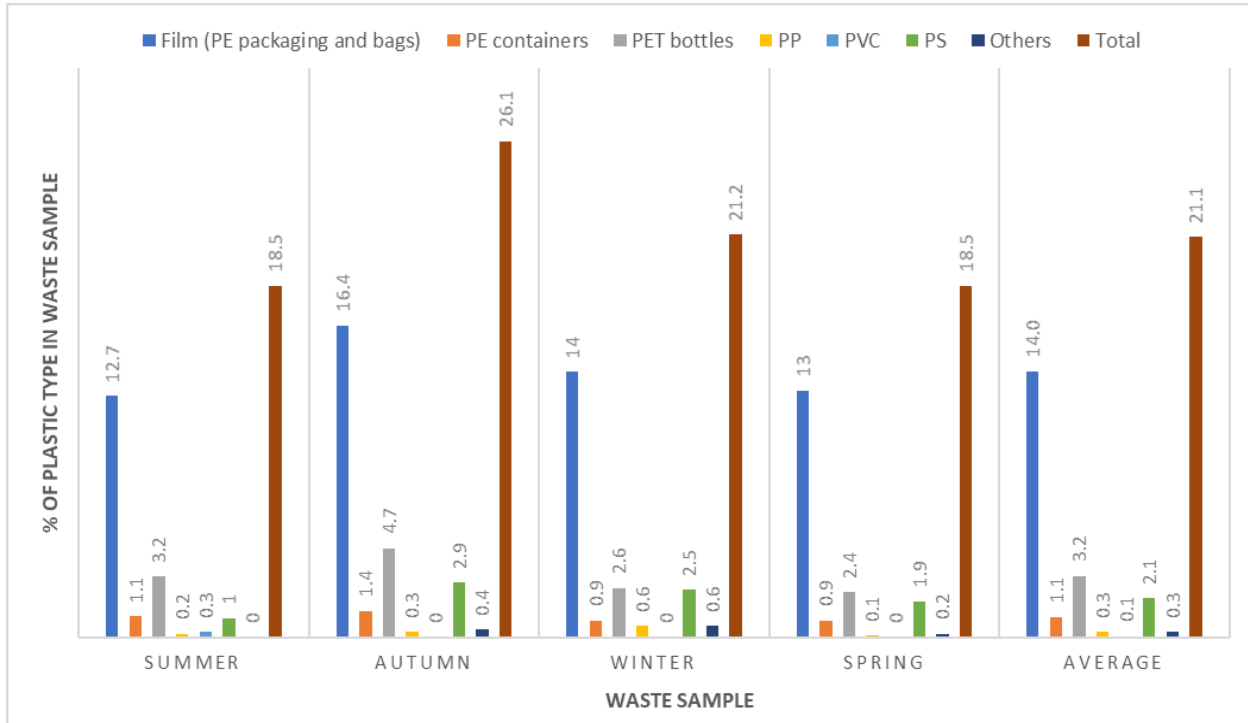
- **Bulk import companies** the import plastics from outside the country as raw material to produce the SUPs.
- **SUP distribution network.** Typically, a distribution company will have different sorts of products so they are not dedicated to SUPs only.
- **SUP retail stores.** Most grocery stores and supermarkets will sell SUPs but recently dedicated stores have open all over the cities in Jordan that sell mainly SUPs with other disposal products



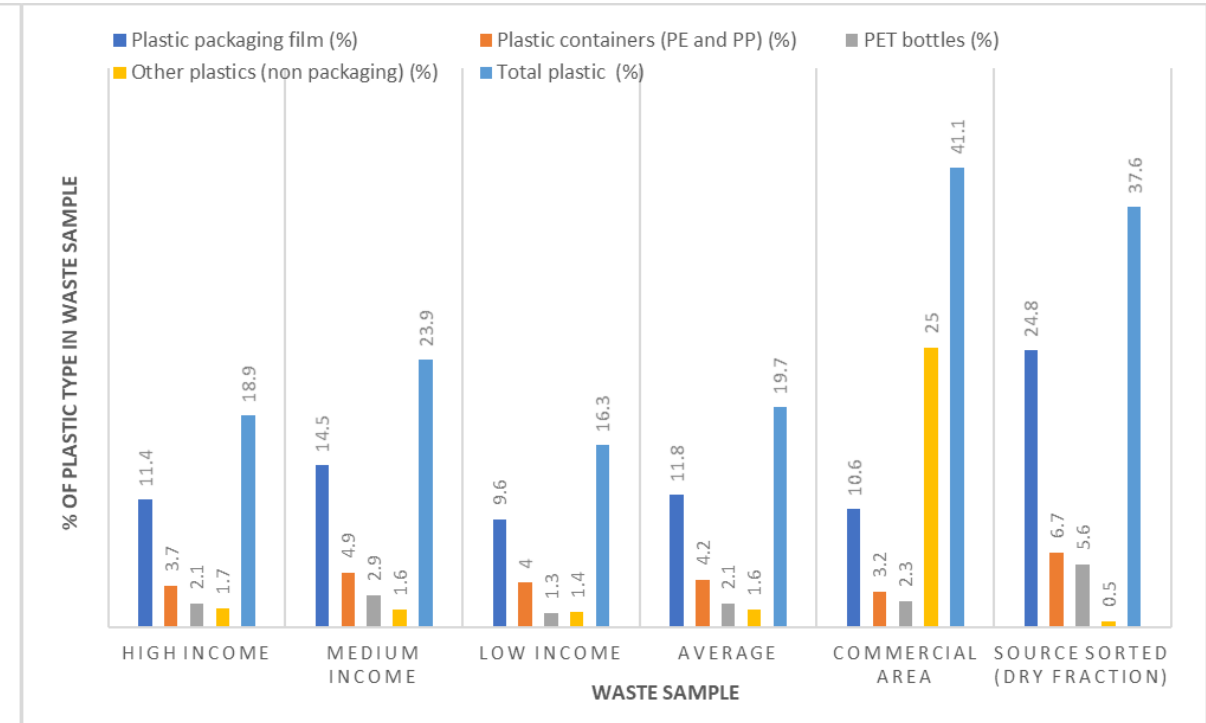
# SUPS IN JORDAN WASTE



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Types of Plastics in Jordan Waste (RSS Study, 2011)



Types of Plastics in Jordan Waste (GIZ, 2021)

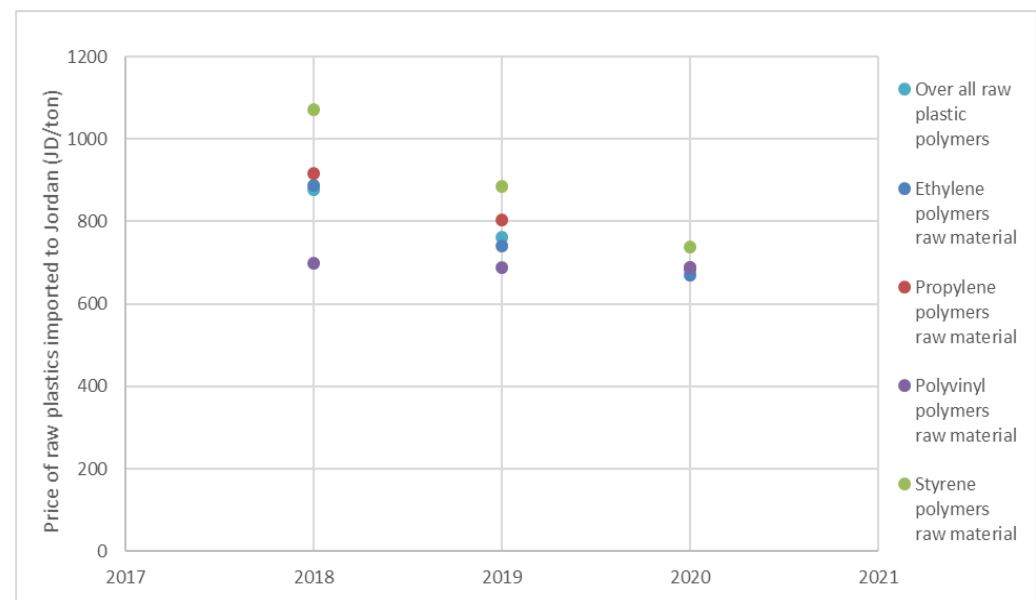
- Film (PE packaging and bags)
- PET bottles
- PE containers

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- PE containers
- PET bottles



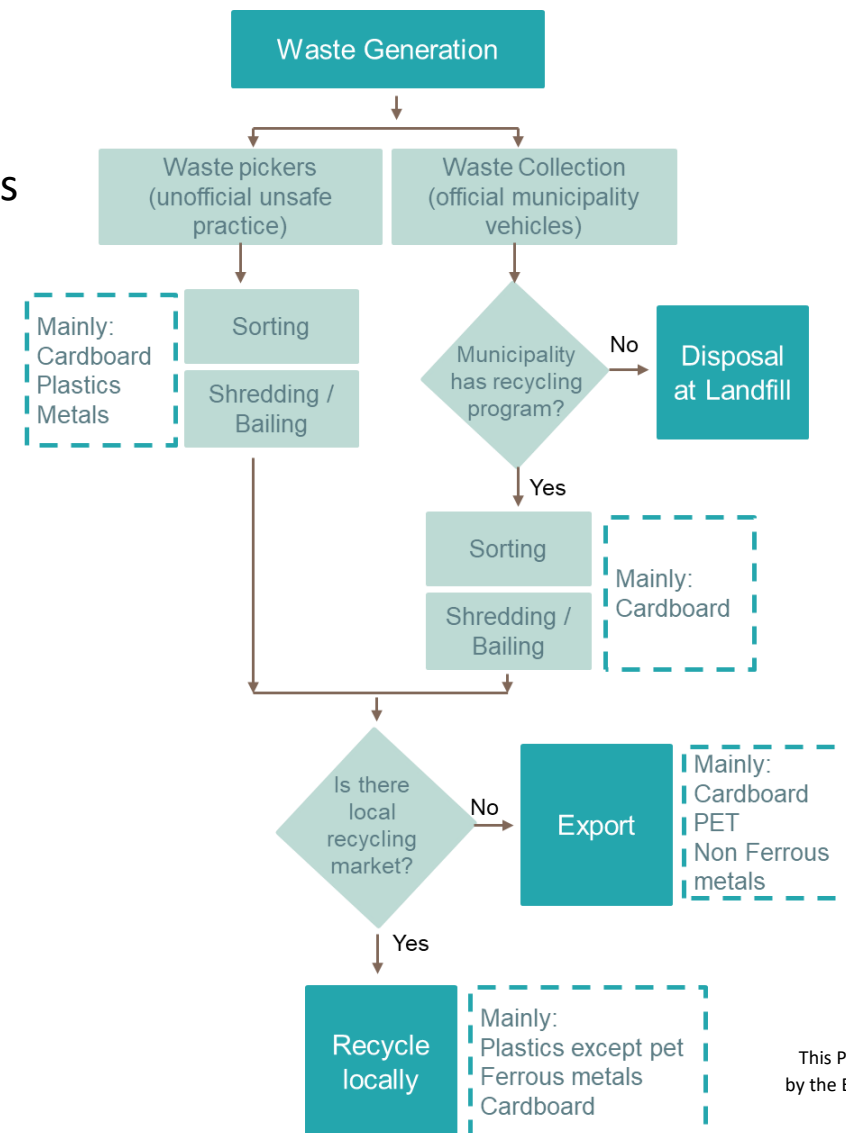
## PLASTIC WASTE RECYCLING IN JORDAN

The price of virgin plastics fluctuates in the market depending on the price of oil which drives the plastic recycling industry as prices go down, recycling becomes less feasible



Price of Plastics in Jordan (JD/Ton) Source: DOS

It is estimated that 40-80 plastic processors/crushers producing different quality grades of plastic (except PET)



## OPTIONS TO TRANSITION AWAY FORM SUPS



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The Market of SUPs in Jordan is fairly large and many types of business profit from it including factories, importing companies, and distributors and retail companies. **These economic activities must be considered** through the process of reducing SUPs in Jordan as **they might be negatively impacted**.



Before and regulatory changes are made a **Regulatory Impact Assessment** would be required



Try to change the demand in the markets from SUPs to other multi use or sustainable alternatives such as paper products or reusable products. If this is successful the industry will naturally follow this pattern.

**Alter consumption  
patterns first**



## OPTIONS TO TRANSITION AWAY FROM SUPS



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From the interviews, most of the stakeholders were not in favor of complete banning of products or adding non-refundable taxes that increases the price of items as a first step.

Most opinions were in favor of gradual less intrusive steps



**Product labelling to encourage recycling** and proper disposal,  
**Raising awareness** of the dangers of SUPs,  
**limited restrictions** in natural and cultural heritage sites,  
**Utilizing the EPR** system in association with the private sector.



For more information:



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Thank you for your attention!

